Programme

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October 4th 2013 — Auditorium EEG 1.01

09:00	Check-in & Registration (EEG Hall 1st Floor)
10:00	**Keynote Speaker:** **Professor Fernando Teixeira dos Santos (Professor at the Faculty of Economics of the University of Porto and Porto Business School and Minister of State and Finance of the Portuguese Government between 2005 and 2011)**
11:00	Coffee-Break
11:30	**SESSION 1: ENTREPRENEURSHIP AND SMES** **Track chair: Cláudia Alves** **From offshore outsourcing to own brand manufacture: an exploratory study on the Portuguese footwear providers** *P. Gomes, R. Meneses* **(Re)New Traditional SMEs: SMEs Rapid Internationalization Processes** *R. Castro, E. Dias* **SMEs' Internationalization to Developing Economies: knowledge gaps and the mechanisms to bridge them** *S. Suárez-Ortega, A. García-Cabrera, G. Knight* **Entrepreneurial Firms Created Abroad: Liability of Foreignness and Survival** *J. Mata, C. Alves*
13:00	Lunch Break
14:15	**SESSION 2: INTERNATIONAL ECONOMICS** **Track chair: M. Cabral** **Scope and effects of FDI in CEE and in Hungary** *K. Katona* **The trade balance effects of outward FDI: evidence from Portugal, 1996-2011** *M. Fonseca, A Mendonça, J. Passos* **The impact of industry characteristics on firms export intensity** *J. Reis, R. Forte* **Specialization Patterns and structural transformation: The cases of China and India** *M. Freitas* **Export Diversification and Sophistication, Business Conditions and Economic Development** *M. Cabral, P. Veiga*
15:45	**Keynote Speaker:** **Professor Manuel Pinho (Professor at the School of International and Public Affairs, Columbia University, and Guest Professor at Beijing Foreign Studies University and**

	ISCTE, Lisbon University and Minister of Economy and Innovation of the Portuguese Government between 2005 and 2008)
16:30	Coffee-Break
16:45	**SESSION 3: INTERNATIONAL NETWORKS** **Track chair: J.C. Pinho** **Innovation networks in peripheral economies: the case of Portugal** ***M. Cano-Kollman, R. Mudambi, A. Tavares-Lehmann*** **Internationalization Process: Analysis of a cooperation network in the Vinho Verde sector for the US market** ***A. Nunes, M. Franco*** **Establishing international inter-firm relationships as a source of competitive advantage in Portuguese small and medium enterprises** ***B. Jurisic, M. Catarino*** **Clusters and International Entrepreneurship as Prospectors of the Internationalization of Companies** ***G. Tonial, N.B. Werlang, I.B. Dalbosco, D. Floriani, F. Lenzi*** **The impact of succession on family business internationalization: the successors' perspective** ***R. Meneses, J. C. Pinho, R. Coutinho***
18:15	**SESSION 4: INTERNATIONAL MANAGEMENT AND CULTURAL DISTANCE — Part 1** **Track chair: A. Nunes** **Crisis and MNEs as institutional entrepreneurs: an analysis from a co-evolutionary perspective** ***J. Durán-Herrera, A. García-Cabrera*** **Institutional distance and cross-border mergers and acquisitions completion: A conceptual framework** ***N. Reus, M. Ferreira, J. Santos*** **National culture and internationalization processes: how much do we know?** ***M. Vidal-Súarez, B. González-Díaz, C. López-Duarte*** **High-Growth entrepreneurship and policy support in Portugal** ***E. Sarmento, C. Figueira, N. Theodorakopoulos, A. Nunes***

October 5th 2013 — Auditorium EEG 1.01

08:45	Check-in & Registration (EEG Hall 1st Floor)
09:00	**SESSION 5: INTERNATIONAL MANAGEMENT AND CULTURAL DISTANCE — Part 2** **Track chair: C. López-Duarte** **R&D offshore insourcing in Portugal: drivers and motivations** ***C. Pinheiro, P. Sarmento*** **Psychic distance and cultural distance: Revisiting the research over the last two decades** ***J. Santos, N. Reis*** **From Parrots to Action men: adoption profiles of foreign management models, a conceptual framework** ***I. Barbosa, C. Cabral-Cardoso*** **Does Human Capital Risk Explain The Value Premium Puzzle?** ***S. Sylvain*** **Evidence of a glocal marketing strategy: a case study in the Brazilian telecommunication market** *V. Yamasaki, T. Rocha, P. Duarte, S. Silva* **Cultural differences and choice of mode of entry: A qualitative comparative analysis** *M. Vidal-Súarez, B. González-Díaz, C. López-Duarte*

10:45	**Coffee-Break**
11:00	**SESSION 6: FINANCE AND EXPORTING** **Track chair: H. Guimarães** **Financial constraints and exports: evidence from Portuguese manufacturing firms** *A. Silva* **The impact of financial resources on the export performance – the case of Portuguese exporting firms** *I. Moura, J. Lengler* **Shadow Banking: an overview** *E. Ağirman, M. Serçemeli, M. Özcan* **Corporate taxes and the location of FDI in Europe using firm-level data** *T. Silva, S. Lagoa* **Barriers to business in the single market** *H. Guimarães, M. Egan*
12:30	**Conference Closing Session**

HIGH-GROWTH ENTREPRENEURSHIP AND POLICY SUPPORT IN PORTUGAL

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ABSTRACT: This paper describes employer enterprise dynamics in Portugal for high-growth and gazelle enterprises for the period 1990-2007, using the methodology by Eurostat and OECD. It discusses stylized facts related to firm performance by size, sector and survival prospects, using two parallel perspectives, by turnover and by employment, when appropriate. It also discusses the importance of existing framework conditions, which may be hindering entrepreneurial activity, as well as current supporting mechanisms offered by the government to encourage start-ups and fast growing SMEs. Regulations and the unique cultural environment in which Portuguese firms operate seem to be instrumental to the understanding of their relatively poorer performance.

HIGH-GROWTH ENTREPRENEURSHIP AND POLICY SUPPORT IN PORTUGAL

1. INTRODUCTION

During the last decade, high-growth firms have attracted considerable attention from researchers, policy-makers and, more recently, from practitioners. It has been acknowledged that high-growth firms play an important role in job creation and in fostering innovative behaviour. By doing so, they enhance a country's productivity levels and ultimately are key players in generating economic growth (OECD, 2002).

Therefore, policy making which focuses on laying the foundations for the creation and growth of such firms is instrumental, particularly at a time when economies face a myriad of pressures which have resulted from the recent financial crisis and also from increased competition, as a consequence of market liberalisation.

Within this context, the Portuguese economy faces extra challenges. Its economic structure is biased towards sectors which face strong competition from emerging economies and, in addition, its internal market is small, which makes it highly dependent on trading with European partners. Moreover, according to official data, Small and Medium-Sized Enterprises (SMEs) represent over 99% of the companies operating in Portugal.

The Portuguese economy experienced a process of structural transformation during the latter part of the twentieth century, which culminated in rapid economic expansion in the second half of the 1990s, followed by a deceleration of economic growth since 2001. This has contributed to the so-called creative destruction of industries, which has consequently impacted on firm dynamics. Consequently, the emergence of high-growth firms and the proportion of existing ones are indicators of the ability of the country to foster an environment conducing to the proliferation of dynamic and rapidly growing firms.

This paper investigates the main features of Portuguese high-growth and gazelle employer enterprises for the period 1990-2007. It specifically examines firm performance, by disaggregating information on these enterprises by firm size, sector and survival prospects. In doing so, two parallel approaches are considered: one where firm performance is analysed considering turnover data and the other where the focus is on the employment generated.

No internationally accepted definition exists of what constitutes a high-growth firm (Henrekson and Johansson, 2009), although the definition developed by Birch (1987) tends to serve as a basis for much of the work in this area. In order to identify high-growth firms

operating in Portugal, we use the methodology proposed by Eurostat and OECD (2007), which has been widely used in the business demography field (OECD, 2008 and 2009).

This chapter is organised as follows: the next section describes both the data and the methodology used. Section 3 discusses the main features regarding the dynamics of high-growth and gazelle firms in Portugal, concerning their distribution, size, sectoral disaggregation, as well the main aspects related to firm survival. Section 4 focuses on the analysis of the framework conditions in Portugal and also provides a comparison with those existing in its European counterparts. Section 5 details the key policies which provide support to SMEs, in particular, to high-growth firms and Section 6 concludes that the regulatory environment in which Portuguese firms operate seems to be instrumental to the understanding of their poorer performance.

2. DATA AND METHODOLOGY

The main data source in Portugal about employer enterprises (enterprises with more than one employee) is *Quadros de Pessoal*. This annual mandatory survey, conducted by the Portuguese Ministry of Labour and Social Security[1], provides a rich and comprehensive matched employer-employee-establishment dataset. According to the registrars of the Portuguese Social Security, it is composed of all active enterprises with at least one paid employee during the period 1985 to 2009. This database was then cleaned, according to the Eurostat and OECD methodology which focuses on employer enterprises and is detailed in the *Manual on Business Demography Sta*tistics (Eurostat and OECD, 2007).

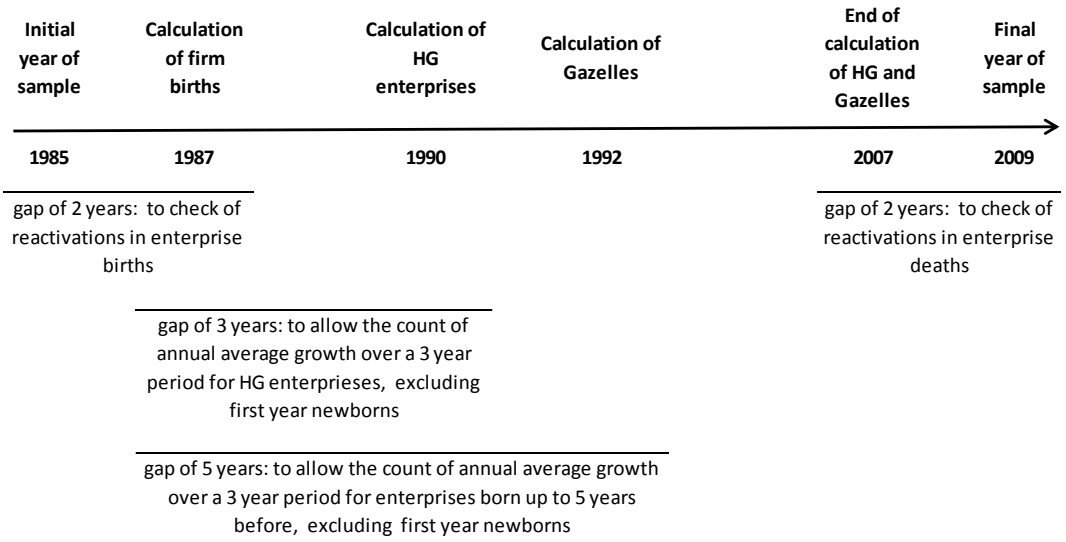
Experience has shown that the particular scope and methodology adopted when dealing with business demography statistics may have a significant effect on the results obtained (Eurostat, 2008). In particular, the Eurostat and OECD (2007) methodology allows for easier international comparisons within Europe, and also with the US (e.g. OECD, 2008, 2009; Eurostat, 2008; NESTA, 2009a, 2009b).

From the application of the above methodology, we are able to establish that in Portugal, there were an annual average of 215,903 active employer enterprises between 1985 and 2007. In addition, firms´ births averaged 36,803 between 1987 and 2007, and deaths 23,743 between 1985 and 2005. Although the dataset covers the period from 1985 to 2007, two years at the beginning and at the end of the period are “lost” when using the selected methodology to calculate enterprise births and deaths. Two years prior to the reference period are considered, in order to enable us to check for reactivations, before enterprise

[1] *Gabinete de Estratégia e Planeamento, Ministério do Trabalho e da Segurança Social.*

births are actually considered (Eurostat and OECD, 2007). Figure 1 therefore shows enterprise births from 1987 onwards.

Figure 1: The application of the methodology and the timings required for the calculation of high-growth and gazelle firms



Source: Own calculations, based on Quadros de Pessoal, GEP, Ministério do Trabalho e da Solidariedade Social and the Eurostat and OECD (2007) methodology.

In this chapter, we consider a high-growth enterprise to be an employer enterprise with 10 or more employees at the beginning of the observation period and with an average annualised growth greater than 20% per annum, over a three-year period. Growth is measured according to two distinct definitions: growth in the number of employees or growth in turnover. In order to fully comply with the Eurostat and OECD methodology (2007), the determination of the number of high-growth firms was only possible after 1990 (i.e. three years post 1987, the year when we were first able to calculate enterprise births). In addition, growth rates are identified from the same base population, thus excluding enterprises born in the first year to which the growth measurement refers to. Consequently, the data on high-growth enterprises has been cleaned so as to remove firms that were born in year *t-3* (in our case, 1987), when measuring growth from *t-3* to *t.*

Gazelle enterprises are a subset of high-growth enterprises. Gazelles, measured by employment (or turnover), are employer enterprises employing at least 10 employees in the beginning of the three-year period, which have been employers for a period of up to 5 years, with an annual average growth in employment (or turnover) greater than or equal to 20%, over a 3 year period.

Therefore, in the analysis of high-growth and gazelle enterprises in Portugal, a threshold of 10 employees is set at the start of the observation period, to conform with the above definitions of high-growth and gazelles firms.

Lastly, only employer enterprises classified in those sectors included in sections A to Q of the Portuguese Economic Classification of Economic Activities (CAE-Rev.2.1) have considered for the purposes of this research.

3. PROFILING OF HIGH-GROWTH FIRMS AND GAZELLES IN PORTUGAL

This section reviews the main features associated with the population of high-growth firms and gazelles in Portugal, according to both the employment and the turnover criteria commonly used when defining these firms.

3.1 Overview of the data on high-growth firms and gazelles

In 1985, employer enterprises with over 10 employees represented 27% of the total firm population and employed 85.2% of all workforce in employment in Portugal. By 2007, these shares had dropped to 15.1% and 72.2% respectively. Tables 1 and 2 summarise the data relating to high-growth firms and gazelles, respectively. According to the turnover criterion, between 1990 and 2007, Portuguese high-growth firms and gazelles decreased both in number and number of people employed. However, when the employment criterion is used, the reverse, although by only a slight amount, can be seen from the table for high growth firms (where an increase of 0.2% is registered), although such a pattern cannot be identified gazelles are examined.

As Table 1 shows, in 1990, there were 8,557 high-growth firms according to the turnover criterion) and 1,453 according to the employment criteria (corresponding to 24.6% and 4.2% of enterprises with over 10 employees, respectively). By 2007, the number of high-growth firms by turnover had decreased by 40% (to 9.5% of the population considered), and increased by around 10% (to 3% of the population), when the definition according to number of employed people in these firms is considered. Turning to gazelle firms, their number is also higher when the turnover criterion is used than when they are measured by employment.

Table 1: High-growth enterprises, employment and turnover definition (according to number and % in employer enterprises with more than 10 employees)

	High-growth (employment definition)				High-growth (turnover definition)			
	Enterprises		Employment		Enterprises		Employment	
	Number	%	Number	%	Number	%	Number	%
1990	1.453	4,2	134.331	7,4	8.557	24,6	532.866	26,9
1991	1.370	3,8	132.390	7,2	7.885	22,1	488.411	24,4
1992	1.231	3,3	110.471	6,0	7.556	20,4	513.731	25,4
1993	1.007	2,7	92.613	5,3	6.405	17,4	384.010	19,6
1994	1.017	2,7	108.766	6,4	5.177	13,9	325.282	16,6
1995	948	2,6	108.433	6,3	4.412	11,9	275.119	13,9
1996	1.043	2,8	118.724	7,0	3.880	10,5	245.748	12,5
1997	1.171	3,0	139.456	7,9	4.586	11,7	256.267	12,4
1998	1.387	3,4	164.941	8,9	5.150	12,5	330.966	15,2
1999	1.466	3,4	191.704	10,0	5.422	12,4	335.700	14,8
2000	1.623	3,5	196.627	9,9	5.737	12,5	316.615	13,4
2001	1.827	3,7	207.052	9,9	5.894	12,0	327.354	13,1
2002	1.640	3,3	165.879	8,2	5.723	11,5	303.128	12,4
2003	1.370	2,8	142.951	7,0	4.878	9,9	286.725	11,6
2004	1.308	2,7	152.610	7,3	4.271	8,7	268.591	10,6
2005	1.339	2,6	135.622	6,2	4.858	9,4	248.396	9,2
2006	1.463	2,8	159.660	7,2	5.079	9,8	261.463	9,6
2007	1.595	3,0	175.259	7,6	5.127	9,5	280.861	10,0

Source: Own calculations, based on Quadros de Pessoal, GEP, Ministério do Trabalho e da Solidariedade Social and the Eurostat and OECD (2007) methodology

Table 2 - Gazelles, employment and turnover definition (according to number and % in employer enterprises with more than 10 employees)

	Gazelles (employment definition)				Gazelles (turnover definition)			
	Enterprises		Employment		Enterprises		Employment	
	Number	%	Number	%	Number	%	Number	%
1990								
1991								
1992	420	1,1	28.512	1,6	1.726	4,7	68.619	3,39
1993	336	0,9	22.192	1,3	1.574	4,3	68.493	3,49
1994	342	0,9	31.866	1,9	1.254	3,4	52.413	2,68
1995	267	0,7	28.090	1,6	963	2,6	45.871	2,32
1996	286	0,8	28.592	1,7	836	2,3	38.320	1,94
1997	286	0,7	27.422	1,6	1.011	2,6	40.845	1,97
1998	412	1,0	42.642	2,3	1.353	3,3	67.788	3,12
1999	433	1,0	50.533	2,6	1.392	3,2	68.871	3,04
2000	345	0,8	35.210	1,8	1.211	2,6	49.951	2,11
2001	402	0,8	41.039	2,0	1.272	2,6	55.166	2,22
2002	390	0,8	31.686	1,6	1.402	2,8	63.360	2,59
2003	335	0,7	32.778	1,6	1.310	2,7	55.722	2,25
2004	365	0,7	37.154	1,8	1.336	2,7	57.261	2,25
2005	394	0,8	33.996	1,5	1.918	3,7	64.403	2,39
2006	407	0,8	28.080	1,3	1.532	3,0	46.280	1,70
2007	363	0,7	33.998	1,5	1.186	2,2	46.968	1,67

Source: Own calculations, based on Quadros de Pessoal, GEP, Ministério do Trabalho e da Solidariedade Social and the Eurostat and OECD (2007) methodology

As shown in Table 2, in 1992, reported gazelles were 1,726 and 420, according to turnover and employment criteria respectively. However, by 2007, the number of gazelles had dropped by 31% and 14% according to both criteria. Furthermore, in 1992 gazelles represented 34% of high-growth firms in 1992, but constituted only 23% of these firms by 2007, a decrease of 11%.

In 1990, the share of high-growth according to employment criteria was 17% of those accounted with the turnover criteria, whereas in 2007 this share increased to 31%. Put differently, in 2007, there were relatively more high-growth firms accounted by the employment criteria than 17 years ago, although this is due to a particular rise of its number in 2007 (and not verified for the previous years). Its share on the population of firms with more than 10 employees has however decreased when compared with 1990 (3%), although keeping a somehow stable performance since 2003. The fact that the growth in contracting employees might accompany the growth in turnover, more closely, than in the past requires further examination.

While the decreasing share of high-growth firms (turnover definition) in the population is sustained throughout the whole period (24.6% to 9.5%), the pattern of high-growth firms by employment shows considerable variation over time.

During the last half of the 1990s, general economic conditions were more favourable, and Portugal experienced a period of economic growth. High-growth firms, as well as gazelles, showed a sustained growth path in both number and amount of employees. The start of the millennium brought about a period of economic deterioration which contributed to the slowdown in Portuguese domestic demand, leading to a sharp deceleration of activity. Although this coincided largely to what has happening in the European Union (EU) economy at large, the amplitude of the downsizing was more pronounced in Portugal. Noticeably, the number of high-growth firms started to decrease after 2001, as they were not able to sustain such a rhythm of growth (a high-firm in 2001 had to sustain 20% growth p.a. from 1999-2001), and most probably could have been excluded due to not complying with the growth requirement following 2000.

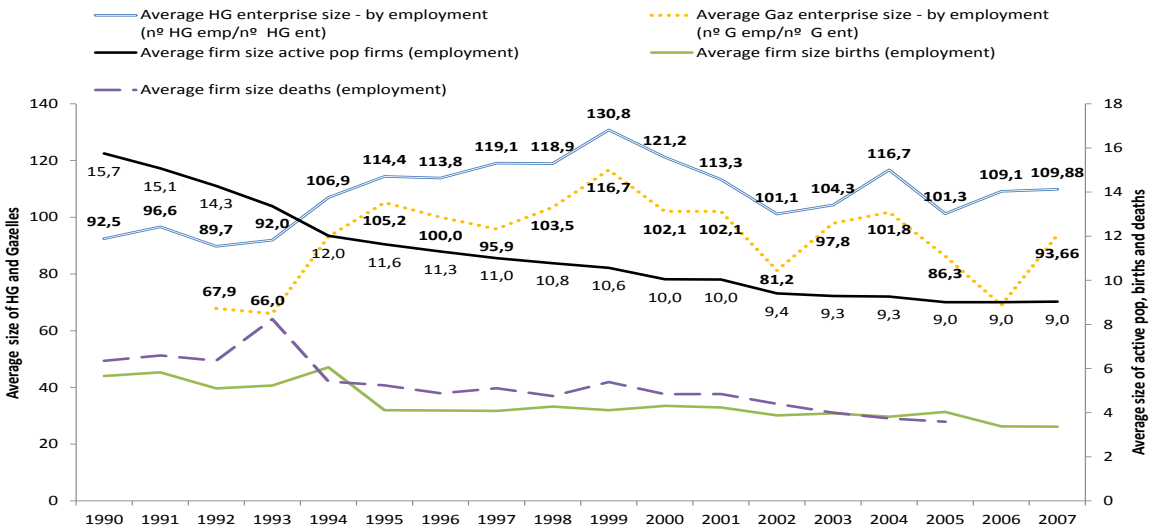
3.2 Firm size

During the last twenty years, Portugal has experienced a growing number of smaller sized enterprises and a decrease of firm size across all main sectors, for both observed entrants and firms exiting the market (Sarmento and Nunes, 2012b). Although the increasing predominance of small firms in the enterprise population is not unique to Portugal (Schror, 2009; OECD, 2008; Cabral, 2007; Bartelsman et al., 2005), the country's firm population

shows clear evidence that there is a smaller firm dominance “trend”. In fact, this is observed across enterprise births and deaths, across all regions, broad sectors and most size classes (Sarmento and Nunes, 2012b). The combination of firm demographic factors, such as the smaller nascent firms, with structural effects, such as a service sector dominance (whose firms tend to have a smaller average size than manufacturing), has caused an overall decline in average firm size. This reflects the influence of specialisation effects towards industries with a smaller efficient scale, but particularly of within-sector effects. Sarmento and Nunes (2012b) shift-share decomposition of the determinants of firm size reveals that within-sector effects have played an important role in explaining differences in firm size across the period 1995-2006 in Portugal. Even controlling for sectoral specialisation, intrinsic characteristics of sectors seem to be a fundamental determinant of their size structure.

When comparing high-growth and gazelle firms with the average employer enterprise in Portugal, we can say that the former have kept an average size which is significantly higher than the latter. As can be seen from Figure 2 below, the overall average employer enterprise size in Portugal has consistently decreased over time, from 16 employees in 1990 to only 9 in 2007.

Figure 2: Average firm size of high-growth and gazelle firms (employment definition) and total active population, births and deaths of employer enterprises



Source: Own calculations, based on "Quadros de Pessoal", GEP, Ministério do Trabalho e da Solidariedade Social and the Eurostat and OECD (2007) methodology.

In the aftermath of the 1993 economic crisis, high-growth and gazelle firms still managed, on average, to increase in size and this trend is noticeable up to 1999. As shown in the figure

above, the average size of high-growth firms increased from 92 to 131 employees over this period and the average size of gazelles increased even more substantially from 66 to 117 employees. However, the deterioration of the macroeconomic conditions in the country meant that from 2000, the slowdown in overall business demography dynamics in Portugal became rather compelling (as detailed in Sarmento and Nunes, 2012a) and this certainly impacted on the above statistics regarding high-growth firms and gazelles.

Notwithstanding the unfavourable economic conditions in Portugal during most of the post-2000 period, a high-growth firm averaged 110 employees in 2007 and a gazelle a corresponding 94, still both higher in size than the values registered at the start of the 1990s. As expected, the majority of high-growth firms and gazelles are Small and Medium Enterprises (SMEs), most belonging to the 20-49 employees size class. Throughout the overall period of analysis, on average, only 6% can be categorised as large firms.

3.3 A sector perspective of high-growth firms and gazelles in Portugal

Portugal's business landscape exhibits what could be described as a sharp contrast between a minority of small-scale modern activities, which tend to be highly productive, and a majority of low-skilled sectors which tend to display low levels of productivity. In addition, there appears to be a significant degree of heterogeneity between firms, even within sectors[2].

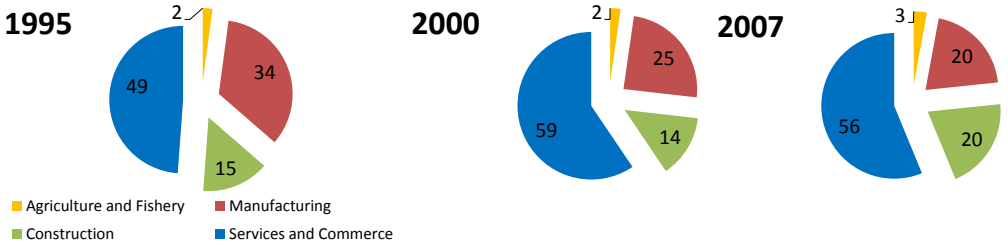
As can be seen from the analysis so far, the use of the two different measurement definitions for high-growth firms and gazelles (employment and turnover) unequivocally leads to different results. As such, it should be noted the particular impact this has when an analysis of firm distribution by sectors is carried out. On the one hand, services are, by nature, more prevalent in the industrial structure of a country if their contribution is measured according to the employment criteria, as they tend to be relatively more labour intensive. On the other hand, manufacturing tends to have a play a more significant role in the industrial structure of a country when the contribution is considered by using the turnover definition, rather than the employment one.

Over the period 1987-2007, the industrial structure in Portugal has evolved towards the reinforcement of the service sector in the economy and the decline of the manufacturing sector. High-growth firms and gazelles have followed this trend and the majority belong within the service and commerce sectors. Figures 3 and 4 present the distribution of high-growth firms and gazelles by sector (according to the employment criterion), where four main categories have been considered: agriculture and fishery, manufacturing, construction and services and commerce. From Figure 3, we observe a clear shift in the distribution of high-

[2] For more information on this, please see OECD, 2010 and Sarmento and Nunes, 2012b.

growth firms over the period of analysis, away from manufacturing (34% in 1995, down to 20% in 2007) to services and commerce (49% in 1995 up to 56% in 2007), as well as construction (15% in 1995, up to 20% in 2007).

Figure 3: Share of high-growth enterprises (employment definition), %

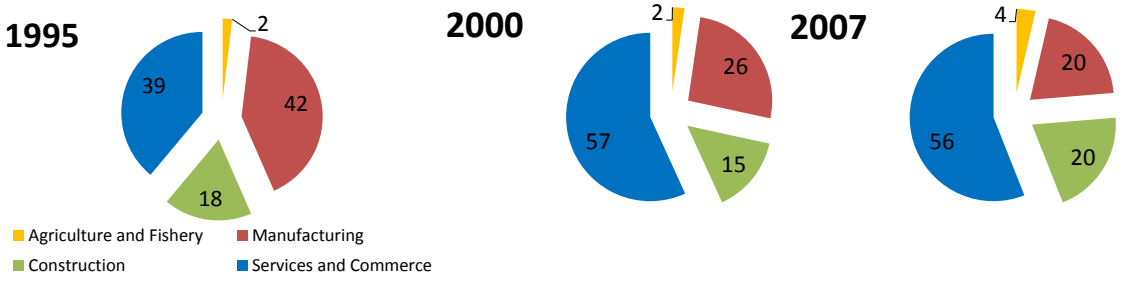


Note: One letter level of the statistical classification, NACE, Rev. 2.1.

Source: Own calculations, based on "Quadros de Pessoal", GEP, Ministério do Trabalho e da Solidariedade Social and the Eurostat and OECD (2007) methodology.

Figure 4 shows a similar pattern for gazelles – it is worth noting that the shift away from the manufacturing sector is even higher for these firms, with a decrease of more than half in 13 years (from 42% in 1995 to 20% in 2007). It is also worth mentioning that a significant number of high-growth firms in Portugal operate in the construction sector, which has been particularly hit by oscillations in the business cycle. This sectoral shift reflects trends observed for the overall population of employer enterprises (Sarmento and Nunes, 2012a).

Figure 4: Share of Gazelle Enterprises (employment definition), %



Note: One letter level of the statistical classification, NACE, Rev. 2.1.

Source: Own calculations, based on "Quadros de Pessoal", GEP, Ministério do Trabalho e da Solidariedade Social and the Eurostat and OECD (2007) methodology.

3.4 A note on survival of high-growth firms and gazelles

The statistics show that Portuguese firms tend to have lower survival rates than their European counterparts. This has often been associated with the significant growth in the number of small firms, the decreasing average size of employer enterprises and the servitisation of the economy (Sarmento and Nunes, 2012a, 2012b).

In Portugal, the estimated median duration of a new-born enterprise lies between 5 and 6 years (Nunes and Sarmento, 2012), while in countries such as the US, UK, Germany, Italy, and Spain the maximum of the unconditional hazard function is reached before the sixth year (Wagner, 1994; Audretsch et al., 1999; Bartelsman et al., 2005; Bhattacharjee, 2005; López-Garcia and Puente, 2006). It is noticeable that Portuguese firms tend to fail for a longer period, before the hazard rate[3] starts declining.

Firm size has been found to be of extreme importance in determining the probability of survival of Portuguese firms (Geroski et al., 2010; Mata and Portugal, 1994). The work conducted by the Bank of Portugal (Banco de Portugal, 2010), using a dataset known as *Central de Balanços* (which also complies with the Eurostat and OECD (2007) methodology), sheds some light on concerns around survival rates. Its dataset includes 380,000 non-financial firms in 2009, where 87% of firms can be classified as micro-firms[4] (up from 84% in 2000). Moreover, 99,7% of the firms in this dataset are SMEs[5] and therefore only 0,3% are large firms. Nevertheless, large firms are responsible for 28% of employment and 41% of turnover. Finally, the data also show that around 11% of all firms are high-growth firms over the period.

According to the Bank of Portugal (2010) dataset known as *Central de Balanços*, which applies a similar methodology to the Eurostat and OECD (2007), but without accounting for the 10 employee minimum threshold[6], around a quarter of firms (23,8%) which "died" during the period 2000 to 2009 were high-growth firms. From all of the large firms´ closures (corresponding to 0,2% of all closures in the dataset), 14,6% correspond to high-growth firms and 18,8% to gazelles. However, the highest proportion of deaths resides within the micro-

[3] The hazard rate measures the rate at which risk (in this case of a firms´ closure) is accumulated and can vary from zero (no risk at all) to infinity.

[4] According to the Commission Recommendation 2003/361/EC of 6 May 2003 (Official Journal L124 of 20.05.2003), a microenterprise is defined as an enterprise which employs fewer than 10 persons and whose annual turnover and/or annual balance sheet total does not exceed EUR 2 million.

[5] This definition includes micro-firms.

[6] The definition employed by the Bank of Portugal (2010) is that a high-growth is any firm with an average annualised turnover growth greater than 20% per annum, over a three-year period and that a gazelle is a subset of the former, with less than 5 years of activity. The former definition does not take into account the 10 employee threshold criteria, as required by the strict application of the Eurostat and OECD (2007) methodology for data cleaning, which was considered in our calculations for the database *Quadros de Pessoal*. This renders any comparison between the two datasets presented (Bank of Portugal´s *Central de Balanços* and Quadros de Pessoal) unfeasible.

firm group (from all firms 'closures, 83,6% correspond to micro-firms and from those, 23,6% are high-growth and 26,5% are gazelles´ deaths).

There appears to be a link between the share of high-growth firms ceasing activity over this period and firm size, i.e. the percentage of firms ceasing activity decreases substantially as firms' size increase (Table 3).

Table 3: Share of high-growth and gazelles closed during 2000-2009, relative to the total number of firms identified in each category: dimension, district, juridical nature and sector

		Structure	High-Growth	Gazelles
	Total Universe of non financial firms		23,8%	25,8%
By dimension	Microfirms	83,6%	23,6%	26,5%
	SMEs	16,2%	20,0%	21,9%
	Large firms	0,2%	14,6%	18,8%
By district	Lisbon	29,7%	25,9%	28,2%
	Porto	17,4%	24,6%	26,3%
	Other locations	52,9%	22,4%	24,3%
By juridical nature	Limited liability companies	94,3%	23,6%	25,5%
	Public limited companies	3,1%	17,7%	21,2%
	Other	2,6%	38,9%	43,9%
By sector	Agriculture and Fisherires	2,7%	19,1%	22,2%
	Manufacturing	13,7%	26,6%	28,9%
	Electricity and Water	0,3%	12,7%	14,7%
	Construction	14,8%	23,2%	25,5%
	Commerce	28,4%	28,4%	30,2%
	Other Services	40,1%	20,3%	21,8%

Source: Banco de Portugal (2010) based on *Central de Balanços* database[7].

By sector, the highest records of firms "closure"[8] occurred in Commerce and secondly in the Manufacturing sector, while the sector of Electricity and Water displays the lowest closure rates.

Bank of Portugal (2010) also examined the maximum dimension attained by enterprises in their database, with particular emphasis placed on the behaviour over time of high-growth and gazelle firms which survived throughout the period 1991 - 2009[9]. The main conclusion is that the vast majority of micro-firms maintained their dimension throughout their lifetime –

[7] The definition employed is that a high-growth is any firm that has verified an annual growth of 20% of its turnover during three consecutive years, and that a gazelle is a subset of those with less than 5 years of activity.
[8] Firms that have left the dataset.
[9] Bank of Portugal (2010) used the data of all high-growth or gazelles that were classified as such between 1991 and 2009.

86% of high-growth and 88% of gazelles remained of a similar size throughout the period, with only 13.6% of high-growth firms and 12.2% gazelles increasing in size and becoming SMEs (from 87% of micro-firms in the dataset, only 10 grew into large firms between 2000 and 2009 (less than 0.1% of the sample).

Table 4: Maximum size attained by high-growth firms and gazelles throughout their life

Microfirms: 1991-2009

Dimension	HG firms	Gazelles
Microfirms	86,4%	87,8%
SMEs	13,6%	12,2%
Large firms	0,0%	0,0%

Source: Banco de Portugal (2010) based on *Central de Balanços* database and the Eurostat and OECD (2007) methodology.

These results demonstrate that enjoying high growth does not necessarily grant better survival prospects in Portugal. In fact, gazelles seem more prone to dying than general high-growth enterprises – this may suggest that rapid growth, often linked to short-run dynamics, does not necessarily grant longevity or contribute to sustained growth. Further work still needs to be conducted to investigate survival determinants for Portuguese high-growth firms and gazelles.

4. FRAMEWORK CONDITIONS

Entrepreneurial activity occurs within a particular context, often referred to as the entrepreneurial framework conditions. These can hinder or enhance the appeal for individuals to start their own business, as well as, limit or foster growth and competitiveness of firms. The creation of a favourable domestic market which enables high-growth firms to thrive is therefore highly dependent on such framework conditions.

Creating a business environment which is conducive to the strengthening of the entrepreneurial fabric of a country has long been a priority for many governments. Undoubtedly, the macroeconomic background, namely economic events but also business policies and local and national framework conditions affecting the operation of all businesses, are important determinants of firm performance (European Commission, 2011).

In developed economies, it is acknowledged that in order for governments to promote entrepreneurship, policy should focus on strengthening the entrepreneurial framework conditions[10] (Minniti, et al., 2005). This has been the immediate priority of successive Portuguese governments, particularly during the last decade. Entrepreneurship policy in Portugal has aimed particularly at creating favourable framework conditions for entrepreneurship for all firms, independently of their growth rates. In fact, the development of better regulation policies has been integrated in the reform and modernization agenda, geared towards the accomplishment of the compromises portrayed in the Lisbon Agenda[11].

Particularly since 2005, Portugal has adopted a wide range of programmes destined to promote entrepreneurship, through easing access to capital, fostering innovation, engaging in business environment reforms such as the reduction of bureaucracy and red tape. These reforms appear to have had visible effects in the international ranking comparisons of the Doing Business Index (World Bank and IFC, 2012; 2010; 2009).

With the purpose of addressing market failures and lessening hindrances related to asymmetries of information and moral hazard problems, the Portuguese government has supported venture capital, with respect to investment projects and has promoted exports for early-stage, high-potential and high-risk companies with a huge growth potential.

Any country's entrepreneurial activity depends on a wide variety of factors: general legal environment and particularly bankruptcy laws, administrative burdens imposed on new enterprises by the state, availability of capital, educational institutions focusing on building up entrepreneurial skills, research environment and the ability for individuals of converting new ideas and inventions into marketable products.

In order to provide an appraisal of Portugal´s relative performance in some of these key areas in recent years, we turn to international rankings such as Doing Business, Governance Matters, Economic Freedom, Global Competitiveness Report, which cover a significant amount of framework conditions (Table 5).

According to the World Bank's Doing Business project (World Bank and IFC, 2011), Portugal ranks 31st among 183 countries and 13th in the EU-27 in the "Ease of Doing Business 2011". In 2010, Portugal was qualified as a top reformer in four key areas, namely in dealing with construction permits, trading across borders, registering property and enforcing contracts.

[10] By opposition, Minniti, et al. (2005) mentions that less developed economies should focus instead on general national framework conditions, ensuring fundamental institutional conditions are in place for the functioning of markets.

[11] The Lisbon Agenda, also known as Lisbon Strategy or Lisbon Process. It consisted of an action and development plan devised in 2000, for the fostering of the growth of the European Union economy, in the period between 2000 and 2010.

Table 5: A summary of international rankings on Portugal

Doing Business, 2011

Ease of Doing Business Rank		Starting a Business	Dealing with Construction Permits	Employing Workers	Registering Property	Getting Credit	Protecting Investors	Paying Taxes	Trading Across Borders	Enforcing Contracts	Closing a Business
2011	31º	59º	111º		31º	89º	44º	73º	27º	24º	21º
2010	33º	60º	111º	171º	52º	87º	41º	80º	19º	25º	22º

Source: Doing Business 2011 Rankings, Banco Mundial

Governance Matters 2010 – Worldwide Governance Indicators

Voice and Accountability		Regulatory Quality	Political Stability and Absence of Violence	Rule of Law	Government Effectiveness	Control of Corruption
2009	89,10	80,50	74,50	83,50	85,20	81,90
2008	88,00	82,10	79,90	83,70	82,10	80,70

Source: Worlw ide Governance Indicators (WGI), Banco Mundial

Index of Economic Freedom, 2011

			Ten economic freedoms									
Ranking mundial World Ranking		Index of Economic Freedom	Business Freedom	Trade freedom	Fiscal freedom	Government size	Monetary Freedom	Investment Freedom	Monetary Freedom	Freedom from corruption	Property rights	Labour Freedom
2011	69º	64	37º	12º	162º	153º	19º	38º	38º	35º	26º	169º
2010	62º	64,4	35º	25º	158º	157º	14º	34º	51º	32º	28º	168º

Source: 2011 Index of Economic Freedom, Heritage Foundation and Wall Street Journal

Corruption Perceptions Index (CPI), 2010

	2010			2009		
	Rank		Score	*Rank*		Score
	General	EU-27		General	Δ 09/08	
Portugal	32º	16º	6,0	35º	-3	5,8

Source: TI Corruption Perceptions Index 2010, Transparency Internacional

The Global Competitiveness Report (GCR), 2010-2011

Portugal	*Rank*
Global Competitiveness Index (GCI)	46
GCI in EU 27	18
Start a business	13

Source: World Economic Forum, Global Competitiveness Report 2010-2011

European Payment Index

Portugal	UE27
Ano	Rank
2010	185º
2009	184º
2008	183º

Source: European Payment Report 2009, Intrum Justitia

Ease of Paying Taxes 2011

Portugal	
Ano reportado	Rank
2009	73º

Source: Paying Taxes 2011, Banco Mundial / Pricew aterhouseCoopers

***e-readiness* 2010**

e-readiness ranking		e-readiness score	Connectivity and technology infrastructure	Business environment	Social and cultural environment	Legal environment	Government policy and vision	Consumer and business adoption
2010	28º	6,90	5,40	6,64	7,33	8,35	7,40	7,10
2009	28º	6,86	6,1	6,68	6,97	8	6,55	7,23

Source: Digital Economy Rankings 2010, Economist Intelligence Unit

Annual Global e-Government Study, 2007

	2007				2006		
	Rank			Score	*Rank*		*Score*
	General	EU	Δ 07/06		General	EU	
Portugal	7º	2º	41	43,8	48º	16º	31,3

Source: Brow n University

***e-Government* Readiness Knowledge Base (UNKB)**

Portugal	*e-government index*		*e-participation index*
	Score	Rank	Score
2010	0,5787	39º	0,2714

Source: Global E-Governance Survey 2010, Nações Unidas

However, a comparative analysis based on World Bank´s Doing Business shows that despite the notable improvement of the last few years, there is still considerable progress to be made, both in terms of improving regulation in itself, but also the functioning of the Public Administration and the State, calling for a more efficient and prompt resolution of administrative and judicial processes (Sarmento and Reis, 2012). It seems particularly urgent

to curb the excessive procedural delay in certain domains, such as in the international transaction of goods, licensing, tax payments, judicial resolution of commercial disputes and firm bankruptcy. Thus, implementation issues still need to be addressed and efforts need to materialise in order for the country to fully reap the benefits of these structural reforms. In successive Global Entrepreneurship Monitor Reports (e.g. Minniti, et al., 2005 and GEM, 2010), the analysis of general entrepreneurship framework conditions has been structured so as to capture the following dimensions: financial support, government policies and programmes, education and training, research and development knowledge transfer, cultural and social norms, access to physical infrastructure, market openness/barriers to entry, commercial and professional infrastructure and protection of property rights.

Along these lines, Denmark has conceived a model for measuring entrepreneurial framework conditions, which they use regularly in the making of their "Entrepreneurship Index" and for the appraisal of Denmark´s relative entrepreneurial performance (Danish Enterprise and Construction Authority, 2007; 2009; 2010). The model´s structure has been developed based on their experience throughout the years, but also through the collaboration with the OECD (Ahmad and Hoffman, 2008; OECD, 2007). Their model is divided into six policy areas[12] or so-called overarching factors affecting entrepreneurial activity: Regulation, Market Conditions, Access to Financing, Creation and Diffusion of Knowledge, Entrepreneurial Skills and Entrepreneurial Culture. Each factor is then partitioned into 24 distinct policy areas, which are in turn described using one or more indicators.

The Danish Enterprise and Construction Authority (2009) developed a ranking of national framework conditions for entrepreneurship in 2011. According to this methodology, the Portuguese framework conditions are still lagging behind the majority of countries. Among 29 countries, Portugal ranks the 20th overall, and 10th among European Union countries (below Finland, UK, Ireland, Sweden, Denmark, Netherlands, Belgium Germany, Austria and France, but above Check Republic, Spain, Hungary, Slovakia, Poland, Italy and Greece).

However, there are two sub-domains where Portugal has performed quite well. Under the first factor "Regulation" and the specific policy area "Corporate Tax and Capital Gains Tax", Portugal had the second best performance. As a matter of fact, the taxation of capital gains on stock holdings impacts considerably on the incentives to create wealth through the emergence of high-growth firms, as most of its economic return emanates from an increased market value of its stock rather than other forms, such as large interest payments to the owners or dividends.

[12] The policy areas used for measuring entrepreneurial framework conditions for start-up and growth can be observed in Figure 6.2 of the Danish 2009 Entrepreneurship Index (Danish Enterprise and Construction Authority, 2009).

The second sub-domain where Portugal ranks high is on the GEM sixth factor, "Entrepreneurial cultures", within the policy area of "Entrepreneurial Mindset"[13]. The US tops the list, where its inhabitants express the greatest desire to become self-employed. Portugal is the second best, followed by Greece. However, Portugal´s score declined sharply, after having the best framework conditions under the first measurement of 2004.

Portugal has since noticeably improved its framework for entrepreneurship but a lot more remains to be done, in particular when compared to advancements made by emerging economies, which stand out in the international rankings such as Doing Business (World Bank and IFC, 2010). One of the major areas where the framework conditions in Portugal work against entrepreneurial activity is the enduring slowness of courts and of justice in general, which remains a major hindrance for firms, national and foreign investors (Sarmento and Reis, 2012; OECD, 2010; World Bank and IFC, 2012). Better dispute resolution through administrative review would definitely lead to smaller delays. A healthy institutional environment in general, and a favourable public institutional setting in particular, are more likely to influence the emergence of firms able to sustain a high rhythm of growth, because of the sensitiveness of their competencies to quality institutions.

Another major problem remains, a highly complex taxation system and its considerable and unstable tax rules and laws, which places a lower bound on compliance costs, hampering productivity and growth in a variety of ways (OECD, 2010; GEM, 2010). Despite recent progress towards tax harmonization within the European Union and the OECD, various combinations of tax rates and provisions still exist, causing a whole set of differentiating financing, ownership and industries structures across countries (Henrekson and Johansson, 2009). In particular, compliance costs are still substantial and strongly regressive relative to firm size, affecting particularly small and medium-sized enterprises (European Commission, 2004), often encouraging informality and tax evasion (Lopes, 2012).

Although considerable progress has been achieved in e-government initiatives, particularly since the start of electronic communications between taxpayers and revenue bodies[14], in 2009, Portugal still occupied the 73rd position in the "Ease of Paying Taxes 2011" ranking[15] (World Bank, et al., 2011).

Culture also seems to play a key role in Portugal. From all nine framework conditions presented in "GEM Portugal 2010" (GEM, 2010), the cultural and social dimension received

[13] It ranks the preference for becoming self-employed, measuring whether individual prefer being permanently employed or self-employed. It is based on a questionnaire survey of 500 respondents by Gallup, Flash Eurobarometer n. 192.

[14] Portugal climbed 41 positions between 2006 and 2007 up to the 7th in the Annual Global e-Government Study, 2007.

[15] According to the previous year ranking, Paying Taxes 2010 (World Bank, et al., 2011), a Portuguese SME spent almost 50% more hours than in EU-19 average in complying with its tax obligations.

the less favourable appreciation from the national experts. It is claimed that the Portuguese culture does not place emphasis on entrepreneurship, in particular with respect to high-growth business. There also seems to be a lack of national cultural stimulus geared towards individual success, related to one´s own personal efforts. The specialists agree however that this effort is valued and respected when associated to success stories. Another area that received a less favourable appreciation by the interviewees in GEM (2010) was the dimension "government policies and programs". They pinpoint as main obstacles to entrepreneurship, the excess of bureaucracy, namely in obtaining licenses and permits, and the high fiscal burden.

5. SUPPORT FOR HIGH-GROWTH FIRMS IN PORTUGAL

In Portugal, there are no specific support policies targeted at high-growth firms. Over the years, limited consideration has been given to taking advantage of synergies among existing policies for high-growth firms´ support, namely in what regards the innovation, internationalization and entrepreneurship/SMEs cross-roads. There are however a few relevant support schemes which high-growth firms tend to be better placed to take advantage of, and these include financing schemes, access to venture capital, business angels and incubators.

Over time, policies intended to improve SMEs´ access to finance have been expanded through several programs, such as *PME segura* (credit insurance), COMPETE (support to the creation of risk capital and business angels funds, co–financed by the private sector) and INOFIN (National Framework Programme of Financial Innovation oriented towards the SME Market). Public policies have also been implemented to encourage venture capital companies to operate under the aegis of the Ministry for Economy, such as InovCapital and Tourism Capital (these two entities were merged in June 2012). The purpose of this type of aid has been primarily to boost equity financing for companies which focus on exporting, on a relevant technological approach, as well as for those in the tourism sector which need to finance the modernisation and/or expansion of their activity (through, for instance, the launch of new units).

Public policy in Portugal for the period 2009-2013, relaying to the financial support to SMEs is underpinned by the need to reinforce equity capital through venture capital instruments, so as to provide support to three main business areas: merger and acquisition operations, acquisition of competitive capacity and internationalization.

In terms of the specific state support towards high-growth firms, the focus lies mainly on two programmes of INOFIN (National Framework Programme of Financial Innovation oriented towards the SME Market). These will be described below.

5.1. SMEs state support: INOFIN

INOFIN was established in 2006 to provide support to SMEs in their access to capital, through the use of financial instruments. By facilitating access to finance, this national framework aims at fostering innovation and contributing towards firms' increased competitiveness in the marketplace. It should be stressed that INOFIN is not responsible for the direct allocation of public funds (as is the case with, for example, subsidies); it focus on the facilitation of a more efficient bank intermediation and the promotion of alternative, innovative solutions for small and medium-sized firms. Ultimately, it is hoped that the programmes promoted under this framework will generate more business by bridging the current gap between supply and demand financing for SMEs and consequently generate economic growth for the country.

The various programmes which are available under this national framework are managed by the Small and Medium-sized Enterprises and Innovation Support Institute (IAPMEI), which is part of the Portuguese Ministry for Economy. Two of such programmes are particularly relevant to high-growth firms and gazelles: FINICIA and FINICRESCE. Through collaborations with the private sector and particularly venture capital firms and banks (the state intervention in these cases is through public and private partnerships), these two programmes have been designed to encourage the creation of new firms and growth of existing ones.

FINICIA (Access for finance for innovation and start-ups) focuses on three key areas: projects which have a high innovation components, micro-business start-ups and business initiatives taking place at the regional level. This programme provides an important forum for networking among universities, regional authorities, incubators, financial institutions and venture capital firms. Whilst this programme was originally set up as a mechanism to help facilitate access to finance and reduce transaction costs between entrepreneurs and venture capital firms, it now also embraces the process of business creation, by offering a number of activities geared towards raising entrepreneurs' awareness, helping those with business ideas convert them into business plans and providing guidance in relation to the different financing schemes available.

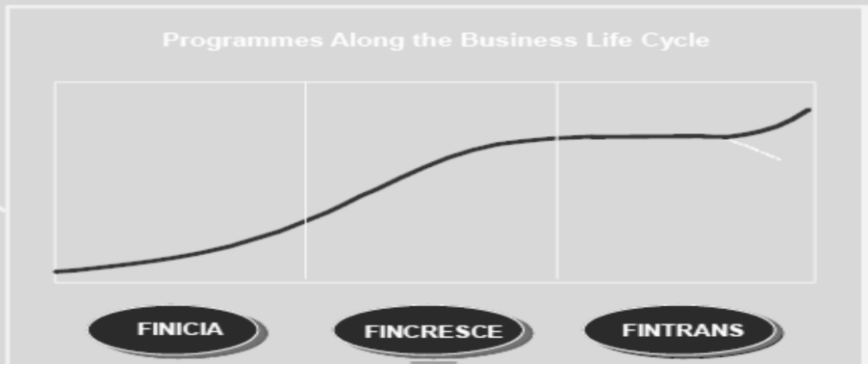
FINICRESCE (*Financing Company Growth Strategies*) is another programme within the INOFIN framework which targets more established SMEs, that need to enhance their

competitiveness in the marketplace. SMEs are considered within the remit of FINICRESCE if they are able to demonstrate that a solid performance was achieved over time and that their business relies on a relatively low risk model. The support provided in the context of FINICRESCE is mainly through mechanisms enabling the firms' risk assessment, facilitating the relationship with key stakeholders and the market in general and enabling access to an alternative range of financial products. Within this programme, a number of firms are awarded the status of champions, on the basis that they have excelled in a number of dimensions including management, innovation and growth and are regarded as being key to the development of particular sectors within the economy. Meeting a number of criteria separates them from the other SMEs and enables them to be part of an "elite" group, promoted by the government, which consequently translates into greater visibility, easier access to finance and preferential credit conditions and potentially other non-financial benefits.

5.2. The targeting of firms according to INOFIN

The three main programmes which are embedded in the INOFIN framework are aligned with the different stages of the business life cycle, as can be seen from the figure below.

Figure 5: INOFIN's programmes along the business cycle.



Source: *Programa* FINICIA, IAPMEI, Ministry of Economy and Innovation, Portugal.

Figure 5 shows that the recipients of FINICIA's assistance are SMEs positioned at an initial stage of their business life cycle, that is, the selection of firms targeted for assistance is made on the basis of their growth potential. The range of sectors covered is vast and includes industry, energy, tourism, services and construction.

FINICRESCE is aimed at providing to existing SMEs, which are at what is regarded as a mature stage of development. In addition, they need to have had good scores in terms of a selection of financial indicators and banking ratings (e.g. risk profile) in the last few years. Such firms fulfilling the above criteria are classified as "Leading SMEs". In 2012, 6,741 were selected to be "Leading SMEs" – this status is awarded on a yearly basis and therefore companies need to apply for it every year they wish to be considered for this award.

5.3. Project delivery and implementation

A total of 14 FINICIA regional networks have been established, which include not only IAPMEI staff, but also 85 partners, namely universities, incubators, venture capital firms, business angels and local authorities. FINICIA uses two main public funds – Venture Capital Syndication Fund and the Counter Guarantee Fund, to ensure that the risk relating to the equity of SMEs is shared, as well as that of loans provided by financial institutions.

Turning to the FINICRESCE programme, there is no direct link between the firms applying to be recipients and IAPMEI; the process is designed so that the support is carried out via the banks that take part in the network events and they are the ones that propose firms as SME champions. This programme has been acknowledged as successful and partly this appears to be due to the easiness with which the application is processed.

5.4. Policy Impact

These programmes, and in particular those destined to promote SMEs' access to finance (for start-ups and mature SMEs) have not yet been subject to a rigorous cost-benefit analysis.

Concerning the implementation of the FINICIA programme, by 2010, 600 projects had been evaluated, of which 75% were approved. The investment made thus far totalled €45m, of which €20m was the result of both credit and risk capital financing. On average, two new jobs were created per project approved.

Turning to FINICRESCE, of the "Leader SMEs", those which have been identified as benchmark firms in terms of their management approach and/or innovation and which have the best financial risk rating are categorised as being part of the "Excellence SME programme". In 2011, "Excellence SMEs" generated over 48,000 jobs and were responsible for a turnover exceeding 8 billion euros, representing an average growth of 27%. According to the information provided by IAPMEI, these firms have a financial autonomy averaging 51% and levels of return on equity, investment, and sales above average. In terms of net profits and asset value, these companies grew by 22% and 12% respectively. When we consider

sectoral distribution, 72% of the “Leader SMEs” that were also awarded with the special title of “Excellence SMEs” come from trade and industry, while 10% come from the service sector, 7% from construction and finally 6.8% from tourism. In terms of location, the districts with the highest concentration of “Excellence SMEs” in 2011 are those of Porto and Lisbon, followed by Aveiro, Braga and Leiria, with 265, 226, 180, 141 and 108 companies respectively.

6. CONCLUSIONS

The contributions of this paper to the literature are three-fold: firstly, it focuses on the profiling of high-growth and gazelle firms to a detail which has not been previously considered for Portugal. The analysis carried out in this study is based on a comprehensive dataset which provides the platform for uncovering features of these firms which have not been examined to such a detail before.

The results show that in 2007, only 9.5% of all Portuguese employer enterprises (with more than ten employees) have a turnover that is in line with that of high-growth firms. If instead of turnover we consider the number of employees, then the percentage of high-growth firms drops by 6.5percentage points to just 3%. In addition, firms that can be classified as gazelles constitute only 2.2% of the total number of Portuguese employer enterprises if turnover is the criteria considered and 0.7% if we focus on employment the employment criterion. These percentages are significantly lower than at the beginning of the period considered in this study. In 1985, 24.6% were high-growth firms, of which 3.7% were gazelles according to turnover and 4.2% and 1.1% respectively, if we take into account employment growth instead.

The analysis also provides evidence of a narrowing gap between the two measurement criteria, the ratio of high-growth firms according to turnover to the respective employment. A similar pattern has been observed for gazelle firms, indicating that more firms are now growing faster in employment than in turnover.

Most high impact firms are SMEs, but it is the largest sized class firms, over 250 employees, that account for most employment creation.

It should also be noted that there has been an important shift in the distribution of both high-growth firms over the period of analysis, away from manufacturing to services and commerce, as well as construction. A similar pattern is observed for firms classified as gazelles.

High-growth firms are not a homogeneous group of firms. Firm growth differences in Portugal go beyond high-growth firms and are deeply rooted in the structure of the Portuguese entrepreneurial fabric.

The small size of the industries where high-growth firms tend to be created hinders growth and particularly survival, when globalised markets have become increasingly competitive. These have also been considered to be partly a reflection of the country's substantial educational gap (OECD, 2010). However, wider barriers to growth need to be removed in Portugal. This relates to addressing a whole array of structural factors that lay deep in the country´s culture. Entrepreneurial culture needs to be targeted with long-term structural policies, so as to encourage more individuals to be prepared to take some risks and embark on a new business.

Thirdly, we conclude that the sort of overreaching structural problems the country faces means that policies should not be confined to specific kinds of firms, not even if these are high-growth ones. This, in essence, means addressing a whole range of framework conditions underlying overall firms´ poor performance in terms of growth and survival.

Policies need to be more focused in providing the platform for entrepreneurial activities to thrive, particularly in those sectors earmarked as pivotal to economic growth. In practice, policymakers could assist in the process of firm creation and growth, by reducing red tape and bureaucracy, working with financial institutions towards easing access to credit and improving labour and product regulations. More generally, policymakers should contribute to the establishment of an environment which is appealing to venture capitalists and business angels, and which can ultimately be regarded as conducive to investing in the country.

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