# Sectoral analysis of non-financial corporations in Portugal 2011-2016

Central Balance Sheet Studies

November | 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 Portuguese National Statistical Institute (INE).

IES is usually reported six and a half months after the end of the financial year, at most, which, for most enterprises resident in Portugal, corresponds to 15 July of the year following the reference year. This analysis uses IES data for 2015, the closest to 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


In 2015, of the 408,000 non-financial corporations (NFCs) in Portugal, 89 per cent were microenterprises. However, large enterprises (0.3 per cent of the total) were responsible for the highest share of turnover (41 per cent) and of the employees (27 per cent). This was relatively stable compared with 2011.

By economic activity sector, the services sectors (trade and other services) played the most significant role, totalling 74 per cent of enterprises and 61 per cent of turnover. The sectoral structure in terms of number of enterprises underwent little change from 2011, although construction's share declined in terms of number of enterprises (-2 percentage points (p.p.), to 11 per cent), turnover (-3 p.p., to 6 per cent) and number of employees (-3 p.p., to 9 per cent).

In 2015 the export sector included 6 per cent of enterprises, 24 per cent of employees and 37 per cent of enterprise turnover in Portugal.

As for geographical location, although the North Region had the largest share of enterprises in 2015 (33 per cent), the Lisbon Metropolitan Area accounted for the largest share of turnover (47 per cent) and number of employees (38 per cent).

In 2015 enterprises' turnover grew by 2 per cent, similarly to 2014.

Joint developments in operating income and expenses led to a 25 per cent increase in EBITDA in 2015 and, consequently, an increase in return on equity, by 4 p.p., to 7 per cent. This indicator was higher for large enterprises (11 per cent) and in the electricity and water sector (12 per cent).

Enterprises with the highest profitability were more exposed to the external market, posted higher operating profitability (which was reflected in higher net profitability) and were less dependent on debt.

The average capital ratio of enterprises stood at 32 per cent in 2015, 2 p.p. more than in 2011. Dependence on debt was particularly important for 29 per cent of enterprises, which posted negative equity.

Bank loans were the main source of interest-bearing debt (25 per cent of liabilities), although its weight declined by 1 p.p. from the previous year.

Interest expenses decreased by 12 per cent, which was due to a reduction in interest-bearing debt and in its costs. This fall was broadly based across size classes and economic activity sectors and contributed, together with positive developments in EBITDA, to a reduction in financial pressure on enterprises.

Similarly to 2014, trade credit financing accounted for 16 per cent of NFC liabilities in 2015. However, the sector financed their customers more than it obtained in financing from suppliers, and did not obtain, in net terms, financing through trade credit. Trade and agriculture and fishing were the only sectors that obtained net trade credit financing.

Data available compiled by the Central Credit Register of Banco de Portugal shows that the total stock of loans granted by the resident financial sector to total enterprises has declined in the past few years, accounting in June 2016 for 75.4 per cent of the figure observed at the end of 2011. Credit quality deteriorated: at the end of the first half of 2016, 16.7 per cent of loans were non-performing (7.2 per cent at the end of 2011).

In the first half of 2016, construction continued to post the highest non-performing loans ratio (33.3 per cent), followed by trade (17.6 per cent) and other services (14.4 per cent); electricity and water posted the lowest value (1.1 per cent). This indicator increased the most in agriculture and fishing (1.6 p.p. compared with the end of 2015, to 6.6 per cent).

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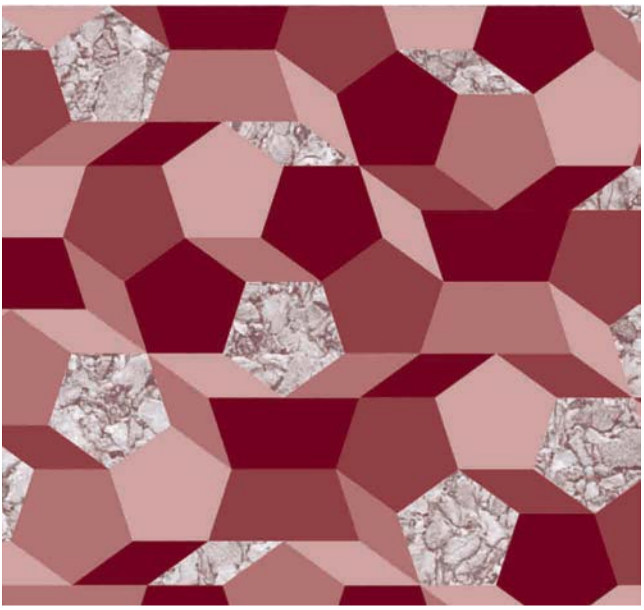


# Sectoral analysis of non-financial corporations in Portugal 2011-2016


1. Introduction

2. Structure and dynamics

3. Economic and financial analysis

Box 1 | Profitability of enterprises in Portugal

Box 2 | Loans granted by the resident financial system

Box 3 | Regional analysis

# 1. Introduction

The study *Sectoral analysis of non-financial corporations in Portugal 2011-2016* assesses the economic and financial position of non-financial corporations (NFCs[1]) resident in Portugal, based on information compiled by the Central Balance Sheet Database of Banco de Portugal[2].

This publication updates *Central Balance Sheet Study No 23 – Sectoral analysis of non-financial corporations in Portugal 2010-2015*, of November 2015.

The analysis focuses chiefly on the 2011-15 period, and is based on the *Informação Empresarial Simplificada* – IES (Simplified Corporate Information), while the first half of 2016 is also analysed where additional information is available, especially regarding bank loan financing. References are also made to the 2006-15 period, more specifically as regards the analysis of the export sector.

The results published complement aggregate data on non-financial corporations[3], also derived from the Central Balance Sheet Database and released within the scope of Banco de Portugal's statistical publications[4]. Based on the analysis of microeconomic data, this study seeks to provide additional information for the NFC sector and for the economic activity sectors and size classes comprised in it. This is intended to complement the average results usually calculated for aggregates and identify/explore heterogeneous groups of enterprises taking into account their distinctive features.

The study begins, in Chapter 2, with a brief reference to the structure and dynamics of the NFC sector in the 2011-15 period. The export sector in Portugal is also analysed.

Chapter 3 reviews recent developments in activity and seeks to determine to what extent these impact on profitability. This involves breaking down the effects that influence profitability into operating and financial components of NFC business, while providing some information on the sector's solvency capacity. The study also presents a brief description of enterprises with the highest and lowest profitability ("Box 1 | Profitability of enterprises in Portugal").

Based on complementary information available in other databases from Banco de Portugal's Statistics Department, details are given on the interest-bearing debt of Portuguese NFCs, more specifically loans granted by the financial sector ("Box 2 | Loans granted by the resident financial system").

Finally, the regional importance of NFC business is analysed ("Box 3 | Regional analysis").

The Annex provides a methodological summary 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).

# 2. Structure and dynamics

## 2.1. Structure

In 2015 the NFC institutional sector comprised approximately 408,000 enterprises, of which 89 per cent were **microenterprises**, representing 16 per cent of turnover. Although accounting for only 0.3 per cent of total NFCs, **large enterprises** were responsible for the largest share of turnover (41 per cent) (Chart 1).

By economic activity sector, while **other services** (48 per cent) and **trade** (26 per cent) were the most important sectors in terms of the number of enterprises, **trade** (38 per cent) and **manufacturing** (26 per cent) were the most relevant regarding turnover (Chart 2).

The share of **microenterprises** increased by 1 p.p. from 2011, in contrast to a similar decline in the share of small and medium-sized enterprises (**SMEs**). The share of employees associated with **large enterprises** increased by 2 p.p., also due to a reduction in the share of **SMEs** (-1 p.p.). Although the sectoral structure remained stable compared with 2011, the share of **construction** declined in terms of the number of enterprises (-2 p.p., to 11 per cent), turnover (-3 p.p., to 6 per cent) and number of employees (-3 p.p., to 9 per cent).

**Microenterprises** were dominant in all economic activity sectors, with a share that ranged from 71 per cent in **manufacturing** to 93 per cent in **other services** (Table 1).

**Chart 1** • Structures | By size class (2011 and 2015)

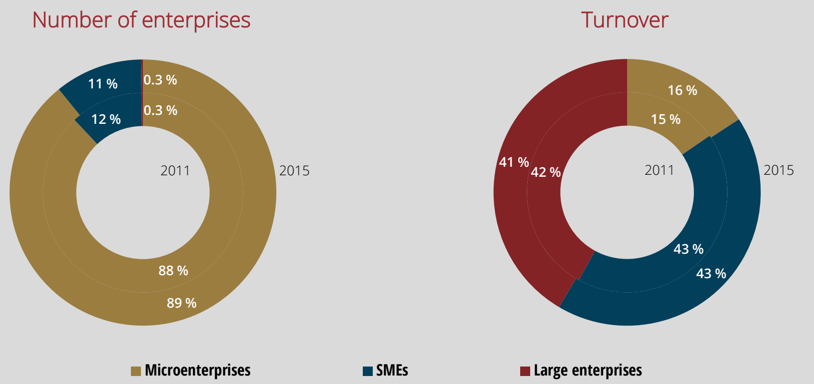



**Chart 2** • Structures | By economic activity sector (2011 and 2015)

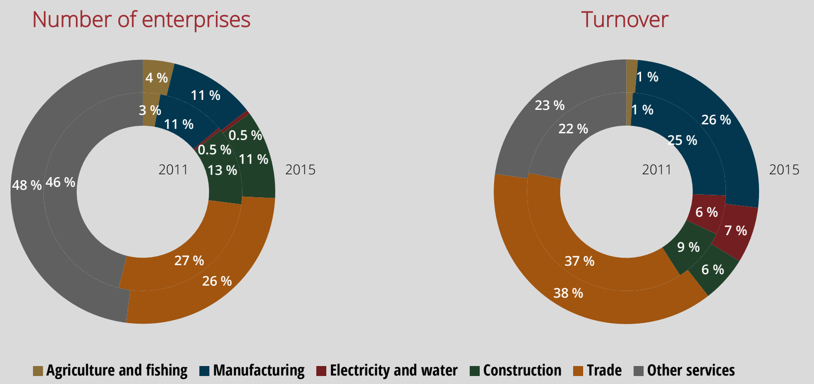


**Table 1** • Structures | By economic activity sector and size class (2015)

| | Number of enterprises by size | | | Turnover by size | | |
|---|---|---|---|---|---|---|
| | Microenterprises | SMEs | Large enterprises | Microenterprises | SMEs | Large enterprises |
| Total enterprises | 89.1 % | 10.6 % | 0.3 % | 15.8 % | 42.7 % | 41.5 % |
| Agriculture and fishing | 92.1 % | 7.8 % | 0.1 % | 40.1 % | 55.1 % | 4.9 % |
| Manufacturing | 70.9 % | 28.4 % | 0.7 % | 5.3 % | 45.2 % | 49.5 % |
| Electricity and water | 71.6 % | 25.7 % | 2.7 % | 1.7 % | 16.4 % | 81.9 % |
| Construction | 88.3 % | 11.5 % | 0.1 % | 22.6 % | 51.0 % | 26.4 % |
| Trade | 90.5 % | 9.3 % | 0.2 % | 19.8 % | 45.0 % | 35.2 % |
| Other services | 92.5 % | 7.3 % | 0.2 % | 21.8 % | 41.4 % | 36.8 % |

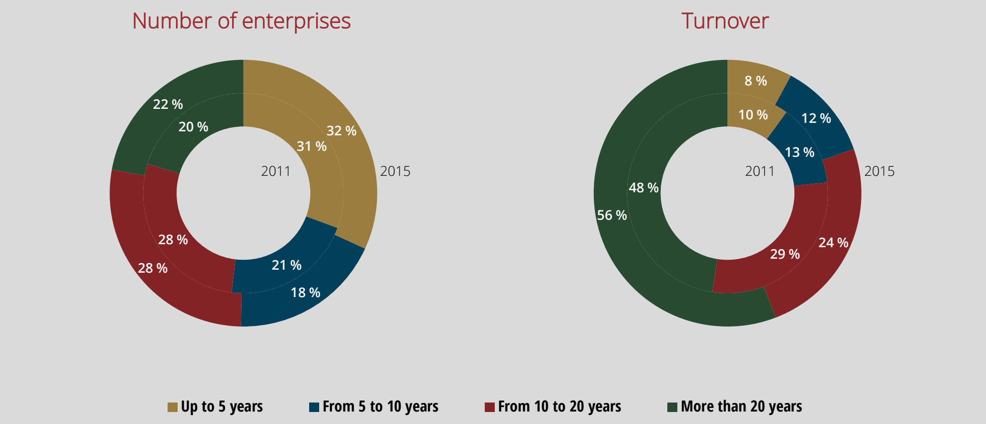
Note: Darker areas show the most important size class by economic activity sector for each of the indicators considered.

**Large enterprises** aggregated the most substantial share of turnover generated in **electricity and water** (82 per cent) and **manufacturing** (49 per cent). **SMEs** played a significant role in **agriculture and fishing** (55 per cent), **construction** (51 per cent), **trade** (45 per cent) and **other services** (41 per cent).

By maturity class[5], the most substantial share of enterprises (32 per cent) had been established for less than five years. The number of enterprises established for less than ten years was similar to the number of enterprises established for more than ten years (Chart 3).

In 2015 approximately 80 per cent of turnover was associated with enterprises established for more than ten years (77 per cent in 2011); 56 p.p. corresponded to enterprises established for more than 20 years (48 p.p. in 2011).

**Chart 3** • Structures | By maturity class (2011 and 2015)



## 2.2. Export sector

In 2015, 6 per cent of enterprises were part of the export sector. These enterprises aggregated 24 per cent of employees and 37 per cent of enterprise turnover in Portugal, which evidenced a growth trend in the 2006-15 period. In 2006 the export sector accounted for 4 per cent of enterprises, 19 per cent of the number of employees and 25 per cent of turnover (Chart 4).

The export sector comprises enterprises for which the external market has greater significance. Hence, every year this sector includes enterprises where:

- at least 50 per cent of their turnover results from exports of goods and services (criterion 1); or
- at least 10 per cent of their turnover results from exports of goods and services when these exceed €150,000 (criterion 2).

In the 2006-15 period, the export sector comprised, on average, 40 per cent of total exporting enterprises. While 30 per cent of exporting enterprises obtained more than half of their turnover from exports of goods and services (criterion 1), for 10 per cent of these enterprises more than 10 per cent of their turnover originated each year from exports of goods and services, with these exceeding €150,000 (criterion 2). These shares remained stable throughout the period under review.

In certain economic activity sectors, including manufacturing, mining and quarrying and transportation and storage, the weight of export sector enterprises has been larger than among total enterprises (Chart 5).

**Chart 4 • Share of the export sector in total enterprises (2006 to 2015)**

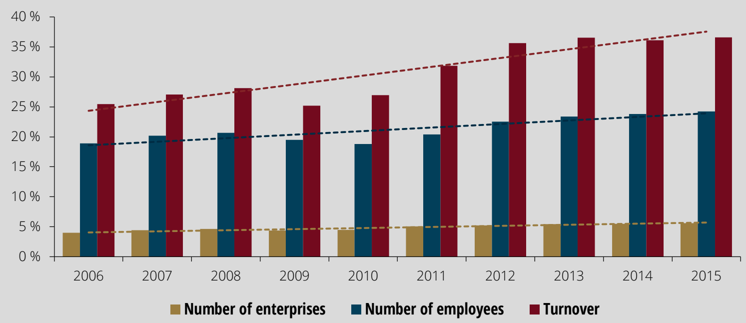
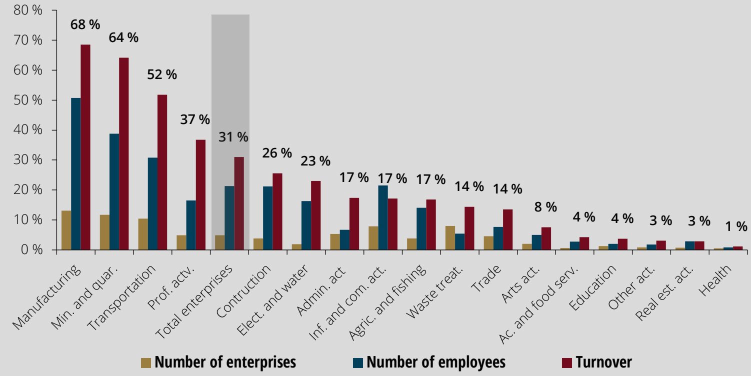



**Chart 5 • Importance of export sector enterprises | By Section of CAE-Rev.3 (average figures, 2006 to 2015)**



## 2.3. Demographics

The number of active enterprises in Portugal increased by around 1 per cent in 2015, 0.5 p.p. more than in 2014 (Chart 6).

By size class, the increase in the number of enterprises occurred only among **microenterprises**, this being the only size class with a birth/death ratio above 1 (i.e. net creation of enterprises) (Chart 7). In **SMEs** and **large enterprises** only 1 enterprise was created for approximately every two enterprises that ceased activity.

**Construction** and **electricity and water** were the only sectors posting a reduction in the number of active enterprises in 2015 (with a birth/death ratio of 0.76 and 0.99 respectively). Nevertheless, the **construction** sector continued to follow the downward trend seen since 2012 in this indicator. Conversely, in **agriculture and fishing**, 3 enterprises were created for each enterprise that ceased activity, this being the sector where this increase was more substantial.

The number of active enterprises in **manufacturing** posted marginal changes, while the recovery trend seen since 2012 proceeded.

**Chart 6** • Birth and death rates (2011 to 2015)

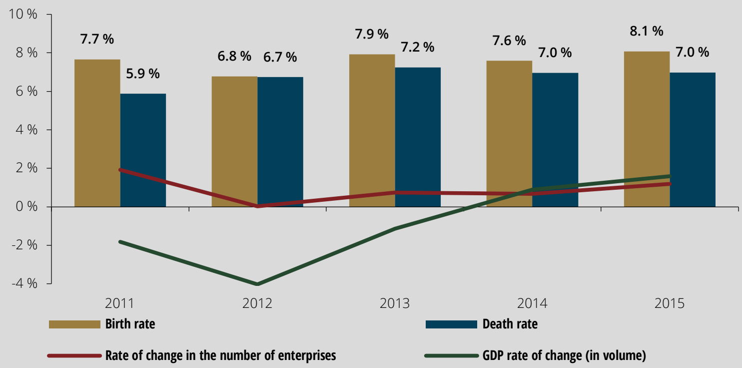
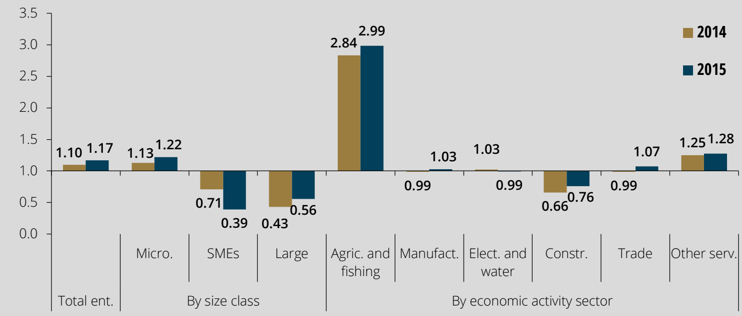



**Chart 7** • Birth/death ratio (2014 and 2015)



# 3. Economic and financial analysis

## 3.1. Economic environment

In 2015 Portuguese GDP grew by 1.6 per cent, 0.7 p.p. more than in the previous year. All GDP components posted positive changes in 2015 (Table 2).

Private consumption increased more than public consumption (2.6 per cent and 0.8 per cent respectively), which marked a reversal of a series of decreases seen since 2009. Gross fixed capital formation increased by 4.5 per cent in 2015, more than in 2014.

Although import growth (8.2 per cent) was higher than that of exports (6.1 per cent), acceleration from the previous year was higher for exports (1.8 p.p., compared with 0.4 p.p. in the case of imports), despite a deceleration in external demand for Portuguese goods and services (whose year-on-year rate of change moved from 4.8 per cent in 2014 to 4.2 per cent in 2015).

Data published by the Portuguese National Statistical Institute for the first half of 2016 points to GDP growth of 0.9 per cent compared with the same period in the previous year[6], with a decline in gross fixed capital formation and a deceleration in growth of exports and imports.

**Table 2** • GDP and key expenditure components | Real year-on-year rate of change

| | 2011 | 2012 | 2013 | 2014 | 2015 (p) | 2016 (1st half-year) (p) |
|---|---|---|---|---|---|---|
| GDP | -1.8 % | -4.0 % | -1.1 % | 0.9 % | 1.6 % | 0.9 % |
| Private consumption | -3.6 % | -5.5 % | -1.2 % | 2.3 % | 2.6 % | 2.0 % |
| Public consumption | -3.8 % | -3.3 % | -2.0 % | -0.5 % | 0.8 % | 1.1 % |
| Gross fixed capital formation | -12.5 % | -16.6 % | -5.1 % | 2.3 % | 4.5 % | -2.7 % |
| Exports | 7.0 % | 3.4 % | 7.0 % | 4.3 % | 6.1 % | 2.5 % |
| Imports | -5.8 % | -6.3 % | 4.7 % | 7.8 % | 8.2 % | 2.9 % |

Sources: Portuguese National Statistical Institute and Banco de Portugal.

Note: (p) – preliminary data.

## 3.2. Activity and profitability

### 3.2.1. Turnover

As in the previous year, NFC turnover increased by around 2 per cent in 2015. According to preliminary data from the Central Balance Sheet Database, this indicator was relatively stable in the first half of 2016.

Turnover developments were more positive in SMEs (5 per cent) and microenterprises (2 per cent) than in large enterprises (marginal growth of 0.4 per cent). In SMEs, the increase in turnover was higher than in 2014 (Chart 8).

Most economic activity sectors saw their turnover increase in 2015. Developments in agriculture and fishing (9 per cent growth) and electricity and water (1 per cent increase, after a 2 per cent reduction in 2014) were particularly noteworthy. In construction, turnover decreased marginally in 2015, after a 5 per cent reduction in 2014.

Both the external and domestic markets contributed to turnover growth. However, the impact of an increase in exports was only marginal, with the domestic market being responsible for 2 p.p. of total changes in turnover. The share of turnover (sales and provision of services) from exports remained at 22 per cent, while the share of imports in total purchases of goods and services declined by 1 p.p. (to 27 per cent).

The balance of goods and services transactions with the external markets remained in positive territory in 2015, amounting to 1 per cent of turnover (0.4 p.p. above that for 2014) (Chart 9).

Electricity and water and trade were the only sectors with negative changes in this indicator. All size classes posted positive figures for this indicator, particularly large enterprises (2 p.p. above -1 per cent in 2014). In SMEs and microenterprises this differential declined from the previous year (-0.7 p.p. and -0.3 p.p., respectively, to 1 per cent in both cases).

### 3.2.2. Operating expenses[7]

Operating expenses increased by 2 per cent in 2015. Changes were also positive across its components and more substantial in terms of employee expenses (5 per cent change, compared with a 2 per cent change in supplies and external services (SES) and 1 per cent in terms of the Cost of Goods Sold and Materials Consumed (CoGS)) (Table 3).

By size class, operating expenses decreased by 0.4 per cent in large enterprises and increased by 4 per cent in SMEs and 1 per cent in microenterprises. By economic activity sector, all aggregates registered increases of their operating expenses.

CoGS increased in SMEs (4 per cent), agriculture and fishing (8 per cent), other services (5 per cent), trade (2 per cent) and electricity and water (1 per cent). Excluding large enterprises and other services, all size classes and economic activity sectors posted positive changes in SES. Employee expenses increased across size classes and economic activity sectors, most notably in electricity and water (18 per cent) and large enterprises (6 per cent).

**Chart 8 •** Turnover | Annual growth rate (2011 to 2015)

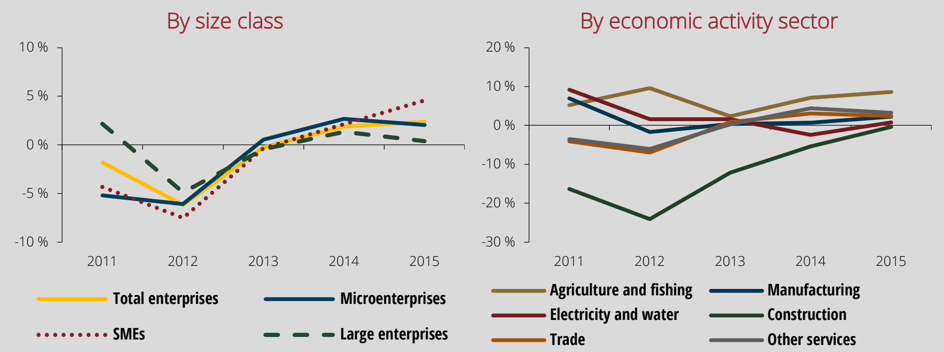
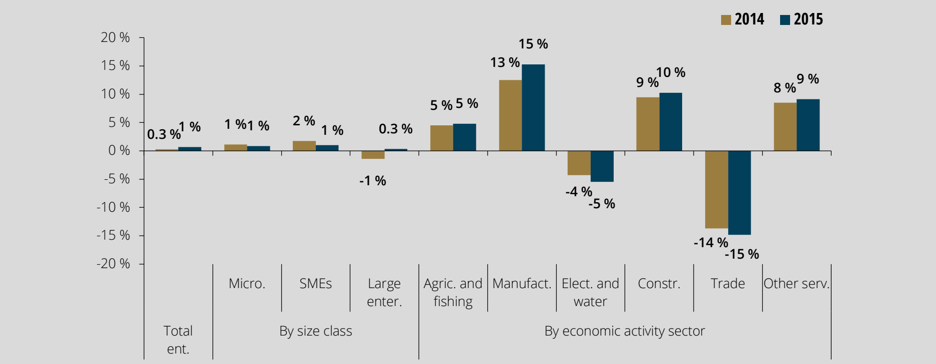



**Chart 9 •** Differential between the export component of turnover and the import content of purchases and SES | Per cent of turnover (2014 and 2015)



### 3.2.3. EBITDA[8]

Joint developments in operating income and expenses led to a 25 per cent increase in EBITDA in 2015. EBITDA decreased only in **construction** (-11 per cent) and **electricity and water** (-1 per cent).

The share of enterprises with EBITDA growth remained virtually unchanged from the previous year (54 per cent) (Table 4). However, 33 per cent of enterprises had negative EBITDA, a percentage 2 p.p. below that seen in 2014. Excluding **large enterprises** and **agriculture and fishing** (1 p.p. increase in both cases), the share of enterprises with negative EBITDA decreased in most aggregates.

**Table 3** • Operating expenses | Annual growth rate (2015)

| | | CoGS | SES | Employee expenses | Operating expenses |
|---|---|---|---|---|---|
| Total enterprises | | 1.0 % | 1.7 % | 5.2 % | 1.8 % |
| By size class | Microenterprises | -0.5 % | 2.2 % | 2.1 % | 0.7 % |
| | SMEs | 4.0 % | 4.7 % | 5.5 % | 4.5 % |
| | Large enterprises | -1.2 % | -1.7 % | 6.3 % | -0.4 % |
| By economic activity sector | Agriculture and fishing | 7.9 % | 3.4 % | 8.9 % | 6.6 % |
| | Manufacturing | -1.7 % | 5.1 % | 4.7 % | 0.5 % |
| | Electricity and water | 0.9 % | 3.7 % | 17.5 % | 2.1 % |
| | Construction | -2.9 % | 1.0 % | 1.8 % | 0.0 % |
| | Trade | 2.1 % | 2.6 % | 3.9 % | 2.3 % |
| | Other services | 5.2 % | -0.0 % | 6.1 % | 2.5 % |

Note: Darker areas indicate the most significant changes by size class and economic activity sector. The lighter areas show all positive changes.

**Table 4** • Enterprises with annual EBITDA growth and enterprises with negative EBITDA (2014 and 2015)

| | | Share of enterprises with annual EBITDA growth | | Share of enterprises with negative EBITDA | |
|---|---|---|---|---|---|
| | | 2014 | 2015 | 2014 | 2015 |
| Total enterprises | | 54.2 % | 54.4 % | 35.3 % | 33.1 % |
| By size class | Microenterprises | 53.8 % | 54.4 % | 37.5 % | 35.4 % |
| | SMEs | 56.7 % | 54.4 % | 16.5 % | 14.6 % |
| | Large enterprises | 60.2 % | 53.8 % | 8.3 % | 9.3 % |
| By economic activity sector | Agriculture and fishing | 56.1 % | 51.9 % | 29.6 % | 30.7 % |
| | Manufacturing | 54.4 % | 54.5 % | 28.9 % | 26.3 % |
| | Electricity and water | 50.7 % | 47.2 % | 30.1 % | 27.7 % |
| | Construction | 52.9 % | 53.9 % | 35.0 % | 31.9 % |
| | Trade | 54.8 % | 55.4 % | 36.9 % | 33.7 % |
| | Other services | 54.0 % | 54.1 % | 36.4 % | 34.8 % |

3.2.4. Profitability

Operating income growth had a positive impact on enterprises' return on equity[9], which amounted to 7 per cent in 2015 (4 p.p. increase from the previous year) (Chart 10). According to preliminary data available, this profitability seems to have remained stable in the first half of 2016.

Profitability levels increased across size classes and most economic activity sectors and was positive for all size classes. **Large enterprises** had the highest profitability (11 per cent), above that in **SMEs** (9 per cent) and **microenterprises** (0.3 per cent).

In sectoral terms, **electricity and water** continued to be the sector with the highest return on equity (12 per cent, despite a 1 p.p. reduction from 2014), followed by **manufacturing** (10 per cent). **Construction** was at the opposite end of the spectrum (-1 per cent). Profitability in **trade** and **other services** was 7 per cent and 6 per cent, respectively, in 2015.

Return on equity developments in **microenterprises** and **other services** should be noted given that, after it being negative in 2014, it entered positive territory in 2015. In the case of **microenterprises**, the indicator was positive, for the first time, since 2008.

To better understand developments in NFC return on equity, the share of income and expense components in turnover is broken down.

While operating profitability (EBITDA) is directly associated with turnover net of CoGS, SES and employee expenses, the net profitability results from the effects of depreciation and amortisation, net interest and income tax paid, applied to operating profitability (resulting in EBIT, EBT and net income for the year (NIY) respectively).

In 2015 operating profitability corresponded to 11 per cent of total NFC turnover (2 p.p. more than in 2014), while depreciation and amortisation consumed 4 per cent of turnover. Interest income and expenses and income tax accounted for 2 per cent and 1 per cent of turnover respectively.

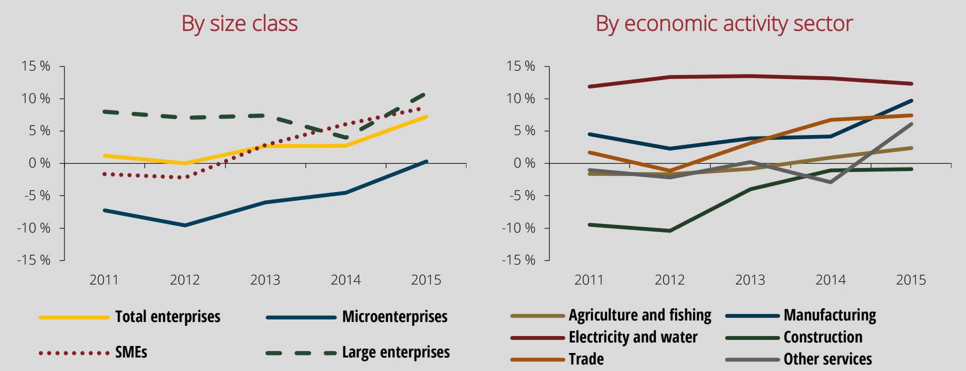
The combined effect of these components determined a NIY corresponding to 4 per cent of total NFC turnover in 2015 (2 p.p. increase from 2014).

The share of SES in total turnover declined 2 p.p. when compared with 2011.

By size class, in contrast to **large enterprises** (12 per cent), **microenterprises** had the lowest share of EBITDA in total turnover (8 per cent), as a result of the importance of SES, employee expenses and other expenses and losses. NIY in microenterprises was marginally positive, due to the larger share of interest and income tax in their total turnover.

By economic activity sector, the relevance of depreciation and amortization is more noteworthy in **agriculture and fishing**, **other services** and **electricity and water** (representing between 8 per cent and 9 per cent of turnover), as well as the weight of interest income and expenses in **electricity and water** and

**Chart 10** • Return on equity (2011 to 2015)



construction (6 per cent and 4 per cent of turnover respectively).

After the effect of income tax, which weighted between 1 and 2 per cent of turnover in all sectors, electricity and water, other services and manufacturing posted the highest net profitability (11 per cent, 5 per cent and 4 per cent respectively).

"Box 1 | Profitability of enterprises in Portugal" presents a brief characterisation of enterprises with the highest and lowest profitability, by size and sectoral structure, and also with reference to a number of economic and financial indicators.

## Box 1 | Profitability of enterprises in Portugal

The profitability of enterprises and economic activity sectors is typically assessed by looking at a series of economic and financial indicators obtained on the basis of their results.

The results posted by enterprises and economic activity sectors may be associated with operating activity (EBITDA), incorporate the effect of amortisation and depreciation (EBIT) or financing costs (EBT) and income tax (NIY). These measures are often assessed in relation to total income to determine different margins on generated income. They may also be assessed in relation to total assets or capital (equity and/or debt), to calculate the remuneration generated by these components.

However, the analysis of aggregate results for the various economic activity sectors, regardless of the profitability measure used, is not always enough to determine which factors characterise the most profitable enterprises.

This comparison involves analysing the specificities underlying the various profitability measures available. Indicators that associate results with assets or capital employed may be determined by differences in those variables. The calculation of profitability at a more operational level (e.g. using EBITDA) may not properly put into context the possible effects of amortisation and depreciation on a given activity sector, in contrast to sectors where such components play a less substantial role.

As such, for the purposes of the comparison presented in this box, the profitability of enterprises and economic activity sectors was determined taking into account their net margins, on the basis of the share of net income for the year in total income, which is a more solid profitability measure due to its lower sensitivity to sectoral specificities.

In 2015, enterprises' net margin amounted to 3 per cent, which shows a 2 p.p. increase from the figures for 2014. These developments were broadly based across economic activity sectors, excluding electricity and water, which, however, continued to post the highest value in this indicator (marginally negative change, with the sector's net margin standing at 9 per cent). Other services and manufacturing saw the most substantial changes in this indicator (6 and 2 p.p. respectively, both to 4 per cent), while construction had the lowest aggregate net margin (-1 per cent).

By size class, while large enterprises and SMEs had net margins of 4 per cent, the indicator in microenterprises was marginally positive in 2015. However, microenterprises, together with large enterprises, posted a 3 p.p. positive change in the net margin compared with 2014, year where smaller enterprises had a negative net margin.

To identify enterprises with the highest and lowest profitability in each given year, total enterprises were broken down into three groups, taking into account the individual figures of net margins for each period. Enterprises with high profitability were those among the 25 per cent of enterprises with the highest net margins, while enterprises with low profitability were among the 25 per cent of enterprises with the lowest net margins. Naturally, the group of enterprises with intermediate profitability comprises enterprises whose profitability ranges between both groups.

In 2015, enterprises with high profitability aggregated 17 per cent of employees and 19 per cent of turnover, still above the group of enterprises with low profitability (9 per cent and 3 per cent respectively). Enterprises with intermediate profitability (half of total enterprises) accounted for 74 per cent and 78 per cent of employees and turnover respectively.

The dispersion of enterprises across economic activity sectors illustrates the sectors where each group of enterprises is over/underrepresented (Chart 11).

Turning to **electricity and water** (Section D of CAE-Rev. 3), the share of enterprises with high profitability (against total enterprises) amounted to 53 per cent in 2015. This group of enterprises accounted for 64 per cent of employees and 54 per cent of turnover associated with this activity. Conversely, enterprises with low profitability (19 per cent) aggregated only 1 per cent of employees and 0.3 per cent of the sector's turnover. In **human health and social work activities** (Section Q), the share of enterprises with high profitability was more substantial (49 per cent, accounting for 32 per cent of employees and 43 per cent of turnover generated by this activity); in this sector, the share of enterprises with low profitability was the smallest (13 per cent, although being responsible for 9 per cent of employees and 5 per cent of turnover in this Section).

Conversely, the share of enterprises with high profitability was lower in **accommodation and food service activities** and **trade** (Sections I and G respectively) (13 per cent and 15 per cent respectively). This differential is due, in the case of **accommodation and food service activities**, to the share of enterprises with low profitability (45 per cent). **Trade**, however, posted the highest concentration of enterprises with intermediate profitability (62 per cent, accounting for 85 per cent of employees and 92 per cent of turnover generated by this activity).

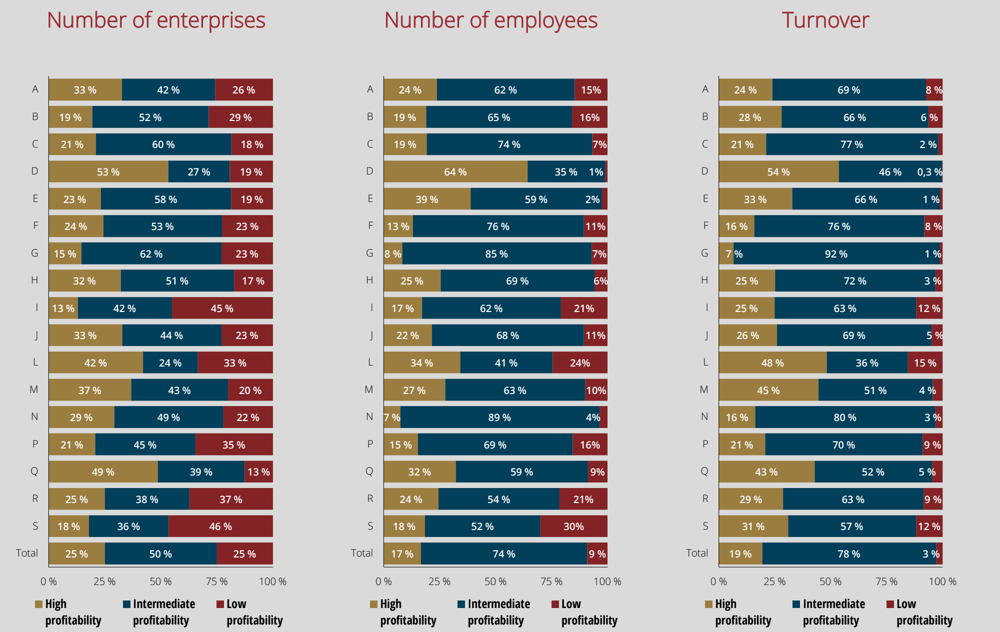
Enterprises with low profitability were the most relevant in **other service activities** (Section S) (46 per cent, associated with 30 per cent of employees and 12 per cent of turnover).

**Real estate activities** (Section L) posted the smallest share of enterprises with intermediate profitability (24 per cent, accounting for 41 per cent of employees and 36 per cent of turnover in this activity), due to a larger concentration of enterprises with high (42 per cent) and low profitability (33 per cent).

The share of enterprises with low profitability was higher in smaller size classes (in terms of number of enterprises, employees and turnover) (Chart 12). In fact, only 4 per cent of **large enterprises** had low profitability levels in 2015 (accounting for 2 per cent of employees and 1 per cent of turnover), i.e. below **SMEs** (8 per cent) and **microenterprises** (27 per cent).

In turn, 26 per cent of **microenterprises** had high profitability in 2015, above **large enterprises** (20 per cent) and **SMEs** (16 per cent). Nevertheless, **large enterprises** posted the largest share of

**Chart 11** • Weight of enterprises according to their profitability | By economic activity sector (2015)



turnover associated with high profitability (22 per cent). Enterprises with intermediate profitability posted a large weight in total large enterprises and SMEs (76 per cent and 75 per cent respectively, above 46 per cent in microenterprises).

Besides the different dispersion among the aggregates of these groups of enterprises, by classifying enterprises according to their profitability it is possible to assess whether other economic and financial indicators are useful in determining which groups of enterprises are the most profitable (Chart 13).

Between 2011 and 2015, exports' share of turnover tended to grow among the most profitable enterprises. In 2015, this share amounted to 27 per cent; in less profitable enterprises, it stood at 17 per cent.

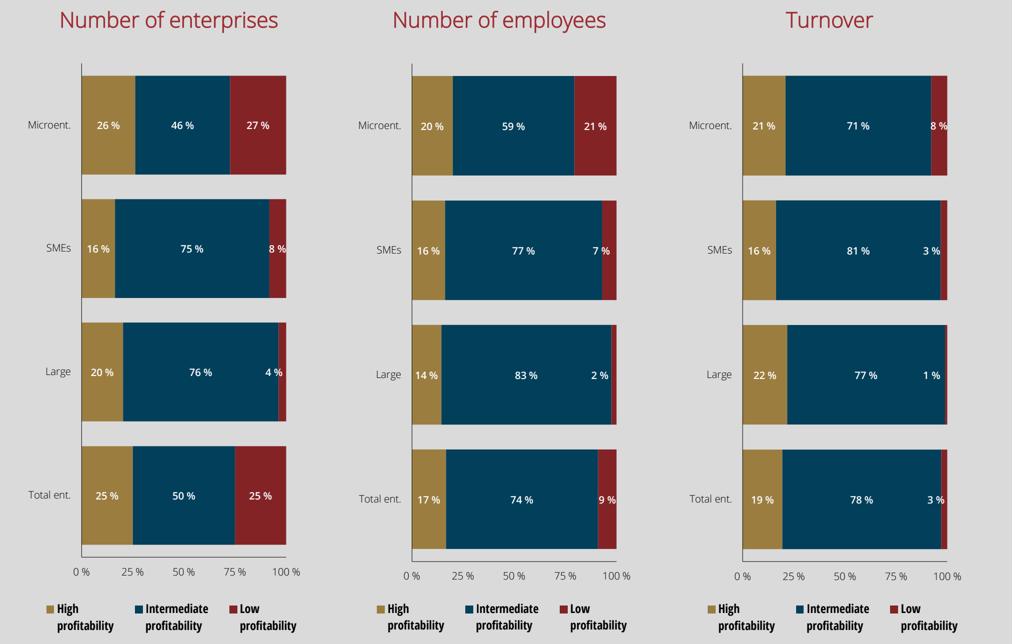
Enterprises with lower profitability differed from more profitable enterprises through having their operating expenses types more heterogeneous. Employee expenses corresponded in 2015 to around 28 per cent of operating expenses of less profitable enterprises, while the share of SES and CoGS stood at around 36 per cent. In the most profitable enterprises, the share associated with employee expenses was significantly lower (19 per cent). CoGS, in turn, posted a higher share of operating expenses (45 per cent).

Furthermore, the lower profitability posted by enterprises with low profitability is associated with negative operating profitability (measured by the ratio of EBITDA to total income) (around 41 per cent in 2015). Within the most profitable enterprises, the operating profitability indicator stood systematically above 25 per cent in the 2011-15 period (34 per cent in 2015).

In turn, the most profitable enterprises constantly posted higher capital ratio levels than enterprises with lower profitability. In 2015, enterprises with the highest net profitability posted a 41 per cent capital ratio, above the 9 per cent of the group of enterprises with lower profitability.

The debt structure is also noteworthy, chiefly given the larger share of trade credits in enterprises with intermediate profitability (26 per cent of liabilities), which is associated with their importance in trade.

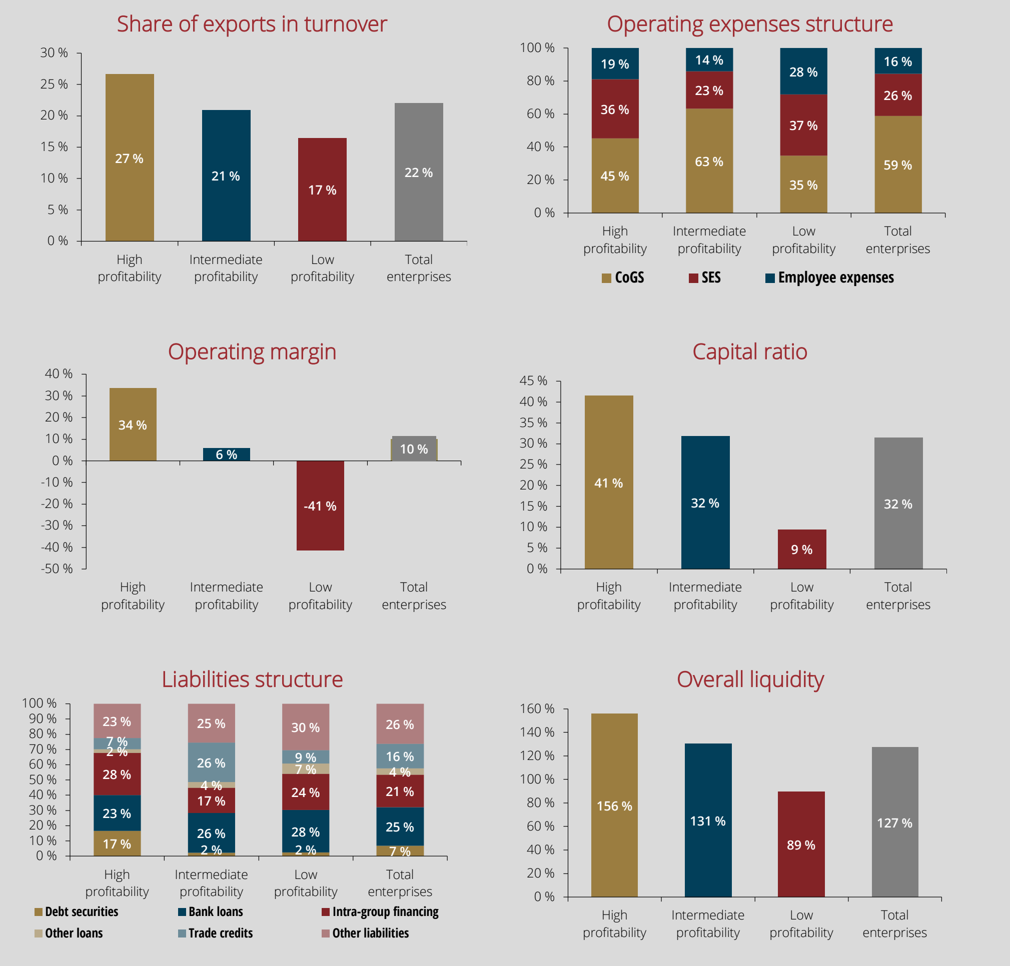
**Chart 12 • Weight of enterprises according to their profitability | By size class (2015)**



Finally, overall liquidity, which is another solvency indicator for all these groups of enterprises (given that it is not possible to use an indicator like financial pressure, as a result of the negative aggregate EBITDA in the group of enterprises with lower profitability), also measures the better financial health of the most profitable enterprises. In 2015, current liabilities in these enterprises were fully covered by their current assets (overall liquidity of 156 per cent). In the group of less profitable enterprises, the overall liquidity stood at 89 per cent (which means that only 89 per cent of current liabilities of these enterprises were covered by their current assets). To sum up, although higher or lower profitability (compared with a profitability benchmark broadly based across enterprises) is substantially dispersed at sectoral level (with more profitable enterprises being overrepresented in a number of economic activity sectors and underrepresented in other sectors, similarly to less profitable enterprises), their economic and financial indicators offer some distinctive insights within each group of enterprises.

Enterprises with higher profitability levels, in contrast to less profitable enterprises, are more exposed to the external markets, and their operating expenses structure is more significantly determined by CoGS and SES, thus leading to a positive operating margin and higher net profitability levels (net of other expenses). These enterprises rely to a lesser extent on debt, although their financing in the form of interest-bearing debt accounts for a larger share of their liabilities. Furthermore, their overall liquidity makes it possible for their short-term liabilities to be covered by their short-term assets.

**Chart 13** • Economic and financial indicators of enterprises | According to their profitability (2015, per cent)



## 3.3. Financial situation

### 3.3.1. Financial structure

In 2015, 68 per cent of NFC assets were funded by debt (corresponding to a 32 per cent capital ratio). Recourse to this type of financing was particularly important to enterprises in **construction** and **electricity and water**, where the capital ratio amounted to only 25 per cent and 26 per cent, respectively, similarly to 2014.

Compared with 2011, the capital ratio of enterprises increased by 2 p.p. (Chart 14). By size class, **SMEs** grew the most (5 p.p.), in contrast to a decrease in **large enterprises** (-3 p.p.). In sectoral terms, this indicator declined only in **other services** over the same time horizon (-1 p.p.).

The high dependence on debt was particularly critical to 29 per cent of enterprises, which posted negative equity. By size class, this was the case of 31 per cent of **microenterprises**, but only 5 per cent in **large enterprises**. At sectoral level, the highest share of enterprises with negative equity was concentrated in **trade** and **other services** (31 per cent in both cases), while the smallest share was posted by **electricity and water** (19 per cent).

Interest-bearing debt[10] and trade credits were the main sources of debt. As a whole, they accounted for 74 per cent of NFC liabilities (0.5 p.p. more than in 2014). The remaining debt corresponded to other liabilities, which include, for example, debt to the State, debt to shareholders/partners or other accounts payable[11] (Chart 15).

Bank loans[12] were particularly important in terms of interest-bearing debt, accounting for 25 per cent of NFC liabilities (26 per cent in 2014), followed by intra-group financing (21 per cent of liabilities). Debt securities and other loans corresponded to 7 per cent and 4 per cent of liabilities, respectively.

Excluding debt securities (2 per cent growth), all liabilities components decreased in 2015: bank loans (-6 per cent); other liabilities (-5 per cent); intra-group financing (-2 per cent); trade credits (-1 per cent). Other loans decreased marginally. Declines in bank loans and other liabilities accounted for the largest share of changes in liabilities (2.9 p.p., from 3.4 per cent).

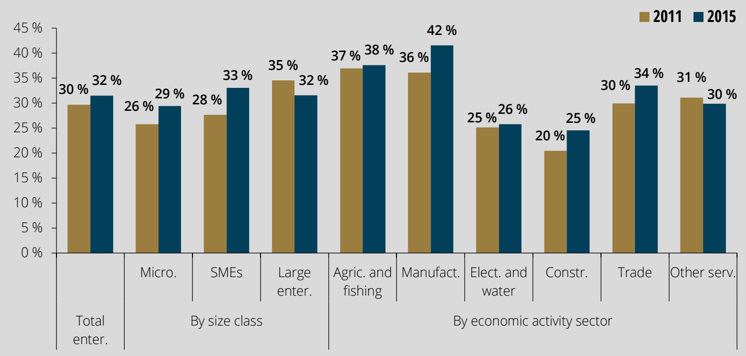
### 3.3.2. Financial costs and solvency

In 2015, 58 per cent of NFC liabilities were associated with interest-bearing debt. Interest expenses borne by NFCs declined by 12 per cent from 2014 (Table 5). This was due to a reduction in interest-bearing debt stock and in its costs. Preliminary data from the Central Balance Sheet Database reflects the decrease in interest expenses extending into the first half of 2016.

The decrease in interest expenses was broadly based across size classes and economic activity sectors. In **microenterprises**, **SMEs** and **large enterprises** reductions stood at 16 per cent, 11 per cent and 10 per cent respectively. **Construction** posted the most substantial decline (-20 per cent), followed by **manufacturing** (-18 per cent) and **trade** (-15 per cent). In **agriculture and fishing** and **electricity and water** interest decreased by 6 per cent and 5 per cent in 2015 respectively.

The combination of these developments with those of EBITDA led to a widespread reduction

**Chart 14 • Capital ratio (2011 and 2015)**



in financial pressure on NFCs (measured by the weight of interest in EBITDA), which moved from 28 per cent in 2014 to 20 per cent in 2015.

**Table 5** • Annual growth rate of interest expenses and financial pressure (2014 and 2015)

| | | Annual growth rate of interest expenses | | Financial pressure (Interest expenses/EBITDA) | |
|---|---|---|---|---|---|
| | | 2014 | 2015 | 2014 | 2015 |
| Total | | -6.3 % | -11.8 % | 27.9 % | 19.7 % |
| By size class | Microenterprises | -9.1 % | -16.0 % | 61.3 % | 31.9 % |
| | SMEs | -3.4 % | -11.2 % | 23.9 % | 19.1 % |
| | Large enterprises | -7.5 % | -10.3 % | 25.1 % | 17.3 % |
| By economic activity sector | Agriculture and fishing | 1.6 % | -5.9 % | 21.2 % | 16.8 % |
| | Manufacturing | -8.9 % | -17.6 % | 17.4 % | 10.6 % |
| | Electricity and water | 0.4 % | -5.3 % | 28.0 % | 26.9 % |
| | Construction | -16.4 % | -20.1 % | 64.9 % | 58.5 % |
| | Trade | -6.2 % | -15.1 % | 16.6 % | 13.3 % |
| | Other services | -5.4 % | -9.9 % | 36.0 % | 21.2 % |

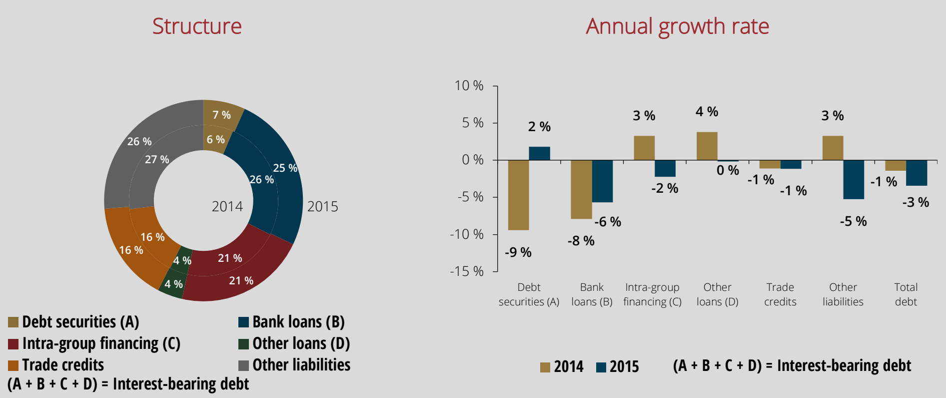
Note: Darker areas show the most significant figures by size class and economic activity sector.

The financial pressure indicator may be used to assess the capacity of enterprises to generate EBITDA in order to pay interest. However, the literature suggests that its opposite may also be analysed (using the interest coverage ratio (ICR), calculated as EBITDA/interest expenses). By analysing this indicator, it is possible to characterise enterprises taking into account different solvency levels[13].

This analysis only took into account enterprises that had paid interest (the absence of interest expenses renders calculation impossible), which accounted for 48 per cent of enterprises, 88 per cent of liabilities and 97 per cent of interest-bearing debt in total NFCs. In 2015, 24 per cent of total liabilities among NFCs were associated with enterprises that did not generate enough EBITDA to cover interest expenses (32 per cent in 2014). In turn, approximately 58 per cent of liabilities were associated with enterprises generating an EBITDA at least three times the amount of interest expenses (46 per cent in 2014) (Chart 16).

By size class, while in **microenterprises** 47 per cent of liabilities were associated with

**Chart 15** • Liabilities | Structure and annual growth rate (2014 and 2015)



enterprises that did not generate enough EBITDA to cover interest expenses, in **large enterprises** this share was only 11 per cent.

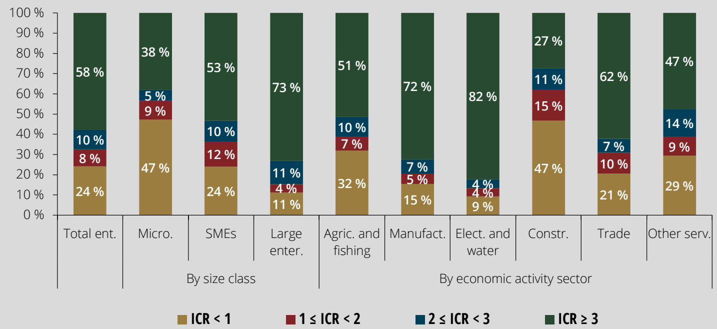
In **construction**, **agriculture and fishing** and **other services**, 47 per cent, 32 per cent and 29 per cent of liabilities, respectively, were associated with enterprises with interest coverage ratios below 1. In turn, in **electricity and water**, **manufacturing** and **trade**, 87 per cent, 80 per cent and 69 per cent respectively of total liabilities of enterprises with interest expenses were associated with enterprises generating an EBITDA at least twice the amount of interest expenses.

The share of liabilities associated with enterprises with an interest coverage ratio above 3 gradually increased from 2012 onwards, accounting for 58 per cent of total liabilities in 2015 (Chart 17). This stemmed from an increase in NFC operating profitability and the downward trend in interest expenses, which resulted in positive changes in the interest coverage ratio of a number of enterprises. In 2015, only 24 per cent of liabilities were associated with enterprises not generating enough EBITDA to cover interest expenses.

Compared with 2011 (when 47 per cent of total liabilities were associated with enterprises with a coverage ratio of 3 or above, and 31 per cent with enterprises with an indicator below 1), the differential between both shares widened (18 p.p., from 16 p.p. in 2011 to 34 p.p. in 2015).

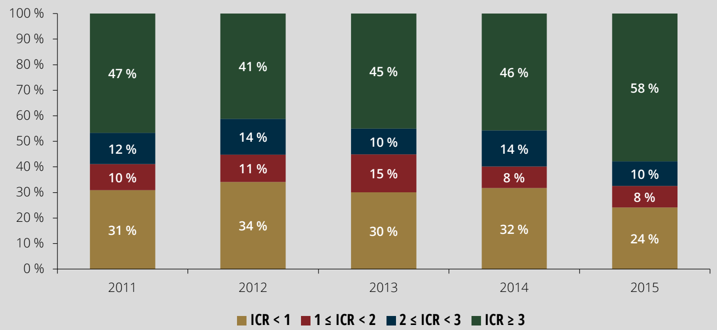
In 2015, 61 per cent of enterprises generated enough EBITDA to cover at least three times the amount of interest expenses; 30 per cent did not generate enough EBITDA to cover interest expenses (Chart 18).

**Chart 16** • Share of liabilities held by enterprises on the basis of their interest coverage ratio | By size class and economic activity sector (2015)



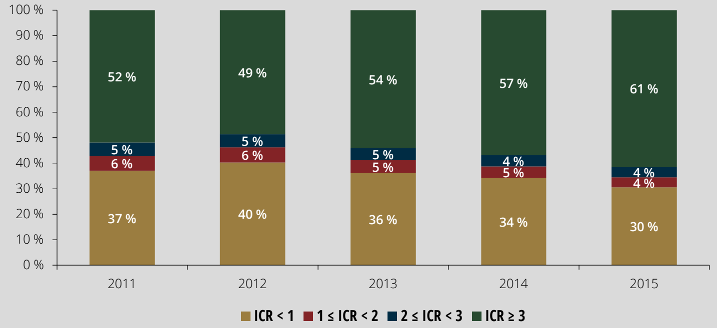

Note: This analysis takes into account the subgroup of enterprises that paid interest, given that the absence of interest expenses renders this calculation impossible.

**Chart 17** • Share of liabilities held by enterprises on the basis of their interest coverage ratio (2011 to 2015)




Note: This analysis takes into account the subgroup of enterprises that paid interest, given that the absence of interest expenses renders this calculation impossible.

**Chart 18** • Number of enterprises on the basis of their interest coverage ratio (2011 to 2015)




Note: This analysis takes into account the subgroup of enterprises that paid interest, given that the absence of interest expenses renders this calculation impossible.

## Box 2 | Loans granted by the resident financial system[14]

According to information from Banco de Portugal's Central Credit Register, loans granted by resident credit institutions (CIs)[15] to NFCs have decreased in the past few years, accounting, at the end of June 2016, for only 75.4 per cent of the figure observed at the end of 2011. During the same period, the quality of credit granted to enterprises deteriorated (Chart 19).

Focusing on the most recent period, the loans granted to NFCs by the resident financial sector decreased by 2.1 per cent in the first half of 2016 from the end of 2015 (-5.5 per cent when comparing with the same period in the previous year).

At the end of the first half of 2016, more than half of the loans granted to enterprises were associated with SMEs (50.9 per cent). Microenterprises held 35.2 per cent and large enterprises held 13.9 per cent of this credit (Chart 20). This distribution remained relatively stable throughout the period under review.

At sectoral level, other services held the largest share of loans granted by the financial sector to total NFCs at the end of the first half of 2016 (40.9 per cent), followed by manufacturing, trade and construction (18.0 per cent, 16.9 per cent and 16.3 per cent respectively). Compared with the end of 2011, the share of construction decreased markedly (6.4 p.p.), in contrast to an increase in the shares associated with the other sectors, particularly manufacturing and trade (2.7 p.p. and 2.0 p.p. respectively).

At the end of June 2016, the non-performing loans ratio[16] amounted to 16.7 per cent, up from 7.2 per cent recorded at the end of 2011. The non-performing loans ratio associated with total NFCs increased by 0.5 p.p. in the first half of 2016. This indicator increased across all size classes and economic activity sectors, excluding electricity and water (Chart 21).

Compared with the end of 2015, by size class, the largest increase was posted by microenterprises (0.8 p.p.), which had a 25.8 per cent non-performing loans ratio at the end of the first half of 2016. Changes in SMEs and large enterprises stood, for both classes, at 0.5 p.p. (to 13.7 per cent and 4.3 per cent respectively). The non-performing loans ratios of microenterprises, SMEs and large enterprises at the end of the first half of 2016 were 14.6 p.p., 7.7 p.p. and 2.6 p.p. above the levels seen at the end of 2011, respectively.

In sectoral terms, at the end of the first half of 2016, construction continued to have the highest non-performing loans ratio (33.3 per cent), followed by trade (17.6 per cent) and other services (14.4 per cent). In 2011 these sectors had recorded non-performing loans ratios of 11.6 per cent, 8.9 per cent and 5.0 per cent respectively. Throughout the period under review, the non-performing loans ratio of electricity and water was the lowest (1.1 per cent at the end of the first half of 2016). The non-performing loans ratio of agriculture and fishing increased in the first half of 2016 (1.6 p.p., to 6.6 per cent, compared with December 2015).

**Chart 19** • Developments in credit from resident credit institutions and non-performing loans (2011=100)

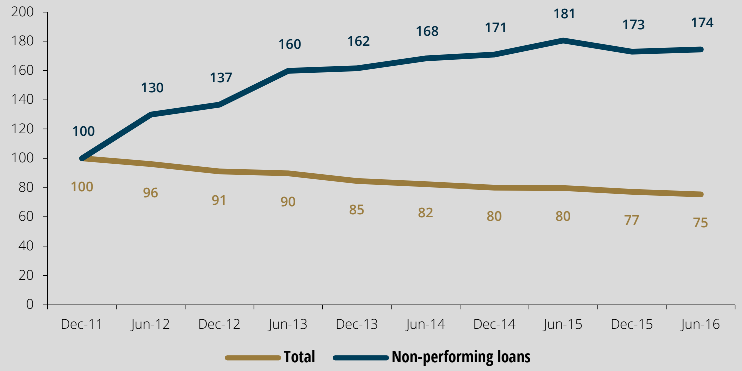



**Chart 20** • Structure of credit from resident credit institutions (2011 and end of the first half of 2016)

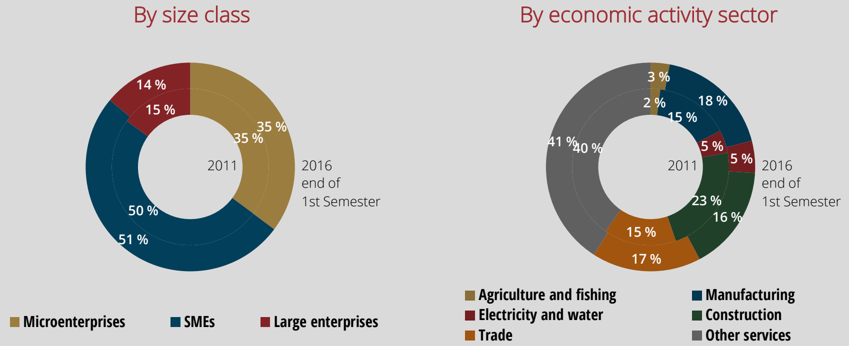
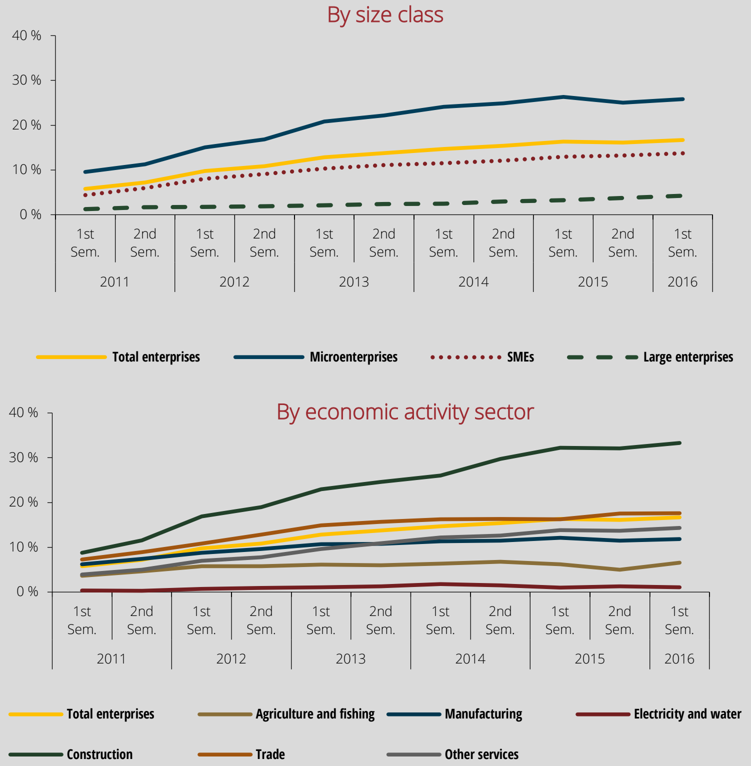



**Chart 21** • Non-performing loans ratios (end-of-period figures)



### 3.3.3. Trade credit financing

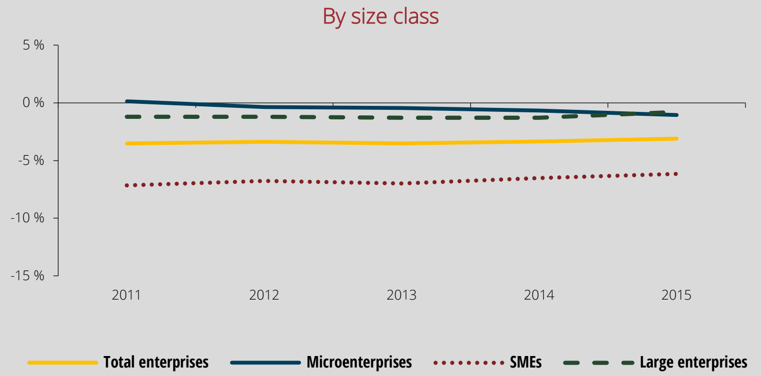
Trade credit financing accounted for 16 per cent of NFC liabilities in 2015, similarly to 2014.

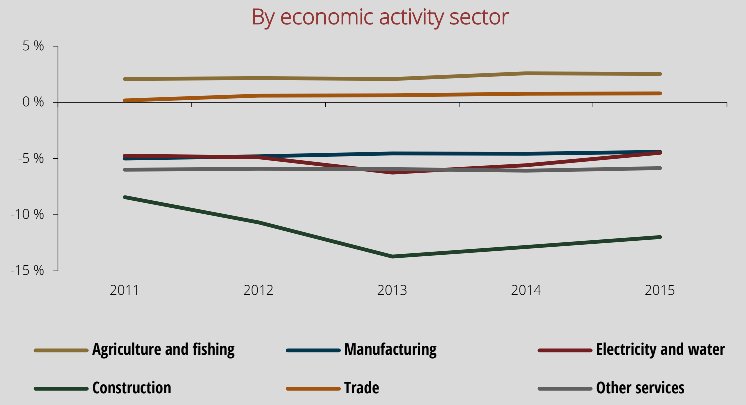
In net terms, the balance of accounts payable and accounts receivable, weighted by turnover, remained negative in 2015 (-3 per cent), which reflects the fact that NFCs have not been able, on average, to obtain financing through this means. In fact, enterprises financed their customers by more than they obtained in financing from suppliers (Chart 22).

By size class, this balance was negative in large enterprises and microenterprises corresponding to -1 per cent of their turnover; however, in SMEs this indicator stood in negative territory, at -6 per cent.

By economic activity segment, only agriculture and fishing (3 per cent) and trade (1 per cent) obtained net trade credit financing every year between 2011 and 2015. Credit obtained from suppliers was lower than credit granted to customers across all other sectors, in particular in construction (-12 per cent in 2015).

**Chart 22** • Net trade credit financing | As a percentage of turnover (2011 to 2015)




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

## Box 3 | Regional analysis

In this box, an analysis of enterprises in Portugal broken down by territorial unit for statistics (NUTS)[17], Level II, on the basis of the location of their head office, is conducted. This analysis is combined with the breakdown by economic activity sector, to allow for a more comprehensive review of the structure and performance of enterprises located in the various regions. Results show that Portuguese regions perform differently taking into account a number of indicators, although these differences are not unrelated with the effect underlying the specific sectoral composition of each territorial aggregate under review.

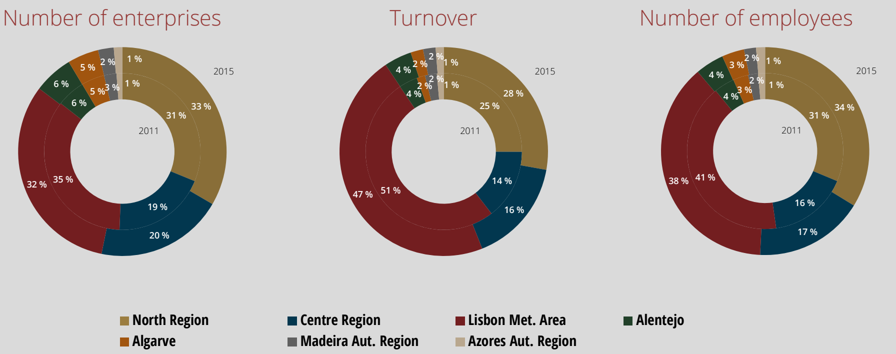
In 2015, the North Region encompassed the largest share of enterprises in Portugal (33 per cent), marginally exceeding the Lisbon Metropolitan Area, which, in 2011, had the largest number of enterprises (35 per cent of total enterprises in 2011; 32 per cent in 2015) (Chart 23). The Centre Region aggregated 20 per cent of enterprises, followed by Alentejo (6 per cent) and Algarve (5 per cent). Enterprises having their office in the Madeira and Azores Autonomous Regions accounted for 2 per cent and 1 per cent respectively of total enterprises.

Despite no longer having the largest share of enterprises, the Lisbon Metropolitan Area aggregated the largest share of turnover (47 per cent) and number of employees (38 per cent). Enterprises having their head office in the North Region generated 28 per cent of turnover and comprised 34 per cent of the number of employees, followed by the Centre Region, with 16 per cent of turnover and 17 per cent of the number of employees. The other regions accounted, as a whole, for 9 per cent of turnover and 11 per cent of the number of employees.

Enterprises having their head office in the Lisbon Metropolitan Area generated 1.5 times more turnover than the average turnover for total enterprises, comprising, on average, 20 per cent more employees than the average Portuguese enterprise (Chart 24). The Algarve Region stood at the opposite end of the spectrum, with the average enterprise accounting for 40 per cent of turnover and 70 per cent of the number of employees of the average Portuguese enterprise.

The composition of turnover by economic activity sector was markedly heterogeneous across regions in 2015. The Lisbon Metropolitan Area, which accounted for 47 per cent of NFC turnover in 2015, also made the largest contribution to turnover in most economic activity sectors, particularly **electricity and water** (77 per cent of its turnover) and **other services** (61 per cent) (Chart 25, left side). The North Region also contributed to a substantial share of NFC turnover, particularly in **manufacturing** and **construction** (39 per cent and 38 per cent respectively). In the case of **agriculture and fishing**, most turnover

**Chart 23** • Structures | By region (NUTS II)



was generated by enterprises having their head office in the Centre (38 per cent) and Alentejo (31 per cent) regions.

Looking at each region (Chart 25, right side), services (trade and other services) accounted, as a whole, for the largest share of turnover generated across all regions, with a more substantial weight in the Madeira Autonomous Region (84 per cent) and Algarve (81 per cent). In the Azores Autonomous Region and the Lisbon Metropolitan Area, these activities accounted for more than two-thirds of total turnover (68 per cent in both cases) and approximately half of turnover generated in the North, Centre and Alentejo regions. In this context, trade was responsible for a share of turnover ranging from 28 per cent (Madeira Autonomous Region) to 48 per cent (Azores Autonomous Region).

Manufacturing also accounted for a considerable share of NFC turnover in 2015 (26 per cent of the total in Portugal), particularly in the Centre (38 per cent), Alentejo (36 per cent) and North (35 per cent) regions. Agriculture and fishing represented 10 per cent of turnover generated in Alentejo, while its weight in the other regions was negligible.

Structural differences in NFCs across regions (and economic activity sectors) resulted in different performance levels, considering a number of economic and financial indicators.

Turning to changes in NFC turnover, positive rates of change seen in 2014 and 2015 (2 per cent in both years) reflected different contributions associated with turnover developments in each region (Chart 26). The most substantial contributions to developments in 2014 and 2015 were made by enterprises having their head office in the North (1.3 and 1.6 p.p. respectively) and Centre regions (0.5 and 12 p.p. respectively). The other regions also contributed to an increase in NFC turnover in 2014 and 2015, excluding

**Chart 24 • Average turnover and average number of employees (2015, total enterprises=1)**

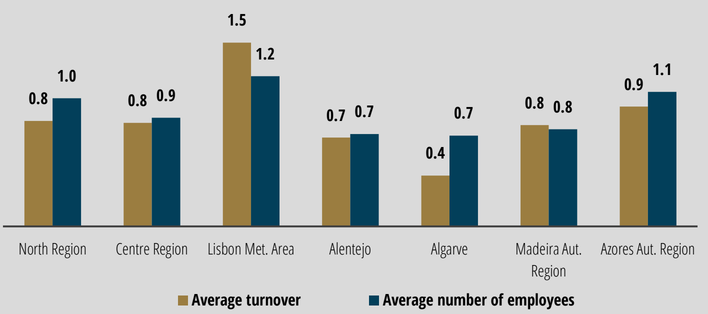
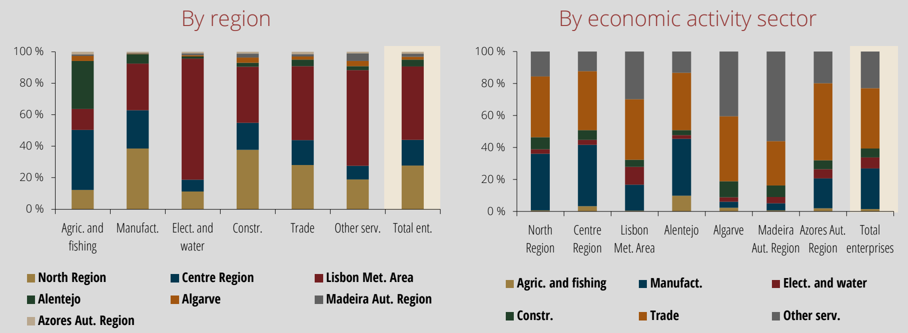



**Chart 25 • Structures | By region and economic activity sector (2015, on the basis of turnover)**



the Lisbon Metropolitan Area, in both years, and the Madeira and Azores Autonomous Regions in 2015, which made marginally negative contributions.

The share of turnover generated in 2015 from external markets was 22 per cent for total enterprises (Chart 27, left side). **Manufacturing** posted the largest contribution from exports to turnover (46 per cent). Exports were more important to NFCs having their head office in the North (54 per cent), Alentejo (51 per cent) and Centre regions (45 per cent) and the Lisbon Metropolitan Area (38 per cent).

The share of turnover associated with the external markets was higher in the Madeira Autonomous Region (43 per cent) and the North (27 per cent), Alentejo and Centre regions (24 per cent in both cases) (Chart 27, right side). In the case of the Madeira Autonomous Region, exports of **other services** played a considerable role, accounting for 64 per cent of NFC turnover in the region.

Return on equity of total enterprises amounted to 7 per cent in 2015. **Electricity and water** and **manufacturing** posted the highest return on equity in 2015 (12 per cent and 10 per cent respectively). **Electricity and water** had higher profitability levels than total NFCs, on average, in three regions (Chart 28, left side): Alentejo (19 per cent), North (16 per cent) and Centre (13 per cent). Conversely, return on equity in **construction** stood at -1 per cent in 2015, and at -4 per cent in the Lisbon Metropolitan Area. Return on equity levels were significantly dispersed across the various regions as regards **manufacturing**. In this sector, while enterprises having their head office in the Madeira and Azores Autonomous regions posted negative return on equity levels (-7 per cent and -1 per cent respectively), in the North Region this indicator amounted to 11 per cent.

**Chart 26** • Turnover | Contributions (in p.p.) to the annual rate of change (per cent)

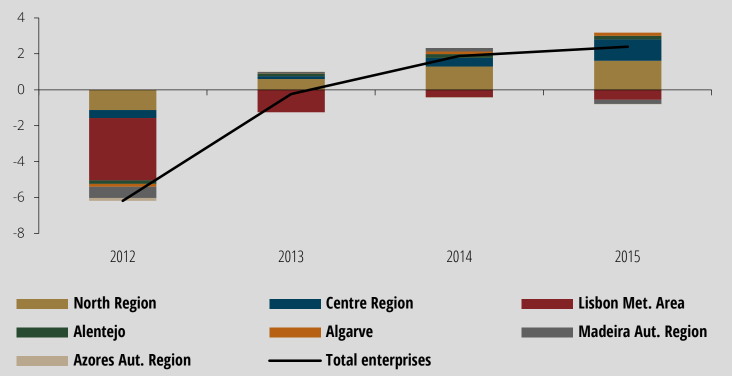
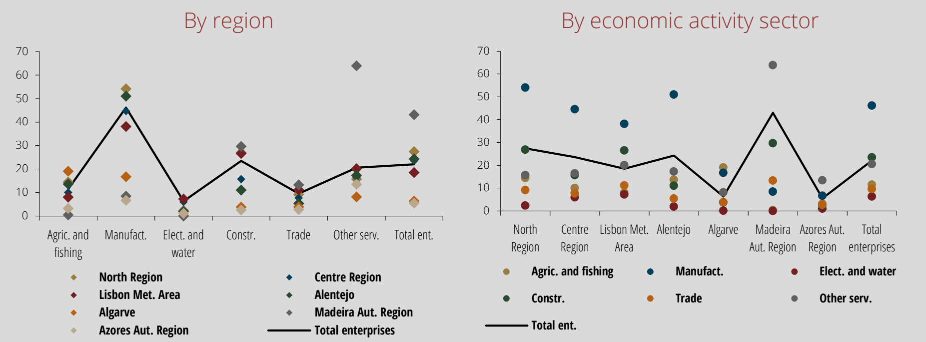



**Chart 27** • Exports as a percentage of turnover | By region and economic activity sector (2015)



Only enterprises having their head office in the Lisbon Metropolitan Area had higher profitability levels than total enterprises (8 per cent), particularly due to the positive contribution from enterprises pursuing activities associated with **electricity and water** (12 per cent), **trade** (10 per cent) and **manufacturing** (9 per cent) (Chart 28, right side). Conversely, enterprises in the Azores Autonomous Region had the lowest average profitability levels (1 per cent). In fact, in this region, profitability was even negative for **other services** (-2 per cent), **construction** and **manufacturing** (-1 per cent in both cases).

In 2015, the NFC capital ratio was 32 per cent. Only enterprises having their head office in the Algarve Region and the Lisbon Metropolitan Area had a capital ratio below that of the Portuguese average (26 per cent and 28 per cent respectively) (Chart 29). To most economic activity sectors under review, the capital ratio of enterprises having their head office in these regions was, on average, lower than that for the sector as a whole. Conversely, in the Madeira Autonomous Region, the capital ratio of enterprises in **trade** (57 per cent) and **other services** (47 per cent) was higher than that in other regions. Likewise, in the Azores Autonomous Region, **manufacturing** and **electricity and water** had a higher capital ratio than in the other regions (51 per cent and 47 per cent respectively).

**Chart 28** • Return on equity | By region and economic activity sector (2015)

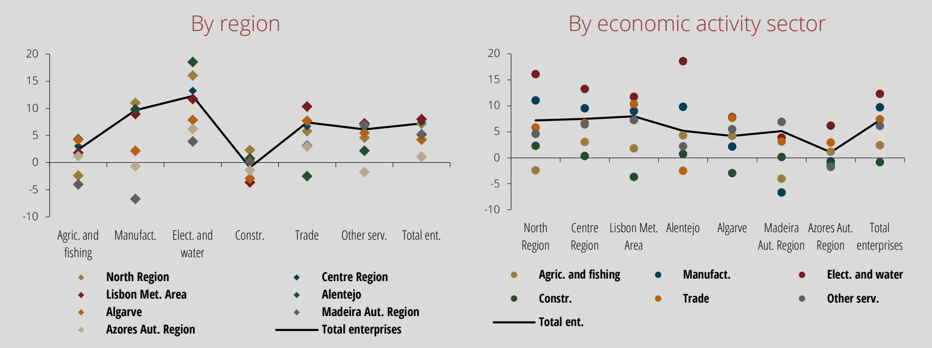
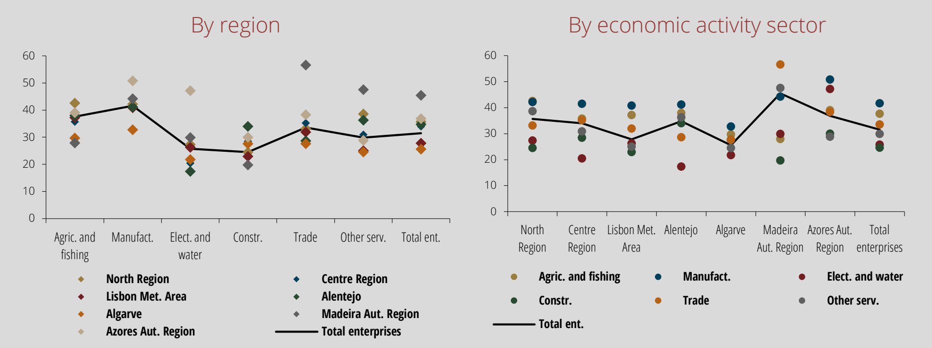



**Chart 29** • Capital ratio | By region and economic activity sector (2015)



## Notes

1. The NFC sector is one of the economy's five 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 a deadline for release of the national accounts of EU countries, including statistics under Banco de Portugal's responsibility. The series under review are 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 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. For the sake of simplicity, this study refers to 'enterprise' and 'non-financial corporation' (NFC) interchangeably when referring to NFCs as a whole, as defined in Note 1.

4. Central Balance Sheet Database statistics are published in Banco de Portugal's *Statistical Bulletin* (Chapters A and G) and in Sector Tables, both available on Banco de Portugal's website and BP*stat* | Statistics Online.

5. 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.

6. For more information on economic developments in Portugal, please refer to the *Economic Bulletin*, published on a quarterly basis and available at www.bportugal.pt.

7. 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.

8. EBITDA means earnings before interest, taxes, depreciation and amortisation.

9. Return on equity is calculated as the ratio of net income to equity and measures return on capital employed.

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

11. The analysis excludes liability components considered related to accounting procedures, such as deferred expenses and provisions. Thus, 'Other liabilities' includes debt to the State and other public entities, debt to shareholders/partners (non-interest-bearing) and other current liabilities and accounts payable.

12. "Box 2 | Loans granted by the resident financial system" provides additional information on this source of funding.

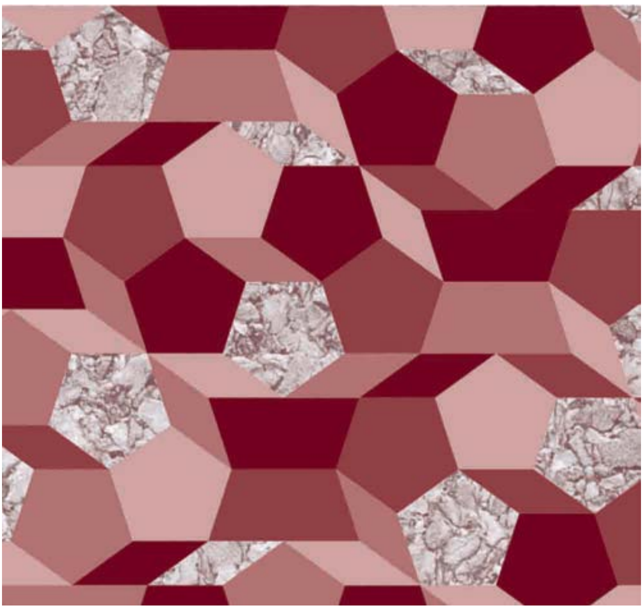
13. A similar analysis is presented in the study by the International Monetary Fund (IMF) – *Global Financial Stability Report*, of October 2015.

14. 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).

15. 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 2016 came from banks.

16. 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 details, see the May 2015 issue of the *Economic Bulletin*, available at www.bportugal.pt.

17. According to the common classification of territorial units for statistics (NUTS - 2013), Level II. Pursuant to Commission Regulation (EU) no 868/2014, of 8 August 2014, NUTS II is a hierarchical compilation of harmonised statistics across country regions.



# Annex

Methodological summary

# Methodological summary

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.

Interest coverage ratio: Ratio of EBITDA to interest expenses, calculated, on an individual basis, only in situations where the enterprise recorded interest expenses.

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.

NUTS: The common classification of territorial units for statistics (NUTS – 2013), Level II, pursuant to Commission Regulation (EU) No 868/2014, of 8 August 2014, is a hierarchical compilation of harmonised statistics across country regions.

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 per cent of the ordered sample (i.e. where 25 per cent of enterprises show a lower value for that indicator and 75 per cent a higher value). The second quartile (or median) corresponds to 50 per cent, 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 per cent position of the ordered sample (75 per cent of enterprises show a lower value for that indicator, and only 25 per cent 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 | 19 – *Sector tables and enterprise sector tables – Methodological notes (Long time series 1995-2013)*, November 2014.

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 | resident credit institutions |
| CoGS | cost of goods sold and materials consumed |
| EBIT | earnings before interest and taxes |
| EBITDA | earnings before interest, taxes, depreciation and amortisation |
| EBT | earnings before taxes |
| ESA 2010 | European system of national and regional accounts 2010 |
| GDP | gross domestic product |
| ICR | interest coverage ratio |
| IES | *Informação Empresarial Simplificada* (Simplified Corporate Information) |
| INE | *Instituto Nacional de Estatística* (Portuguese National Statistical Institute) |
| NFCs | non-financial corporations |
| NIY | net income for the year |
| NUTS | common classification of territorial units for statistics |
| p.p. | percentage points |
| SES | supplies and external services |
| SMEs | small and medium-sized enterprises (excluding microenterprises) |

# References


Banco de Portugal (2008), *Simplified reporting: inclusion of the Simplified Corporate Information in the Statistics on Non-Financial Corporations from the Central Balance Sheet Database,* Supplement 1/2008 to the Statistical Bulletin, May 2008.
https://www.bportugal.pt/sites/default/files/anexos/pdf-boletim/sup-be-1-2008-en.pdf

Banco de Portugal (2013), *Statistics on non-financial corporations of the Central Balance Sheet Database: Methodological notes*, Supplement 2/2013 to the Statistical Bulletin, October 2013.
https://www.bportugal.pt/sites/default/files/anexos/pdf-boletim/suplemento-2-2013-en.pdf

Banco de Portugal (2014), *Sector Tables and Enterprise and Sector Tables: Methodological Notes. Long Time Series 1995-2013*, *Central Balance Sheet Studies*, No 19, November 2014.
https://www.bportugal.pt/sites/default/files/anexos/pdf-boletim/study%20cb%2019_2014_en.pdf

Banco de Portugal (2015), *Central de Responsabilidades de Crédito*, Banco de Portugal Booklets, No 5, April 2015 (Portuguese version only).
https://www.bportugal.pt/sites/default/files/anexos/pdf-boletim/5_central_responsabilidades_de_credito.pdf

Banco de Portugal (2015), *Economic Bulletin*, May 2015.
https://www.bportugal.pt/sites/default/files/anexos/pdf-boletim/bol_econ_maio2015_e.pdf

Banco de Portugal (2015), *Analysis of enterprises in the export sector in Portugal*, *Central Balance Sheet Studies*, No 22, June 2015.
https://www.bportugal.pt/sites/default/files/anexos/pdf-boletim/study%20cb_22_2015_en.pdf

Banco de Portugal (2015), *Sectoral analysis of non-financial corporations in Portugal 2010-2015*, *Central Balance Sheet Studies*, No 23, November 2015.
https://www.bportugal.pt/sites/default/files/anexos/pdf-boletim/study%20cb%2023_2015_en.pdf

Banco de Portugal (2015), *Economic Bulletin*, October 2016.
https://www.bportugal.pt/sites/default/files/anexos/pdf-boletim/bol_econ_oct16_e_0.pdf

Decree-Law No 381/2007, of 14 November 2007, on the definition of the Portuguese Classification of Economic Activities, Revision 3 (CAE-Rev.3) (Portuguese version only).

International Monetary Fund (2015), *Global Financial Stability Report*, October 2015.

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

Regulation (EU) No 549/2013 of the European Parliament and of the Council, of 21 May 2013, on the European system of national and regional accounts in the European Union.

Commission Regulation (EU) No 868/2014, of 8 August 2014, on the establishment of a common classification of territorial units for statistics.

# Central Balance Sheet Studies

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

15 | Sectoral analysis of the construction sector, January 2014

16 | Analysis of the information and communication activities sector, April 2014

17 | Analysis of the tourism sector, October 2014

18 | Sectoral analysis of non-financial corporations in Portugal 2009-2014, November 2014

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 of the wood, cork and paper sectors, January 2016

25 | Analysis of enterprises in the pharmaceutical sector, July 2016

26 | Sectoral analysis of non-financial corporations in Portugal 2011-2016, November 2016