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Title of the book chapter:

Bridging into the future through education

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**Abstract:** One of the major bottlenecks of the Portuguese labor market is the level of educational attainment of the population. Despite considerable evolution over the last decades, the country is still behind the European Union average in most education indicators. In 2009, 69.2% of the population aged between 15 and 64 had less than upper secondary education, a value that is more than double the European average. Due to the measures and reforms that have been introduced, in 2019, this proportion had dropped to 47.6%. Between 2009 and 2019, self-employed persons had education levels below the average of the working population. In 2009, 79.0% had less than upper secondary education and, in 2019, this number was still at 50.6%. The human capital of the self-employed persons has significant consequences on their entrepreneurial activities. The low educational attainment level of the population has demanded extensive reforms. In this process, vocational education and training play a key role. This chapter discusses the main policies implemented recently to improve educational attainment and obtain a comprehensive overview of labor market and education indicators. International institutions such as the OECD and the European Commission have acknowledged the progress of the Portuguese Education System.

**Keywords:** Skills development; skills deficit; Portugal; entrepreneurship; policies.

## 1. Introduction

Human capital has long been considered one of the most important determinants of economic growth and cross-country income differences, and in 2015 the Portuguese Prime minister recognized that the skill deficit is the most important deficit of the country. As stressed by the OECD (2015, p. 3), “skills and human capital are the bedrock upon which Portugal is building a new road to growth”. In an in-depth study of the Portuguese economic growth, Veiga et al. (2019, p. 28) illustrate the gap between Portugal and other countries, “for at least two hundred years, Portugal has had a remarkable skills gap. In 2000, with less than eight years of average schooling, the Portuguese resident had a schooling similar to that of the resident in Germany of 1930 or in Romania of 1970”. Despite significant evolution over the last decades (Gouveia and Fernandes, 2017; Gouveia et al., 2017), the country is still behind the European Union average in most education indicators (OECD, 2015).

In 2009, 69.2% of the population aged between 15 and 64 had less than upper secondary education, which compares with 31.6% for the European Union (EU28). Due to the measures and reforms that have been introduced, in 2019, 47.6% of the Portuguese population aged 15 to 64 had less than upper secondary education and 23.8% had tertiary education, which compares to 24.9% and 29.5%, respectively, for the EU28. For the entire period, self-employed persons had education levels below the average of the working population. In 2009, 79.0% had less than upper secondary education. In 2019, despite some improvement, this number was still at 50.6%. The size and composition of the human capital of the self-employed persons have consequences in the size-class and volume of business of their firms. For that reason, in 2018, 96.2% of the Portuguese firms employed fewer than 10 workers (Statistics Portugal, 2020).

At the firm-level, this issue has two types of consequences: (i) entrepreneurs with lower levels of educational attainment engage, on average, in economic activities characterized by less complexity (and therefore less value added); (ii) the lack of qualifications of the workforce introduces constraints in the ability of firms to perform.

Obviously, it is important to have programs and support mechanisms to promote entrepreneurship, but in a country with these characteristics qualifications must continue to be a top priority. In recent decades most national and international reports addressing the competitiveness of the Portuguese economy have highlighted the importance of increasing qualifications and of establishing a stronger link with work environments. For example, in the Memorandum of Understanding that Portugal signed in 2011 with the European Central Bank, the European Commission, and the International Monetary Fund it is stated that “the Government will continue action to tackle low education attainment and early school leaving and to improve the quality of secondary education and vocational education and training, with a view to increase efficiency in the education sector, raise the quality of human capital and facilitate labour market matching”.

The XXI Constitutional Government of Portugal (established in November 2015 as a Socialist Party minority government supported by an agreement celebrated with the Left Bloc, the Portuguese Communist Party, and the Ecologist Party "The Greens") considered that the issues related to the system of education and vocational training were critical. Two main objectives were set: tackling school dropout and investing in lifelong learning opportunities. The actions carried out since the end of 2015 (by that Government and the subsequent one, established in 2019, also of the Socialist Party) were comprehensive.

This chapter discusses the main policies introduced in the most recent period to improve educational attainment and produce a comprehensive overview of labor market and education

indicators. Special attention is given to the skills of employers and employees and their evolution. A comparison with selected European countries is also made.

The chapter is organized as follows. Section 2 reviews the key contributions about the link between entrepreneurship and skills. Section 3 presents recent reforms/actions to promote educational attainment in Portugal. Section 4 discusses the dynamics of education and labor market outcomes. Section 5 presents final remarks.

## 2. Skills and entrepreneurship

Entrepreneurship is a hot topic in academic research, with an increasing number of publications per year, and due to its multifaceted nature, receives contributions from several scientific areas. One relevant research question concerns the determinants of entrepreneurship entry and success. Factors that affect these variables are grouped into three categories: national, regional, and individual-level. The human capital (including education and experience) of the entrepreneur is one of the most important individual-level determinants (Unger et al., 2011; Simoes et al., 2016; Mamabolo and Myres, 2020).

The literature on the influence of education on self-employment points to mixed directions. Individuals with more education are more likely to find paid employment opportunities (Van der Sluis et al., 2008); and simultaneously they have better tools for identifying business opportunities and are better equipped for developing their businesses. In addition, if we take into account the heterogeneity that is inherent to the individuals that are self-employed, another layer of complexity comes into play. Some studies suggest the existence of a non-linear impact on the selection toward

self-employment, which can be explained by the fact that those that have less education are more likely to make the transition by necessity (Von Greiff, 2009), while those with more education are more opportunity-driven. As summarized by von Bloh et al., 2020 (p. 2012-2013), “Opportunity-based entrepreneurship (OPP) covers entrepreneurial activities started voluntarily in order to gain more income or independence. In [sic] the other hand, necessity-based entrepreneurial activity (NEC) is the creation of a new business out of need, when no other appropriate employment is available to the individual in the formal job market”.

Moving the focus of analysis from general to specific human capital, the influence of the experience accumulated in particular industries or markets positively affects the entry into entrepreneurship (e.g., Evans and Leighton, 1989; Poschke, 2013). This type of knowledge endows individuals with better tools for identifying business opportunities, a better network of contacts (suppliers, clients, potential employees), and more possibilities to access funding. In addition, having previous self-employment experience also increases the likelihood of starting new ventures (Eliasson and Westlund, 2013), especially if these have been developed as full-time employment.

A disruptive line of reasoning was established by Lazear (2005). This study introduced a model of occupational choice between paid employment and entrepreneurship in which the focus is put on the diversity/balance of the human capital portfolio (in opposition to the dominant perspective that puts the focus on the level of human capital). In this model, “because the entrepreneur must bring together many resources, he or she must have knowledge, at least at a basic level, of a large number of business areas. An entrepreneur must possess the ability to combine talents and manage those of others” (Lazear, 2005, p. 650). Therefore, the entrepreneur is a jack-of-all-trades. On the other hand, in the case of paid employment, it is specialization that is required and rewarded. An important proposition derived from this model relates the complexity of the production process

and the supply of entrepreneurs. The basic idea is that while some production processes are simple, others are much more complex, requiring solid knowledge in many areas. Therefore, the ability of an individual to become an entrepreneur decreases with this degree of complexity (expressed in a larger number of specific skills).

Mamabolo and Myres (2020) have recently published a survey on skills and the entrepreneurial process and conclude that studies on entrepreneurship usually follow a single-phase rather than a multi-phase approach. Nevertheless, “examining skills at the different entrepreneurial phases shows that the importance and complexity of skills change across the phases. These findings suggest that skills are not static, as their importance and complexity change across the entrepreneurial phases” (Mamabolo and Myres, 2020, p. 57).

### 3. Recent reforms and actions to promote educational attainment in Portugal

The Government established in November 2015 as a Socialist Party minority government set two key objectives for education: (i) tackling school dropout, thereby seeking a higher percentage of young people finishing secondary education; and (ii) investing in lifelong learning opportunities (Programa do XXI Governo Constitucional, 2015-2019; National Reform Program 2016-2020).

The same Party won the elections in 2019 and pursued the continuity of the core policies. The main interventions can be divided into three main levels: (i) basic education; (ii) secondary education; (iii) adult learning.

Regarding basic education, taking the recommendations of international organizations such as the OECD (OECD, 2017) into consideration, the strategy aims to reduce very early school leaving. To

that end several measures were adopted including fewer students per class, more diversity in the learning contents, more support for students with lower performance, identification of core competencies, increased social action mechanisms, and the end of vocational training in this level of education. In secondary education, the emphasis concerns vocational education and training (VET). The major goal was to reach 50% of students finishing secondary education coming from VET pathways. In order to reach this goal, an extensive revision of the structure of the Portuguese Education System is underway. Finally, aiming to promote the education attainment levels among the adult population, the government launched the Qualifica Program.

Given the focus of the current chapter, we concentrate our discussion on four areas: the efforts developed to assure the labor market relevance of VET; the initiatives taken to improve the quality of VET; work-based learning; and adult learning.

### 3.1 Actions to ensure the labor market relevance of VET

There are several mechanisms at play in Portugal to ensure the labor market relevance of VET. Most of these are associated with the initiatives of the National Agency for Qualification and Vocational Education and Training (ANQEP). This Agency was created in 2012 and has played an important role in developing mechanisms to ensure the adequacy between skills demand and supply.

#### 3.1.1 The Sectoral Advisory Councils for Qualification



The National Catalog of Qualifications (*Catálogo Nacional de Qualificações*, CNQ) was created in 2007 and requires continuous updating. This process is the responsibility of ANQEP, being important to emphasize the existence of several mechanisms to assure the alignment between the contents and labor market needs. The Sectoral Advisory Councils for Qualification (*Conselhos Sectoriais para a Qualificação*, CSQ) play a critical role at this level identifying the updates that are required in the CNQ. In more specific terms, these Councils have four objectives: (i) identify the dynamics in each sector; (ii) identify the skills needed to respond to the changes diagnosed in the sector; (iii) provide feedback on the proposals to change the CNQ; (iv) present recommendations about the design of each qualification.

### 3.1.2 System for Anticipating Skills Needs

For many years the Portuguese education and vocational training system was not prepared to anticipate labor market needs (Pedroso, 2011; Araújo, 2017). Probably the most important reason for that is the existence of several structural problems in the education field, making the response of the system to labor market needs a non-priority. Following extensive reforms, it has become possible to address additional concerns.

A central mechanism to guarantee an adequate match between skills demand and supply is the System for Anticipating Skills Needs (*Sistema de Antecipação de Necessidades de Qualificações*, SANQ). This system answers to the problem of having to decide on the supply of training opportunities in a context characterized by two opposite trends: the steady increase of the number of institutions offering VET courses (Azevedo, 2014), and the decreasing number of students due to demographic reasons.

The SANQ is a strategic vector of the National Qualifications System (*Sistema Nacional de Qualificações*, SNQ). The system is managed by ANQEP with the participation of the social partners, Public Employment Services, Agency for Development and Cohesion, and technical support from the International Labor Organization. The main goals of the SANQ include: (i) analyzing the economic outlook and labor market conditions in order to foresee the demand of skills (short and medium term); (ii) producing recommendations about key priority skills of levels 2, 4, and 5 of the National Qualifications Framework, which should be taken into consideration in the process of managing the supply of skills; (iii) making suggestions about qualifications that will be in high demand in the future.

In a recent assessment concerning the implementation of the National Reform Program 2016-2020, the independent Economic and Social Council (CES, 2018, p. 59) recognizes the importance of the SANQ, affirming that “there is the need to assure the balance between short-term training needs with a broader perspective that takes into consideration a long-term view and the expectations of all actors involved”.

### 3.1.3 The Qualifica Passport

Among other features that we discuss later in the context of adult learning, the Qualifica Passport recommends adult-learning pathways that take into account the employability of such paths. These suggestions seek to enhance the attainment of qualifications and to improve their employability. As mentioned in the DGERT (2016) report about Vocational Education and Training in Portugal (DGERT, 2016, p. 11): “the Programme was developed to promote investment in training

pathways that will lead to effective qualifications of learners instead of a one-off approach for training with little value added regarding the improvement of adult qualification or employability”.

### 3.2 Actions to improve the quality of VET

Several actions were recently taken to improve the quality of VET. The recommendation of 18 June 2009 of the European Parliament and of the Council concerning the establishment of a European Quality Assurance Reference Framework for Vocational Education and Training (Recommendation 2009/C 155/01) was a challenge to the Member States in which VET-providers are more delayed in having robust quality systems. Portugal belongs to this group and was able to benefit the most with this process. Following this recommendation, the Decree-Law no. 92/2014 establishes that: (i) vocational schools should implement quality assurance systems in line with the EQAVET framework; (ii) ANQEP would be responsible not only for promoting, monitoring, and supporting the implementation of quality assurance systems assessing the results obtained by students in VET but also by certifying VET-providers as holding EQAVET systems. ANQEP designated this initiative as “Quality Assurance in Vocational Education and Training”.

The following transversal criteria were established for assessing the degree of alignment with the EQAVET Framework in the conformity verification process: (i) having a culture of guarantee and improvement of quality; (ii) participation of the stakeholders in the quality assurance and improvement cycle. The other criteria relate to specific phases of the process.

The recognition that the quality assurance system of the VET-provider is aligned with EQAVET results in the award of a certification. ANQEP has also developed a set of actions to educate the VET-providers about compliance with the framework.

One of the critical benefits of the EQAVET framework is that it allows the country to have a system with systematic reporting, analysis, and discussion of evidence concerning a set of indicators to focus on: (i) completion rates of the courses; (ii) placement of graduates (labor market, additional training, other situations); (iii) occupation of graduates (professions related to the course and unrelated professions); (iv) employers' satisfaction with VET-graduates. This information gives an overall picture about the results that are being achieved by VET-operators. In addition, the authorities managing the network of training offers know the employability by education path, the assessment that employers make of the graduates they recruit, and if there is demand for the skills they acquired or, on the contrary, recruitment is occurring outside the training area.

### 3.3 Work-based learning and apprenticeship opportunities

In this section we briefly discuss the VET pathways. Regarding young people, the possibility of choosing a VET program emerges mainly in upper-secondary education and includes the following possibilities:

- Education and training programs for young people. These programs exist in seven different types according to their duration and level of attainment. They include four components:

socio-cultural; scientific; technological; practical (work context learning with a minimum duration of 210 hours).

- Professional programs, with three training components for a total of 3100 hours: socio-cultural; scientific; technical (3 or 4 curricular units plus 420 hours in work context).
- Apprenticeship programs. These are under the responsibility of the Institute for Employment and Vocational Training (*Instituto de Emprego e Formação Profissional*, IEFP).
- Specialized artistic programs. There are three areas of specialization: visual arts and audio-visual arts, dance, and music. Depending on the area, some programs include work-based learning.
- Vocational programs. Three training components are considered: general; complementary; and vocational and simulated practice.
- Technological specialization programs. These programs correspond to post-secondary training and include three learning components: general and scientific component; technological component; and work-based learning (between 360 and 720 hours).

The pathways for adults include, among others:

- Programs of Training in Basic Skills;
- Adult education and training programs, the main type of programs for adults;
- Certified modular training;
- Prior learning processes, recognized within Qualifica Centers;
- Technological Specialization Programs.

Since these programs are developed for adults (in most cases with previous experience), the relevance of work-based learning is lower. This type of learning is provided in the case of

professional adult education and training programs varying between 120 and 210 hours directed at those who do not have experience in the area of the course.

### 3.4 Adult Learning

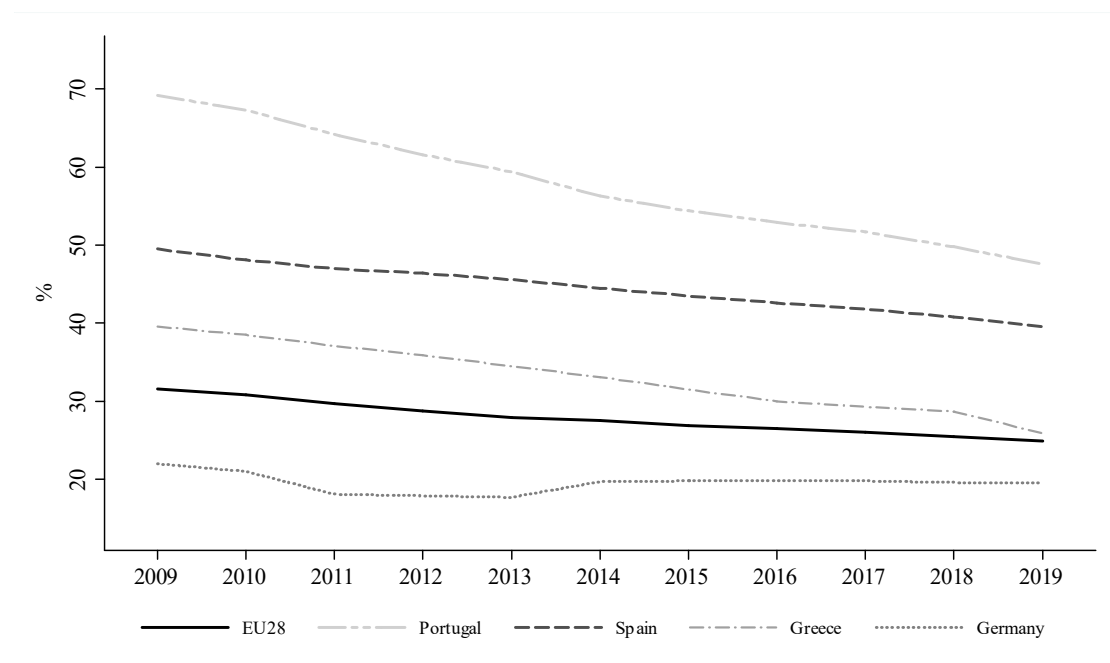
The Government's commitment to adult education is reflected in the Qualifica Program, launched in March 2017. The main objective of the program is to contribute to the up-skilling of the adult population, a key feature in which Portugal continues to lag behind other European countries. The Qualifica Program focuses on: (i) the attainment of qualifications; (ii) assuring that the qualifications acquired are able to improve the employability of adults; (iii) adapting the supply of training opportunities to the needs of the labor market, incorporating regional diversity. Taking the year of 2020 as reference, the following goals were established: (i) to ensure that 50% of the active adult population completes secondary education; (ii) to ensure that 15% of adults participate in lifelong learning (and 25% in 2025); (iii) to contribute to the achievement of 40% of graduates from higher education in the 30-34 year age group.

These goals are mainly addressed through two instruments: the National Credit System for Vocational Education and Training and the Qualifica Passport (discussed above). In turn, the National Credit System incorporates the principles of the European Credit System for Vocational Education and Training (ECVET) and gives credit points to: (i) qualifications of the National Qualification Catalog; (ii) other qualifications included in the Information and Management System of the Education and Training Offer.

#### 4. Exploring the recent dynamics of education and labor market outcomes

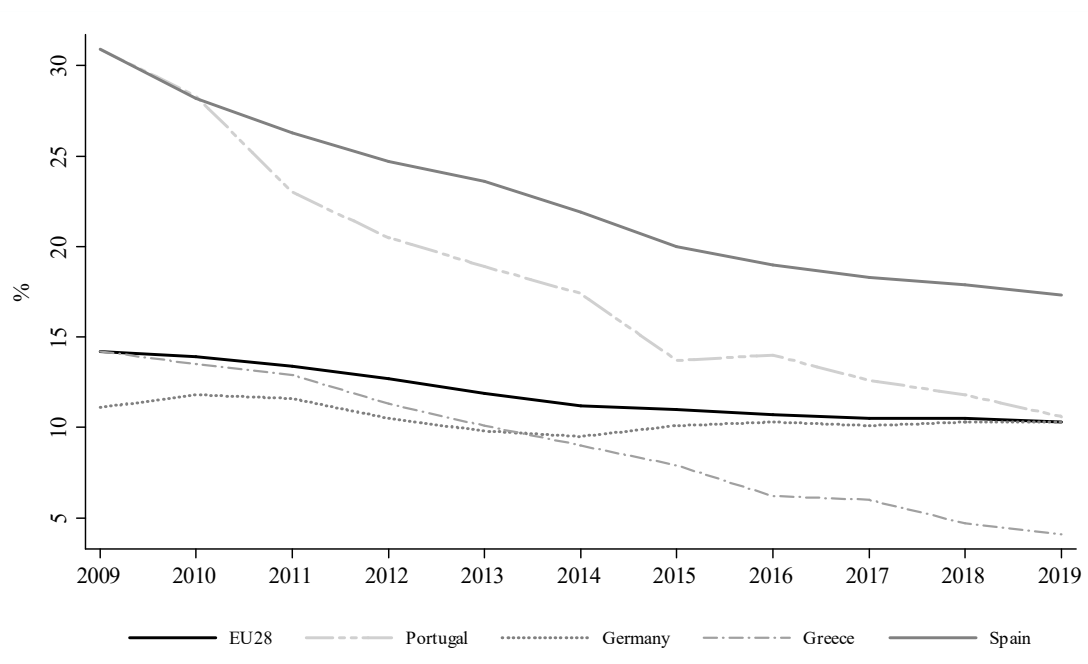
One of the major bottlenecks of the Portuguese labor market is the level of educational attainment of the population. In 2009, despite the policy efforts undertaken in the years before, 69.2% of the population have less than primary, primary and lower secondary education (ISCED levels 0-2), while at the European level this group represented only 31.6% (Figure 1). This was the highest value among all countries in the European Union (EU28: 24.9%; lowest value was for the Czech Republic: 15.2%). In 2009, the national early school dropout rate was 30.9%, which compares with 14.2% for the EU28 (Figure 2). This was the highest value among European countries (thereby explaining the lower levels of educational attainment).

Figure 1: Population aged 15-64 with less than primary, primary and lower secondary education



Source: Eurostat

Figure 2: Early leavers from education and training - Percentage of the population aged 18-24 with at most lower secondary education and not in further education or training



Source: Eurostat

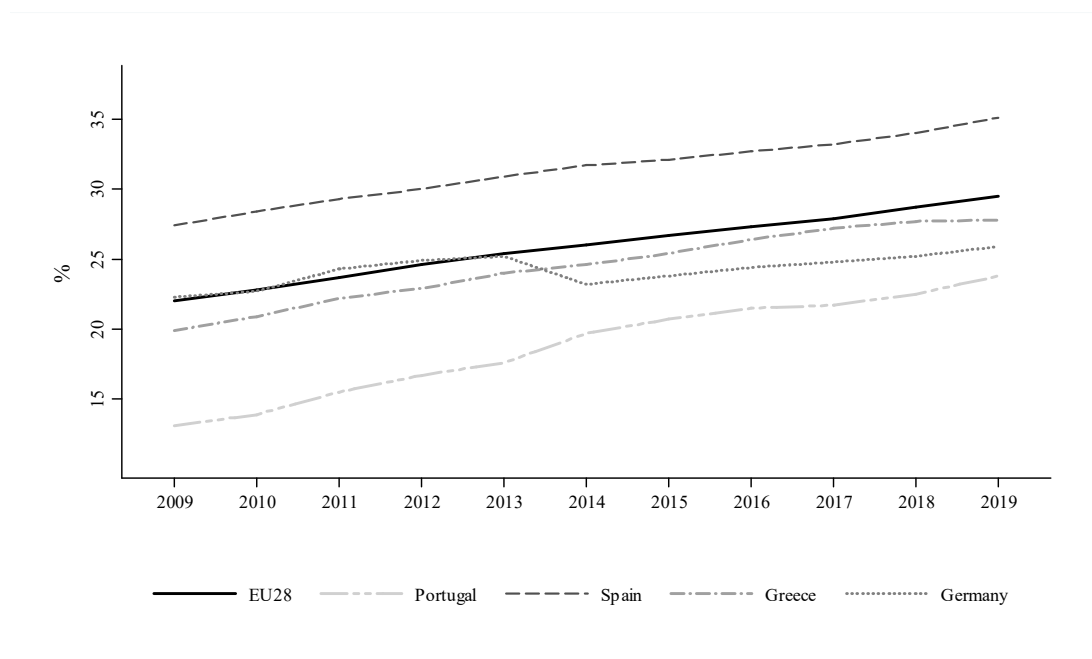
Portugal was able to develop a strong convergence trend toward the European average. In 2019 the percentage of adults holding ISCED levels 0-2 dropped 21.6 p.p. to 47.6% (in this period of time only Malta presented a similar performance, decreasing the percentage by 19.8 p.p. to 42.2%). Despite this evolution, Portugal was still the country with the second highest proportion of individuals with only this level of educational attainment (nearly twice the average of the EU28). The national early school dropout rate fell by 20 p.p. to 10.6%, making Portugal the country with the greatest improvement in this area (followed by Spain with -14 p.p. in this indicator). Although starting in the beginning of the period with similar values, in 2011/2012 the two countries began to diverge and Portugal was able to achieve a greater decline in dropout rates. To a great extent,



the reforms described in Section 3 sought to tackle this problem at primary and secondary education.

The outlook for the country concerning tertiary education is slightly better. In 2009, 13.1% of the Portuguese population had higher education (with Romania, Malta, and Italy presenting lower values), which compares to an average of 22% at the European level (Figure 3). By the end of the decade adult population with higher education in Portugal had increased to 23.8% (a value that is now above Slovakia, Romania, Hungary, the Czech Republic, Italy, and Croatia).

Figure 3: Population aged 15-64 with tertiary education

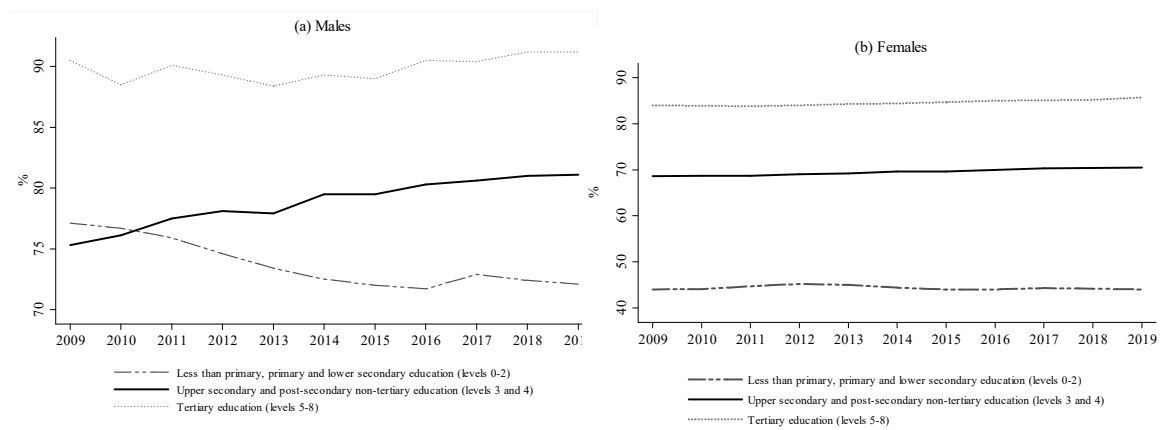


Source: Eurostat

The educational attainment level of the population is important for several reasons. Let us start by stressing the strong link found in empirical analysis between education and activity rates. As years of schooling increase, individuals are less likely to be in inactivity (Figure 4). For the period of

2009 until 2019 the activity rate for males increased from 73.7% for those having at most lower secondary education, to 78.8% for upper secondary education, and 89.8% for tertiary education (for females these rates are 44.3%, 69.5%, and 84.5%, respectively). Policies aimed at raising the average level of qualifications will therefore influence activity rates and indirectly affect the employment rates and the composition of employment.

Figure 5: Activity rates by gender, age groups, and highest level of education attained (%)

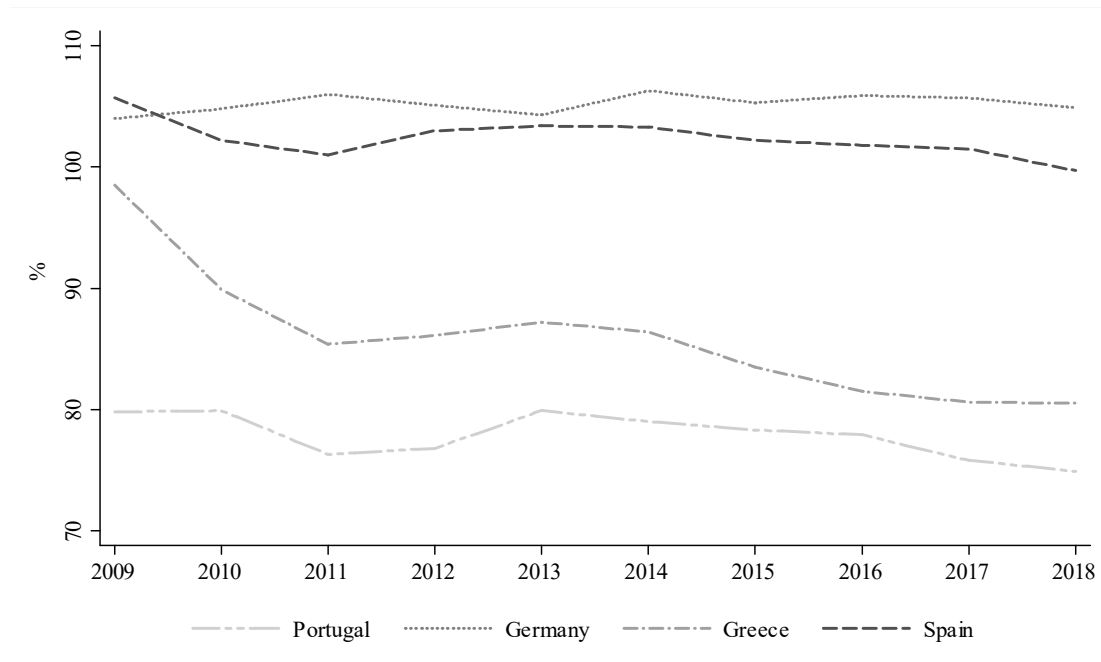


Source: Eurostat

Qualifications have a strong impact on labor productivity and the growth of *per capita* income. Although there was some convergence, in 2009 labor productivity in Portugal remained below the European average (Figure 6), and stood at only 79.8% of the reference value of the EU27\_2020. Despite the efforts carried out during this last decade, the situation of the country has deteriorated, dropping to 74.9% in 2019. This means that the growth rate of this variable was slower than what other countries were able to achieve (Productivity Council, 2019). As highlighted by Alves (2017, p. 137), “Portugal is experiencing a larger slowdown of productivity growth than the one occurring in advanced economies (...). Reasons for this slowdown and divergence with developed

economies since the mid-1990s are associated with an increasing misallocation of capital, labour and skills both at a sectorial and firm level”. Labor productivity gains, along with wage adjustments, are key determinants of the national cost competitiveness, which is crucial to determine the ability of domestic firms to respond to the increasing global competition (Alexandre et al., 2017). This is an especially important dimension for firms in the sector of tradable goods. The performance of these firms has a direct effect on employment levels.

Figure 6: Labor productivity per person employed and hours worked (EU27\_2020=100)



Source: Eurostat

At the end of 2019 the National Association of Portuguese Firms (Associação Empresarial de Portugal, AEP) issued a report highlighting the importance of skills for the productivity of the Portuguese firms. According to their arguments, skills are important but the contents taught by education providers are a critical dimension to take into consideration (an issue targeted by the

initiatives described in Section 3.1). Following this line of reasoning, Veiga et al. (2019, p. 35) stress that “vocational secondary and post-secondary education will play a key role in providing answers to companies seeking intermediate technical staff with appropriate training for their needs. Thus, the objective of reaching a proportion of 50% of secondary school students enrolled in double-certified vocational education modalities, enrolled in Portugal 2020, is not only ambitious, but also desirable”. In that direction, the actions implemented to assure the labor market relevance of VET are welcomed by the different stakeholders.

According to the strategic report produced by the National Strategic Reference Framework in 2012, “when compared to the EU average, the Portuguese economy is over-specialized in low value-added, low knowledge-intensive and internal market-oriented sectors in both manufacturing and services. This specialization profile strongly penalizes the growth prospects of the Portuguese economy” (QREN, 2012, p. 38).

Over the last decade, paid employment increased its relative importance in total employment (from 78.9% to 83.4%). This evolution was mainly explained by a steady decrease in the number of own account workers. Nevertheless, self-employment with no employees is usually perceived as a precarious labor market situation. When the Portuguese economy entered a more favorable phase of the business cycle, a significant proportion of individuals under these conditions were able to shift toward paid employment. The share of employers in overall employment remained stable, varying between 4.75% in 2017 and 5.27% in 2013. The evolution was similar for both genders. The main difference is that women are more represented in paid employment than men are. Nevertheless, this follows a pattern that can be found in other countries too: “men have traditionally been more likely than women to start new businesses” (Global Entrepreneurship Monitor, 2020, p. 55). The relative stability found in the self-employment rate is in line with

previous international surveys showing that in Portugal between 70% and 75% of entrepreneurial activities are opportunity-driven (Eurobarometer, 2012; Eurofound, 2017).

Table 1: Distribution of employment according to occupational status

	Overall			Males			Females		
	Employees	Own account workers	Employers	Employees	Own account workers	Employers	Employees	Own account workers	Employers
2011	78.9%	15.9%	5.2%	74.9%	17.9%	7.2%	83.4%	13.6%	3.0%
2012	78.4%	16.5%	5.1%	74.2%	19.1%	6.7%	83.0%	13.7%	3.3%
2013	78.6%	16.2%	5.3%	74.3%	18.6%	7.1%	83.2%	13.5%	3.3%
2014	80.7%	14.1%	5.2%	76.1%	16.8%	7.2%	85.7%	11.2%	3.1%
2015	82.0%	13.2%	4.8%	77.6%	15.7%	6.7%	86.6%	10.6%	2.8%
2016	82.8%	12.5%	4.8%	78.6%	15.1%	6.4%	87.2%	9.8%	3.1%
2017	83.4%	11.8%	4.8%	79.3%	14.2%	6.5%	87.8%	9.3%	3.0%
2018	83.7%	11.4%	4.9%	79.7%	13.8%	6.5%	87.9%	9.0%	3.1%
2019	83.4%	11.7%	4.9%	79.5%	14.0%	6.5%	87.5%	9.3%	3.2%

Source: National Statistics

When we consider the occupational status, a very concerning fact becomes clear: the skills deficit is more pronounced among the self-employed than in the case of employees. In 2009, 79.0% of the self-employed persons had at most lower secondary education, which compares with 62.4% for employees. In both cases, for the EU28 the comparable values were 26.7% and 21.3%, respectively. Also at the European level, employees present a higher attainment level but the difference in the share of both groups is much smaller than in Portugal. There was a convergence when the analysis is developed for the year of 2019, although the self-employed with ISCED levels 0-2 still represent 50.6%. The lack of skills in management positions has strong implications at the firm level. Table 3 shows that in 2018, 96.3% of the overall number of firms had fewer than 10

workers, and that this percentage has shown a positive trend since 2009. In addition, it is also important to stress that the number of firms with more than 250 employees is only 994.

Using data for the Portuguese economy, Alexandre et al. (2017) analyze the relationship between the average schooling of managers and the average schooling of workers within the company and verify a high correlation between them. “Considering that the productivity of companies depends on the qualification of employees, our results suggest that companies with more qualified managers may be more productive, either because these qualifications allow for efficiency gains at the organization level or because they will tend to hire more qualified workers” (Alexandre et al., 2017, p. 114). Therefore, the study suggests that the investment in the opportunities for adult learning should be reinforced.

Table 2: Distribution of employment according to occupational status and educational attainment

	2009		2019	
	EU28	PT	EU28	PT
<b>Employees</b>				
Less than primary, primary and lower secondary education	21.3%	62.4%	16.1%	39.8%
Upper secondary and post-secondary non-tertiary education	50.1%	19.5%	47.8%	30.8%
Tertiary education	28.6%	18.2%	36.1%	29.3%
<b>Self-employed persons</b>				
Less than primary, primary and lower secondary education	26.7%	79.0%	19.1%	50.6%
Upper secondary and post-secondary non-tertiary education	45.8%	10.3%	43.9%	23.5%
Tertiary education	27.6%	10.7%	37.0%	25.8%

Source: National Statistics

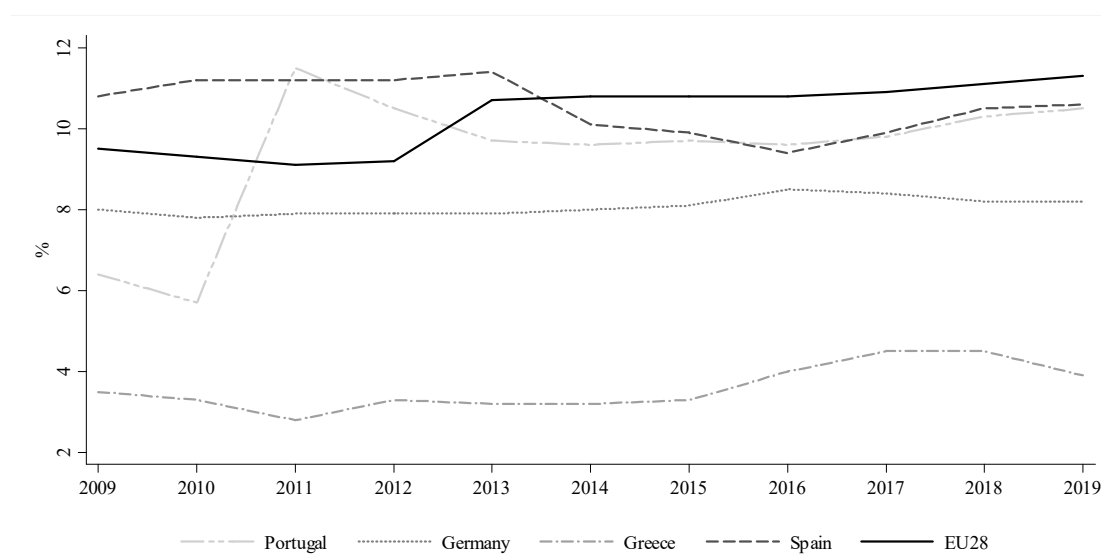
Table 3: Distribution of firms according to the employment size class

	2009		2018	
	No.	%	No.	%
Total	1,199,843	100.0%	1,278,164	100.0%
Fewer than 10 employees	1,150,380	95.9%	1,229,939	96.2%
10 - 49 employees	42,667	3.6%	40,963	3.2%
50 - 249 employees	5,947	0.5%	6,268	0.5%
More than 250 employees	849	0.1%	994	0.1%

Source: National Statistics

The participation of the population in lifelong learning is below the average of other Member States (Figure 7). Nevertheless, there has been significant convergence. In 2009, 6.4% of the population aged 25-64 participated in education and training over the four weeks prior to the survey (at the European level the average rate was 9.5%). In 2019, this proportion had increased to 10.5%, becoming closer to the objectives described in Section 3.4.

Figure 7: Life-long learning (adult participation in education and training) - Percentage of the population aged 25-64 participating in education and training over the four weeks prior to the survey



Source: Eurostat

## 5. Conclusion

An analysis of the available evidence allows us to draw two important conclusions: (i) there is an improvement of most indicators regarding the education of the population, and (ii) there is still a considerable gap in comparison to other Member States. Therefore, this area should continue to be a top priority in the political agenda.

For many years the policies have put a great emphasis on the quantitative dimension of the progress to be achieved. However, this approach has placed a less than desirable emphasis on: (i) the need for greater investment in the development of a framework to promote a better match between the demand and supply of skills; and (ii) the quality of the training offered. As described in this chapter, over this decade there has been a shift in the dominant approach. The creation of the National Agency for Qualification and Vocational Education and Training (ANQEP) was a very positive effort in that direction. In this chapter we have seen measures and initiatives to develop the institutional framework in order to guarantee the necessary means to assess and monitor the quality of the training being offered and to promote a closer alignment between the contents of the programs and labor market needs. In addition, there has also been a reform in VET pathways. The greater number of opportunities that young people and adults have access to in order to finish secondary education through this type of program can be an effective solution to reduce dropout rates and at the same time supply the economy with human resources possessing skills that are closer to what firms need in a variety of occupations.



International institutions such as the OECD and the European Commission have acknowledged this progress of the Portuguese Education System. Nevertheless, these types of policy take time to produce results that are captured through education and labor market statistics.

As a final remark, there is one critical issue related to this strategic commitment with vocational education and training that raises concerns in several discussions related to this topic: the mechanisms for financing these activities. Until now, these have depended heavily on European funds. In the future, when this type of funding is significantly reduced or even ceases to exist, alternative funding models will have to be found.

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