
Portuguese Business Manufacturing: Main Influencing Factors

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Resumo

Após realizado um estágio curricular de onde se constatou que, no sentido de respeitar o regulamento FRIBS elaborado pelo EUROSTAT, quatro empresas Portuguesas deviam obrigatoriamente definir uma KAU para a atividade secundária em causa devido ao seu nível de produção quando comparado á escala nacional, de acordo com dados da IES (Informação Empresarial Simplificada) para os anos de 2017 e 2018, procedeu-se a uma investigação mais "macro", cujo objetivo foi o de analisar o tecido empresarial Português á luz dos seus principais fatores influenciadores: cultura, política, contexto económico, inovação tecnológica e competitividade. De forma a responder ao objetivo a que o trabalho se propõe, recorreu-se à análise de documentos do Instituto Nacional de Estatística, Pordata e de websites como o do Governo Português ou o blog oficial do presidente da Câmara do Comércio e Indústria de Portugal, Bruno Bobone, entre outros. Foram identificados e analisados os principais dados relativos aos fatores em causa, no sentido de fornecer uma imagem de como o tecido empresarial Português se encontra "desenhado" atualmente. Os resultados evidenciam, entre outras conclusões diferidas ao longo do trabalho, que o sector cultural encontra-se bastante debilitado em Portugal merecendo maior atenção por parte do Governo, o "duelo esquerda-direita" toma conta do contexto político Português do século XXI sendo as atuais políticas voltadas essencialmente para o impulsionamento das empresas e do emprego jovem, o sector dos serviços está a "roubar" protagonismo ao sector industrial em Portugal, sendo que ambos serão negativamente afetados pela saída do Reino Unido da União Europeia e apesar das dificuldades nas áreas de I&D e inovação das PME's, Portugal encontra-se num bom caminho no sentido de se integrar na inevitável 4º revolução industrial. Este relatório fornece um contributo importante para qualquer agente económico (potencias investidores ou investigadores, entre outros) que considere relevante saber como o tecido empresarial Português é influenciado nos dias de hoje pelos fatores em estudo, adicionando uma descrição das funções levadas a cabo no estágio curricular, que permite ao leitor conhecer certas normas impostas pelo EUROSTAT ás empresas do estados-membros da União Europeia, ao nível da segmentação de unidades de atividades económicas.

Palavras-chave: Tecido Empresarial Português, Progresso Tecnológico, Competitividade, Cultura da Empresa, Política Portuguesa, Economia Portuguesa, UAE, CAE, IES

Jel-Codes: E2, C81

Abstract

After completing a curricular internship, it was found that, in order to comply with the FRIBS regulation prepared by EUROSTAT, four Portuguese companies were obliged to define a KAU for the secondary activity in question due to their level of production when compared to the national scale, according with data from the *IES (Informação Empresarial Simplificada)* for the years 2017 and 2018, a more "macro" investigation was carried out, whose objective was to analyze the Portuguese business fabric in the light of its main influencing factors: culture, politics, economic context, technological innovation and competitiveness. In order to respond to the objective of this work, an analysis of documents from the *Instituto Nacional de Estatística*, *Pordata* and websites such as that of the Portuguese Government or the official blog of the President of the *Câmara do Comércio e da Indústria de Portugal*, Bruno Bobone, among others. The main data relating to the factors in question were identified and analyzed, to provide an image of how the Portuguese business manufacturing is currently "designed". The results show, among other conclusions differed throughout the work, that the cultural sector is very weak in Portugal deserving more attention on the part of the Government, the "left-right duel" takes over the Portuguese political context of the 21st century being the current policies aimed essentially at boosting business and youth employment, the services sector is "stealing" leading role in the industrial sector in Portugal, both of which will be negatively affected by the UK's withdrawal from the European Union and despite difficulties in the areas of R&D and innovation of SMEs, Portugal is on a good path towards integrating itself in the inevitable 4th industrial revolution. This report provides an important contribution to any economic agent (potential investors or researchers, among others) who considers it relevant to know how the Portuguese business fabric is influenced today by the factors under study, adding a description of the functions carried out in the curricular internship, which allows the reader to know certain rules imposed by EUROSTAT on companies in the member states of the European Union, in terms of the segmentation of units of economic activities.

Keywords: Portuguese Business Manufacturing, Technological Progress, Competitiveness, Company Culture, Portuguese Politics, Portuguese Economy, KAU, NACE, *IES*

JEL Codes: E2, C81

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1. Introduction

The present Final Master's work comes within the scope of the curricular internship carried out between October 2nd, 2019 and March 12th, 2020 at the *Instituto Nacional de Estatística, IP (INE, IP)*, central body for the production and dissemination of official statistics that ensures supervision and technical-scientific coordination of the *Sistema Estatístico Nacional*. *INE, IP*, is a public institute of special regime, integrated in the indirect administration of the State with administrative autonomy whose mission is to produce and disseminate effectively and efficiently high-quality statistical information, relevant to the whole company¹. The objective of the internship was to not only completing the master's degree in Economics from the Faculty of Economics at the University of Porto, but also to acquire professional experience, taking the first steps in the labor market.

The definition of units of economic activities provides a kind of identity to the business sector of each country, more specifically, differentiating each economic activity by codes of figures. This work intends to study the business manufacturing of Portugal from a more macro point of view, as will be seen further.

In the current global economic environment dominated by uncertainty and facing a pandemic crisis, it is a reality that only companies capable of setting up a well-structured and flexible organization that reveals a capacity for quick and efficient response to the market and the challenges raised will not only survive not only economic crisis but also some factors such as technological progress and growing competitiveness (Sousa, 2018). Like the current coronavirus pandemic, historical events such as the two major world wars or the economic crisis of 2008, affect economies and business sectors of countries in a "one shot" way, producing irremediable consequences at a structural level in the business sectors. However, there are other factors that have shaped the economy and business manufacturing of each country in a more progressive way over time, such as culture, the political and economic context and technological progress and the competitiveness of each nation, that have been changing for centuries and thus, defining what the economic and business identity of each country is. This work intends to analyze each one of these factors for the case of Portugal, with the objective of providing an image of the Portuguese business manufacturing in their light, contributing to studies that may be carried out in the

¹ Retrieved from https://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_inst_legislacao , accessed on 29.08.2020

future within the matter, allowing potential investors that may want to allocate their wealth in the Portuguese business sector to understand how it is defined or to support researchers and historians in the next coming years, taking into account the collection and treatment of data carried out here regarding the main influencing factors of Portugal's business manufacturing.

This report is divided into five chapters, the first of which is this introduction. The second chapter follows, which concerns the literature review whose objective is to provide the reader with a slight theoretical background and historical review regarding the main factors influencing the business sector in the Portuguese context, contextualizing it for the analysis carried out in the chapter. Following. The fourth chapter will serve to summarize what has been done during the curricular internship as well as the results obtained from it. Finally, the fifth chapter will explain not only the main conclusions to be drawn from this work, but also its limitations.

2. Literature Review

A country's business manufacturing is influenced by several factors. In this chapter, the main factors influencing the Portuguese business fabric will be presented, including culture, politics, the country's economic and financial context and technological progressive and competitiveness. It is important to provide this theoretical background to the reader to understand the impact that each factor can have on a country's business sector. Since the objective of this work is to provide an analysis as detailed as possible of the Portuguese case, some factors are accompanied by their historical record so that the reader can also understand how their impacts on Portuguese companies have been varying in the last decades.

2.1 Culture

The concept of culture is a theme of Anthropology, a science that is outside the scope of this work. Its relevance comes from the fact that it constitutes the "list" of factors that affect the Portuguese business sector and for that reason, some definitions will be presented, the first one by Kluckhohn (1951) and the second one by Schein (1992) (Oliveira, 2010):

“Culture consists of standardized forms of thinking, feelings and reactions, acquired and transmitted mainly through symbols, constituting the distinctive achievements of human groups, including their personifications in artefacts; The essence of the cultural nucleus consists of traditional ideas (historically oriented and selected) and mainly the coupled values.”

“Pattern of basic assumptions learned and shared by a group while solving their internal and external adaptation problems. These basic assumptions turned out well enough to be considered valid and, therefore, were taught to new members as being the right way to understand, think and feel about these problems”

Cultural Impact on a Business Manufacturing

Culture has a strong and growing capacity to modify business relations and has been the subject of increasing attention in recent years, at the business level, being one of the greatest challenges in business negotiations is cultural differences with the original culture of the manager, the country where he works and the company that employs him varying greatly and the greater the cultural difference in these three points, the greater the effort that the manager will have to make to minimize the impact of such differences in the business negotiation process (Oliveira, 2010). It is also important to highlight the individual cultural differences, that is, each individual has its own cultural pattern, which is as unique as the human voice that results not only from the relationship that the individual had and will have throughout life with family and friends, but also from culture that absorbs from their region, company, country and even the culture itself that the individual consumes, whether in films, series, music, travel (inside or outside his country of origin) etc.

At the international level, there are several empirically based studies related to this theme, the most recurrent models being “The five cultural dimensions of Geert Hofstede” and the “The seven cultural dimensions of Fons Trompenaars and Charles Hampden-Turner (1997)”, the latter being more complete and current since, for example, it includes an emotional component (Oliveira, 2010) However, in relation to the Portuguese business sector, there is a clear lack of information in relation to this topic, which is taken into little consideration by the academic and business environment. Since this work aims to provide a detailed analysis of the Portuguese business fabric, although focused on multi-activity companies, the cultural aspect will also be the subject of a complementary study to the (little) existing literature, thus contributing to the awareness of the Portuguese public about the subject, namely academics, managers and business leaders.

Bearing in mind that globalization and international trade in goods and services is increasing exponentially from year to year, it is important that managers do not neglect cultural differences in the process of making business and investment decisions.

Historical Record

After the revolution of April 25th, 1974 (a landmark that will be detailed later in this chapter) Portugal had 17 Constitutional Governments and only in the thirteenth (in 1995) a Ministry of Culture was created being that until 2007, six ministers of the culture in five governments were nominated (DOS SANTOS & de Lourdes, 2008). From the end of the 1990s, successive working groups appointed by the Ministry of Culture and the Ministry of Education drew up successive documents that pursued a common objective: the implementation of measures aimed at articulating cultural policies with those of education (DOS SANTOS & de Lourdes, 2008).

2.2 Political Context

One of the main functions of politics is to reach agreements that guarantee benefits for all citizens and thus, it can be defined as an instrument to reach a satisfactory social organization, so that society works in an organized and fair way. The practice of politics by government officials can happen in several ways, such as when a government official decides on how the tax money paid by the population will be applied, what public policies will be created, when new laws are created and voted on, etc.²

Historical record

Estado Novo (1933-1974)

In 1928, the then Republic President, Óscar Carmona, invited António de Oliveira Salazar to head the Finance portfolio. It was urgent to control public accounts, because even after the military coup in 1926, Portugal's economic and financial situation remained very serious. Some measures taken by Salazar to remove the country from the complicated

² Retrieved from <https://www.todapolitica.com/o-que-e-politica/> , accessed on 18.06.2020

financial situation it faced consisted of increasing taxes and incentives for exports and reducing salaries for civil servants and spending on health, education, and social assistance.

When he managed to balance public accounts and reduce Portuguese debt, Salazar was appointed head of government in 1932. A year later, the new Constitution was approved and with it begins a historic period that became known as "*Estado Novo*". To promote ideology, this new regime organized exhibitions on the great achievements of the Portuguese, both from the *Estado Novo* and from Portuguese History, and published posters that conveyed messages in favor of the regime's policies.

Since the beginnings of this regime, the hegemonic class was the agrarian bourgeoisie, which managed to ensure that state intervention overlapped the satisfaction of its economic interests with that of other social classes. The exercise of the hegemony of the agrarian bourgeoisie simultaneously implied its acceptance of the tutelage exercised by the bureaucratic machine in the name of the State's interest and from 1960, these economic hegemony began to decline (while its ideological hegemony only really declined at the end of that time), thus giving way to the conquest of economic hegemony by the industrial-financial bourgeoisie (de Sousa Santos, 1984).

The political and administrative matrix of the "*Estado Novo*" was characterized by its capacity to subordinate and reconstruct the social interests it served in the name of an autonomous interest of the State. Not going into more detail in relation to this Portuguese regime of the twentieth century, just add that opposite to what happened with the American armed forces in Vietnam, the Portuguese armed forces "were forced" to delegitimize the war they had not been able/knew how to win. Deprived of its military apparatus, the regime collapsed (de Sousa Santos, 1984).

The April 25th Revolution, 1974

Talking about the history of Portuguese politics without mentioning the April 25th, 1974 revolution is like trying to explain Christianity without mentioning Jesus Christ. In fact, that day brought a new political regime to Portugal.

The collapse of the regime did not imply a general collapse of the state. The rupture occurred at the level of fascist characteristics of the old regime: the single party, the

political police, the para-military militias, the plenary court, the political prisoners and the rebuke of freedom of expression and of association (de Sousa Santos, 1984).

José Durão Barroso (1984), lists two main characteristic elements of political articulation in post-1974 Portugal:

- Emergence of structures such as CAP (*Confederação da Agricultura Portuguesa*), CIP (*Confederação da Indústria Portuguesa*), whose designation was changed to CEP (*Conselho Empresarial do Porto*) in 19.02.2002 and where CAP is today included and the UGT (*União Geral dos Trabalhadores*), to name a few whose genesis and current actions are of a political nature.

- An explosion of social claims (either of political content, like the end of the colonial war and the elimination of the structures of the previous regime; or of economic content, such as the general increase in wages and the establishment of the national minimum wage) that arose at a very embryonic stage of the new political regime, not yet been constituted.

However, this revolution brought an economic crisis to Portugal in the first years due to factor such as the world economic crisis at the time, the disintegration of a social and political regime of almost forty years, increasing class struggles, the inability of the new political structure to rebuild the economic system and the Chaotic decolonization of Angola (Murteira, 1976).

Economic Policy and the CGD (*Caixa Geral de Depósitos*) Bank

In order not to deviate from the theme of this work, it follows a brief definition of economic policy by J. Tinbergen (1956):

“As was already stated, economic policy consists of the deliberate manipulation of a number of means to attain certain aims. Taxes may be lowered to stimulate employment; social security may be introduced to further an equitable distribution of the national product”.

In other words, economic policy refers to the actions that is taken by governors in an economic context. It covers the government budget and interest rate setting systems, as well as the labor market, national property, and many other areas of government interventions in the economy.³

In the 1920s and 1930s, a period of economic autonomy was experienced almost everywhere in the world resulting from the policies carried out to resolve the internal and international financial imbalances caused by the First World War (about half of the budgeted funds were, however, for defense purposes) and even before the Second World War, two conditions were ensured for greater intervention by the Portuguese State in the economy: the autarky regime (which protected the domestic market) and the existence of sources of public financing (Lains, 1994). In the aftermath of World War II, the favorable conditions for State intervention were coupled with an exceptional accumulation of gold and foreign exchange at the Bank of Portugal and financial balances in the national banking system (Lains, 1994). In 1945, the conditions were met for the defense of greater State intervention in the economy in Portugal and three years later, the resolution of the country's international payments problem, as at other times in history, came to dominate the government's concerns, being necessary to proceed with the containment of imports, similarly to what had been done with wheat since the late 19th century (Lains, 1994).

The great "face" of the Portuguese banking system in the XX century was the CGD bank (*Caixa Geral de Depósitos*) which has also been used as an instrument of economic policy. Founded in 1876, the productive use of the large amount of deposits (45% of all national deposits in 1939) was understood as essentially passing through the financing of the needs of the public treasury (through the purchase of public debt inscriptions, through account credits current or by discounting treasury bills) - given the chronic budget deficit that obliged governments to resort to any expedient in order to cover the perennial insufficiency of tax revenues (Reis, 1997). However, in 1929, a series of reforms profoundly transformed the economic role of CGD, which was converted into a powerful instrument to support the economic policy to be implemented by Salazar's newly established nationalist-authoritarian government: put an end to traditional deficit financing methods and use the considerable volume of resources, which were thus freed, to use them

³ Retrieved from <https://www.encyclopediainanciera.com/teoriaeconomica/macroeconomia/politica-economica.htm> , accessed on 22.06.2020

to foster and modernize the economy, in particular those sectors considered at the time to be of “national interest”, as well as to intervene in the most significant product markets in order to ensure price and production stability. (Reis, 1997). It can be said that the 1929 reform, which converted it from a traditional State savings bank into a development bank, marked the beginning of a new era in the area of State intervention in the Portuguese economy, using financial instruments (Reis, 1997).

2.3 Economic and Financial Context (Historical Record)

As Murteira (1976) stated:

“By 1950, Portugal had a per capita income of less than 200 dollars and 47% of the population was engaged in agriculture. Cork, tungsten, wine, wood, and canned fish account for around 70% of exports. In the early seventies, per capita income is around 900 dollars, only 1/3 of the labor force is employed in agriculture and more than 60% of exports are manufactured products”.

The optimism of the immediate post-war period faded as early as 1947 in the face of difficulties in the balance of payments, resulting from the poor behavior of exports and the need to use the foreign exchange reserves accumulated during the war to regularize the supply of food products in the country (Lains, 1994). Beginning in the 1950s, but increasing with the turn of the 1960s, the Portuguese economy registered growth above the average of the economies of the industrialized countries of Europe and in 1963, the year in which for the first time the value of industrial production surpassed that of agricultural production, Western Europe saw the birth of its last industrial nation in Portugal, an industrialization that would inevitably have to lead to a decrease in the importance of agriculture in national production (Lains, 1994). The Portuguese industrialization model was based on low wages paid in the industry, which were made possible thanks to what was

believed to be the artificial maintenance of a low cost of living, resulting from the setting of cheap prices to national agriculture (Lains, 1994).

Despite the internal transformation in Portugal, the main transformations in the Portuguese economy and societies were determined by forces acting from outside the borders. At the beginning of the 1960s, a policy of relative economic autonomy was no longer possible and so, in 1960, Portugal was convinced to join the EFTA (an intergovernmental organization between Iceland, Liechtenstein, Norway and Switzerland that was set up for the promotion of free trade and economic integration between its members)⁴, and so in the mid-decade, was forced to adopt a more liberal policy on FDI (Murteira, 1976). This caused exports and imports to grow faster than GDP and trade flows with foreign countries to increased more than those related to colonial. The country's economic growth was mainly the growth of the secondary sector (manufacturing and construction industries) which also determined some effects on tertiary activities. The following table (Murteira, 1976) shows the reduction in the share of primary sectors in GDP (1) and employment (2), in percentage:

Activity sectors	1950		1960		1970	
	1	2	1	2	1	2
Primary sectors	28	48	24	44	17	32
Secondary sectors	48	25	34	29	45	33
Tertiary sectors	34	27	42	27	38	35

As the table shows, between the 1950s and the 1970s the primary sector lost its relevance in the Portuguese economy to the detriment of the secondary and tertiary sectors. This is visible not only by the percentage of GDP (which has reduced by almost half in that time frame) but also by the employment that has reduced significantly in the primary sector over these three decades.

It is also important to note that Portugal's commercial dependence on capitalist countries, mainly industrialized nations in Europe, was growing exponentially. Another table from Murteira (1976) shows the main effects of the April 25th Revolution of 1974 in the Portuguese economy:

⁴ Retrieved from <https://www.efta.int/about-efta>, accessed on 19.08.2020

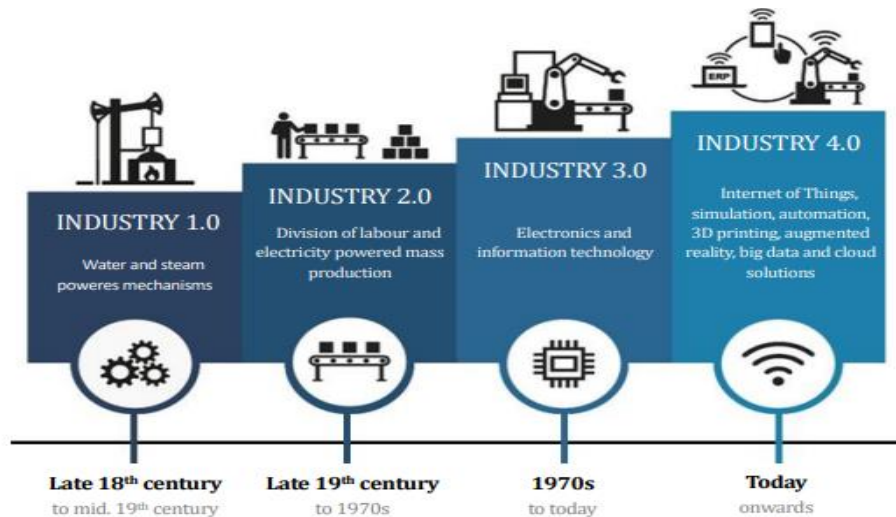
Production	Decreased by 3% in 1975 (mainly in the construction and industries producing capital goods)
Private Investment	Stopped almost 100%, while public investment was not enough to compensate for such fall
Unemployment	Reached 10% of the resident active population, in addition to around 70.000 unemployed among Angolan refugees - in total, the number of unemployed was around 400.000
Inflation Rate	Reached the same order of magnitude (almost 40% per year) registered in the first months of 1974, before April 25th, when Portugal experienced one of the highest inflation rate in Europe
Balance of Payments	In 1974 and 1975, Portugal lost 40 billion "escudos" (Portugal's currency at the time) from their reserves
Imports/Exports	In 1976, imports were twice the exports

2.4 Technological Progress/Competitiveness

The first industrial revolution began in the late XVIII century and marked the transition from rudimentary production methods to more automated production processes. These changes have revolutionized not only the economy, with increased productivity, but also the daily life of the population. Since then, the industry has undergone changes both in terms of its production systems and in terms of management (Santos, Alberto, Lima, & Charrua-Santos, 2018).

The evolution in the capacity of technologies has leveraged industrial productivity, reducing production costs and providing effective solutions to serve customers with remarkable quality and speed. Currently, the introduction of new concepts, such as production based on the Internet, allows to improve the interaction between manufacturers, customers and suppliers (Santos, Alberto, Lima, & Charrua-Santos, 2018).

A table follows that divides the world technological progress from the XVIII century to modern times into four phases, taken from Bruno Faria (2019):



Portuguese Technological Progress and Competitiveness

The industrialization process in Portugal was (and is) considered by many to be too late and too slow, especially when compared to the British industrialization model. In 1936, Salazar listed some factors that he considered relevant to the relative Portuguese industrial backwardness: "... the inferiority arising from the narrowness of the markets, the deficiency of the technique, defects in organization, the price of the driving force, the conditions in which supplies raw materials" (J. M. A. J. R. d. H. Mendes, x, 1990).

In the article "The Porter Project revised" of April 2nd, 2012 in the *Jornal de Negócios* journal, Luís Todo Bom states:

"Business "communities" based on knowledge are fragile, "technology parks" are generally warehouses or dormitories for companies with reduced cross-fertilization actions, integration in "international knowledge and technological development networks" are punctual and the use of "digital platforms" to build these "portals of business knowledge communities" is incipient."

As Michael Porter stated in 2002, competitiveness is a marathon, not a sprint, and in "The Comparative Advantage of Nations" (1990), he presents two theoretical tools in his model that are relevant to this point: the diamond (or rhombus) and the theory of "clusters".

According to the first model, the competitiveness of each nation lies in the optimization of that "diamond" applied to regionally concentrated sectoral "clusters", in which the country already has comparative advantages, and these "clusters" are supported by horizontal public

policies that were intended to polish and shine the vertices of the "diamond" (Amaral, 2015). This model supports the idea that it is necessary to bet on what we already have experience and that we know instead of advancing on things that we do not know just because they are fashionable among theorists of politics or economics. The application of the Porter model in Portugal in the "Porter project" (1992) resulted in the following horizontal clusters and policies (Amaral, 2015):

Clusters	Shoe; Clothing / Knitwear. Automotive Components; Wood Materials; Tourism; Wine
Horizontal policies	Educational System; Financial System; Forest Management; Science and technology; Management Capacity

Michael Porter stated that "Portugal lost eight years" and that the policies followed neglected the microeconomics, expressing distrust towards the "capacity to change" of the Portuguese economy and stressing that there is no prosperity without productivity. Finally, he advises the private sector to mobilize itself for a problem that "is not the Government's, but the country's" and to not spend more time allowing interest groups to block progress. When compared to the Portuguese situation in 1994, Porter considers that the "competitive position of the national economy has worsened, while the external environment has become more aggressive" (Amaral, 2015). What determines a country's competitive capacity, is "not what the country produces, but how sophisticated and productive that country is to produce", meaning that the key to the problem is no longer in macroeconomic conditions ("imposed" by joining the euro) but in "microeconomic sophistication", reflected in the business quality environment, where infrastructures and legislation enter, among other factors. Porter started to give greater importance to the countries' innovative capacity, to increase their productivity, pointing it as a "path" priority for "the future of Portugal". He stresses, in his thesis, that "there are no longer low-tech industries, only low-tech companies" (Amaral, 2015).

Finally, according to Luís Amaral (2015), the major concern of economic policy must be the question of competitiveness: only by making the country more productive and competitive will it be possible to improve our quality of life and reduce inequalities in the long term. In Portugal there is a clear need to increase exports, but without competitiveness there are no products to sell on the international market. Finally, the

author defends the importance of adhering to the knowledge economy model (injecting knowledge and engineers into our Portuguese companies) and that SMEs must know how to integrate themselves into the value chains of large global companies.

3. Portuguese Business Manufacturing: Main Influencing Factors Analysis

3.1 Culture

Economic Data

A country's economy and culture are intertwined. The following table, prepared by Augusto Mateus in "The Cultural and Creative Sector in Portugal" (2010) shows the points of contact between the economy and culture:

Nuclear Activities of the Cultural Sector	Performing Arts
	Visual Arts and Literary Creation
	Historical Heritage and Culture
Cultural Industries	Video and Cinema
	Edition
	Music
	Radio and Television
	Educational and Leisure Software
Creative Activities	Architecture
	Design
	Advertisement
	Software Services
	Creative Components in Other Activities

In 2006, the Portuguese cultural sector represented 2,8% of the Gross Value Added (3.691 million euros), being just slightly behind the automotive and restaurant sector and 2,6% of Employment (127.079 employees), concluding that in terms of employability, culture in Portugal is not a very appealing sector, but it stands out for its revenue, which indicates a level of qualification and productivity higher than the national average (Mateus, 2010).

Other important data related to this sector (for the year 2006) are the clear dominance of micro companies (87% of the establishments had 10 workers), the small foreign capital invested in it, an average gain of the constituent companies in the sector 20% higher than that average earnings of companies, the youth of the labor force (more than a third of the workers were under 35) and a more positive job qualification than the national standard (17% of workers had higher education qualifications) (Mateus, 2010). This last point is also an indicator that the number of low-skilled workers in Portugal is high, since sectors such as tourism, hotels and restaurants cover a significant portion of workers in Portugal, which is linked to factors such as the geographic location of the country (Southwest Europe), the political context of the country (a factor to be analyzed in detail later in this chapter) and the level of education of the Portuguese population.

Augusto Mateus also highlights two important points related to the Portuguese cultural sector: the business geography of the sector (half of the establishments are in the Great Lisbon area, in Great Porto and on the Setubal Peninsula, which translates into a strong regional asymmetry in the specialization of employment in the sector) and the difficulty in inserting Portuguese goods in the global market for culture and creativity (in 2006, the trade deficit in the cultural and creative sector already exceeds 1% of GDP).

Weaknesses of the Portuguese Cultural Sector

Portugal's position in the international context is fragile, and the main problem of the Portuguese creative economy is internationally, so cultural policies in this country must strive to promote a dynamic and qualified cultural sector that can respond to the current competitiveness needs. Efforts have been made to articulate cultural and educational policies, which have been much sought after by workers in the cultural sector but have been little achieved. It is this weak articulation that constitutes the main obstacle to the satisfaction of the qualification requirements in terms of the training of cultural professionals. Also, an articulation between the Ministry of Culture and the Ministry of Foreign Affairs would have positive effects for the cultural sector so that the internationalization of the Portuguese cultural sector becomes possible (DOS SANTOS & de Lourdes, 2008).

Sensibilization of the general population to the arts is another aspect of qualification to be taken into account since a population that is attentive and participative in relation to culture can feed more demanding cultural demands, providing the emergence of more artistic careers, enriching the country's cultural sector. Finally, in terms of professionalization, it is important to highlight the lack of normative provisions that regulate the exercise of the profession in the cultural sector (DOS SANTOS & de Lourdes, 2008).

Culture in Portuguese Companies

Tiago Oliveira (2010) states that although there is cultural variability among the Portuguese population, there is also a preference for certain cultural values. It also finds that, particularly between SMEs and Start Ups, there is widespread attention to cultural differences despite differing in their recognition and management. Also, Tiago's study made it clear that in the Portuguese business manufacturing there is a need for greater concern regarding the impact that cultural differences have on corporate business and on the integration and maintenance of Portuguese companies in international markets. In fact, 90% of the companies in his sample that have not yet gone international, intend to do so. A final important conclusion of this work was that 82,4% of the sample agrees that the skill "management capacity of multiculturalism" is one of the main skills that a manager may have nowadays, which consolidates the idea that despite the scarcity of studies and empirical basis, the impact of culture on business and, consequently, the composition of the business sector in Portugal, begins to be an issue that is increasingly present and considered by business managers in Portugal.

3.2 Political Context

Politics in Portugal

The information presented in the next three paragraphs related to the Portuguese political context was taken from the brief "Economic, Social and Territorial situation of Portugal", prepared by the European Parliament in 2019.

As Diogo Moreira (2009) stated:

"If politics were a religion, the left and the right would be the dividing clashes in Portugal"

In fact, Portugal is a semi-presidential republic and a parliamentary democracy where the president is the head of state, who is directly elected for a maximum of two consecutive terms of five years each, being since 2016 Marcelo Rebelo de Sousa (former leader of the Social Democratic Party) the President of the Portuguese Republic. The current prime minister is António Costa, from the Socialist Party, who forms a minority government, so by the time of the legislatures of November 26th, 2015 received support from the Left Bloc, the Portuguese Communist Party and the Green Party. The Assembly of the Republic is the unicameral parliament of Portugal, whose 230 members are elected for a four-year term.

Head of State – President	Marcelo Rebelo de Sousa
Head of Government – Prime Minister	António Costa
Minister responsible for cohesion policy	Nelson de Souza, Minister of Planning
Presidential elections	Most recent: January 2016 Next: 2021
Legislative elections	Most recent: October 2015 Next: September - October 2019
Local elections	Most recent: October 2017 Next: 2021

The political parties with seats in the Assembly of the Portuguese Republic are as follows:

- Social Democratic Party (*Partido Social Democrata, PSD*);
- Socialist Party (*Partido Socialista, PS*);
- Left Bloc (*Bloco de Esquerda, BE*)
- Social Democratic Centre - Popular Party (*Centro Democrático e Social – Partido Popular, CDS-PP*);
- Portuguese Communist Party (*Partido Comunista Português, PCP*);
- Ecologist Party 'The Greens' (*Partido Ecologista 'Os Verdes', PEV*);

- People-Animals-Nature Party (*Pessoas-Animais-Natureza*, PAN).

In addition, two more parties are present in the European Parliament:

- Democratic Republican Party (*Partido Democrático Republicano*, PDR);
- Earth Party (*Partido da Terra*, MPT).

Mainland Portugal has 5 administrative regions (which do not have elected councils) responsible for decentralized administration services, which enjoy financial and administrative autonomy. The administration of the regions oversees the Regional Coordination and Development Committees (CCDRs), decentralized bodies of the central government that, because of their financial and administrative autonomy, have the right to implement their own Regional Operational Programs (ROPs). There are 308 municipalities in Portugal (most of them subdivided into several parishes) and whose representative bodies of a municipality are the municipal assembly (deliberative and decision-making body composed of members directly elected for four years, as well as by the presidents of all parish councils located within the jurisdiction of each municipality) and by the municipal council (collegiate executive body of the municipality whose members are elected by direct universal suffrage). Portugal has 3.092 parishes whose representative bodies are the parish assemblies (deliberative parish body whose members are elected for a four-year term) and parish councils, which can form associations to manage activities of common interest. The local authorities (whose main functions are to coordinate municipal investments of intermunicipal interest) in Portugal include 21 intermunicipal communities, associations of municipalities and two metropolitan areas (Lisbon and Porto), as well as urban communities.

In Portugal, the left-right identification continues to be much stronger than the respective party identification, both in the old and in the new democracies, being able to distinguish them in terms of: socioeconomic values (the individuals who consider it more important to combat inequality and that the State has a more active role in society and in the economy tend to position themselves on the left, while the reverse values are on the right), religious values (those individuals who give greater importance to the role of religion or who have positions contrary to liberalization of abortion are placed on the right, and vice versa for people on the left) and tolerance towards emigrants (which seems to be a characteristic theme of the left, while their opponents are in the opposite field) (Moreira, 2009).

Economic Policy

Economic policies are government actions whose purposes are related to the economic situation of a country, and at the national level, are led by the Government and the Central Bank, while at the international level, entities such as the IMF (International Monetary Fund) and the World Bank are those responsible for preparing these policies (Lessa, 1998). There are four economic policy instruments at the disposal of governments so that they can carry out the economic policies they want: fiscal policy (government expenditure and revenue), income policy, monetary policy (liquidity available to economic agents) and foreign policy (maintaining the balance of payments balance), the latter being subdivided into trade and exchange policy (Lessa, 1998).

In order not to deviate from the primary objective of this work, we will not go into more detail regarding this matter, however, it is important to note that economic agents often carry out lobbying strategies in order to influence economic policy decisions made by the government.

Companies are now seen as a coalition-based political system, being common to relate politics to activities that companies carry out to collect and develop certain resources to obtain their desired results (Keller, 2018). In “Noisy business politics: lobbying strategies and business influence after the financial crisis”, Keller provides us with a table that characterizes the two lobbying strategies that business agents tend to use to influence economic policies:

Table 1. Lobbying strategies, quiet and noisy.

	Content	Conflict dimension	Target	Mechanism for influence
Quiet politics	Provision of empirical evidence and expert knowledge	Evidence – counter-evidence; argument – counter-argument	Policy-seeking decision-makers	Persuasion
Noisy politics	Mobilization on demands and implications deemed legitimate, (un-)fair or (un-)desirable	Competing deemed legitimate and potentially salient claims	Support-seeking decision-makers	Mainly pressuring through conflict expansion and increasing the salience

As shown by Eileen's table, the two lobbying strategies are distinguished by the degree of foundation with which lobbying is done: quiet politics is a strategy that agents adopt when their lobbying activity is based on empirical evidence, thus trying to persuade policy makers

in their favor, while noisy politics consists of a more "rudimentary" lobbying strategy that is more focused on pressure than on deterrence. However, noisy politics lobbying strategy has been successful unlike quiet politics (Keller, 2018).

Economic Policy in Portugal

Since the Government of the *Partido Socialista* of António Costa (Portuguese Prime Minister since November 26th, 2015) took office for the first time, more than 50 new unions were born in Portugal and more than 90% of them are not affiliated with any union center which harms workers and companies, since both need a strong and structured unionism that truly defends workers and is not concerned with the survival of their representatives.⁵

In view of the 2019 Portuguese legislative elections (which had place in October 6th of 2019), Bruno Bobone (president of the *Câmara do Comércio e da Indústria de Portugal*) interviewed the Portuguese Prime Minister António Costa, on September 4th, 2019, in order to understand the vision that the *Partido Socialista* leader had on some important issues for the Portuguese economy, highlighting the following points:

- There are no nationalizations in their electoral program, including Galp (Portuguese corporation which engaged in activities such as natural gas and petroleum supply, regasification, transport, storage and distribution)⁶ and EDP (Portuguese main company responsible for the production, distribution and commercialization of energy in Portugal, despite having been losing market share)⁷;

- The minimum wage will not increase since it is already close to the average Portuguese wage, despite emphasizing the importance of valuing the income of the youngest;

⁵ Retrieved from <https://www.brunobobone.com/cgtp-nova-lideranca-num-mundo-novo/> , accessed on 8.08.2020

⁶ Retrieved from <https://www.galp.com/corp/en/about-us/what-we-do/refining-midstream> , accessed on 8.08.2020

⁷ Retrieved from <https://portugal.edp.com/en/edp-portugal/what-we-do> , accessed on 8.08.2020

⁸ Retrieved from <https://www.noticiasaoiminuto.com/economia/1298528/edp-e-a-principal-operadora-mas-esta-a-perder-quota-de-mercado> , accessed on 8.08.2020

- António Costa believes that the reduction in corporate income tax is not responsible for the impulse of companies, but for the permanence of low interest rates;

- The electoral program of the socialist party differs from that of the left bloc.

The 2015 legislative elections gave rise to a government solution that was unprecedented in Portuguese legislative history, namely through institutional cooperation between the main left parties with parliamentary representation and the *Partido Socialista* (known as "contraption" ("geringonça" in Portuguese) (C. A. d. M. Mendes, 2018). Bruno Bobone, due to an interview held at the time leader of the *CDS-PP* party on June 15th, 2019, summarizes the 4 years (2015-2019) of this "geringonça" in four crucial points:

- After a first phase of great concern for most entrepreneurs, a period of economic growth followed;

- There was a reduction in unemployment and an increase in consumption;

- Companies remained on the path of internationalization and the economy continued to grow;

- There was, however, a growing sense of concern among economic agents, resulting from the non-payment of debts to the private sector and the nationalization program in the sectors of transport, education and health;

- There was also a growing concern about the current legislature (2019-2023) due to the low adherence of the right-wing opponents to the political projects that are proposed to them;

3.3 Economic and financial context

This point will be divided into two parts: a brief analysis of three major historical events for the economy of the European Union and consequently of Portugal (Brexit, the China-US trade war and the recent Coronavirus pandemic) and a collection and interpretation of the main socio-economic data of Portugal.

China-US trade war

A brief analysis follows of the consequences that this conflict will bring to the European Union, of which Portugal is part of.

The 2008 economic crisis, marked by the reduction in asset prices, the collapse of major financial institutions worldwide and the devaluation of most national currencies against the dollar and the yen, affected practically all countries (Carvalho & Catermol, 2009). The performance of the North American economy is fundamental for overcoming any crisis as the US current account deficit enables development strategies via exports by several countries (Carvalho & Catermol, 2009).

China is currently one of the main trading partners of the USA and one of the main economic players in the world (reaching in 2007, the second place in the ranking of exporting countries selling 1.2 trillion dollars abroad, a value only surpassed by Germany) , a title that also comes from factors such as the great extent of its territory (the third most extensive country in the world), the extremely high number of inhabitants (around 1.3 billion, the most populous in the world) and the dynamism of its economy (Condessa, 2019). Thus, it appears that a sharp Chinese slowdown, a recession of greater magnitude in the USA and/or a break in its diplomatic relations, will inevitably have serious consequences for the economies of the other countries (Carvalho & Catermol, 2009).

Although the United States government and its military institutions do not regard China as an opponent (but a competitor in some areas and a partner in others), most analysts characterize the recent Sino-American relations as being complex and multifaceted (Condessa, 2019). After the 2008 crisis (and recently with the Coronavirus pandemic that originally started in the Chinese province of Wuhan)⁹, trade tensions between the USA and China have intensified due to the combination of American deficits with China with a low context growth of the American economy. The trade war between the two countries began when US President Donald Trump announced on March 22nd, 2018 a list of tariffs totaling 50 billion dollars on imports from China, based on the 1974 Trade Act and citing a Chinese record of "unfair commercial practices" and theft of intellectual property. In

⁹ Retrieved from <https://www.womenshealthmag.com/health/a31246167/how-did-coronavirus-start/> , accessed on 19.08.2020

retaliation, the Chinese government-imposed tariffs on more than 128 US products, including soy, a major US export to China (Condessa, 2019).

But how does this important trade war affect member states of the European Union, including Portugal? Several studies have been carried out with the objective of answering this question, many of which contradict each other, which constitutes a certain degree of subjectivity in this matter. Nowadays, it can be said that the European Union is the largest economy in the world, and according to a study carried out by the United Nations Conference on Trade and Development (UNCTAD, 2019), they would raise about 70 billion dollars in bilateral trade exports between China and the United States, with Germany and France being the main beneficiaries (Goulard, 2020). According to estimates by the Barclay bank, European exports to China are expected to increase by around 0,1% of Chinese GDP, with the automobile industry being the main winner of this trade war. However, this estimate proved to be wrong, since the fact that the Chinese automotive industry has grown at a too slow pace since July 2018 has negatively affected the European counterpart (Goulard, 2020). According to a study published by the European Union Chamber of Commerce in China (2018) in September 2018, about 54% of European companies consider the tariffs imposed by the USA on Chinese products, a bad omen for their futures, while around 67 % of European companies based in China do not intend to change their "modus operandi" in the face of the trade war between two of the main world economies. Finally, and in order not to stray too much from the objective of this work, highlighting a study conducted by the European Union Chamber of Commerce in China (2018) published in May of 2019 that places the trade war between China and the USA in fourth place among the main concerns of European companies in China, meaning that currently, the productive relations between the two countries appear to be deep enough to avoid an abrupt reduction in the flow of trade between them (Goulard, 2020).

Brexit and the UK-Portugal Trading Partnership

The United Kingdom became a member of the European Union in 1973, allowing it to double its GDP per capita and on March 29th, 2017, the British government officially decreed the United Kingdom to leave European Union after its population democratically voted "Yes" for Brexit, which in general will greatly affect the world economy namely the

European Union, since the United Kingdom represents a market share exports in several EU Member States (M. S. R. Mateus, 2018).

The following table by Mara Mateus (2019) summarizes the possible scenarios for future trade relations according to the negotiating positions so far:

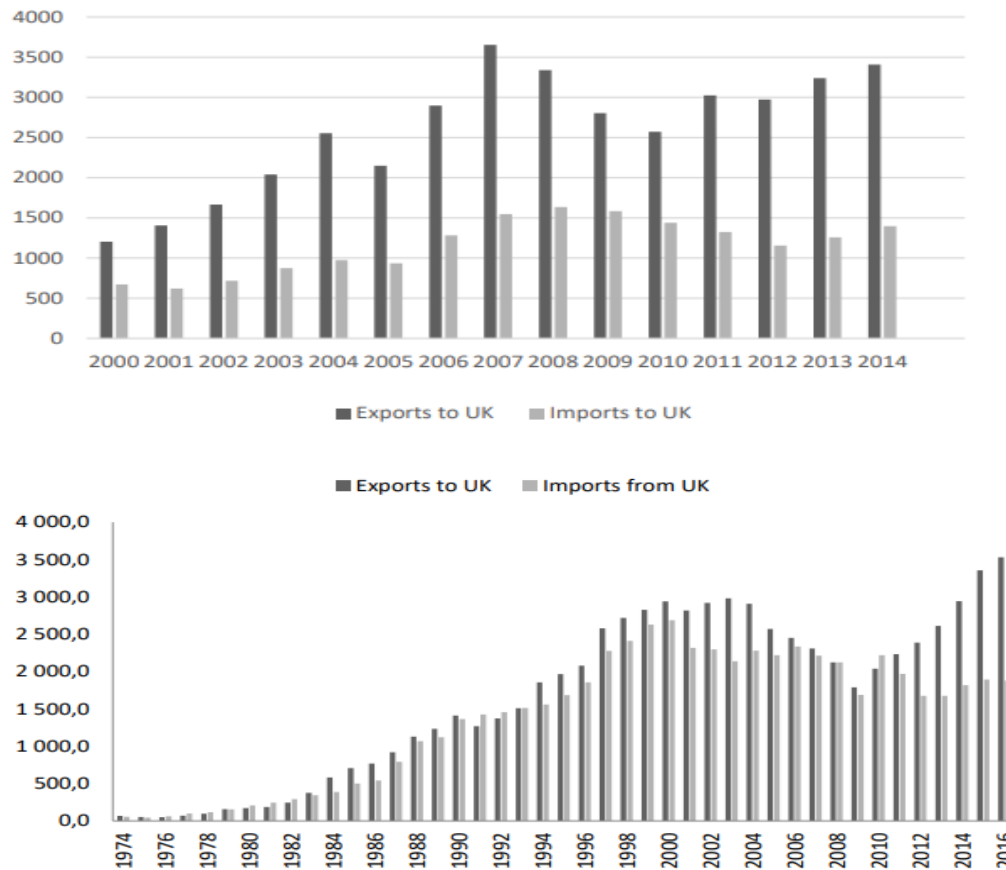
Scenarios		Tariffs on goods exported to/imported from UK	Border & Customs Controls	Free movement of service	Free movement of EU citizens	EU FTA's with third countries
European Economic Area (EEA)		No (except agricultural products)	Yes	Yes	Yes	No
Bilateral Agreement	Customs Union with the EU	No (exceptions are possible)	Yes	No	No	Yes
	Switzerland Case	Probably on a selection of goods	Yes	Depend on the agreement	Probably not	No
Hard Brexit		Yes (probably WTO)	Yes	No	No	No

Regarding trade in goods, the United Kingdom is the fourth country in the world to which Portugal exports the most (7% of total exports in 2016), a trade that grew exponentially until the beginning of the XXI century, having suffered a sharp decline in the last two decades and recovering again in the last ten years (M. S. R. Mateus, 2018). As for services, Portuguese exports to the United Kingdom (14% of total service exports in 2014) far exceed imports (11% of total Portuguese service imports). From these figures, it can be concluded that the United Kingdom's share of the Portuguese Trade Balance is quite high, which could be seriously affected by Brexit, as shown by the two graphs below (M. S. R. Mateus, 2018).

From a survey carried out by Mara Mateus (2019) to managers and directors of 91 companies to understand the impact of Brexit in the textile and apparel sector (Portuguese industry with a strong export matrix)¹⁰ it was concluded that the withdrawal of the United Kingdom from the European Union will negatively affect, albeit in a moderate way, the commercial partnership between the two countries, as Portuguese textile companies expect negative consequences in their business due to Brexit, albeit in a soft scenario. Mara's

¹⁰ Retrieved from <https://www.portugaltextil.com/vestuario-em-ascensao/> , accessed on 20.08.2020

research also allowed to conclude that in the case of a more serious scenario, Brexit will cause a change in the United Kingdom and Portugal as suppliers, as seen by Portuguese importers and exporters.



From a study carried out by Ernst and Young in partnership with Augusto Mateus & Associados in October 2018, it is possible to draw 3 conclusions regarding the effects that Brexit will bring to the Portuguese economy:

- Portugal is in the 2nd line of countries that will potentially be most affected since its exposure to the United Kingdom is high (being one of Portugal's main trading partners);
- the British economy will most likely contract, which will cause a reduction in Portuguese exports to the United Kingdom between 1,1% and 4,5%, a reduction in FDI flows to Portugal between 0,5% and 1,9% and a reduction in remittances from emigrants between 0,8% and 3,2%;

- The inevitable change in the partnership between the two countries could result in a potential reduction in Portuguese exports to the United Kingdom between 15% and 26%, depending on the type of relationship that is established in the future.

Coronavirus Pandemic

The coronavirus pandemic has affected the global economy since March 2020. As a recent event in which the world population continues to face as of the writing of this work, and despite previous pandemics had already occur, little literature exists regarding its impacts on the global economy. However, the Harvard Business Review published on March 3rd, 2020 an article that explains the three types of economic shocks that the world economy will may have to face due to this pandemic: a type V scenario constitutes a "classic" economic shock, in which global economic growth will eventually recover, being the most likely scenario, an U-shaped economic shocks, there are some permanent output losses after the initial shock or an L-shaped scenario would be more serious as it would signal structural damage, with significant negative impacts on economic growth.

The study also highlights the importance of analyzing past pandemics in order to understand the path of the potential impact of Covid-19 empirically: prior pandemics such as SARS, H3N2 flu 1968 ("Hong Kong"), the 1958 H2N2 flu ("Asian") and the Spanish flu of 1918, were all V-shaped shocks, concluding with the transmission mechanisms through which a health crisis like Covid-19 may affect the economy, being the first two on the demand side and the third on the supply side (Carlsson-Szlezak, Reeves, & Swartz, 2020):

- Wealth effect (indirect impact on consumer confidence): classic transmission of exogenous shocks to the real economy via financial markets (which become part of the problem) ie, as markets deteriorate and family wealth contracts, these increase their savings rate and probably reduce consumption. This will be more serious for advanced economies, such as the USA, the exposure of households to the capital asset class is high;

- Direct impact on consumer confidence: consumer confidence in financial markets can fall even when they are on the rise and the Covid-19 pandemic appears to be a potentially serious direct blow to consumer confidence, keeping them at home, conducive to savings and probably pessimistic about the long term;

- Supply-side shock: As the virus interrupts production and disables essential components of supply chains, production can be interrupted, and layoffs can occur.

Finally, the Harvard Business Review article considers the possibility of the current pandemic creating its own structural legacy, at the macroeconomic, microeconomic and political level:

- Microeconomic legacy: global crises such as the Covid-19 pandemic boost the adoption of new technologies and business models: the 2003 SARS outbreak resulted in an increase in the adoption of online shopping among Chinese consumers, which accelerated the rise of the Alibaba. In the case of the current pandemic, platforms like Amazon have experienced an acceleration in their growth. In the area of education, E-learning and E-delivery are other potential winners with the pandemic. Finally, health may also undergo technological advances, as in the case of Wuhan (province where the pandemic started), where smartphone trackers proved to be a powerful tool for public health;

- Macroeconomic legacy: progress towards more decentralized value chains will accelerate, a fact that appears to be already visible, with the pandemic still on going;

- Political legacy: the virus tests the ability of political systems to effectively protect their populations, so fragile institutions can be exposed and political changes unleashed.

Coronavirus in Portuguese Companies

In the first half of June 2020, the *Instituto Nacional de Estatística* in Portugal, in partnership with *Banco de Portugal*, led the weekly *Inquérito Rápido e Excepcional às Empresas - COVID-19 (COVID-IREE)*, to Portuguese companies with the objective of identify some of the main effects of the COVID-19 pandemic on business activity. From the sample of 8.883 companies, 5.678 valid responses were obtained (63,9% response rate), with the responding companies representing 68% of the staff employed and 78,5% of the sample's turnover.

It follows a summary of the main conclusions of the survey:

- 95% of the responding companies were in operation (including partially), 4% temporarily closed and 1% closed permanently, with the Catering sector having the highest percentage of companies closed, either temporarily or permanently;

- compared to expectations in a context without a pandemic, 68% of companies reported a decrease in turnover due to the pandemic and 7% reported an increase in the same variable, with the remaining 25% saying that their turnover did not change as result of the current pandemic crisis. The sectors most affected in this category were Restoration, Accommodation and Transport, unlike the Construction and Real Estate sectors, which suffered the least losses in this variable;

- 24% of companies (in operation or temporarily closed) anticipate that the return of turnover to the normal level (to that corresponding to a scenario without a pandemic) will take more than half a year, with 70% of these companies being in the catering sector, transport and accommodation. For 4% of the companies, the turnover should not return to the normal level, with 11% of these companies belonging to the Accommodation and Restauration sector. Finally, 25% of respondent companies believe that the return of turnover to normal levels should occur in less than six months;

- 38% of companies (in operation or temporarily closed) reported a stabilization of turnover in the first half of June, compared to the second half of May, with 59% of them corresponding to the Construction and Securities Activities sector. In relation to the others, 28% reported reductions in turnover and 35% increases. In general, the percentage of companies that reported increases in turnover was always higher than the percentage of companies that reported reductions, with this difference being clearly higher among large companies;

- The main factors influencing turnover were the variation in orders/customers (76% of respondents indicated that this was the main factor, mainly in the Industry and Energy sectors) and the evolution of containment measures. The dimension and the sector are not differentiating elements in this analysis;

- 39% of the companies reported a reduction in the number of employees actually working in the face of the expected situation without a pandemic, representing 59% of the employees at service of the responding companies, with companies in the Accommodation and Restauration sectors continuing to stand out;

- 47% of the companies had “teleworkers” and 44% had workers with alternate presence at the company's facilities. However, in micro companies, only 21% of micro

companies reported having employees working from home, a number that rises to 87% for large companies;

- 75% or more of the companies consider little or nothing likely to happen permanently changes in their activities due to the COVID-19 pandemic, with the main changes expected by companies being the reinforcement of investment in information technologies, the increase in the use of “telework” and the redirection of target markets (16%).

It is concluded that in Portugal, the sectors of Restauration, Accommodation and Transport were the most affected by the pandemic, as well as it will take them longer to recover from this pandemic crisis, unlike the sectors of Construction and Real Estate, which were the least affected and will recover faster.

Despite these numbers change in a weekly basis, this survey allows the reader a perception of how the Portuguese business sector is being affected, as well as foresee the evolution of the effects of the Covid-19 pandemic on Portuguese companies for the rest of the year 2020.

3.3.1 Portugal's Main Social-Economic Data¹¹

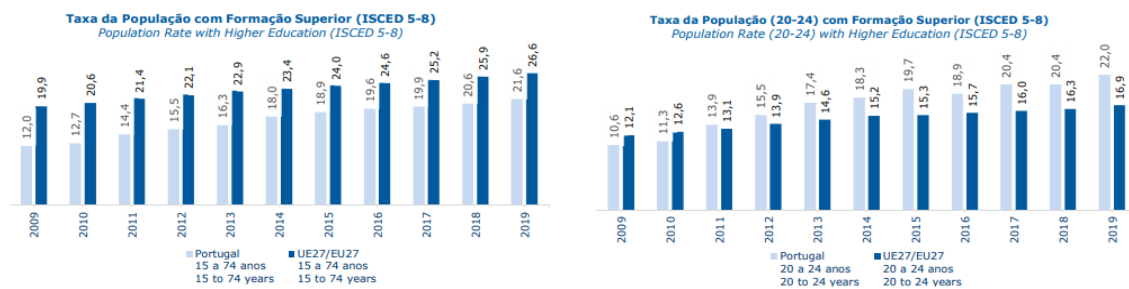
Demography

Unidade/Unit		2000	2005	2010	2014	2015	2016	2017	2018	2019
DEMOGRAFIA - POPULAÇÃO E EMPRESAS										
DEMOGRAPHY - POPULATION AND CORPORATE										
População [1] <i>Population [1]</i>	mil hab. thousands	10 331	10 512	10 573	10 375	10 341	10 310	10 291	10 277	10 296
	1995=100	102,9	104,7	105,3	103,3	103,0	102,6	102,5	102,3	102,5
População Jovem (< 15 anos) [1] <i>Youth Population [1]</i>	mil hab. thousands	1 679	1 669	1 595	1 490	1 461	1 442	1 424	1 408	1 397
	% pop.total	16,3	15,9	15,1	14,4	14,1	14,0	13,8	13,7	13,6
	% total pop.									
	1995=100	95,2	94,6	90,4	84,5	82,8	81,8	80,7	79,8	79,2
População Entre 15 e 64 anos [1] <i>Population Aged Between 15 - 64 [1]</i>	mil hab. thousands	6 964	7 018	7 001	6 779	6 740	6 691	6 654	6 625	6 619
	% pop.total	67,4	66,8	66,2	65,3	65,2	64,9	64,7	64,5	64,3
	% total pop.									
	1995=100	102,9	103,7	103,5	100,2	99,6	98,9	98,3	97,9	97,8
População Idosa (≥ 65 anos) [1] <i>Elderly Population Aged 65 and Over [1]</i>	mil hab. thousands	1 688	1 825	1 976	2 105	2 141	2 177	2 213	2 244	2 280
	% pop.total	16,3	17,4	18,7	20,3	20,7	21,1	21,5	21,8	22,1
	% total pop.									
	1995=100	111,6	120,6	130,6	139,1	141,5	143,9	146,3	148,3	150,7

¹¹ The data for this point was taken from https://www.gee.gov.pt/pt/?option=com_fileman&view=file&routed=1&name=Principais%20Indicadores%20Economicos%20de%20Portugal_31_08_2020.pdf&folder=publicacoes%2Fprincipais%20indicadores%20economicos%20de%20portugal&container=fileman-files , accessed on 01.09.2020

In the last decade, Portugal lost about 200.000 inhabitants, and currently, its population amounts to 10.3 million, being the 12th most populous country and the 13th with the largest geographical area in the European Union, with two autonomous regions, namely Azores and Madeira (according to the Economic, social and territorial situation of Portugal briefing prepared by the European Parliament in 2019). A large part of this loss occurred in young people under the age of 15, which can be explained by a reduction in the Portuguese birth rate in the last decade¹². On the other hand, the elderly population (over 65 years old) increased by around 600 thousand inhabitants. These data allow us to conclude that Portugal is a country that "aged" in the last decade, a fact allied not only to a reduction in the birth rate but also to an increase in the average life expectancy.¹³

Education



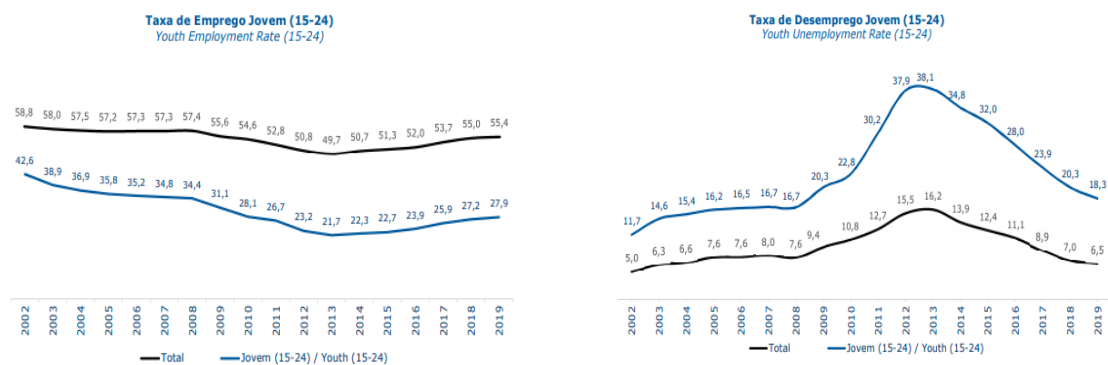
The two graphs above demonstrate not only the evolution of education in the Portuguese population but also compare it with the other 27 member states of the European Union. Through its analysis, the level of education of the Portuguese population and of the other member states of the European Union has been growing in recent years. In relation to 2019, there is a cons when the analysis is made for the general population or for the young population (20-24 years old): in the first case, it appears that the percentage of the population with higher education in Portugal is lower than European Union by 5 percentage points; however, considering only the young population between 20 and 24

¹² Retrieved from <https://www.pordata.pt/Portugal/Taxa+bruta+de+natalidade-527> , accessed on 21.08.2020

¹³ Retrieved from [https://www.pordata.pt/Portugal/Esperan%C3%A7a+de+vida+%C3%A0+nascen%C3%A7a+total+e+por+sexo+\(base+tri%C3%A9nio+a+partir+de+2001\)-418](https://www.pordata.pt/Portugal/Esperan%C3%A7a+de+vida+%C3%A0+nascen%C3%A7a+total+e+por+sexo+(base+tri%C3%A9nio+a+partir+de+2001)-418) , accessed on 21.08.2020

years old, Portugal (22%) is already above the European Union average (16.9%) by 5 percentage points.

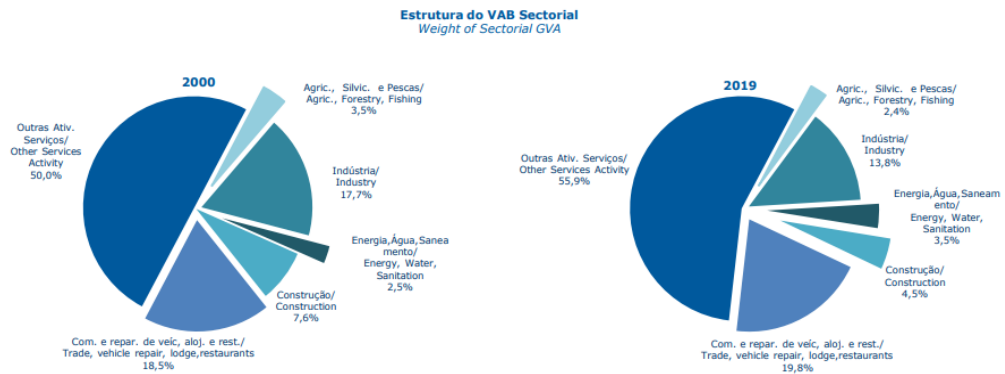
Employment



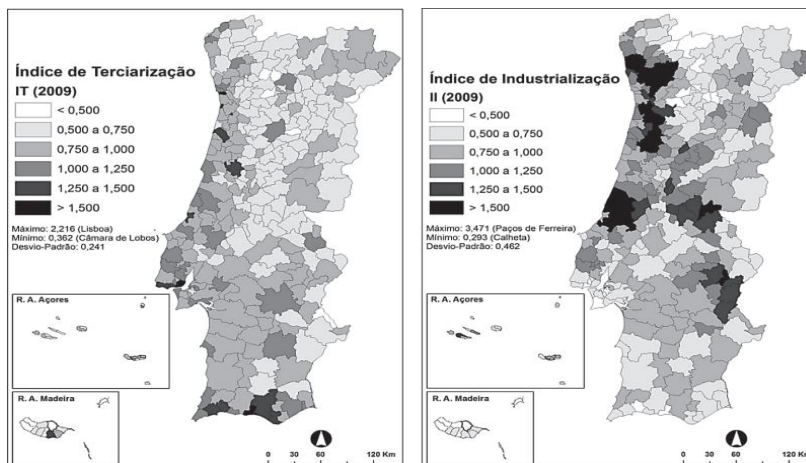
The conclusion that most stands out in view of the two graphs explained above is that the young Portuguese population (27,9% of employees in 2019) has difficulty in entering the labor market, when compared to the general population (55,4 % of employees in 2019), a trend that has been maintained since the beginning of the XXI century, although without major fluctuations. This great disparity in values is also associated with the increase in the level of education of young Portuguese people in the last years, which makes lead them to enter the labor market already close to or after the age of 24 (as seen in the previous point). After the global economic crisis of 2008, youth unemployment started to rise exponentially, reaching its peak in 2013 with 38,1% of Portuguese young between the ages of 15 and 24 unemployed, more than double the figure recorded before the economic crisis (16,7 %), a trend followed by the general Portuguese population. Fortunately, these values have been stabilizing in recent years, so much that in 2019, the youth unemployment rate would have already risen to about half of that of 2013 (18,3%), the lowest value since the economic crisis of 2008. The same it was seen for the general Portuguese population, which saw the unemployment rate drop by more than half in 2019 (6,5%), to minimum values since 2003. These downward trend in the unemployment rate / increase in employability, both in young people and in the general population, is likely to reverse in the context of the current pandemic coronavirus crisis.¹⁴

¹⁴ Retrieved from <https://www.bbc.com/portuguese/internacional-52002332> , accessed on 22.08.2020

Business Geography and Tertiariation Index



Looking now at the weight of each business sector in Portuguese GVA, it can be seen that in the last 20 years, the Services sector (+ 5,9%) has been gaining ground compared to the Industry sectors (-3,9%) and Construction (-3,1%). The sectors of Restauration, Accommodation, Trade and Vehicle Repair suffered a slight increase (+ 1,3%) as well as the sectors of energy, water and sanitation (1%).



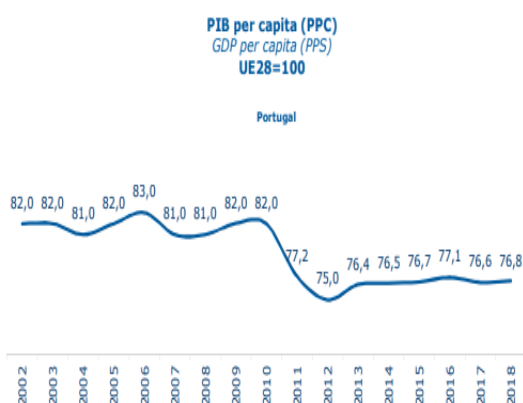
From the tertiarization index (location quotient that relates staff to the service and the resident population), as we can see from the figure on the left retrieved from Fernandes and Gama (2012), it appears that is

in the metropolitan areas where the service sector predominates (namely Lisbon, Porto, Cascais, Matosinhos and Oeiras). The "medium" cities (mainly Coimbra, Aveiro, Évora and Funchal) and other Portuguese urban spaces such as Espinho, São João da Madeira and Nazaré are also very dedicated to services, although to a more specific ones, as are the main Algarve municipalities such as Albufeira, Loulé, Faro, Portimão, Vila Real de Santo António, Lagos and Vila do Bispo, territories that promote and enhance the dissemination of R&D infrastructures (Fernandes & Gama, 2012). The industrial sector is more prevalent in northern Portugal. In fact, the behavior of the industrialization index links the cluster effect and highlights the main industrial spaces in the country, highlighting, in particular, the importance of municipalities such as Paços de Ferreira (with the highest

industrialization index in Portugal of 3,471), Barcelos (3,118), Felgueiras (2,646), Oliveira de Azeméis (2,589), São João da Madeira (2,588), Alcanena (2,465), Paredes (2,361), Marinha Grande (2,318), Fafe (2,244), Águeda (2,211), Trofa (2,176) and Vizela (2,129) (Fernandes & Gama, 2012).

Main Economic data

	Unidade/Unit	2000	2005	2010	2014	2015	2016	2017	2018	2019
ECONOMIA - PRODUÇÃO E DESPESA										
ECONOMY - PRODUCTION AND EXPENDITURE										
PIB pm [2]	milhões de Euros (p.correntes)	128 414	158 553	179 611	173 054	179 713	186 490	195 947	204 305	212 321
GDP mp [2]	million Euros (curr. prices)									
	milhões de Euros (enc.vol.)	177 302	185 111	190 667	179 580	182 798	186 490	193 029	198 119	202 409
	million Euros (real prices)									
	taxa variação homóloga (real)	3,8	0,8	1,7	0,8	1,8	2,0	3,5	2,6	2,2
	real change (%)									
	1995=100 (real)	122,2	127,6	131,4	123,7	126,0	128,5	133,0	136,5	139,5
	per capita Euro (corr./curr.)	12 430	15 083	16 988	16 680	17 378	18 089	19 041	19 881	20 622
	Paridades Poder Compra (UE28=100)	83,0	82,0	82,0	76,5	76,7	77,1	76,6	76,8	n.d./n.a.
	Purchasing Power Standard (EU28=100)									
	por pessoa empregada Euro (corr./curr.)	25 472	31 413	36 667	38 461	39 509	40 495	41 195	41 980	43 215
	per person employed									
	taxa variação (valor)	4,9	4,5	3,9	-0,1	2,7	2,5	1,7	1,9	2,9
	nominal change (%)									



Starting with the Portuguese GDP (212.321 million euros in 2019), it can be seen that it has been increasing considerably in the last decades, currently approaching twice the value registered in the beginning of the 21st century (although at a decreasing rate since 2017).

In static terms, the same can be said for Portuguese GDP per capita, although in dynamic terms there is a certain uniformity in the evolution of this variable in the last ten years.

	Unidade/Unit	2000	2005	2010	2014	2015	2016	2017	2018	2019
Valor Acrescentado Bruto (VAB), pm [2]	milhões de Euros (p.correntes)	112 522	137 486	157 971	151 136	156 517	161 993	169 642	176 705	183 602
Gross Value Added (GVA), mp [2]	million Euros (curr. prices)									
	% do PIB (p.correntes)	87,6	86,7	88,0	87,3	87,1	86,9	86,6	86,5	86,5
	% GDP (curr. prices)									
	milhões de Euros (enc.vol.)	151 454	157 952	164 402	156 950	159 373	161 993	167 316	171 165	174 523
	million Euros (real prices)									
	taxa variação homóloga (real)	3,7	0,5	1,6	0,3	1,5	1,6	3,3	2,3	2,0
	real change (%)									
	1995=100 (real)	119,9	125,1	130,2	124,3	126,2	128,3	132,5	135,6	138,2

In 2019, the Portuguese GVA amounted to 183.602 million euros (86,5% of GDP). This variable has undergone strong fluctuations in the last two decades in Portugal, having been on a downward trend since 2017, as we can see from the table above.

Unidade/Unit		2000	2005	2010	2014	2015	2016	2017	2018	2019
Fluxos de Investimento Directo Estrangeiro [3] <i>Foreign Direct Investment Flows [3]</i>										
do exterior (IDE): variações líquidas <i>Inward: net values</i>	milhões de Euros (p.correntes) <i>million Euros (curr. prices)</i>	7 130	1 797	2 199	3 686	6 877	4 577	6 669	5 753	7 356
	% do PIB (p.correntes) <i>% GDP (curr. prices)</i>	5,6	1,1	1,2	2,1	3,8	2,5	3,4	2,8	3,5
no exterior (IPE): variações líquidas <i>Outward: net values</i>	milhões de Euros (p.correntes) <i>million Euros (curr. prices)</i>	8 741	1 317	- 7 140	- 2 805	4 710	788	- 840	424	- 420
	% do PIB (p.correntes) <i>% GDP (curr. prices)</i>	6,8	0,8	-4,0	-1,6	2,6	0,4	-0,4	0,2	-0,2
Stocks de Investimento Directo Estrangeiro [3] <i>Foreign Direct Investment Stocks [3]</i>										
do exterior (IDE): posições em fins de período <i>Inward: end of period position</i>	milhões de Euros (p.correntes) <i>million Euros (curr. prices)</i>	36 780	62 363	90 734	115 366	125 515	127 260	137 878	134 746	143 884
	% do PIB (p.correntes) <i>% GDP (curr. prices)</i>	28,6	39,3	50,5	66,7	69,8	68,2	70,4	66,0	67,8
	1996=100	189,4	321,2	467,3	594,1	646,4	655,4	710,1	693,9	741,0
no exterior (IPE): posições em fins de período <i>Outward: end of period position</i>	milhões de Euros (p.correntes) <i>million Euros (curr. prices)</i>	21 499	44 230	53 641	53 335	59 984	60 407	57 684	50 889	51 697
	% do PIB (p.correntes) <i>% GDP (curr. prices)</i>	16,7	27,9	29,9	30,8	33,4	32,4	29,4	24,9	24,3
	1996=100	642,6	1322,0	1603,3	1594,1	1792,9	1805,5	1724,1	1521,0	1545,2

The stock of Foreign Direct Investment in Portugal from abroad (143.884 million euros in 2019) has more than quadrupled since the beginning of the century (36.780 million euros in 2000), having reached a weight in 2019 in Portuguese GDP (67,8%) more than twice as much as in the year 2000 (28,6%). On the other hand, the flow of Foreign Direct Investment in Portugal from abroad is now close to that of the beginning of the century (7.356 million euros in 2019), despite having recovered compared to 2005 (1.797 million euros) in which minimum values for this variable were recorded, as shown in the data in the table. Portugal's FDI **stock abroad** (51.697 million euros in 2019) has not been as significant in the past, representing around 1/3 of the FDI stock in Portugal **from abroad**, albeit in dynamic terms, the evolution of the two variables have been similar over the past twenty years. As for the **flow** of Portuguese FDI **abroad**, the discrepancy in values compared to the beginning of the century (8.741 million euros) is high, being negative in 2019 (-420 billion euros). However, it should be noted that this figure has been improving since 2010, when it was at a minimum value of -7.140 million euros, as can be seen in the table explained below.

Looking now at the trade in Portuguese goods and services with the rest of the world, it appears that both exports and imports of goods and services have increased considerably in recent decades, following the upward trend in international trade at a global level since the beginning of the XXI century. In fact, the export of Portuguese goods has more than doubled in the last twenty years (58.208 million euros in 2019) while the export of services in 2019 (35.269 million euros) was more than triple that recorded in 2000. However, both the import of goods, which amounted to 74,874 million euros in 2019 (about 30,000 million euros more than in 2000) and the import of services, which reached 17,786 million

euros (about 10,500 million euros compared to 2000), have experienced similar developments, and since in absolute terms the values of goods imports exceed those of exports, the balance of goods was in 2019 at negative values (-16.666 million euros) contrary to the balance of services, which in 2019 (17.484 million euros) was about six times higher than the value recorded in 2000.

	Unidade/Unit	2000	2005	2010	2014	2015	2016	2017	2018	2019
Exportações de Bens [3] <i>Exports of Goods [3]</i>	milhões de Euros (p.correntes) <i>million Euros (curr. prices)</i>	26 291	31 074	36 922	47 296	48 926	49 122	53 325	56 243	58 208
	% do PIB (p.correntes) <i>% GDP (curr. prices)</i>	20,5	19,6	20,6	27,3	27,2	26,3	27,2	27,5	27,4
	taxa variação homóloga <i>annual rate</i>	14,3	1,7	17,5	1,7	3,4	0,4	8,6	5,5	3,5
	1996=100 (corr./curr.)	142,8	168,7	200,5	256,8	265,7	266,8	289,6	305,4	316,1
Exportações de Serviços [3] <i>Exports of Services [3]</i>	milhões de Euros (p.correntes) <i>million Euros (curr. prices)</i>	10 152	12 182	17 464	23 055	24 912	26 562	30 892	33 308	35 269
	% do PIB (p.correntes) <i>% GDP (curr. prices)</i>	7,9	7,7	9,7	13,3	13,9	14,2	15,8	16,3	16,6
	taxa variação homóloga <i>annual rate</i>	16,0	2,7	5,7	4,8	8,1	6,6	16,3	7,8	5,9
	1996=100 (corr./curr.)	152,6	183,1	262,6	346,6	374,5	399,4	464,5	500,8	530,3
Importações de Bens [3] <i>Imports of Goods [3]</i>	milhões de Euros (p.correntes) <i>million Euros (curr. prices)</i>	43 466	49 148	56 407	56 965	58 671	59 134	66 634	72 090	74 874
	% do PIB (p.correntes) <i>% GDP (curr. prices)</i>	33,8	31,0	31,4	32,9	32,6	31,7	34,0	35,3	35,3
	taxa variação homóloga <i>annual rate</i>	15,0	4,6	13,7	4,3	3,0	0,8	12,7	8,2	3,9
	1996=100 (corr./curr.)	163,0	184,4	211,6	213,7	220,1	221,8	249,9	270,4	280,9
Importações de Serviços [3] <i>Imports of Services [3]</i>	milhões de Euros (p.correntes) <i>million Euros (curr. prices)</i>	6 964	7 635	11 148	12 014	12 646	13 376	14 664	15 969	17 786
	% do PIB (p.correntes) <i>% GDP (curr. prices)</i>	5,4	4,8	6,2	6,9	7,0	7,2	7,5	7,8	8,4
	taxa variação homóloga <i>annual rate</i>	12,2	6,2	9,2	10,2	5,3	5,8	9,6	8,9	11,4
	1996=100 (corr./curr.)	136,8	149,9	218,9	235,9	248,4	262,7	288,0	313,6	349,3
Saldo da Balança de Bens [3] <i>Balance of Goods [3]</i>	milhões de Euros (p.correntes) <i>million Euros (curr. prices)</i>	- 17 174	- 18 074	- 19 485	- 9 669	- 9 746	- 10 012	- 13 309	- 15 847	- 16 666
	% do PIB (p.correntes) <i>% GDP (curr. prices)</i>	-13,4	-11,4	-10,8	-5,6	-5,4	-5,4	-6,8	-7,8	-7,8
Saldo da Balança de Serviços [3] <i>Balance of Services [3]</i>	milhões de Euros (p.correntes) <i>million Euros (curr. prices)</i>	3 187	4 547	6 316	11 041	12 266	13 187	16 229	17 339	17 484
	% do PIB (p.correntes) <i>% GDP (curr. prices)</i>	2,5	2,9	3,5	6,4	6,8	7,1	8,3	8,5	8,2

Finally, the last three points of analysis in this chapter are as follows:

- HICP (Harmonized Index of Consumer Prices), which reflects the average expenditure of Euro Area households based on a basket of products¹⁵ and whose rate of change in Portugal has been decreasing for the past two decades, recorded in 2014 a negative value of -0,2%. In 2019, that figure was 0,3%, 0.9 percentage points from the figure recorded in the European Economic Area in the same year;

- Portuguese public debt has been worsening since the beginning of the century, and the value in 2019 (117,75% of GDP) was more than three times the value recorded in 2000 (54,2% of GDP). In this variable, and regardless of the fact that there has been no deterioration in the last twenty years, the Public Debt of the Non-Financial Sector (149,5% of GDP in 2019) and Private Companies (123,4% of GDP in 2019) stand out comparing with the Private Debt (65,6% of GDP in 2019). The Balance of Public Administrations,

¹⁵ Retrieved from <https://www.ecb.europa.eu/ecb/educational/hicp/html/index.pt.html> , accessed on 25.08.2020

which remained negative since the beginning of the 21st century, finally registered in 2019 a positive value of 0,2% of Portuguese GDP;

- In the first decade of the new millennium, the Current Account and Capital Account Balance amounted to negative values. However, since 2014, it has been showing positive values, registering in 2019 1.871 million euros, less than half of the value recorded in 2017 (4.226 million euros).

	Unidade/Unit	2000	2005	2010	2014	2015	2016	2017	2018	2019
PREÇOS PRICES										
IHPC - Portugal <i>IHCP - Portugal</i>	taxa variação anual annual rate	2,8	2,1	1,4	-0,2	0,5	0,6	1,6	1,2	0,3
IHPC - ZE-19 <i>IHCP - EA-19</i>	taxa variação anual annual rate	2,2	2,2	1,6	0,4	0,2	0,2	1,5	1,8	1,2
DÍVIDA DEBT										
Saldo das Adm. Públicas [6] <i>General Govern. Balance[6]</i>	% do PIB (p.correntes) % GDP (curr. prices)	-3,2	-6,1	-11,4	-7,4	-4,4	-1,9	-3,0	-0,4	0,2
	1995=100	89,6	210,8	444,0	276,1	173,4	78,3	125,6	19,6	-8,8
Dívida Pública [7] <i>General Govern. Gross Debt [7]</i>	% do PIB (p.correntes) % GDP (curr. prices)	54,2	72,2	100,2	132,9	131,2	131,5	126,1	122,0	117,7
	1995=100	125,6	206,8	325,0	415,4	425,6	442,8	446,3	450,0	451,3
Dívida Setor Público Não Financeiro <i>Non-Financial Public Sector Debt</i>	% do PIB (p.correntes) % GDP (curr. prices)	n.d./n.a.	n.d./n.a.	124,3	169,4	166,0	165,5	159,9	154,2	149,5
Dívida Empresas Privadas <i>Private Corporations Debt</i>	% do PIB (p.correntes) % GDP (curr. prices)	n.d./n.a.	n.d./n.a.	155,1	153,8	146,6	139,0	135,1	129,2	123,4
Dívida Particulares [7] <i>Private Individuals Debt [7]</i>	% do PIB (p.correntes) % GDP (curr. prices)	n.d./n.a.	n.d./n.a.	93,4	84,1	79,0	74,5	71,0	68,0	65,6
Saldo da Balança Corrente e Saldo da Balança de Capital [3] <i>Current Account Balance and Capital Account Balance [3]</i>	milhões de Euros (p.correntes) million Euros (curr. prices)	- 12 107	- 12 941	- 15 923	2 556	2 655	3 893	4 226	2 832	1 871
	% do PIB (p.correntes) % GDP (curr. prices)	-9,4	-8,2	-8,9	1,5	1,5	2,1	2,2	1,4	0,9

3.4 Technological Progress/Competitiveness

Industry 4.0

Industry 4.0 is considered by some academics and entrepreneurs as the 4th industrial revolution are concepts that are characterized by the implementation of devices that have a certain degree of intelligence that allow to interact autonomously in the value chain. The industry 4.0 model is on the rise with the aim of coping with recent technological developments and the fact that there is a growing demand for personalized products (Santos et al., 2018).

According to a study carried out by PWC, published in 2016, which received responses from more than 2000 companies from 26 countries, it was concluded that, to date, only

33% had a high degree of digitalization of their products, processes and services. Globally, according to the PWC study, the main industrial sub-sectors expect to invest around 907 billion dollars per year in favor of Industry 4.0, until 2020 (Santos et al., 2018).

The exponential increase in the digitalization of production systems determines changes in the entire value chain since raw materials are acquired until their final use and recovery, so it is safe to say that this model will cause a change in large scale in the composition of the business manufacturing worldwide (Santos et al., 2018).

Despite the joint effort carried out by governments, organizations and academics, there is still a long way to go and questions that must be answered before we can see this industrial revolution ahead (Santos et al., 2018).

Technological Progress and the Labor Market in Portugal

A study carried out in January 17th of 2019 by the *Confederação Empresarial de Portugal* (Portuguese employer's association) in partnership with the McKinsey Global Institute (consulting firm that advises on strategic management to corporations, governments and their organization)¹⁶ and Nova SBE (Portuguese business school) predicted that by 2030, the use of "robots" in Portugal would eliminate 1.1 million jobs and that 1.8 million Portuguese will need to improve their professional skills or change jobs. To aggravate the numbers of this study, the authors of the same state that their projections were based on models that consider only the existing automation technologies, neglecting the technological innovation that will occur in Portugal during the next decade.

Another McKinsey study related to the impact of new technologies on the labor market of 46 economies (representing 90% of world GDP) predicts the elimination of between 400 and 800 million jobs worldwide until 2030, in which the most affected areas will be health, science and technology.¹⁷

Regarding the European Innovation Scoreboard (EIS) ranking, Portugal remained in 14th position among the 28 EU countries and in 18th among the 36 economies analyzed, ahead

¹⁶ Retrieved from <https://www.mckinsey.com/about-us/overview> , accessed on 14.08.2020

¹⁷ Retrieved from <https://expresso.pt/economia/2019-01-17-Robos-destroem-440-mil-empregos-na-industria-e-comercio-ate-2030>, accessed on 15.08.2020

of countries like Spain, Italy and Greece, but behind other direct competitors such as Ireland, Austria and Belgium, and well away from the leaders Sweden, Denmark and Finland. Even though the environment in Portugal is nowadays quite conducive to innovation, presenting a growing attractiveness of Research Systems, the difficulties in R&D, innovation in SMEs and collaboration between agents from the private sector are clear.¹⁸

Politics will play a key role in overcoming these challenges so that the requalification of the Portuguese working society can be carried out in a dynamic and sustainable way through the joint efforts between the public sector, companies and educational institutions.¹⁹

Bruno Bobone (2019) considers it is necessary to combine strong public and private investment and considerable Portuguese economic growth in the coming years in Portugal to create jobs and free up resources for education and training professional becomes possible.

Industry 4.0 in Portugal

The 4th Industrial Revolution is a notable opportunity for Portugal to overcome its typical competitive barriers, such as the lack of scale in the domestic market. According to the Digital Economy & Society Index (2016) of the European Commission, Portugal, in terms of the level of digital competitiveness, was in the 15th position, above the EU average. In another study, by UBS (Swiss Multinational Investment Bank), Portugal positioned itself as the 23rd economy most prepared to adopt Industry 4.0 of a group of 45 countries analyzed and it was concluded that in Portugal, the reasonable degree of preparation was not reflected in the current level of competitiveness (da Silva Faria, 2019).

In 2017, the Ministry of Economy launched the 1st phase of the “Portugal i4.0” program. For the preparation of this program, interviews, workshops and hearings were held with the main stakeholders from different sectors of the Portuguese economy, with the participation of more than 200 companies from different sectors, including multinational

¹⁸ Retrieved from <https://www.brunobobone.com/inovacao-uma-questao-de-sobrevivencia/> , accessed on 17.08.2020

¹⁹ Retrieved from <https://www.brunobobone.com/automacao-requalificacao-sociedade/> accessed on 15.08.2020

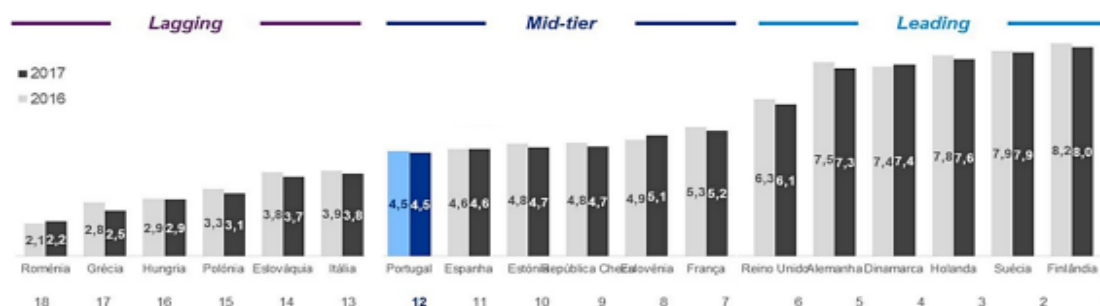
companies such as Bosch, Volkswagen, Siemens, Microsoft, Google, Huawei or Deloitte. The program aimed to achieve three fundamental objectives (da Silva Faria, 2019):

- Accelerate the adoption of technologies and concepts of Industry 4.0 in the Portuguese business manufacturing;
- Promote Portuguese technological companies internationally;
- Make Portugal an attractive hub for investment in the Industry 4.0 context.

Once the first phase was completed, it was found that companies were more focused on themes and benefits related to Industry 4.0 and with greater availability of resources that benefited most from the initiatives carried out. In April 2019, phase II of the program was launched to expand the number of companies that truly capitalize on the benefits of Industry 4.0. This phase estimates the mobilization of public and private investments worth 600 million euros by 2021 with the objective of involving more than 20.000 companies in the program's various initiatives, training more than 200.000 workers and financing more than 350 transforming projects (da Silva Faria, 2019).

In order to speed up investments and accession by the national business sector, the Government foresees, through the “Financing and investment support” axis of the Portugal i4.0 program, the injection of up to 4.5 billion euros in the Portuguese economy in the coming years, about half of that amount, will be mobilized from the European Structural and Investment Funds through Portugal 2020 (da Silva Faria, 2019). A set of measures was defined in order to finance and support this investment, highlighting an instrument called *Vale Indústria 4.0*, whose global value amounts to 12 million euros, aimed at supporting the digital transformation of micro-enterprises and SMEs in projects within the scope of the development of electronic commerce and digital marketing (da Silva Faria, 2019). In conclusion, it follows a graph taken from the dissertation "Study of the Impact of Support for the Implementation of Industry 4.0 in Portugal", prepared by Bruno Faria (2019), which shows the classification of Portugal compared to other 18 European countries (last position of the Mid-tier group and 12th in the global group) in a ranking that allows categorizing the context of the i4.0 Program in Europe into three main groups: “Lagging”, “Mid-tier” and “Leading”, based on the “i4.0 Scoreboard” tool (quantitative

tool that allows the diagnosis of national and European competitiveness in the i4.0 context, developed by COTEC with the support of KPMG):



Barriers to innovation in Portugal

The main barrier to innovation in Portugal lies in the deficient cooperation between the business community and the scientific and technological environment, since success in the global market is interconnected with the knowledge produced in universities and research centers, wrote Bruno Bobone in his blog in 2019. The President of the *Câmara do Comércio e Indústria de Portugal* lists two more obstacles to technological progress in Portugal: the country's need for more research and better use of the existing one and the scarcity of resources for financing innovative businesses, weakness that Bobone considers structural to the Portuguese economy.

Competitiveness and the Portuguese Industrial Activity

From the perspective of Michael Porter in his book "Competitive Advantage of Nations", the main actors for the success of certain industries are companies and not countries, although these are important in terms of formulating an identity for the companies they host, as well as provide them with the necessary resources for their development (Grant, 1991). It is also important to note that Porter considers that the competitiveness of a nation is directly related to the level of exports and direct investment from abroad, variables whose values make it possible to draw important conclusions regarding the competitiveness of the sector in question (Grant, 1991).

In 1985, The Presidential Commission for Industrial Activity, stated:

"The competitiveness of a nation is the degree to which a country can, under reasonable conditions of free and fair market, produce goods and services that successfully pass the test of international markets, while simultaneously maintaining or increasing real income from population"

The competitive performance of a company is dependent on the competitive performance of the industry and the starting point for the analysis of a company's competitiveness is to structurally analyze the industry, emphasizing aspects related to the degree of competition (Grant, 1991).

To understand how the industrial sector in Portugal is distributed, the following table summarizes the main industrial sectors in Portugal²⁰:

Industry	Important Notes
Food	Is the one with the highest sales (10,402 million euros), reaching 21,8% of the total sales of industrial products (75.774 million euros) in Portugal. The top five products produced accounted for 22,4% of total product sales (2.334 million euros), including bread, animal husbandry, pastry, chickens, roosters and chickens and milk. The main portuguese companies in this sector are Panrico, Nestlé Portugal, Pescanova Portugal, Lactogal Portugal and Nobre.
Automotive	Being the 3rd largest industry in the scope of the manufacturing industry in Portugal, its turnover exceeds 5.343 million euros, constituting an important basis for the Portuguese economy. It can be divided into three subsectors: vehicle assembly, production of automotive components and accessories. The Portuguese trade balance in the sector is globally negative, but it is balanced in the components sub-sector, unlike production and assembly. The main companies in the sector in Portugal are Peugeot Citroen Automóveis Portugal, SA, Renault Cacia, SA, PREH Portugal, SA, Delphi Automotive Systems Portugal SA and Mitsubishi Fuso Truele Europe SA.

²⁰ Retrieved from http://www.aevalvalade.edu.pt/images/docs/1516/geo_industria_91.pdf , accessed on 27.08.2020

Drinks	Total product sales reached 2,500 million euros in 2013, tending to be in regions where it is easier to reach consumers. The types of products produced by this industry are soft drinks, natural juices, spring water and stones, wine and beer. The main companies in this industrial sector in Portugal are Central de Cervejas, Unicer Bebidas, Quinta do Salgado (wine), Mineraqua Portugal and Sumol + Compal.
Footwear	This industry, closely linked to the leather processing and processing sector, has a large and varied range of products in Portugal, producing sandals, slippers, sneakers, boots, wellies, among others. In the footwear industry, there was a 6,9% increase in the value of sales, reaching 18th place in the ranking of the main activities, with a global value of 1.653 million euros and employing 44.659 workers. The main companies are in the north of Portugal, with Felgueiras alone representing 35% of this industry in Portugal. The five main Portuguese companies in this industry are: Jefar, Tatuaggi, Pedouro, Calçado de Guimarães and Aço.
Cork	Currently, Portugal leads in the cork's world production, with about 54% of the world total. The production of cork, which can be used for footwear, coverings, floors, accessories, constructions and even clothing (due to its resistance, lightness, impermeability and smoothness) is around 90% for export. At the national level, the cork industry has 15.000 workers, with cork being the main product produced. The sales volume of this sector exceeds 1 billion euros, representing more than 1,5% of the total value of Portuguese industrial production. The five main Portuguese companies in this sector are: Matias e Neves, Lda, António Almeida, Cortiças, S.A, Portital - Produtos de Cortiça, Lda, J.Rocha e Pereira, Lda and Corticeira Cago, Lda.
Furniture	Furniture companies account for around 2.100 million euros in sales volume and export around 1.500 million euros. The largest furniture companies in Portugal are located in Paços de Ferreira in the Porto district (known as "Capital do Móvel" or "Furniture Capital" in english), the main Portuguese companies in the sector being ARC, CBH, INTENSE, Móveis Santo Agostinho and Movelvivo.
Paper	The Portuguese paper industry is the 7th most profitable in the Portuguese ranking. Between 2012 and 2013, the sector recorded a slight increase in its

	product sales (0,4% in the rate of change), on the other hand there was a sharp drop in the provision of services (reduction of 13,4% in its rate variation). This line, which produces an average of 3,358 million euros per year (1,6% of Portuguese GDP), has as main products printing paper, various types of drawing and fine art paper, corrugated paper and by-products, recycled paper, and toilet paper and derivatives for hygiene. Finally, the largest paper mills in Portugal are Ofimpor, Ponta Redonda Paper Factory (FPPR), Cartembal, Tetrapak and the Portocel Soporcel Group.
Textile and Apparel	The Textile and Clothing Industry is one of the most important sectors in Portugal's industrial activity, with about 11,961 companies (6,091 individual companies and 5,870 companies) whose turnover exceeds the mark of 6.430 million euros (representing 10% of exports national). Its main products are knitted clothing, fabric clothing and raw materials, including yarn and cotton fabric. Some companies in the sector in Portugal are Agratil - Indústria Têxtil, Lda and António de Almeida e Filhos - Têxteis, SA.

As it is not possible to analyze the competitiveness of each Portuguese industry due to the extent and complexity that such an analysis would entail, a brief analysis follows of one of the main sectors of activity in Portugal, wine production, as well as a theoretical background regarding regional competitiveness by Augusto Pessoa (2008) and a short description of the external competitiveness of the Portuguese economy.

Regional Competitiveness

To face contemporary challenges, such as gaps in productivity or the adoption of new technologies, academics and policy makers around the world claim that countries must become more “competitive” (Pessoa, 2008). Since qualified labor and investment move from “non-competitive” regions to more competitive regions, which are defined by the ability not only to attract and preserve successful companies but also to maintain or increase the living standards of the inhabitants the region (Pessoa, 2008). At the same time, the competitiveness of a region consists of its ability to create, attract and maintain competitive companies (capable of meeting the expectations of the population), which

implies the submission of firms to international competition to build competitive advantages (Pessoa, 2008). Regional competitiveness must be linked to the global market, so the competitiveness of companies needs to be oriented towards obtaining gains in market power, being essential to adapt them to the trends of global markets (Pessoa, 2008).

Portuguese wine production industry and the Douro Valley

The wine sector, besides playing an important role in the Portuguese economy by making a very significant contribution to exports (55% of exports from the agriculture and fisheries sector in 2003), is a culture that is strongly rooted in Portugal, forming an integral part of the natural landscape, history and Portuguese culture (Alberto & Ferreira, 2007).

Deolinda Alberto and João Ferreira (2007) developed a SWOT matrix for the wine cluster, detecting some of the strengths and weaknesses, opportunities and threats that are posed to the development and competitiveness of the sector, as we can see below:

Strong Points	Weak Points
Edaphoclimatic conditions and unique grape varieties; Conversion of vineyards; Modernization and technological equipment transforming units; Improvement in wine quality; Increased consumption of quality wines; Know-how; Improvement in the presentation of the product; Community policy for the protection of designations of origin.	Size of agricultural holdings; Size of the processing units; Production fragmentation; Poor financial and management capacity in cooperative wineries; Too many public institutions with diffuse responsibilities; Weak promotional strategies; Absence of a country brand image; Imbalance in the production/distribution relationship.
Opportunities	Threats
Increased consumption in non-EU traditional markets; Articulation with agro-tourism; Availability of community funds for investments; Greater link between teaching activities/research and the business environment.	Community policy of limiting the area of came; Competitive pressure in the markets international; Decrease in internal wine consumption; Lower producer prices and difficulties payments.

One of the main geographical locations responsible for wine production is in the Douro valley region, in northern Portugal. The Douro Valley, classified as World Heritage by UNESCO, extends over an area of 4.108,1 square kilometers, corresponding to 4,62% of the Portuguese continental area, whose resident population amounts to 214,045 inhabitants. However, this region remains poor due to factors such as political forgetfulness (insufficient supply of public investment, mandatory to account for the region's traditional problems), the “enclave” character of its economy (despite a significant part of the success in the wine sector due to foreign investment) and the insufficient entrepreneurial capacity of local and regional agents, materialized in the inability to take advantage of the latent potentialities of the region (Moreira, 2008).

The economic and social evolution of the Douro river valley, whose primary issue is the dynamism of entrepreneurship, is intrinsically linked to the production of Port wine, with the names of famous English companies (Cockburns, Taylors, Sandeman, among others) appearing on large posters on the slopes (Moreira, 2008). Wine tourism has enjoyed rapid growth in popularity in recent years around the world, enabling the emergence of several networks of cities and wine regions in order to promote their potential, such as the Global Network of Large Capitals of Wine (covering Melbourne, Bordeaux, Porto, Cape Town, Florence, among others), so in order to the Douro Valley become a competitive region in wine tourism, it must be aware of the aggressive worldwide competition for visitors, considering such distant and diverse regions (such as the Marlborough region in New Zealand and the Stellenbosch Wine Route in South Africa) as competitors at the global level (Moreira, 2008).

External Competitiveness of the Portuguese Economy

The external competitiveness of an economy is a fundamental issue in the definition of economic policies that promote sustainable development and the improvement of the population's well-being (Vaz, 2008).

Portugal lost competitiveness with the adoption of the euro, and the single currency further exposed the difficulties of the Portuguese economy, accentuating the differences between Europe's most competitive and least competitive countries. More specifically, Portugal's accession to the euro has led to a drastic drop in interest rates and in the face of cheaper

access to credit, economic agents (State, companies and families) have gone into debt at an increasingly worrying and unsustainable pace, supported by external financing (that made it possible to support current account deficits, with increased imports and decreased exports) (Pineiro, 2014). In addition, production shifted to the non-tradable goods sector, namely real estate and infrastructures, with the higher profitability of this sector leading the tradable goods companies to close and investment was mainly directed towards the non-tradable sector (Pineiro, 2014).

4. The Internship

The internship consisted in the establishment of economic activity units based on the *Informação Empresarial Simplificada (IES)*, a mandatory annual declaration to companies and individuals with organized accounting delivered electronically for accounting, tax and statistical purposes²¹. In other words, it consisted in developing an empirical exercise in applying the rules defined by the EUROSTAT (European Union Statistical Office), entity responsible for the publication of statistics and high-quality indicators at the European level, that allows the comparison of establishing NACE (Statistical Classification of Economic Activities in the European Community), the European Union industry standard classification system whose current version is revision 2 (established by regulation 1893/2006), between countries and regions with the 2017 and 2018 statistical data of IES, discussing the specificities of each type of economic unit (enterprise vs establishment vs NACE).

In other words, the internship contributed to the regulation of the segmentation of economic activities in the Portuguese business sector in accordance with the FRIBS regulation, prepared by EUROSTAT, which must be respected by all Member States of the European Union. For the regulation to be respected, it is necessary that, at least one secondary activity of the company, represents at the level of the class of the valid classification of the NACE a minimum 30% of the total production from that same activity at national level or a minimum of 20% of the same variable but at the level of the division of the valid NACE classification. The internship was divided into three phases, the first of which corresponded to the intern's general framework with the relevant concepts for pursuing the internship:

Phase 1: General framework

Phase in which the concepts and nomenclatures essential for the development of the internship were made known. The *Sistema Nacional de Contas (SNC)*, is a set of standards consistent with international accounting standards in force in the European Union and

²¹ Retrieved from <https://www.e-konomista.pt/ies-o-que-saber/> , accessed on 29.08.2020

revoked the *Plano Oficial de Contas (POC)*²², as it has proved to be insufficient for entities with higher qualitative financial reporting requirements and therefore, the *POC* variables came to replace the *SNC* variables.

As we have already seen, the *IES* is a unique way for companies to report on their activity, and through this form, companies have started to:

- Register the annual accounts at the commercial registry office;
- Declaring tax and accounting data annually to the Ministry of Finance;
- Deliver annual information to the *Instituto Nacional de Estatística*;
- Communicate your accounting data to *Banco de Portugal*.

The work carried out during the internship described above used data from this *IES* for 2017 and 2018 to find out which secondary activities of Portuguese companies should define KAU, depending on the production ratio of the same, due to its significant influence on the aggregated data of the industry.

The new regulation of the European Union resulted in the FRIBS regulation (Framework Regulation Integrating Business Statistics) which, among other technical and legal aspects, defines the obligation to exchange microdata between Member States, within the scope of Intra-EU Trade in goods statistics²³. Its objective is to establish a common legal framework for the systematic collection, compilation, transmission and dissemination of European statistics related to the structure, economic activity, competitiveness, global transactions and performance of the business sector.

The NACE (Statistical Classification of Economic Activities in the European Community or *Classificação de Actividades Económicas - CAE* - in Portuguese) is the industry standard classification system used in the European Union whose current version is the revision 2 which was established by Regulation n° 1893/2006 .

Finally, the KAU (Kind-of-Activity Unit or *Unidade de Actividade Económica - UAE* - in Portuguese) is defined by EUROSTAT as an observation unit whose purpose is to

²² Retrieved from <https://prezi.com/06mwlwkh9phm/sistema-de-normalizacao-contabilistica/> , accessed on 30.08.2020

²³ Retrieved from <https://ec.europa.eu/eurostat/documents/10186/6937805/Consultation-paper.pdf/d4f85471-a82b-45e2-9295-3545b7ad0e51> , accessed on 29.08.2020

improve the homogeneity of the results of statistical research by activity since, at the company level, is easier to implement in industry and construction than in trade and services: about half of the European Union countries do not use KAU, some of the reasons being the lack of information to identify them, the lack resources and/or the simple fact that they do not consider this procedure to be advantageous.

Given this context, the internship consisted of applying new rules for the establishment of KAUs imposed by Eurostat for the IES 2017 and 2018 statistical data. The new rules are as follows, being the most important notes the ones inside the red square of the figure below, retrieved from EUROSTAT:

"1) In practical implementation, the KAU design can be restricted to companies that, due to their size (eg production value), have a significant influence on aggregated industry data at the KAU level and - at least one secondary activity of the company represents more than 30% of its total production at the level of the class (4 digits) of the valid classification of NACE, or - at least one secondary activity of the company represents more than 20% of its total production at the level of the division (2 digits)) of the valid NACE classification;

Proposed new definition	(Version of 15 May 2014)	Operational rules
A kind-of-activity unit (KAU) is an enterprise, or a part of an enterprise, that engages in only one kind of productive activity, <i>producing goods and services intended to be sold to third parties</i>, or - in case of more than one productive activity - in which the principal productive activity <i>producing goods and services intended to be sold to third parties</i>, accounts for most of the value added. The delineation of the activities should be based on the valid version of the NACE classification. For the KAU, it should be possible in principle to derive a minimum set of economic indicators related to its production activity (in particular value of production, intermediate consumption (except overhead costs), compensation of employees, and gross fixed capital formation of buildings and structures, machinery and equipment as well as employment). Ancillary activities should not be regarded as KAU		1) In the practical implementation, the delineation of KAU may be restricted to enterprises [Footnote on TENS] which because of their size (e.g. production value), have significant influence on the aggregated industry data at the level of the KAU and - at least one secondary activity of the enterprise accounts for more than 30% of its total production at class level of the valid NACE classification, or - at least one secondary activity of the enterprise accounts for more than 20% of its total production at the division level of the valid NACE classification. 2) In the case of enterprises which are not covered by rule 1, the KAU is considered to be equal to the enterprise. 3) In case that not all of the economic indicators are available from the respondents, they may also be estimated by the national statistical authorities.

2) In the case of companies that are not covered by rule 1, KAU is considered equal to the company;

3) If not all economic indicators are available to respondents, they can also be estimated by national statistical authorities "

Phase 2: Treatment of the *IES* Statistical Source

In order to ascertain which companies have a significant influence on aggregated industry data at the KAU level, it was necessary to calculate the production ratios at the class level (4 digits) and at the division level (2 digits) of the valid classification of NACE, being those ratios the production of each NACE of a certain company divided by the total production of that same NACE at national level using IES data for the years 2017 and 2018. To obtain a more complete analysis, the same ratios were calculated but for the variable GVA. For the years 2017 and 2018, companies were identified that, having a minimum of one secondary activity, were in the following situations (for both the production and GVA cases):

- a) Ratio greater than 30% at the class level;
- b) Ratio greater than 20% at the division level;
- c) Ratio between 20% and 25% at the class level;
- d) Ratio between 25% and 30% at the class level.

If the ratio a) and b) (for the production case) corresponding to a NACE, exceeds the limits imposed by EUROSTAT, then the company must define a secondary KAU for that NACE.

Phase 3: Results Analysis

	2017		2018	
	NIF	NACE	NIF	NACE
Companies with production ratios at the class level > 30%	500116270	1042	500116270	1042
	500201307	1083	500201307	1083
	503309362	2592	503309362	2592
	504615947	6110	504615947	6110
Companies with GVA ratios at the class level > 30%	500116270	1042	500116270	1042
			500201307	1083
			503309362	2592
			504615947	6110
Companies with production ratios at the division level > 20%	504615947	61	504615947	61
Companies with GVA ratios at the division level > 20%	504615947	61	504615947	61
Companies with production ratios at the class level between 20% e 25%				
Companies with GVA ratios at the class level between 20% e 25%	500201307	1083	500347670	1394
Companies with production ratios at the class level between 25% e 30%				
Companies with GVA ratios at the class level between 25% e 30%				

The conclusions of the internship are summarized in the table above, which shows the tax identification number of companies in Portugal (*NIFs*) (and respective *NACEs*) of the ones that need to create secondary *KAUs* to comply with the *FRIBS* regulation imposed by EUROSTAT. They are the carriers of *NIFs* 500116270, 500201307, 503309362 and 504615947 for *NACEs* 1042, 1083, 2592 and 6110, respectively. The analysis for other limit value ranges was made in order to understand which companies round the limit values imposed by EUROSTAT, being only the holder of the *NIF* 500347670 that is in this situation, in the case of the limit to be considered belong to the range [20%, 25 %] and the ratio to be taken into account is that of *GVA*.

We saw that in addition to the production ratios (those intended for the primary purpose of the internship) the *GVA* ratios were also calculated, in order to make the analysis more complete and to be able to alert companies that should define *KAUs* in case this is the variable to take into account in order to respect EUROSTAT regulations. With the same objective, in the last stage of the internship, an identical analysis was elaborated, but instead of using *IES* data, *LAPI* data (*Inquérito Anual à Produção Industrial*) was used, which translates a complete integration of the methodology defined at the community level, for industrial production statistics, namely the level of coverage of national production, variables surveyed and the type of production performed. This survey aims to contribute to the characterization of Portuguese industrial production, by providing information on the products produced and sold, materials purchased, and energy consumed. This analysis can be described as follows:

- 1) There is no company that completed the *LAPI* but not the *IES* in 2017, whereas in 2018, there were four companies that responded to the *LAPI* but not to the *IES*, being the bearers of the *NIFs*: 500049072, 500059993, 503765325 and 508108519;

- 2) Find out if there are companies that have responded to *LAPI* and *IES* using different *NACEs* and identify not only the companies that used different *NACEs* but also what *NACEs* were, this for the years 2017 and 2018;

- 3) Check the restriction imposed by the *FRIBS* regulation but using *LAPI* data instead of *IES*;

4) Results analysis: for 2017 there would be 119 companies that should define KAUs if this were the reference survey, while for 2018 there would be 117 companies in this situation...

5. Conclusion and Limitations

The objective of the internship had already been clarified previously: to identify the companies (and their NACES) that, according to the FRIBS regulation issued by EUROSTAT, must define KAUs for their secondary activities whose weight in the national production corresponding to that same activity is significant. The companies that exceed the production ratio limits imposed by EUROSTAT (30% at the class level and 20% at the level of the respective NACE division) were the carriers of the *NIFs*: 500116270, 500201307, 503309362 and 504615947 for NACEs 1042, 1083, 2592 and 6110, respectively. To make the analysis more complete, my calculations were made but considering the economic indicator GVA as a reference instead of production, also for the level of the class and division of the respective NACE. Finally, in order to further complement the study to the segmentation of economic activities in the Portuguese business sector, the same calculations were made (both for the production ratio and the GVA ratio) but now with data from *LAPI* and not from *IES*.

This internship consisted of analyzing a more specific aspect of the Portuguese business sector: the segmentation of economic activity units. The report in question had two objectives: to explain what was done in the internship, checking if the EUROSTAT regulation is being complied with by Portuguese companies regarding the design of KAUs and to elaborate an analysis of the Portuguese business manufacturing, at a more macro level, in relation to its main influencing factors.

As mentioned in chapter 1, the curricular internship was carried out at the *Instituto Nacional de Estatística, IP*, which being the Portuguese entity responsible for producing indicators and statistics not only economic but also linked to the Portuguese business sector, this work was carried out with the purpose to analyze the country's business sector in a more general perspective comparative to the functions performed in the internship due to the difficulty found to direct the work towards the classification of units of economic activities theme, since the literature covering it is scarce. The analysis was prepared in the light of those that I consider to be the main factors for the definition of a country's business sector: culture, political and economic context and the technological progress and competitiveness, for the Portuguese case.

In a first phase, a slight theoretical background and historical review related to the factors under study in Portugal were elaborated, concluding at this point that the revolution of April 25th, 1974 caused permanent changes in the way all factors affect the Portuguese business manufacturing:

- Culture: Constitutional Governments started to be constituted, and on the 13th, in 1995, the Ministry of Culture was created, a date that marks the beginning of an era in which several efforts have been made to articulate cultural policies with those of education. Thus, it came to be, and finally, to attribute the deserved relevance to the cultural sector in Portugal;

- Politics: after the fall of the *Estado Novo* with the revolution, structures such as the *Confederação da Agricultura de Portugal*, the *Conselho Empresarial do Porto*, the *União Geral dos Trabalhadores*, among others, have emerged, which have a relevant role in the pursuit of policies favorable to Portuguese workers today;

- Economy: once the revolution disintegrated a political and social regime of almost 40 years, there was a certain inability of the new political structure to rebuild an economic system, increasing the difficulties among the different working classes (Mário Murteira, 1976);

- Technological progress and competitiveness: the revolution made Portugal, at the time, one of the European countries with a slower industrialization process (José Mendes, 1990).

Subsequently, in a second phase of the work, a more contemporary analysis was carried out of the main influencing factors of the Portuguese business sector, using not only literature but also socio-economic data taken from sources such as *INE*, *Pordata*, the official website of the Portuguese Government, European Commission, EUROSTAT among others.

Systematizing and in a summary form, the main conclusions of the study regarding the way each factor under consideration affects the Portuguese business manufacturing were as follows:

- Culture: despite generating high revenues, culture is a sector that leaves much to be desired in the Portuguese context, namely in terms of employability. In addition, in relation to this sector in Portugal, the clear dominance of micro-enterprises, the low levels

of investment from abroad and the youth of workers should be highlighted. It is a sector that deserves more attention by the Portuguese Government, since only 0,55% of the State Budget for 2020 going to the cultural sector²⁴;

- Politics: the left-right "duel" prevails in the Portuguese political context, overlapping the identification of parties on either side of the political spectrum. In the electoral program of the current Portuguese government there are no nationalizations (including companies like GALP and EDP), the minimum wage is not expected to increase (although attention to youth income will be doubled) and the permanence of low interest rates will be a priority to boost Portuguese companies;

- Economy: in addition to historical events such as the current pandemic crisis or the trade war between the USA and China, the UK's departure from the European Union (Brexit), one of Portugal's main trading partners, is highlighted. According to Ernst & Young (2018), this British government decision will inevitably have negative consequences for the Portuguese economy, namely reductions in exports, direct investment from abroad and remittances from emigrants. The main Portuguese socio-economic data are: young population highly qualified (above the European average) but with difficulties in finding their first job, the services sector (predominantly located in Lisbon) is growing at the expense of the industrial sector (located mainly in the north of Portugal), being that the balance of goods (-16.666 million euros in 2019) and services (17.484 million in 2019) reinforces this conclusion, Portugal's investment abroad is practically nonexistent when compared to the opposite flow of this variable, with divestment predominating (in 2019) and finally, the Portuguese public debt, which in 2019 amounted to -117.75% of GDP, more than three times the value recorded at the beginning of the new millennium (54.2% of GDP);

- Technological progress and competitiveness: in 2018, Portugal was the 14th country in the European Union in the ranking of the EIS (European Innovation Scoreboard), with difficulties in the areas of R&D, innovation in SMEs and collaboration between agents in the private sector being quite pronounced. As for digital competitiveness, Portugal was in the 15th position among the countries of the European

²⁴ Retrieved from <https://www.publico.pt/2019/12/17/culturaipsilon/noticia/despesa-consolidada-atribuida-cultura-aumenta-167-2020-relatorio-oe-1897593> , accessed on 31.08.2020

Union, according to the Digital Economy & Society Index (2016), so in Portugal, the reasonable degree of preparation was not reflected in the current level of competitiveness.

This work faces two main limitations. Due to the limit imposed on the number of pages, it is a fact that the analysis could have a higher level of detail in relation to each factor, namely the financial economic context, at which point more variables and economic indicators could have been explained, like main Portuguese institutions. In addition, since these factors are changing over time (albeit in a very progressive way), it is possible to state that in a few decades, the influence of these factors on the Portuguese business fabric will be different from what is verified today. Therefore, with the present study, new opportunities for research for the future arise, to culminate the difficulties explained in the previous paragraph.

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