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# STRUCTURE AND DYNAMICS OF NON-FINANCIAL CORPORATIONS IN PORTUGAL 2006-2012

Central Balance Sheet Studies November 2013



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# FOREWORD

This analysis reviews the population of non-financial corporations in Portugal, using data collected by the Statistics Department of Banco de Portugal. When updating this population of enterprises, data obtained from Simplified Corporate Information (IES in Portuguese) are crucial. 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 Instituto Nacional de Estatística – INE (Statistics Portugal).

Corporate annual accounts reported through IES statements are treated by the Central Balance-Sheet Database and subject to a quality control process. This process essentially aims to ensure the coherence and integrity of accounting information for the economic year and consistency in the main aggregates throughout the years. That analysis also involves matching the reported information with data obtained from other statistical systems available within Banco de Portugal.

IES is usually reported within six and a half months from the financial year end, which, for most enterprises resident in Portugal, corresponds to 15 July of the year following the reference year. Currently, the latest year available in IES is 2012. Considering that some reports are still missing, data for 2012 are preliminary.

# **SUMMARY**

In 2012 the non-financial corporations (NFC) sector in Portugal comprised approximately 378,000 enterprises\*. Compared with 2011, the number of NFCs operating in Portugal remained relatively stable. Compared with 2006, however, the NFC sector comprised more enterprises (2.7 % increase), but less employees and lower turnover (-3.4 % and -3.9 % respectively).

Most enterprises in Portugal are micro, small and medium-sized (99.7 %). Nevertheless, the share of large enterprises increased gradually in the 2006-2012 period. In 2012 large enterprises represented only 0.3 % of the total number of enterprises, but accounted for 29 % of the number of employees and 45 % of turnover in the NFC aggregate. In this respect, NFC activity is concentrated in a very small number of enterprises. In 2012 the 100 largest enterprises (in terms of turnover) were responsible for more than one-quarter of total turnover of NFCs in Portugal. TOP 100 enterprises are chiefly in the *Trade* (44 %) and *Manufacturing* (27 %) sectors.

Activities related to services continued to dominate the NFC sector in 2012, with enterprises in Trade and Other services representing more than 60 % of the number of enterprises, number of employees and turnover. From 2006 to 2012, however, reference should be made to the increase in the weight of *Electricity and water* and *Agriculture and fishing*. In turn, *Construction* lost relevance across all indicators. *Manufacturing*, albeit with lower relative weight in the number of enterprises and number of employees, accounted for a larger share in terms of turnover.

As regards geographical location, in the 2006-2012 period, enterprise head offices in the NFC sector were highly concentrated in the Lisbon and Porto districts. In 2012 these districts represented, as a whole, 46 % of the number of enterprises, 53 % of the number of employees and 60 % of turnover of total NFCs. Across all districts, the *Other services* and *Trade* sectors concentrated the largest number of enterprises. However, *Manufacturing* was also relevant in the Braga, Aveiro, Leiria and Setúbal districts (as regards the number of employees and turnover).

In terms of maturity, older enterprises became significantly more relevant. In 2012 enterprises established for more than 20 years represented 21 % of the number of enterprises, 42 % of the number of employees and 47 % of turnover.

Considering the average number of employees and turnover when establishing the average size of enterprises, enterprises with the largest average size belonged, by economic activity sector, to the *Electricity and water* and *Manufacturing* sectors; by geographical location, to the Lisbon district; and by maturity, to the class of enterprises established for more than 20 years. In the 2006-2012 period, the average size of enterprises in Portugal declined, particularly in terms of the number of employees. This decline was broadly based across all economic activity sectors, districts and maturity classes.

This *Study* also presents an analysis on the specific situation of high-growth enterprises (HGEs), i.e. enterprises with average annual growth in turnover greater than 20 % per annum over a three-year period. In 2012 HGEs represented only 3 % of NFCs in Portugal, with a fall in their number over the 2006-2012 period, probably due to the deteriorating economic situation. In turn, the share of enterprises with negative turnover growth increased.

Central Balance-Sheet Database data reveal that the impact of this type of enterprise on employment is overall positive. As regards HGEs, the number of employees increased consistently at a significant rate and was broadly based. Job creation, however, is not identical for all HGEs, given the varying characteristics of enterprise productive activity, namely the intensity of the use of labour.

High growth, however, tends to be a merely transitional stage in the enterprises' life cycle and is chiefly associated with microenterprises and young enterprises. In 2012 most HGEs belonged to the *Trade* (27 %) and *Manufacturing* (18 %) sectors.

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# ACRONYMS

CAE	Portuguese Classification of Economic Activities
ESA 95	European System of National and Regional Accounts 1995
GDP	Gross domestic product
HGEs	High-growth enterprises
IES	Simplified Corporate Information (Informação Empresarial Simplificada)
INE	Statistics Portugal (Instituto Nacional de Estatística)
NFCs	Non-financial corporations
р.р.	Percentage points
SMEs	Small and medium-sized enterprises (excluding microenterprises)

# STRUCTURE AND DYNAMICS OF NON-FINANCIAL CORPORATIONS IN PORTUGAL 2006-2012

INTRODUCTION

1

2

4

MAIN CHARACTERISTICS

DYNAMICS

HIGH-GROWTH ENTERPRISES

# I STRUCTURE AND DYNAMICS OF NON-FINANCIAL CORPORATIONS IN PORTUGAL 2006-2012

## **1** INTRODUCTION

The non-financial corporations (NFC)<sup>1</sup> sector plays a key role in the Portuguese economy and, compared with other institutional sectors, accounts for the largest share of gross value added and job creation in Portugal.

The study *Structure and dynamics of non-financial corporations in Portugal 2006-2012* is an update to the *Central Balance-Sheet Database Study* | *2 – Structure and dynamics of non-financial corporations in Portugal*, released in December 2010, which presents an analysis of the NFC structure in 2012 and its developments since 2006. The characterisation of this population of enterprises<sup>2</sup> is key to understand a significant share of the Portuguese company fabric and facilitates a better interpretation of sectoral studies and statistical indicators published by the Central Balance Sheet Database<sup>3</sup>.

For the purposes of this *Study* and similarly to the remaining *Central Balance Sheet Studies*, the NFC sector excludes enterprises from *Section K – Financial and insurance activities*, which includes non-financial holding companies (with the SGPS denomination) exclusively engaged in controlling enterprise shareholdings. The study thus seeks to analyse the aggregate comprising enterprises in Portugal that carry out mainly non-financial activities.

The analysis begins with the NFC structure in 2012, on the basis of size classes, economic activity sectors, geographical location and enterprise maturity. Afterwards, it looks into corporate dynamics in the 2006-2012 period, particularly birth and death rates of enterprises. Finally, the sub-group comprising the most buoyant enterprises in the period under review is analysed (high-growth enterprises).

The Annex provides a methodological summary, including the definition of the main concepts used throughout the *Study*. The statistical series (in Excel format) under analysis can also be found on Banco de Portugal's website.

<sup>1</sup> The NFC sector represents one of the economy's five institutional sectors. The institutional sectorisation of economic agents is carried out in accordance with the 1995 European System of National and Regional Accounts (ESA 95), approved by Council Regulation (EC) No 2223/96 of 25 June 1996. ESA 95 is a harmonised reference on the compilation methodology and deadline for release of the national accounts of EU countries, including statistics under Banco de Portugal's responsibility. Based on this 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 represent around two-thirds of the number of enterprises, but only 5 % of the respective turnover).

<sup>2</sup> For the sake of simplicity, this Study refers interchangeably to the expressions 'enterprise' and 'corporation', but both exclude the sole proprietor aggregate.

<sup>3</sup> The Central Balance-Sheet Database is a database with economic and financial information on NFCs in Portugal. For more details on the Central Balance-Sheet Database activities, see the 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 from the Central Balance-Sheet Database and 2/2013 – Statistics on non-financial corporations from the Central Balance-Sheet Database and 2/2013 – Statistics on non-financial corporations from the Central Balance-Sheet Database and 2/2013 – Statistics on statistics on non-financial corporations from the Central Balance-Sheet Database and 2/2013 – Statistics on statistics on statistics on confinancial corporations from the Central Balance-Sheet Database – methodological notes, as well as the publication Central Balance Sheet Studies | 6, December 2011 – New enterprise and sector tables: adjustment to the Accounting Normalisation System.

#### **2** MAIN CHARACTERISTICS

The reference population in this *Study* comprised approximately 378,000 enterprises in 2012...

...large

enterprises

accounted for

0.3 % of the total ...

...but represented

45 % of turnover in total NFCs ...

The reference population in this Study corresponds to the NFC sector excluding holding companies<sup>4</sup>, hereinafter referred to as NFC sector, for the sake of simplicity. In 2012 this population comprised approximately 378,000 enterprises. Compared with 2006, the NFC sector grew in terms of number of enterprises (2.7 %), but decreased in terms of total number of employees (3.4 %) and turnover (3.9 %).

Afterwards, the NFC sector's structure in 2012 is characterised, namely by comparing it with 2006. The analysis is made on the basis of four characteristics of enterprises: size class, economic activity sector, geographical location and maturity.

#### 2.1 By size class<sup>5</sup>

As regards the number of enterprises, the NFC sector is largely dominated by microenterprises (89 % in 2012). Large enterprises, which accounted for 0.3 % of the total, included, however, 29 % of the number of employees and 45 % of turnover in total NFCs (Chart 1)<sup>6</sup>.

#### Chart 1

**NFC POPULATION STRUCTURE** | By enterprise size class (2006 and 2012)



...and their weight in total enterprises is increasing Compared with 2006, the contribution from large enterprises to the NFC aggregate increased in 2012: 4.7 p.p. in terms of turnover and 3.4 p.p. in terms of the number of employees. Conversely, the contribution from other size classes to NFC turnover declined (2.2 p.p. in the case of SMEs and 2.5 p.p. in the case of microenterprises). As regards the remaining indicators, the weight of microenterprises increased in terms of number of enterprises (2.1 p.p.) and number of employees (0.8 p.p.), while SMEs posted decreases (by 2.0 p.p. and 4.2 p.p. respectively).

<sup>4</sup> As a result, enterprises classified in Sections 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. For the purposes of this Study, this also excludes enterprises classified under Section K – Financial and insurance activities, which comprises non-financial holding companies exclusively engaged in controlling enterprise shareholdings, given that such enterprises are essentially different from the remaining NFCs.

<sup>5</sup> A definition of enterprise size classes used in this Study is detailed in the Annex.

<sup>6 &</sup>quot;Box 1 | Characterisation of the 100 largest enterprises in Portugal" provides additional information on the relevance of large enterprises in total NFCs in Portugal.

## 2.2 By economic activity sector<sup>7</sup>

In terms of economic activity, service activities are predominant in the NFC sector. In 2012 *Other services* comprised the largest number of enterprises (47 %), followed by *Trade* (27 %). Conversely, *Agriculture and fishing* (3 %) and *Electricity and water* (0.5 %) included the lowest number of enterprises (Chart 2).

Compared with 2006, the weight of *Other services* increased (3.9 p.p.), in contrast to declines in *Construction* (1.7 p.p.), *Trade* (1.5 p.p.) and *Manufacturing* (1.3 p.p.). In *Other services*, Section M – *Professional, scientific and technical activities* and Section Q – *Human health and social work* grew more markedly, by 1.5 p.p. and 1.2 p.p. respectively.



Chart 2

In 2012 the *Other services* aggregate was also the main employer, with 41 % of the number of NFC employees. *Manufacturing* was the second largest employer, although its contribution declined from 2006 (3.6 p.p.). Over the same period, the weight of *Other services* grew by 5.7 p.p..

In terms of turnover, *Trade and Manufacturing* were particularly noteworthy. Indeed, in 2012 *Trade* continued to account for the largest share of NFC turnover (37 %), followed by *Manufacturing* (25 %) and *Other services* (23 %). Compared with 2006, *Electricity and water* (2.1 p.p.) and *Manufacturing* (2.0 p.p.) grew the most, while *Construction* recorded the largest fall (2.8 p.p.).

An economic activity sector/size class data point (Table 1) shows that the relative weight of microenterprises increased across all economic activity sectors between 2006 and 2012.

In 2012 microenterprises accounted for the largest share across all economic activity sectors, and their weight oscillated between 70 % in *Manufacturing* and 93 % in *Other services*. Conversely, SMEs have become less relevant across all economic activities.

...while Construction lost much of its relevance in the period under review

Service activities are predominant

in the NFC

sector

All economic sectors are mainly composed of microenterprises... 2

7 A definition of economic activity sectors used in this *Study* is detailed in the Annex.

#### Table 1

STRUCTURE BY ENTERPRISE ECONOMIC ACTIVITY SECTOR AND SIZE CLASS (2012)										
				В	y economic	activity sector				
Indicator	Size class	Total	Agriculture and fishing	Manufactu- ring	Electricity and water	Construction		Other services		
	Micro	89 %				88 %				
		(2 p.p.)	(1 p.p.)	(3 p.p.)	(1 p.p.)	(5 p.p.)	(1 p.p.)	(1 p.p.)		
Number of	SMEs	11 %	8 %	29 %	26 %	12 %	9 %	7 %		
enterprises		(-2 p.p.)	(-1 p.p.)	(-3 p.p.)	(-2 p.p.)	(-5 p.p.)	(-1 p.p.)	(-1 p.p.)		
	Large	0.3 %	0.1 %	0.7 %	2.8 %	0.1 %	0.2 %	0.2 %		
		(0 p.p.)	(0 p.p.)	(0 p.p.)	(0 p.p.)	(0 p.p.)	(0 p.p.)	(0 p.p.)		
	Micro	27 %	44 %	14 %	5 %	33 %	36 %	28 %		
		(1 p.p.)	(0 p.p.)	(1 p.p.)	(1 p.p.)	(3 p.p.)	(-1 p.p.)	(0 p.p.)		
Number of	SMEs	44 %	51 %	64 %	45 %	49 %	40 %	33 %		
employees		(-4 p.p.)	(-2 p.p.)	(-2 p.p.)	(2 p.p.)	(-7 p.p.)	(-4 p.p.)	(-2 p.p.)		
	Large	29 %	5 %	22 %	50 %	18 %	24 %	39 %		
		(3 p.p.)	(2 p.p.)	(1 p.p.)	(-3 p.p.)	(4 p.p.)	(4 p.p.)	(1 p.p.)		
	Micro	14 %	39 %	5 %	2 %	19 %	19 %	18 %		
	IVIIGIO	(-2 p.p.)	(-4 p.p.)	(-1 p.p.)	(0 p.p.)	(-3 p.p.)	(-1 p.p.)	(-3 p.p.)		
-	SMEs	41 %	56 %	43 %	18 %	45 %	44 %	38 %		
lumover	SIVIES	(-2 p.p.)	(3 p.p.)	(-3 p.p.)	(2 p.p.)	(-8 p.p.)	(0 p.p.)	(-1 p.p.)		
	Largo	45 %	5 %	52 %	80 %	37 %	37 %	44 %		
	Large	(5 p.p.)	(1 p.p.)	(4 p.p.)	(-2 p.p.)	(11 p.p.)	(2 p.p.)	(4 p.p.)		

Note: Changes between 2006 and 2012 are shown in brackets. Negative changes are shown in red. Shaded areas indicate the highest values for each "economic activity sector/size class" data point.

...SMEs concentrate the largest share of employment... As regards employment, SMEs were predominant in most activities excluding *Electricity and water* and *Other services*, where large enterprises accounted for the largest share, with 50 % and 39 % respectively. Compared with 2006, large enterprises broadly gained relevance, in contrast to SMEs, excluding the *Electricity and water* sector.

... and large enterprises are predominant in terms of turnover With regard to turnover, the most relevant are large enterprises, particularly in *Electricity and water* (80 %), *Manufacturing* (52 %) and *Other services* (44 %), and SMEs, particularly in *Agriculture and fishing* (56 %), *Construction* (45 %) and *Trade* (44 %). Compared with 2006, the weight of large enterprises grew markedly across most economic activity sectors, particularly *Construction* (11 p.p.).

*Electricity and water* and *Manufacturing* record the highest average enterprise size By average corporate size, *Electricity and water* and *Manufacturing* comprised the main average enterprises in terms of number of employees and turnover. Conversely, *Agriculture and fishing* posted the lowest average values (Chart 3).

#### Chart 3



NUMBER OF EMPLOYEES AND TURNOVER | Ratio to the average value of total NFCs, by economic

Note: The left-side chart shows the ratio of the average number of employees in each economic activity sector to the average number of employees in total NFCs. The right-side chart illustrates the ratio of the average turnover in each economic activity sector to the average turnover in total NFCs.

Between 2006 and 2012 the average size of enterprises declined by approximately 6 %, both in the number of employees and turnover (Chart 4).

The average number of employees fell across all activities. The average turnover in Agriculture and fishing (17%), Manufacturing (14%) and Electricity and water (1%) grew. In the case of Manufacturing, despite a 9 % fall in the average number of employees, the average turnover increased by 14 %, reflecting a significant increase in turnover generated by each employee. Finally, in the period under review, the average size of enterprises in Construction decreased markedly both in the number of employees (by 14 %) and turnover (by 24 %).

Between 2006 and 2012 the size of enterprises declined...

... particularly as regards

the number

of employees

#### Chart 4

CHANGES IN THE AVERAGE NUMBER OF EMPLOYEES AND AVERAGE TURNOVER BETWEEN 2006 AND 2012 | By economic activity sector



2

7

#### 2.3 By geographical location<sup>8</sup>

In 2012 the most NFC-intensive districts continued to be Lisbon and Porto, which jointly accounted for 46 % of total enterprises, 54 % of the number of employees and 59 % of turnover (Chart 5).

In 2006-2012, as regards the number of enterprises, the relative weight of the Porto and Braga districts increased (0.6 p.p.), while that of Lisbon and Setúbal dropped (0.8 p.p. and 0.2 p.p. respectively).

The number of employees and turnover was more concentrated in the Lisbon and Porto districts in 2012. The weight of Braga, the third most relevant district as regards the number of enterprises, grew 0.7 p.p. in terms of turnover (Chart 6).



The Leiria and Setúbal districts, albeit with a declining weight in total employment (0.4 and 0.3 p.p. respectively), gained some relevance in terms of turnover (0.2 p.p. and 0.3 p.p. respectively). The Faro district, in turn, saw a decline in both indicators (0.2 p.p. in the number of employees and 0.5 p.p. in turnover).

8 Geographical location refers to the district where the enterprise head office is located.

Between 2006

and 2012 the

concentration of

enterprises in the Lisbon and Porto

districts increased

Chart 5

### Chart 6



-0,5

-1,0 -1,0

Considering the average size of enterprises, Lisbon stands out amongst other geographical locations, posting the highest values in terms of number of employees and turnover (Chart 7). In 2012 each enterprise in Lisbon generated, on average, 20 % more in terms of employment and 50 % more in turnover than the average enterprise in the aggregate comprising all districts. The Faro district was at the other end of the spectrum, with the average enterprise comprising 70 % of the number of employees and 30 % of turnover of the average enterprise in the Portuguese NFC sector.

0,0

Number of employees

0,5

1,0

#### Each enterprise in Lisbon generated, on average, 20 % more in terms of employment and 50 % more in turnover than the average enterprise in Portugal...

...conversely, the

average enterprise

in the Faro district generated 70 % of the number of

employees and 30 % of turnover of the average enterprise

in Portugal

#### Chart 7



**Note:** The left-side chart shows the ratio of the average number of employees in each district to the average number of employees in total NFCs. The right-side chart illustrates the ratio of the average turnover in each district to the average turnover in total NFCs.

Between 2006 and 2012 the average number of employees recorded negative changes across all districts. As regards average turnover, only Setúbal and Leiria posted increases, by 3 % and 0.2 % respectively (Chart 8). The Faro district was particularly noteworthy, with a 29 % decrease in turnover per enterprise and a 12 % decline in the average number of employees per enterprise.

2

By economic activity sector, in 2012 *Other services* and *Trade* were predominant in terms of number of enterprises across all districts. Construction came third in most districts, except for Aveiro, Braga and Porto, where *Manufacturing* was more relevant (Table 2).



#### Chart 8

CHANGES IN THE AVERAGE NUMBER OF EMPLOYEES AND AVERAGE TURNOVER BETWEEN 2006 AND 2012 | By district

Other services and Trade concentrated the largest share of enterprises across all districts...

...as regards the number of employees and turnover, *Manufacturing* played a more important role in the Braga, Aveiro, Leiria and Setúbal districts By economic activity sector, in 2012 *Other services* and *Trade* were predominant in terms of number of enterprises across all districts. *Construction* came third in most districts, except for Aveiro, Braga and Porto, where *Manufacturing* was more relevant (Table 2).

As regards the number of employees and turnover, *Manufacturing* played a more important role in the Braga, Aveiro, Leiria and Setúbal districts.

In the rest of the country, *Other services* were the main employer, while *Trade* was the most relevant sector in terms of turnover. *Other services* were more prominent in terms of turnover only in Faro, particularly due to activities under Section I – *Accommodation and food service activities*, which account for 16 % of total turnover generated in that district.

MAIN ECONOMIC ACTIVITY SECTORS   By district (2012)								
District		Indicador						
District	Number of enterprises	Number of employees						
	Other services (35 %)	Manufacturing (54 %)	Manufacturing (55 %)					
Aveiro	Trade (29 %)	Other services (20 %)	Trade (28 %)					
	Manufacturing (22 %)	Trade (16 %)	Other services (10 %)					
	Other services (35 %)	Manufacturing (48 %)	Manufacturing (43 %)					
Braga	Trade (27 %)	Other services (19 %)	Trade (32 %)					
	ACTIVITY SECTORS By district Number of enterprises Other services (35 %) Trade (29 %) Manufacturing (22 %) Other services (35 %) Trade (27 %) Manufacturing (22 %) Other services (54 %) Trade (23 %) Construction (16 %) Other services (37 %) Trade (28 %) Construction (16 %) Other services (58 %) Trade (25 %) Construction (10 %) Other services (44 %) Trade (29 %) Manufacturing (14 %) Other services (42 %) Trade (26 %) Construction (14 %) Other services (42 %) Trade (28 %) Construction (12 %)	Trade (17 %)	Construction (12 %)					
	Other services (54 %)	Other services (57 %)	Other services (41 %)					
Faro	Trade (23 %)	Trade (20 %)	Trade (40 %)					
	Construction (16 %)	Construction (12 %)	Construction (10 %)					
	Other services (37 %)	Manufacturing (34 %)	Trade (37 %)					
Leiria	Trade (28 %)	Other services (27 %)	Manufacturing (32 %)					
	Construction (16 %)	Trade (22 %)	Construction (14 %)					
	Other services (58 %)	Other services (58 %)	Trade (37 %)					
Lisbon	Trade (25 %)	Trade (23 %)	Other services (30 %)					
	Construction (10 %)	Manufacturing (9 %)	Manufacturing (15 %)					
	Other services (44 %)	Other services (34 %)	Trade (41 %)					
Porto	Trade (29 %)	Manufacturing (29 %)	Manufacturing (26 %)					
	Manufacturing (14 %)	Trade (23 %)	Other services (21 %)					
	Other services (49 %)	Other services (42 %)	Manufacturing (44 %)					
Setúbal	Trade (26 %)	Manufacturing (22 %)	Trade (33 %)					
	Construction (14 %)	Trade (19 %)	Other services (14 %)					
	Other services (42 %)	Other services (35 %)	Trade (40 %)					
Other districts	Trade (28 %)	Manufacturing (24 %)	Manufacturing (26 %)					
	Construction (12 %)	Trade (21 %)	Other services (21 %)					

The largest share of employees

and turnover was

established for more

than 20 years...

...even more so over the past few

vears...

concentrated in enterprises

Note: The three most important economic activity sectors are identified for each district, according to the indicator in each column.

#### 2.4 By maturity class<sup>9</sup>

With regard to maturity, in 2012, 30% of enterprises had been established for less than five years and 29% had been established for more than ten and up to 20 years. However, the largest share of employees and turnover was concentrated in enterprises established for more than 20 years. Indeed, albeit accounting for 21% of total NFCs, these enterprises held 42% of the number of employees and 47% of turnover. Compared with 2006, this corresponds to increases of 9 p.p. and 12 p.p., respectively, in the total number of employees and total turnover (Chart 9).

Enterprises established for less than five years were predominant across most economic activity sectors in 2012. The sole exceptions were *Construction*, where the share of enterprises established for more than ten and less than 20 years was the highest, and *Manufacturing*, where enterprises established for more than 20 years were more relevant (Table 3).

As regards the number of employees and turnover, enterprises established for more than 20 years were the most significant across most economic activity sectors, except for *Electricity and water*, where the largest share was held by enterprises established for more than ten and less than 20 years.

<sup>9</sup> The enterprise maturity corresponds to the age of the enterprise as at the analysis reference date. Four maturity classes are considered: up to (but not including) five years; from five to (but not including) ten years; from ten to (but not including) 20 years; and more than 20 years (which comprises enterprises established for 20 years).

### Chart 9

#### NFC POPULATION STRUCTURE | By maturity class (2006 and 2012)



■ Up to 5 years ■ From 5 to 10 years ■ From 10 to 20 years ■ More than 20 years

#### ...in terms of number, enterprises established for less than five years were predominant

Enterprises established for less than five years were predominant across most economic activity sectors in 2012. The sole exceptions were *Construction*, where the share of enterprises established for more than ten and less than 20 years was the highest, and *Manufacturing*, where enterprises established for more than 20 years were more relevant (Table 3).

As regards the number of employees and turnover, enterprises established for more than 20 years were the most significant across most economic activity sectors, except for *Electricity and water*, where the largest share was held by enterprises established for more than ten and less than 20 years.

			By economic activity sector							
Indicator	Maturity class	Total	Agriculture and fishing	Manufactu- ring	Electricity and water	Construction		Other services		
	Up to 5 years			22 %	39 %	25 %	28 %			
Number of	From 5 to 10 years	20 %	18 %	15 %	24 %	21 %	19 %	21 %		
enterprises	From 10 to 20 years	29 %	25 %	31 %	28 %	36 %	28 %	29 %		
	More than 20 years	21 %	21 %	33 %	9 %	17 %	25 %	17 %		
	Up to 5 years	14 %	22 %	8 %	10 %	17 %	12 %	17 %		
	From 5 to 10 years	15 %	19 %	10 %	15 %	15 %	14 %	19 %		
Number of employees	From 10 to 20 years	29 %	28 %	25 %	47 %	30 %	29 %	30 %		
	More than 20 years	42 %	32 %	57 %	29 %	38 %	45 %	34 %		
	Up to 5 years	9 %	15 %	4 %	4 %	16 %	10 %	12 %		
	From 5 to 10 years	15 %	18 %	9 %	33 %	9 %	14 %	18 %		
Turnover	From 10 to 20 years	29 %	30 %	20 %	43 %	24 %	31 %	32 %		
	More than 20 years	47 %	37 %	66 %	19 %	51 %	46 %	38 %		

#### Table 3

Note: Shaded areas indicate the highest values in each "economic activity sector/indicator" data point.

The average enterprise in activity for more than 20 years was larger than any average enterprise in the remaining classes and total NFCs. At the other end of the spectrum, enterprises established for less than five years had, on average, half the number of employees and only 30 % of turnover of total NFCs in Portugal (Chart 10).

Older enterprises also have a greater average size

## Chart 10



Note: The left-side chart shows the ratio of the average number of employees in each maturity class to the average number of employees in total NFCs. The right-side chart illustrates the ratio of the average turnover in each maturity class to the average turnover in total NFCs.

Between 2006 and 2012 the average size of enterprises declined across all maturity classes, namely those established for ten to 20 years, with a 28 % drop in the average number of employees and a 36 % reduction in average turnover (Chart 11).

#### Chart 11



CHANGES IN THE AVERAGE NUMBER OF EMPLOYEES AND AVERAGE TURNOVER BETWEEN 2006 AND 2012 | By maturity class

2

Average number of employees

### BOX 1: CHARACTERISATION OF THE 100 LARGEST ENTERPRISES IN PORTUGAL

According to Central Balance-Sheet Database data, NFC activity in Portugal is strongly concentrated in a very small number of enterprises. In 2012 the 100 largest enterprises in Portugal in terms of turnover (TOP 100 enterprises) accounted for over one-quarter of total NFC turnover (26 %) and around 7 % of the number of employees, although they represented merely 0.03 % of the total number of NFCs (Table 1.1). Compared with 2006, the degree of concentration of the turnover in these enterprises increased by 4 p.p. in 2012, as did its weight in terms of the number of employees (1 p.p.).

To this increased concentration contributed the buoyancy of the TOP 100 enterprises, which, between 2006 and 2012, grew at an annual average rate of 2 % and 3 %, respectively, in terms of turnover and number of employees, in contrast to a 1 % contraction in both indicators for the remaining NFCs.

### Table 1.1

WEIGHT OF THE TOP 100 ENTERPRISES IN TOTAL NFCS (2006 and 2012)									
Number of enterprises Turnover Number of employees									
2006	0.03 %	22 %	6 %						
2012	0.03 %	26 %	7 %						

Available data also show that in 2012 turnover per employee in the 100 largest enterprises in Portugal was four times higher than in the remaining enterprises. This was seen over the entire period under review.

The composition of the TOP 100 enterprises shifted over time, with 55 enterprises remaining within the group during the entire 2006-2012 period. Approximately three-quarters of these enterprises belong to the *Trade* (44%) and *Manufacturing* (27%) sectors.

In 2012 the share of TOP 100 enterprises in *Trade* and *Manufacturing* was 37 % and 31 % respectively. Compared with the structure of the remaining NFCs, *Trade* and *Manufacturing* accounted for a larger share (10 p.p. and 20 p.p. respectively) in the TOP 100 enterprises group. Conversely, within the TOP 100 enterprises as a whole, the *Other services* aggregate was less relevant (-30 p.p.) (Chart 1.1). Finally, in 2012 the TOP 100 enterprises did not include any enterprise in *Agriculture and fishing*.

#### Gráfico 1.1



As regards turnover, in 2012 the TOP 100 enterprises continued to be concentrated in *Trade* (35 %) and *Manufacturing* (29 %). However, compared with the NFC structure, *Trade* represents a smaller share in TOP 100 enterprises (-2 p.p.), while the latter sector accounts for a larger share (+4 p.p.).

Overall, *Electricity and water* posted the highest relative weight in TOP 100 enterprises, compared with total NFCs: +9 p.p. in terms of number of enterprises and +14 p.p. in terms of turnover.

By enterprise maturity, in 2012 around half of the TOP 100 enterprises had been established for more than 20 years (compared with 21 % for the remaining NFCs) (Chart 1.2). In turn, only 20 % of the TOP 100 enterprises were under ten years (compared with 50 % in the remaining NFCs).



# Chart 1.2

2

#### 3 DYNAMICS<sup>10</sup>

The number of enterprises operating in Portugal declined somewhat in 2012...

...nonetheless,

between 2006

and 2012...

the total number of active enterprises rose by 2.7 % The number of enterprises operating in Portugal declined somewhat in 2012 (0.2 %), after a 1 % increase in 2011. Available data show that this indicator follows trend developments in GDP, albeit with some lag<sup>11</sup> (Chart 12).

Over the past seven years, the birth rate exceeded the death rate<sup>12</sup> in 2007, 2008 and 2011. In the remaining four years more enterprises ceased their activity than the ones that were created. Nonetheless, the total number of active enterprises rose by 2.7 % between 2006 and 2012.



#### Chart 12

...only microenterprises grew (by 4.6 %)

#### 3.1 By size class

Considering growth rates in the number of enterprises by size class, microenterprises alone posted a positive growth rate (4.6 %) between 2006 and 2012 (Chart 13). Over the same period, the number of large enterprises contracted by 4.8 % and SMEs by 7.9 %.

<sup>10</sup> As regards corporate dynamics, and on the basis of recommendations by the Eurostat-OECD Manual on Business Demography Statistics (2007), each enterprise's characteristics, in terms of economic activity sector and size class, remained unchanged. As such, each enterprise was included in its initial sector of activity. Turning to size, the average size in the period under review was adopted for each enterprise. The purpose is to prevent distortions associated with developments in active enterprises, while ensuring that a birth (death) is indeed due to the establishment (closure) of enterprises and not to mere changes in their characteristics. For the same reason, the dynamics analysis excludes enterprises that at any moment of the period under review id not belong to the NFC sector or belonged to an economic activity sector not covered by the analysis. For more details on the methodology used, see the Annex to this Study.

<sup>11</sup> The linear correlation coefficient between both indicators is 0.10 on the basis of the same year, but increases to 0.61 when GDP is lagged by one period.

<sup>12</sup> For a definition of 'birth rate' and 'death rate', see the Methodological Summary in the Annex.



In 2012 the number of active microenterprises remained constant from 2011, in contrast to SMEs and large enterprises (-1.5 % for both size classes). The latter two size classes followed opposite paths over the period, which suggests that they have offset each other. In any case, due to the weight of microenterprises in total NFCs, this size class plays a key role in the sector's developments (Chart 14).



#### Chart 14

Although the balance was virtually nil in 2012, microenterprises were very buoyant in terms of establishment / closure, which was reflected in high birth/death rates of over 7 %, considerably exceeding the rates recorded by other size classes (Chart 15).

3

#### Chart 15

Microenterprises were responsible for the largest percentages of establishments and closures



# 3.2 By economic activity sector

In the period under review, *Electricity* and water and *Agriculture and fishing* posted the highest growth rates in terms of active enterprises... In 2006-2012 the number of active enterprises increased in the *Electricity and water, Agriculture and fishing* and *Other services* sectors, recording much higher growth rates than total NFCs (Chart 16). Conversely, *Construction, Manufacturing* and *Trade* posted negative growth rates, with *Construction* and *Manufacturing* falling more markedly (by 9.8 % and 7.9 % respectively).

### Chart 16

NUMBER OF ENTERPRISES | Growth rate between 2006 and 2012, by economic activity sector



...conversely, *Construction* saw the largest decline *Agriculture and fishing* grew chiefly due to developments over recent periods (8.1 % growth in 2012), while *Electricity and water* grew the most in the period before 2009 (Chart 17). Conversely, *Construction* has lost the largest number of enterprises since 2009.

## Chart 17

NUMBER OF ENTERPRISES | Annual growth rate, by economic activity sector (2006 to 2012)



Turning to the number of enterprises established/ceased their activities, in 2012 *Agriculture and fishing* had once again the highest birth rate (11.5 %) and the lowest death rate (4.3 %) while at the other end of the spectrum was *Construction*, with the lowest birth rate (4.8 %) and the highest death rate (8.2 %) (Chart 18).



# Chart 18

Compared with 2006, the dynamics of enterprise creation in the *Agriculture and fishing* sector was particularly significant, with a 5.1 p.p. increase between 2010 and 2012. The birth/death ratio in this sector widened significantly in the course of this period, from 0.70 in 2006 to 2.91 in 2012. This means that, over this past year, for each enterprise that ceased its activity, three new enterprises were established in the *Agriculture and fishing* sector. In 2012 the ratio to total NFCs was 0.99.

Conversely, the birth rate in *Construction* decreased markedly, with a 3.7 p.p. fall between 2007 and 2012. In this period, the birth/death ratio in this sector dropped from 1.13 to 0.57.

In 2012 for each enterprise that ceased its activity three new enterprises were established in the *Agriculture and fishing* sector...

...in *Construction*, the death rate was twice as that of births 3

#### 3.3 By geographical location

Braga and Porto were the districts with the largest increase in enterprises between 2006 and 2012 As regards the distribution by district of enterprise head offices, the number of enterprises in Braga (11 %) and Porto (6 %) increased significantly in 2006-2012, which seems to have contributed to an increase in the relative importance of these districts in total NFCs. At the other end of the spectrum, Setúbal recorded a slight decrease (1.4 %), while in Lisbon the number of enterprises remained virtually unchanged (Chart 19).

## Chart 19

## NUMBER OF ENTERPRISES | Growth rate between 2006 and 2012, by district



In 2012, and compared with the previous year, only Braga (1.6 %) and Porto (0.7 %) saw an increase in the number of active enterprises. Conversely, the largest contractions were seen in Setúbal (1.5 %) and Faro (0.9 %) (Chart 20).



#### Chart 20

In the period under review, birth and death rate developments were similar across districts. However, the birth/death ratio was somewhat mixed (Chart 21).

Indeed, between 2006 and 2008 all districts followed a similar path, both towards expansion and contraction. However, over the past four years, developments have been mixed, with Braga constantly posting increases, followed by Porto. In turn, Faro and Setúbal recorded some falls.



#### **4** HIGH-GROWTH ENTERPRISES

The identification and characterisation of high-growth enterprises (HGEs) is particularly relevant in a recession environment as the one that currently prevails in Portugal. In particular, specific characteristics of enterprises that are able to grow significantly under overall adverse conditions are of interest.

This section presents the dynamics of HGEs in Portugal, with a characterisation of this group of enterprises according to their size class, economic activity sector, geographical location and maturity. Finally, the impact of these enterprises on job creation is assessed.

With the purpose of identifying HGEs, and as defined in the Eurostat-OECD Manual on Business Demography Statistics, all enterprises with an average annua growth rate greater than 20 % per annum over a three-year period should be considered high-growth enterprises. This growth rate was calculated on the basis of turnover.

The definition of HGEs initially implies a delimitation of the NFC population, given that not all active enterprises are a potential HGE<sup>13</sup>. As such, to be considered an HGE, the enterprise must be active for, at least, four consecutive years. For this purpose, enterprises whose growth is due to extraordinary events (e.g. mergers or acquisitions) are excluded, as well as enterprises whose small size is in itself the reason for high growth. The potential HGE population thus calculated is the reference population for the analysis presented in this section, and corresponds to a sub-group of the NFC population analysed in the previous sections.

In 2012 the potential HGE population included 37 % of active enterprises in Portugal. However, in terms of turnover and the number of employees, it accounted for nearly three-quarters of the total.

HGEs have an average annual growth rate greater than 20 % over a three-year period

13 A definition of the NFC population, for the purpose of HGE analysis, is detailed in the Annex.

#### 4.1 Dynamics

In 2012 HGEs represented 3 % of total NFCs...

downwards...

In 2012 HGEs represented 7 % of enterprises in the potential NFC population (3 % of total NFCs). Compared with 2006, the share of HGEs fell by approximately 4 p.p. (Chart 22).



...while the share of enterprises with negative average annual growth rate of turnover has increased

These developments show that the share of enterprises with high growth has been gradually declined, probably as a result of the deterioration of the Portuguese economic situation.

Another indicator illustrating this effect is the growing number of enterprises with negative average annual growth of turnover (also over a three-year period). In 2006 around 45 % of enterprises posted negative rates, compared with 64 % in 2012. In fact, since 2009 turnover for most enterprises in the potential HGE population has followed a downward path (Chart 23).



#### Chart 23

POTENTIAL POPULATION OF HIGH-GROWTH ENTERPRISES | Average annual growth rate (over a three-year period)

Available data also show that high growth tends to be a merely transitional stage in the enterprises' life cycle. In fact, between 2006 and 2012 over 50,000 HGEs were identified, but for more than half of them this was a one-off event (56 %). The share of enterprises that were identified as HGEs on more than four occasions was slightly below 1.5 % (Chart 24).

High growth tends to be a merely transitional stage in the enterprises' life cycle

#### NUMBER OF TIMES AN ENTERPRISE HAS BEEN CLASSIFIED AS HIGH-GROWTH ENTERPRISE | Considering the set of enterprises classified as HGEs in 2006-2012 60% 56% 40% 26% 20% 13% 4% 1,0% 0,3% 0,1% 0% 7 1 2 3 Λ 5 6

# 4.2 Characterisation

By **enterprise size**, the most relevant HGE class in 2012 was microenterprises, albeit with a smaller weight than in the potential population (64 %, compared with 74 %). Conversely, SMEs (35 % and 25 % respectively) and large enterprises (0.9 % and 0.6 % respectively) accounted for a larger share in the HGE population than in the potential population (Chart 25).

Chart 25

Chart 24



By size class, HGEs are chiefly microenterprises... 4

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...by economic sector, HGEs are chiefly in *Trade*, *Manufacturing* and *Construction*  In terms of **economic activity sectors**, 58 % of HGEs were concentrated in Trade (27 %), *Manufacturing* (18 %) and Construction (13 %) in 2012. Excluding *Trade*, the remaining sectors represented a greater share in the HGE population than in the potential population (+2 p.p. for *Manufacturing* and *Construction* and -7 p.p. for Trade).

The analysis by Division of the Portuguese Classification of Economic Activities – 3<sup>rd</sup> Revision (CAE-Rev.3) shows that economic activities with a relevant HGE component were highly diverse in 2012. Indeed, together with traditional activities within the Portuguese economy, such as manufacture of leather and related products (particularly footwear), fishing or forestry, this also includes other activities associated with air transport, scientific research and pharmaceutical products (Chart 26). In 2012 the activity with the largest concentration of HGEs was *CAE 38* – *Waste collection, treatment and disposal activities* (28 %), particularly *CAE 383 – Materials recovery*, which represented 62 % of that result.

#### Chart 26





Note: Excluding activities comprising less than 20 enterprises.

Compared with 2006, the weight of *Construction* decreased In 2012 the HGE structure by economic activity sector changed from 2006. In fact, in 2006-2012 the weight of *Trade, Manufacturing* and *Agriculture and fishing* increased, on an individual basis, by 3 p.p. Conversely, *Construction* saw a 13 p.p. decline (Chart 27).



DISTRIBUTION OF HIGH-GROWTH ENTERPRISES | By economic activity sector (2006 to 2012)



Note: The chart shows the three main economic activity sectors.

Looking at the entire period under review (2006-2012), the economic activities with the largest share of HGEs (above the average value for total NFCs) are:

- 1) CAE 38 Waste collection, treatment and disposal activities;
- 2) CAE 72 Scientific research and development;
- 3) CAE 51 Air transport;
- 4) CAE 78 Employment activities;
- 5) CAE 53 Postal and courier activities;
- 6) CAE 61 Telecommunications;
- 7) CAE 80 Security and investigation activities; and,
- 8) CAE 37 Sewerage.

Nonetheless, between 2006 and 2012, the share of HGEs declined across all such activities. In the course of the past year, however, this trend was reversed for three of these activities, all of which related to Services: *CAE 38 – Waste collection, treatment and disposal activities* (+12 p.p.), *CAE 51 – Air transport* (+9 p.p.) and *CAE 61 – Telecommunications* (+7 p.p.) (Chart 28).

The economic activities with the largest share of HGEs are chiefly under *Services*... 4

#### Chart 28

# **ACTIVITIES WITH A GREATER SHARE OF HGEs** | Share of HGEs compared with their potential HGE population (2006 to 2012)





Note: Excluding activities comprising less than 20 enterprises.

Overall, a set of common characteristics emerges among the eight activities listed above, given that they hold the largest share of HGEs (Table 4):

- The number of enterprises grows markedly;
- The median age of enterprises is lower;
- · Large enterprises are more relevant; and,
- The turnover degree of concentration is moving downwards.

#### Table 4

CHARACTERISATION OF RELEVANT HIGH-GROWTH ENTERPRISES' ECONOMIC ACTIVITIES   2012									
CAE-R	ev. 3		Changes 20	Weight of					
Division	Section				% of turnover held by 10 % of enterprises	large enterprises in the activity	Median age		
Potential population		-4 %	5 %	-4 %	3 p.p.	0.6 %	14		
38	E	21 %	38 %	29 %	4 p.p.	2 %	11		
72	Μ	48 %	15 %	13 %	-2 p.p.	3 %	8		
51	Н	21 %	-49 %	-62 %	-22 p.p.	18 %	18		
78	Ν	0 %	-6 %	-7 %	5 p.p.	18 %	12		
53	Н	18 %	-1 %	-10 %	-1 p.p.	4 %	8		
61	J	29 %	58 %	65 %	1 p.p.	7 %	9		
80	Ν	0 %	-14 %	-14 %	-2 p.p.	12 %	10		
37	E	-19 %	-5 %	-17 %	-3 p.p.	0 %	13		

Note: CAE 38 – Waste collection, treatment and disposal activities; CAE 72 – Scientific research and development, CAE 51 – Air transport, CAE 78 – Employment activities, CAE 53 – Postal and courier activities, CAE 61 – Telecommunications, CAE 80 – Security and investigation activities, CAE 37 – Sewerage.

However, employment and turnover developments in economic activity sectors with a large share of HGEs are more heterogeneous. In fact, in the 2009-12 period, while CAE 38 – Waste collection, treatment and disposal activities, CAE 72 – Scientific research and development and CAE 61 – Tele-communications grew considerably, CAE 51 – Air transport, CAE 80 – Security and investigation activities and CAE 37 – Sewerage dropped markedly.

By **geographical location**, in 2012 nearly half (42 %) of all HGEs were concentrated in Lisbon and Porto, which was in line with the situation in the potential population (44 %). However, aggregating all districts into seven regions (North, Centre, Lisbon, Alentejo, Algarve, Autonomous Region of Madeira and Autonomous Region of the Azores)<sup>14</sup>, the largest share of HGEs was systematically concentrated in the North (42 % in 2012, compared with 28 % for Lisbon and 20 % for the Centre region). Between 2006 and 2012 the weight of the Northern region in total HGEs rose by 7 p.p., in contrast to the Lisbon (-7 p.p.) and Algarve (-1 p.p.) regions.

Nonetheless, the share of HGEs has fallen across all regions since 2006, particularly in the Algarve region (7 p.p.). The smallest decrease was recorded in the North (3 p.p.) (Chart 29).

In 2012 the Northern region held the largest share of HGEs...

...between 2006 and 2012 the share of HGEs fell across all regions

...economic sectors with the largest share of HGEs share a set of characteristics

<sup>14</sup> North: Viana do Castelo, Braga, Vila Real, Bragança, Porto, Aveiro; Centre: Viseu, Guarda, Coimbra, Leiria, Santarém, Castelo Branco; Lisbon: Lisbon, Setúbal; Alentejo: Portalegre, Évora, Beja; Algarve: Faro; Autonomous Region of Madeira: Funchal; Autonomous Region of the Azores: Angra do Heroísmo, Horta, Ponta Delgada.



SHARE OF HIGH-GROWTH ENTERPRISES | By geographical location (2006 to 2012)



#### HGEs tend to be young enterprises

By enterprise maturity, HGEs tend to be young enterprises, seeing that, in 2012, 56 % of HGEs had been established for less than ten years (26 % up to and including five years) and only 15 % had existed for more than 20 years (Chart 30). Also in 2012, 34 % of the potential HGE population comprised enterprises that had been established for less than ten years, while the share of enterprises with more than 20 years amounted to 29 %.



#### Chart 30

HIGH-GROWTH ENTERPRISES | By maturity class (2012)

The number of employees in HGEs has constantly increased by more than 57 %...

...regardless of the year analysed, nearly two-thirds of HGEs have increased their number of employees during the business expansion stage

#### 4.3 Developments in the number of employees in high-growth enterprises

The job-creation role of HGEs is particularly relevant, as demonstrated by Central Balance-Sheet Database data. Although their weight in total NFCs is low (6 % in 2012), the number of employees in HGEs has constantly increased by more than 57 % in all of the periods under review, while in total NFCs growth has slipped into negative territory.

Job creation during the high-growth stage is common to most enterprises. Chart 31 shows that, regardless of the year analysed, nearly two-thirds of HGEs have increased their number of employees during the business expansion stage. More specifically, in 2012 around 66 % of HGEs increased

their number of employees compared with the reference year (2009). Over the same period, 21 % of enterprises maintained their number of employees unchanged, while only 13 % reduced it.



Chart 31

The greater number of employees in HGEs is also visible in Chart 32, which shows that the entire distribution moved upwards between year t-3 and year t. Moreover, at the end of each period considered, disparity between enterprises increases, as reflected in the more disperse distribution. In 2012 (year t), for instance, the interquartile interval associated with HGEs corresponded to 10 employees, compared with 6 in 2009 (year t-3).

The increasingly disperse distribution seems to reflect different situations across enterprises, where job creation will depend on their activity and the intensity of the use of labour during the production stage.

#### Chart 32



Note: The maximum value chosen for the chart is based on 95 percentile values to reduce the impact of outliers.

The increase in employment is not identical across all HGEs, and depends on the intensity of the use of labour 4

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Structure and Dynamics of Non-Financial Corporations in Portugal, 2006-2012 I High-Growth Enterprises

#### METHODOLOGICAL SUMMARY

**Birth / death ratio:** Corresponds to the ratio of the number of enterprises created to the number to enterprises that ceased their activities.

Birth rate: Corresponds to the ratio of the number of enterprises created to the number of active enterprises.

**Death rate:** Corresponds to the ratio of the number of enterprises that ceased their activities to the number of active enterprises.

**Economic activity sector:** To simplify the analysis, in general, some sections of the Portuguese Classification of Economic Activities –  $3^{rd}$  Revision (CAE-Rev.3) were aggregated, by associating activities with similar characteristics. The following aggregates were thus formed: *Agriculture and fishing* (Section A); *Manufacturing* (Sections B and C); *Electricity and water* (Sections D and E), *Construction* (Section F), *Trade* (Section G) and *Other services* (Sections H to S, apart from Sections K and O). As a result, this analysis excludes enterprises classified in Section O – *Public administration and defence*; *compulsory social security*, Section T – *Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use*, and Section U – *Activities of extraterritorial organisations and bodies* of CAE-Rev.3, as they are not included in the NFC institutional sector. It also excludes the enterprises classified in Section K – *Financial and insurance activities* that groups together non-financial holding enterprises (with the SGPS denomination) not involved in subsidiary management, which, despite still belonging to the NFC sector (as regulated under ESA 95), were not analysed in this *Study* due to their very specific characteristics that set them apart from the other NFCs.

**High-growth enterprises (HGEs):** As defined in *Eurostat-OECD Manual on Business Demography Statistics*, HGEs 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.

**Number of employees:** Corresponds to the average number of employees working for the enterprise, regardless of the nature of their contractual ties, in the months of the year during which the enterprise was active, obtained through the ratio of the sum of the number of employees on the last business day of each month of activity of the year to the number of months of activity of the year. It includes employees who are working at the enterprise and receive remuneration in cash or in kind, in return for their work (including partners), unpaid employees working for the enterprise (for instance partner workers, family workers), employees temporarily absent for a period of no more than one month (for instance, sick leave, holidays, vocational training), and persons employed by other enterprises who are working at the enterprise and receive remuneration directly from it. It excludes employees who are working at the enterprise and receive remuneration from another enterprise, service providers (liberal professionals), employees absent for a period of more than one month (for instance) and permanent workers on secondment to other enterprises that pay them directly.

**Quartile distribution:** In order to calculate quartiles, the enterprise values for the indicator under analysis are considered 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 show 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, December 2011 – *New enterprise and sector tables: adjustment to the Accounting Normalisation System*.

**Size of enterprise:** Enterprises were grouped into three classes: micro, small and medium-sized, 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 ten persons and whose annual turnover and/or balance sheet total does not exceed EUR 2 million. For the purposes of this Study, small and medium-sized enterprises (SMEs) shall not include microenterprises and shall be made up of enterprises which employ fewer than 250 persons and more than ten persons and have an annual turnover between  $\leq 2$  and  $\leq 50$  million or an annual balance-sheet total between  $\leq 2$  and  $\leq 43$  million. Large enterprise is any enterprise which is not classified within the above meanings.

#### Methodology associated with the analysis of corporate dynamics

As stressed in the *Eurostat-OECD Manual on Business Demography Statistics* (2007), when analysing corporate dynamics, each enterprise's characteristics must remain unchanged during the period under review in terms of economic activity sector and size class. The aim is to prevent that the analysis be influenced by natural entry/exit movements into/out of economic activity sector and size class. Therefore, in line with recommendations in that manual, each enterprise was considered to be part of the economic activity sector to which it belonged in its first active year in the period under review. As regards size, it was considered that each enterprise maintained its average size over the period under review, calculated as the arithmetical average size determined for each year in activity, on the basis of the following formula:

$$dim = \frac{\sum_{t=a}^{T} dim_t}{T-a+1}$$

with  $t = a, a+1, \dots, T$  where a corresponds to the enterprise's first year in activity in the period under review and T to the last, and where  $dim_t$  is equal to 1, 2 or 3, depending on whether the enterprise is classified as microenterprise, small and medium-sized, or large, respectively, in year t.

Similarly, to prevent distortions associated with corporate developments in the market, the dynamics analysis does not include enterprises that, at any given moment in the period under review, were not a part of the NFC sector or belonged to an economic activity sector not covered by this *Study* (see the description of *Economic activity sector* above). This exclusion accounted for a loss in coverage of less than 0.3 % of the number of enterprises, 0.4 % of the number of employees and 2 % of turnover in total NFC, for each year of the period under review.

To identify high-growth enterprises (HGEs), the population of enterprises in Portugal was delimited. According to the *Eurostat-OECD Manual on Business Demography Statistics* (2007), HGE growth must be due to organic reasons stemming from their current activity. Moreover, activity thresholds must be established so that strong growth is not solely due to the small size of enterprises.

In order to accommodate these recommendations, the following exclusions were applied:

- a) Enterprises involved in significant events mergers and acquisitions, operational activity changes or other events that may result in artificial activity growth;
- **b)** Enterprises in the Madeira Free Zone enterprises created mainly for tax purposes and, as such, changes in their activity may be considerable;
- c) Enterprises with no employees the Eurostat-OECD Manual on Business Demography Statistics (2007) recommends a size threshold of 10 employees so that any enterprise may be classified as HGE. The aim is to minimise the growth effect due a small initial scale. However, as stated in the Eurostat-OECD Manual on Business Demography Statistics (2007), this threshold may vary across countries. In the case of Portugal, if this threshold were to be applied, most enterprises would be excluded, as the Portuguese NFC sector mostly comprises microenterprises. Accordingly, and for the purpose of this Study, an HGE must have, at least, one employee and, in parallel, a minimum annual turnover (see the subparagraph below);
- d) Enterprises with turnover below € 50,000 in order to mitigate the effect on the growth rate of the small size of enterprises, a threshold was applied to turnover in the course of the three-year period during which the enterprise is being assessed for HGE potential; and
- e) Enterprises established for less than four years the birth year is not taken into account in the calculation of the average annual growth rate. In this manner, the rate is not exacerbated due to the fact that, as a rule, turnover in the first year is not comparable to the remaining activity periods.

With these exclusions, the potential HGE population accounted for 37 % of the number of enterprises in Portugal in 2012. However, in terms of turnover and number of employees, it was approximately three-quarters of the total value (74 % and 76 % respectively).

The structure is slightly different in terms of size class, with a lower weight of microenterprises, which, nevertheless, are still the most sizeable class in terms of number of enterprises **(Table A1)**. In terms of turnover, differences between the potential HGE population and the reference NFC population are less marked. However, as regards the turnover variable, the structure is somewhat reversed, with SMEs playing a more important role in the potential HGE population.

## Table A1

STRUCTURE OF THE POTENTIAL POPULATION OF HIGH-GROWTH ENTERPRISES AND THE REFERENCE POPULATION OF NFCS, BY SIZE CLASS   2012									
<b>c</b> :		lumber of enterprises							
class	Potential HGE population		Difference (p.p.)			Difference (p.p.)			
Micro	74 %	89 %	-15 p.p.	13 %	14 %	-1 p.p.			
SMEs	25 %	11 %	14 p.p.	47 %	41 %	7 p.p.			
Large	0.6 %	0.3 %	0.3 p.p.	39 %	45 %	-6 p.p.			

By economic activity sector, structural differences between the potential HGE population and the reference NFC population are negligible in terms of turnover **(Table A2)**. As regards the number of enterprises, two sectors are more relevant within the potential HGE population compared with the reference NFC population: Sections G – *Trade* (7 p.p.) and C – *Manufacturing* (5 p.p.). Only Section L – *Real estate activities* has a much lower weight (5 p.p.).

### Table A2

STRUCTURE OF THE POTENTIAL POPULATION OF HIGH-GROWTH ENTERPRISES AND THE REFERENCE POPULATION OF NFCS, BY ECONOMIC ACTIVITY SECTOR | 2012

						·	
Section		lumber of enterprises					
CAE Rev. 3	Potential HGE population		Difference (p.p.)			Difference (p.p.)	
А	2.5 %	3.1 %	-0.6 p.p.	1.2 %	1.1 %	0.1 p.p.	
В	0.3 %	0.2 %	0.1 p.p.	0.4 %	0.4 %	0.0 p.p.	
С	15.9 %	10.6 %	5.3 p.p.	25.5 %	24.4 %	1.1 p.p.	
D	0.1 %	0.2 %	-0.1 p.p.	6.3 %	5.7 %	0.5 p.p.	
E	0.3 %	0.3 %	0.1 p.p.	1.1 %	1.1 %	0.1 p.p.	
F	10.8 %	12.1 %	-1.3 p.p.	6.2 %	6.9 %	-0.8 p.p.	
G	33.8 %	26.9 %	7.0 p.p.	37.6 %	37.0 %	0.5 p.p.	
Н	4.6 %	5.1 %	-0.5 p.p.	5.7 %	5.9 %	-0.1 p.p.	
I	9.3 %	9.0 %	0.2 p.p.	2.3 %	2.2 %	0.1 p.p.	
J	1.8 %	2.5 %	-0.7 p.p.	3.4 %	3.9 %	-0.5 p.p.	
L	1.6 %	6.8 %	-5.1 p.p.	0.6 %	1.1 %	-0.5 p.p.	
М	7.0 %	9.7 %	-2.7 p.p.	2.9 %	3.4 %	-0.5 p.p.	
Ν	2.8 %	3.4 %	-0.6 p.p.	2.9 %	2.9 %	0.1 p.p.	
Р	1.2 %	1.4 %	-0.1 p.p.	0.4 %	0.3 %	0.1 p.p.	
Q	5.7 %	5.1 %	0.6 p.p.	2.9 %	3.0 %	-0.1 p.p.	
R	0.7 %	1.3 %	-0.6 p.p.	0.5 %	0.4 %	0.1 p.p.	
S	1.5 %	2.3 %	-0.8 p.p.	0.3 %	0.3 %	0.0 p.p.	

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