ID Cover Pages

Summary of WP Student Team

# Bureaucracy vs. Efficiency: How Does Bureaucracy Impact the Access to European Funds

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**Work project carried out under the supervision of:**

**Advisor**: Francesco Aldo Franco

**Reading observations for jury:**

A Work Project, presented as part of the requirements for the Award of a Master's degree in International Development and Public Policy, from the Nova School of Business and Economics.

# BUREAUCRACY VS. EFFICIENCY: HOW DOES BUREAUCRACY IMPACT THE ACCESS TO EUROPEAN FUNDS

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Abstract - General

*In the existing literature, Bureaucracy is often characterized as a hindrance to economic activity and business dynamism. Hence, this Policy Analysis Project seeks to illustrate the impact of Bureaucracy on Portuguese SMEs in the context of European funds, an essential instrument for the country's economy. An evaluation of the funds' effect is also presented to motivate the assignment, with favorable results. Lastly, the group proposes a series of policy recommendations to mitigate Portuguese companies' bureaucratic constraints based on our findings and research. The ultimate goal is to lower the current burden on SMEs.*

Abstract - Tomás Soares

*After presenting a business-oriented, multidisciplinary Literature Review of the overarching concept of bureaucracy, descriptive statistics for small and more extensive databases are given to understand the explored datasets better. Finally, a regression analysis connecting the project to bureaucracy and a Differences-In-Differences analysis combined with a Propensity Score Matching approach attempts to evaluate the global impact of receiving EU Funds between 2015 and 2021 on a firm's Revenue. Findings show a higher bureaucracy perception for companies that applied to EU Funds and a positive impact on sales after receiving public support.*

Abstract - Inês Mendes

*Due to the dynamic environment in which small and medium-sized businesses (SMEs) operate, they face unique problems. Through various tools and programs, public policies are attempting to boost the competitiveness and creativity of SMEs in this direction. This paper evaluates whether SMEs that received EU funds recorded an improvement in their intangible and*

*tangible fixed assets investments and if those investments impact the perception of bureaucracy in the application process for EU funds. The findings demonstrate the efficiency of EU funds in encouraging investment in tangible assets while having some impact on the perception of bureaucracy.*

Abstract - Diogo Silva

*Employing two separate databases, the present individual assignment set out to evaluate the impact of EU Funds on Portuguese SMEs' growth, functioning as an underlying basis to motivate more accessible funding. Throughout the last thirty-six years, these financial instruments have been critical to the development of the country and its companies, substantiated by the short literature review conducted. Consequently, it is essential to investigate whether European Funds positively influence Portuguese firms. In this context, a largely positive impact is estimated using a financial variable and the methods of Regression Analysis, Difference-In-Differences, and Propensity Score Matching.*

Abstract - Vasco Bustorff Silva

*As societies require more and better monitoring of public spending, heavier bureaucratic mechanisms are put into place which can create delays and unnecessary costs. At the same time technology and firms evolve at a fast pace. The clash between these two realities means that with time, if the bureaucratic model is not rethought it will end up limiting economic growth. To reform these mechanisms, it is important to first understand the extent of their impact on firms. The findings show small evidence that red-tape does affect firms performance.*

Abstract - Luís Mota

*Firstly, by using GIS software to map where the companies that had access to funds are and analyzing their perception of bureaucracy in the cases where they were unsuccessful on their applications. Additionally, analyzing the existing literature to understand the depth of the economic asymmetries in the territory, this paper discusses how policymaking can help Portugal become more geo-economically balanced. The findings show that funds within the sample are evenly distributed across the territory but that regional asymmetries are still dividing the country even with the positive impact of the EU funds on Portuguese companies.*

Keywords: Bureaucracy, Public Administration, Efficiency, SMEs, EU Funds

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# 1. Introduction and Conceptual Framework

## 1.1. Background Motivation

In the context of the recently inaugurated MSc in International Development & Public Policy, a new evaluation model was introduced for the Master's final project. The Policy Analysis Project (PAP) was designed to allow students to solve specific policy problems as a group, offering a complementary, hands-on experience to the theoretical knowledge lectured throughout the degree.

Five students were assigned to a specific project after an allocation process and, in collaboration with two academic tutors, developed a comprehensive research report regarding the overarching field of bureaucracy. The assigned topic was proposed by the Gabinete de Estratégia e Estudos (GEE), part of the Ministry of the Economy and Sea, in the light of a protocol between this entity and NOVA School of Business and Economics.

Understanding how multiple forms of bureaucracy may influence the interaction between public administration and these firms is critical to determining whether the State's contribution is significant within this framework. Examples of this linkage may assume various forms, such as access to financing and EU funds, firm creation, licensing requirements, or property registration.

## 1.2. Selection Process and Core Definitions

As stated above, firm performance is often influenced by the dynamics of a firm's relationship with the State, one of the normative - legitimate - stakeholders, according to Harrison and Wicks (2013). For these authors, normative stakeholders are those the firm owes an obligation to, including customers, communities, labor, and suppliers of capital, equipment, and materials. Following this definition, the article "Stakeholder Theory, Value, and Firm Performance" characterizes firm performance as the total value created by a firm through its

activities, which is the sum of the utility generated for each business's stakeholders.

On the other hand, the vast framework of the State's institutions implies a complex system of checks and balances, motivated by multiple stakeholders' interests. Indeed, several factors shape interactions within public entities. Due to tightly enforced legislation in this domain, public servants must comply with strict rules. In parallel, to protect citizens from arbitrary power by a government, there is an intricate accountability chain that involves numerous actors in different political and hierarchical positions. Lastly, limited financial and professional incentives might result in lower motivation to implement necessary changes to these arrangements. The ensuing outcome is a narrow scope of action regarding the pursuit of improved welfare and government services, characterized by rigid power structures and procedures, which in turn may lead to a highly bureaucratized system.

The term bureaucracy was first popularized by German sociologist Max Weber in his 1905 book "The Protestant Ethic and the Spirit of Capitalism". According to this author, bureaucracy combines standardized procedures, accountability, and labor division. This leads to well-defined hierarchies and professional, almost dispassionate interactions between employees. Weber believed that bureaucratic processes were a fundamental part of efficiently managing layered organizations that comprise many individuals. Moreover, some key characteristics of this phenomenon involve a considerable relevance for written rules and rigid structure, as well as a high degree of technical qualification and task specialization.

Taking a step back, should one consider the multiple forms in which bureaucracy manifests itself not only within the State's inner workings and even in its relationship with the private sector, a need for a more precise approach arose. GEE's foremost objective was to assess how administrative costs affect Portuguese Small and Medium Enterprises (SMEs) and the State's role in that regard. Several potential issues related to this subject may arise, such as inefficient administrative capacity or inadequate regulation. One should first assess these

aspects' impact on the national economy.

Nonetheless, in collaboration with the academic tutors, the group decided that the vast nature of this subject and its aforementioned branches posed an extensive challenge that had to be limited further. After some internal conversations, the group decided to concentrate its efforts on a topic concerning the dynamics at play between bureaucratic costs, European Funds, and their allocation to SMEs.

Given the structural importance of these Funds for the Portuguese economy and its development from a cohesion standpoint during the past decades, it was determined that they would provide sufficient material and data for an interesting research project. Furthermore, a second relevant aspect pertains to the transparency and abundance of information regarding this matter. Likewise, the European Commission's Multiannual Financial Framework (MFF) for 2021-2027, i.e., the European Union's (EU) budget for the current period, allocates a large percentage of the funding to Cohesion Policy, namely, 30,8%. A comprehensive component of financial support is a priority for the EU to empower and provide a better future outlook for business owners across the Union. In 2020, SMEs created 2 out of 3 jobs in the EU, and 50% of its GDP was attributed to these enterprises.

### 1.3. Relevance of the Research Project

From a practical viewpoint, the policy recommendations proposed for this project allow the Ministry to reflect upon new and pragmatic solutions to reform the application procedure, increase the takeup of these Funds and consequently strengthen economic growth. Before this endeavor, *Instituto Nacional de Estatística* (INE) released extensive reports regarding Context Costs based on Portuguese firms' data. These involve expenses from various regional contrasts, such as administrative, strategic, and cultural options. INE's approach covers a broad domain of bureaucratic expenditures, e.g., financial, judicial, and human resources costs.

Alternatively, this Policy Analysis Project aims to offer an in-depth assessment of the firms' perception over the complete process - application, execution, and evaluation - concerning European Funds. As far as the group is aware, the present report is the first to encompass this particular topic. Since GEE's plan was to directly involve firms in the policy formulation process through a tailor-made Survey, the eventual desired outcome is to develop a more thriving environment for Portuguese SMEs, expecting a valuable opportunity to positively impact the country's economy. Past studies, such as Soukiazis and Antunes (2006) and Rodríguez-Pose and Garcilazo (2013), have identified a clear positive trend across the EU concerning regional development after the allocation of Structural Funds.

From a theoretical standpoint, this research project allowed the group to draw upon some conclusions and suggestions regarding several areas related to the process of European Funds' attribution. The primary intent is to gather knowledge on the impact of bureaucratic practices on SMEs' application process and quantify its tangible and intangible costs, such as time spent collecting necessary documentation. Moreover, the Survey present in this report and its analysis contribute to a better understanding of the Firms' insights concerning essential topics, namely, their expectations and financing alternatives. On the one hand, whether their initial objectives were achieved after the Funds' utilization, and on the other, how firms choose among different financial instruments.

Simultaneously, the group sought to obtain information regarding the most suitable communication methods in the context of general awareness about European Funds. Financial and demographic indicators were also a target of the group's approach, e.g., R&D expenditures over the past year, number of employees and their average age, or the firm's location.

Concerning the feasibility of the research project, the group, in collaboration with the academic tutors, deemed both the theoretical and practical components of this assignment

appealing to the general public and viable. First, according to the World Bank's Doing Business (2019), a series of reports that evaluates a country's business-creation indicators such as context costs and the regulatory burden, Portugal's position declined between 2016 (24th) and 2020 (39th). This evolution, combined with the country's economic performance during the aforementioned period, makes for a compelling work project subject.

In addition, the pre-existing and extensive databases found during the preliminary analysis, i.e., INE's Context Costs, Bureau Van Dijk's Sabi/Orbis, and FFMS's Pordata, did confirm our expectations concerning the project's viability. At the same time, the variety of selected data sources alongside their transparency are essential factors to consider. The group adopted a hands-on approach, focusing its efforts on the elaboration and eventual diffusion of the Survey and constructing a comprehensive and accurate database to become the basis for our Regression Analysis and Policy Evaluation to formulate policy recommendations better. To conclude, the group aimed to shed light on the impact of bureaucracy, more specifically on how it may hinder SMEs' future perspectives.

### 1.4. Hypothesis & Theory

Thus far, this introduction has presented an applied conceptual framework and a theoretical justification for this project. The group has strived to present these impartially, conveying multiple viewpoints associated with different schools of thought on the wider topic of bureaucracy. Henceforth, however, selected literature adopts a clearer stance on this matter, per the following Hypothesis.

In Bureaucracy and Development, Besley et al. (2021) connect the features of bureaucratic systems to the circumstances in which bureaucrats typically operate. More precisely, the relationship of these actors with citizens, politics, and firms. To begin, the authors attempt to highlight the role of the principal-agent Theory within this context. Departing from

the concept of Moral Hazard, this dilemma arises when *agents* - those who act on behalf of the *principal* - possess the motivation and opportunity to act according to their interests. Applied to the central topic of this project, non-transitory bureaucrats - public servants, agents - are appointed by elected politicians - principals - to enact policies in line with their particular agendas. There are often misaligned interests between the two parts, resulting in a clustered and persistent bureaucracy.

Continuing, the authors find a strong positive relationship between a variable of economic growth, measured by GDP per capita, and bureaucratic effectiveness. Simultaneously, high-income states have developed more successful bureaucratic systems, although establishing a causal relationship does appear to be a challenging prospect. Finally, a strong connection between economic growth and the quality of the bureaucracy is also found, with the explanatory variable of meritocratic recruitment providing the most significant result.

In his 1994 book, Bureaucracy and Public Economics, Niskanen argues that public servants are self-serving parties who seek to maximize their power and salary within their departments, following his Budget-maximizing model. By pushing for increased budgets, rational bureaucrats contribute to an enlarged public sector, which may reduce social efficiency. To avoid a flagrant excessive production of goods and services, the resulting deadweight loss from pursuing this strategy must not surpass the elector’s consumer surplus. Lastly, increasing the number of supplied goods and services is the foremost objective of a bureaucrat. This falls in line with the Public Choice Theory, which states that decision-making in the Public Sector is a product of self-interested individuals.

Considering this branch of literature on bureaucracy, the group formulated a hypothesis based on some predictable impacts of this phenomenon. Departing from the main topic, which underlies the current assignment, each group member will resort to a Dependent Variable of their choosing and try to estimate the impact of certain independent variables or firm

characteristics on it. Its overall significance will depend on these values, which the group sought to obtain through both the Survey and an extensive database of Portuguese firms. These two datasets include several Independent Variables such as the respondent's age, Operating Revenue/Turnover of the firm, whether the company invests in R&D, and the year in which the firm was created.

In terms of the Funds' Impact Evaluation, each individual contribution was built upon a different set of variables selected by the group member. For instance, an individual part concentrates on the effect of firm-oriented characteristics, such as the number of employees, on the latest result of sales available. Another example aims to evaluate the impact of EU Funds on Portuguese firms, controlling for results-oriented variables. Alongside these linear regressions, two types of public policy evaluation methods were also utilized. Based on the acquired knowledge from the Masters' Degree, an attempt was made to explore Propensity Score Matching and Difference-In-Differences.

After selecting the working variables, one of the group's goals was to reject the Null Hypothesis in each analysis. To do so, the coefficients of each independent variable needed to be different from zero. Should this proposition hold, the Alternative Hypothesis is confirmed, and the Null is rejected. While experimenting with these methods, the group encountered some non-statistically significant results. Such outcomes are expected, given the number of missing observations in both datasets.

### 1.5. Structure of the Report

Following the set of rules established in the context of the Policy Analysis Project, this final report comprises both individual and collective contributions. After some intra-group discussion and a few exchanges with the academic tutors, the group decided on the ensuing configuration. To begin with, the first part of this assignment was drafted by all five group

members. It encompasses the present introductory segment, a literature review concerning the main topic of bureaucracy, a chapter on European Funds and their purpose, and a section dedicated to the methodological basis of the research conducted during the project.

Next are the individual parts of each group member. Their respective configuration was developed following a simple model, composed of a short introduction, a concise literature review on each individual subject matter, an analysis of the results obtained through Descriptive Statistics and Regressions, as well as their main conclusions and obstacles faced. Lastly, the final collective section of this project focuses on the critical outcomes obtained throughout its different parts, with a clear emphasis on providing policy recommendations based both on the group's research and on case studies of various countries. Additionally, there is a final chapter including the utilized references and other useful annexes.

## 2. Literature Review

### 2.1 Definition of Small and Medium-sized Enterprises

Small and medium-sized businesses (SMEs), which are a diverse set of companies and the main generator of economic expansion in Europe, are crucial to the Portuguese economy. In Portugal, SMEs represent 99.9% of all companies, of which 96% are micro, 3.3% small, and 0.5% medium (PORDATA 2020).

> *"SMEs are the backbone of our economies...the industrial fabric of many regions and cities – they are the key to social cohesion and an engine of regional job creation and well-being"* (Angel Gurría 2019).

There are significant discrepancies between how small and medium enterprises are defined in economic literature. There isn't a single, broadly recognized definition of small and medium businesses. Since different people and organizations define SMEs differently, a firm that is regarded as small and medium-sized in one country may be seen differently in another. Therefore, it is essential to begin with a clear and objective definition of SMEs, which was first attempted by (Bolton 1971). According to the definition, a small firm is an independent company run by its owner or co-owners with a low market share.

The *Bolton Report* also recognized the three main characteristics that need to be considered when defining SMEs. First of all, a smaller company has a comparatively low market share. Secondly, a small firm is that its owners or part-owners manage it in a personalized way and not through a formalized management structure. Thirdly, it is autonomous because it is not a component of a bigger business, and the owner-managers should not be subject to outside influence when making major choices (Bolton 1971).

Based on the idea that the existence of different definitions at the Community level and the national level could create inconsistencies, the European Commission defines SMEs as enterprises that employ fewer than 250 persons and which have an annual turnover not exceeding €50 million, and an annual balance sheet total not exceeding €43 million, as shown in Table 1 (European Commission 2003). According to the idea of a single market without internal borders, how businesses are treated should be governed by a set of standard guidelines.

| **Company Category** | **Staff headcount** | **Turnover** | **Balance sheet total** |
|---|---|---|---|
| | | | |

| | | | |
|---|---|---|---|
| Medium-sized | <250 | ≤ € 50 m | ≤ € 43 m |
| Small | <50 | ≤ € 10 m | ≤ € 10 m |
| Micro | <10 | ≤ € 2 m | ≤ € 2 m |

Table 1. Definition of SME

In this regard, a common definition would help to improve the consistency and effectiveness of SME policy across the EU. Moreover, it is all the more necessary given the extensive interactions between national and EU measures designed to help SMEs in areas such as regional development and research funding. Most OECD governments promote entrepreneurship and develop SMEs with various policies and programs. Similar to the EU, this aims to address SME challenges like internationalization, management, funding, technology, and innovation (Lukács 2005).

**2.2 Small and Medium-sized Enterprises' Characteristics**

According to (Storey 2016), the universe of SMEs is dynamic, considering that there has been an increase in start-ups in the last 30 years. This trend becomes even more evident when there are more or less profound changes, such as the increase in unemployment and government policies regarding incentives, coupled with an emerging desire to increase support for entrepreneurial culture. While many SMEs are born each year, the truth is that their survival is more difficult, as the first three years of a company's life are the most critical, with as many as 50% of SMEs filing for bankruptcy (Burns 2001).

Félix (2017) analyzed this evidence, concluding that many new firms are much smaller than existing ones. Some close within the first year of existence, others before seven years,

with only 48% surviving. The author also mentions that these new companies are essential for developing the economy and creating employment. This is especially true in Portugal since most companies are SMEs (Félix 2017).

SMEs are much more affected by fiscal, legislative, and administrative burdens than large companies. Growing competition and market flaws including restricted access to capital, innovation, networks, and supply chains are barriers to their development. Given the relevance of SMEs in the economies of each country and their fundamental existence for the economic development of each country, the increase in studies on SMEs is of particular importance.

However, despite the undisputed significance of SMEs in the current context, they have not been the subject of many studies, and there is a significant lack of empirical evidence on their specificities, with studies being more directed at large firms. The lack of academic research on SMEs stems mainly from the unavailability of data due to this type of company's insufficient disclosure of information (Berger and Udell 1998). However, although the problem of obtaining information is the aspect that most hinders empirical research in the field of SMEs, this scarcity of studies may derive from other factors, resulting from the characteristics of SMEs themselves. SMEs are characterized, among other things, by the fact that ownership and management, as a rule, are concentrated in the same person (Ang 1991) and by significant difficulties in accessing the capital market, with bank loans being their primary source of financing (Barton and Matthews 1989). Nevertheless, SMEs are firms with greater difficulty accessing credit (Beck and Demirguc-Kunt 2006) and with higher costs associated with these operations (Ang 1991).

On the other hand, it is found that, as a rule, SMEs have inadequate, or even insufficient, financial information, and the asymmetries in financial information are proportionally greater. Thus, as financial institutions need the information to assess loan risk, financing difficulties in

SMEs may, in part, be a consequence of inadequate or insufficient information and asymmetries (Binks, Ennew, and Reed 1992).

SMEs play a crucial role in the recovery of the national economy, so they must have greater access to support to carry out their investments. Thus, the funding applications must be more flexible, less bureaucratic, and more adequate to the reality of national companies. A large percentage of companies did not obtain any support from European funds. It is expected, however, that this reality will change.

### 2.3 Historical Context of Bureaucracy

One may only begin to question the current level of bureaucracy if one understands what this term means and how it came to be. George Friedrich Hegel was the first scholar to write about this topic. At this time, bureaucracy was still not a fully characterized phenomenon as we know it today. Still, it had already been a mediator between civil society and the state. There were no established bureaucratic processes, but there was a sense that the state needed a formal, impersonal organization that focused solely on organizing its operations so that it could contribute to the greater good of the country. For Hegel, bureaucracy was the phenomenon where an organized group of people (or social class) imposed the obligation of duty on others and then reported upon the state's interests. His approach to bureaucracy was focused on the state and the public administration. Regardless, it was an important contribution as it was one of the first hints of bureaucratic thought.

For Karl Marx**,** bureaucracy was not something positive. He thought that bureaucracy, as characterized by Hegel, was created by the upper classes as a weapon to dominate the lower ones. In his words, "the only interest that bureaucracy pursues is the interest of bureaucracy itself" - the nobility. For bureaucracy to exist, hidden agendas had to be kept working, and these interests were not in any way aligned with most people's needs. By having people with

important roles in society and hidden agendas ruling public management practices, the objective of the bureaucrat would change. It would depart from fighting for the country's greater good to squabbling for higher posts inside public administration. In turn, this would create a vicious cycle that would feed the functioning of this vast and complex network that was the governmental "machine". In conclusion, for Marx, bureaucracy is conceived both as a parasite and a chain of transmission essential to the survival of the upper social classes.

Finally, we focus our attention on Max Weber. He was, as described earlier, one of the biggest propulsors of the term Bureaucracy as we know it today and one of its biggest admirers. He thought bureaucracy was becoming so present in society because of its advantage compared to other forms of organization. By laying out standard procedures, human conflict and ambiguity were left aside, enabling processes to flow rapidly and without significant problems. Outcomes became rational and predictable, which made them valuable to other sectors besides the public.

Trying to leave its mark on the rationalization of the modern world, Weber draws what he considers to be the ideal type of bureaucracy. In this model, the objective would be to move the bureaucratic power from the Nobel class, entrusted by the sovereign, to an administrative group that could be detached, as much as possible, from individual agendas by providing conditions for such. For that, the bureaucrat would be paid and assured of a good standard of living while the work prospects would be stable, and promotions would be based on rational indicators. At its core, the model proposed by Weber had six characteristics:

1. The competencies of such administration had to be laid out in written rules to limit their scope and power;
2. There had to be a clearly defined hierarchy of authority and functions;
3. All the activities had to be reported to enable traceability;
4. The people in the job would have to have intense training beforehand;

5. The person in that position must have only one career to prevent conflict of interests;
6. By fulfilling their duties, the person in charge would get continuous and very specific training on the functioning of the bureaucratic process.

Weber's most significant contribution was to detach the concept from a social class affair to something that concerns the well-functioning of any organization based on rationalizing the process. From his perspective, bureaucracy was a way to shape an organization and its procedures, which could be adapted to multiple purposes in search of maximum efficiency.

### 2.4. Advantages and Disadvantages of Bureaucracy

Clearly defined procedures and responsibilities allow the upper levels of management to control the work of its employees and keep up with their tasks. Division of labor allows workers to specialize in a specific task, making them more productive. Standard procedures also make it easier because workers already have a guide on what to do and how to do it. Eliminating human ambiguity enables processes to develop more smoothly. Well-established roles and procedures are essential to tracing the root of a problem.

For the workers, the tasks at hand become more apparent. They do not have to think about how to approach the task at hand every time, and the outcome of their work becomes predictable - the same type of information, format, and size that is required from them - which makes life easier for the upper levels. Since tasks are standardized, it's also easier to predict how much time a particular task will take to be accomplished. This model, however, doesn't get away free of criticism. Flaws become more evident as societies evolve and demand more flexible and agile procedures requiring administrative reforms.

The desire for control over all procedures by the leaders translates into a series of strict behaviors that cause the enactment of defense mechanisms by the lower management levels that appreciate a certain amount of freedom when making decisions. A clear hierarchical structure and power chain usually mean that middle and lower-level workers are left to do standardized operating procedures. Like Marx, Motta criticizes the fact that bureaucracy alienates workers from the world created by its work. (Faria 2011)

Stiff hierarchical structures can make it harder for information to flow along the organization since they must follow a level stream. Customer service becomes very restricted to the protocol and makes it harder to comply with situations that go beyond what is standardized already (Merton 1940).

The uniformization of activities makes employees resistant to change as they become accustomed to specific stability and repetition. Over-centralization of powers also makes it hard to do any kind of reform in public administration. Heavy rules and cumbersome procedures make organizations stiff and unable to change themselves at a reasonable pace. The result is that the public sector struggles to keep up with the demands of civil society and its dynamic private sector. (World Bank 2018)

### 2.5 How can Bureaucracy affect SMEs?

The bureaucratic performance of the public administration has a direct impact on the way companies perform. Enterprises interact with public institutions regularly, and it is in the state’s interest that its institutions allow their counterparts to work as freely as possible to promote competitiveness. “The set of Institutions, Policies and other factors that contribute to a country's productiveness” - Competitiveness as defined in the Global Competitiveness Report. According to a study developed by INE, we can see that the interaction between the private and public sectors happens at several levels and at different stages of an institution’s

life. In their report, they define the following: Business Start-up; Licensing; Network Industries, the ones a business depends on (Electricity, Gas, etc.); Financing; Judicial System; Fiscal System; Administrative Burden; Internationalization Barriers; and Human Resources.

As previously stated, this report will focus mainly on the Financing side of bureaucracy. How does the state hinder the access to financing and consequently its potential impact on improving a company's performance, for the specific case of the European funds?

Delays in the payments made by the state can harm the liquidity and growth of its economy. A study developed by the ECB shows how delays in payment periods can have detrimental effects on the performance of enterprises. They point out reduced profits, increased probability of bankruptcy, and slow economic growth to be the main effects of such delays. (ECB 2015)

An amount of financing has a certain potential to improve a company's performance and promote growth. Suppose the process of accessing these types of funding is characterized by poor organizational execution. In that case, the unnecessarily high costs that come with it will decrease its potential to fulfill its purpose. Complicated procedures, complex language, and poor communication between departments - inside the awarding body - can make it much harder for a company to access the funds it needs. (Brzakova and Pridalova 2016)

Some of the processes can be costly, and the approval percentage weighs in as a deciding factor on whether to apply. The need to report on several documents before approval brings significant opportunity costs to companies. These are resources that are not directly employed in the company to apply. This is especially detrimental for SMEs that have reduced resources and face the lowest approval rate varying from 27% for the Micro level and 34% for the Small. (+Liberdade 2022)

## 3. European Funds

### 3.1. Political Objectives and Instruments

The political reason for the existence of European Funds converges with one of the fundamental political roots of the European Union, the three pillars. Firstly established in the Treaty of Maastricht on the 1st of November 1993, these three pillars were the Common Foreign and Security Policy, which aimed to preserve peace and organize the foreign policy, and the Justice and Home Affairs Pillars on police cooperation and cross-border cooperation, which were both ruled on intergovernmental style, meaning that governments cooperated among them to achieve the objectives. The last pillar often represented first is the European Community that assured the economic union, cohesion, development policies, etc., and thus, where the European Funds were inserted. It had a supranational decision-making style (Bomberg, Peterson and Corbett 2012).

The three pillars were then abandoned after the signing of the Treaty of Lisbon in 2009. However, the objectives remained similar, although the competencies of the Union were reorganized while preserving the necessity of acting on economic, social, and territorial cohesion (EUR-Lex 2022). This authority aims to reduce economic and social differences within the European Union. To do so, the European Union employs monetary funds under the legal basis of Article 174-178 on the Function of the EU for its cohesion policy to assist and address the problems of the regions. These could be regions with land or demographic hindrances - such as regions with low population density or problematic connectivity. Additionally, EU cohesion funds are managed in cooperation between the European Commission and the respective authorities at national and regional levels. At the European level, the instruments applied are mainly the European Regional Development Fund, the European Social Fund, the European Cohesion Fund, and the Just Transition Fund (EUR-Lex 2022). Nevertheless, the European Maritime and Fisheries Fund, the European Agriculture

Fund for Rural Development, and the European Investment bank also support European cohesion with their investments.

### 3.2. PORTUGAL2020

A critical mechanism to ensure Portugal's economic, social, and environmental development through a partnership with the European Commission is "Portugal 2020", a partnership agreement that aims to stimulate economic growth and employment creation in Portugal (PORTUGAL2020 2014). Totaling 25 billion euros until 2020, its guiding lines were aligned with the strategy of EUROPA 2020, where the program had to follow rules that ensured intelligent, sustainable, and inclusive growth. To do so, Portugal received 25 billion euros until 2020. It organized its plan of action through four Thematic Objectives (PORTUGAL2020 2014):

- Competitiveness and internationalization, where the main objectives are fostering exportation, suitable employment, and investment in research, development, and innovation, capacitate SMEs to compete in the global markets, reducing the costs and the time spent transporting goods and modernizing public administration.
- The second objective is increasing social inclusion and employment that aims at improving employment access to the younger population but also to the most vulnerable demographic groups, promoting the development of competences for the integration and reintegration into the job market, and expanding access to social and health services and promoting active inclusion, fostering equal opportunities among all.
- The third objective concerns human capital and aims at decreasing the school dropout rate, expanding vocational education programs, and connecting them properly with the

job market, and increasing the investment and quality in higher education and advanced training in order to guarantee better school success and more employment.

- Finally, the fourth and last objective concerns sustainability and the efficient use of resources. Its main goals are fostering economic development towards a low carbon emission economy, increasing the investment in renewable sources of energy, improving energy efficiency and smart grids, boosting the ability to adapt to climate change, protecting the shore from erosion, reducing wildfires, preventing flooding and reduce and recycle residue while promoting efficient water management.

  The image below indicates how the resources are divided between the objectives.

### 3.3. COMPETE2020

Under the toll of PORTUGAL2020's objective of increasing the competitiveness and internationalization of Portuguese companies, "*Compete 2020"* was created to manage the funds directed at this program segment. To do so and based on the regulating guidelines of the European structural and investment funds (ESIF), whose main area of action concerns research and innovation, digital technologies, supporting the low-carbon economy, sustainable management of natural resources, and small businesses (European Commission 2019). COMPETE2020 is organized in six different axes that create the pavement to reach the goals of increasing research, quality employment, sustainable transport, etc. Additionally, the type of companies eligible for the program must have organized accounting, and they can have different levels of size and organization. Nevertheless, companies' expenses regarding the application process are not eligible for a refund. Therefore, the companies must support those costs without the provision should they be accepted.

### 3.4. REACT-EU

As the acronym indicates, the REACT initiative is a reaction mechanism to the crisis created by the COVID-19 pandemic. The program is named Recovery Assistance for Cohesion and the Territories of Europe. Adopted on the 23rd of December 2020, the program will total €50.6 billion, which will be added to the European Regional Development Fund (ERDF), the European Social Fund (ESF), and the Fund for European Aid to the Most Deprived (FEAD), the funds were developed in 2021 through the Next Generation EU instrument and required a revision of the current financial framework (Eurocid 2022).

The allocation of funds will account for the impact the crisis had on the EU member-states through several economic indicators, such as the GDP drop, the rise of unemployment among young people, and the relative wealth of the countries (European Commission 2022). REACT complements existing programs and employs additional funding for those schemes, such as the Investment for Growth and Job Goal (IGJ).

However, the ERDF's additional funds will support SMEs by providing working capital and investment by increasing the investment in products and services. Digital and green economy concerns are also considered in the added funds, and regions more affected by the crisis and their correspondent sectors, namely the regions that rely more on tourism, are also further considered (European Commission 2022). The ESF sourced additional funds to support job maintenance in several types of employment and demographic groups, such as more vulnerable people and youth. Furthermore, the financing of this program is exclusive to the EU, meaning that no national co-financing is required, and member-states are encouraged to provide advance payments to beneficiaries via the high level of pre-financing available.

### 3.5. Why EU Funds?

European Funds represent an excellent opportunity for the development of companies to ensure that their growth is sustainable and that they can compete with the rest of the world. However, since funds are limited, the level of competitiveness to receive the funds is high, and applications can be costly. Moreover, the costs allocated for loss applications are never recovered, which can further hinder the company.

Out of all applications for funds financed through the ERDF, less than 50% of those funds were approved (+Liberdade 2022). For instance, micro-companies had a 27% approval rate, while small companies had a 34% approval rate, medium companies 48%, and large companies had a 45% approval rate. The same study shared comments from stakeholders that criticized the complexity and poor quality of the required processes for the PORTUGAL 2020 funds application. They also claimed that a great deal of effort is needed from the companies to fulfill the bureaucratic requirements for the application and recommended that the applications become more accessible and transparent by decreasing bureaucracy. Therefore, we chose this topic to understand how costly it is for Portuguese companies to apply to European Funds and how these costs can be related to the application's approval and the company's performance.

## 4. Methodology

### 4.1. Motivation and Timeline

From day one, GEE's primary goal, along with NOVA SBE, was to implement a Survey that would provide a solid basis for the Policy Analysis Project. This questionnaire was intended to gather specific information from these firms, especially regarding how bureaucratic procedures in EU Funds affect their productivity, performance, and investment decisions. Such

a tool grants both a rational and theoretical framework while establishing a direct communication channel with Portuguese SMEs that received European Funds. Subsequently, the course of the project called for designing and implementing a Control Group Survey, which would target firms that did not receive community funding. Thus, multiple comparisons could be established and studied across both groups, for example, in terms of firm structure and financial results.

After narrowing the project scope to be more specific, the group kept studying several possibilities concerning different methods to design and implement the research project. Initially, the preferred software was Google Forms, followed by KoBoToolbox. In a later stage, QualtricsXM was selected, given its survey design options and superior distribution tools. As for the latter, the main options on the table were contacting SMEs through e-mails directly provided by COMPETE2020, having this entity disseminate the questionnaires, and finally, manually matching and collecting NIFs and e-mails using the *nif.pt* website and an Excel document obtained through GEE.

The structure of the main questionnaire also underwent different stages. At first, the group's approach implied a vast number of questions to collect a large amount of information from the firms. Although it was divided into chapters, this initial version was deemed too complex and time-consuming. Therefore, considering the trade-off between collecting extensive data obtainable through other methods or quality feedback, the group decided to simplify this Survey. One of these sources was Bureau van Dijk's Sabi/Orbis, which contains several relevant firm-related indicators. This database, along with continuous evaluation from the academic tutors, allowed the group to reduce the questionnaire's size significantly.

There are a number of comprehensive and noteworthy indicators that, among others, evaluate the impact of administrative costs on companies, namely, OECD's *Indicators of Product Market Regulation* or the World Bank's *Doing Business*. However, these metrics fail

to address the evolving relationship between bureaucracy, EU Funds, and their diffusion to Portuguese SMEs. Furthermore, should we consider these businesses' smaller scale and economic leverage, one could infer that they would be underrepresented in these international indicators and, at the same time, subject to a disproportionate bureaucratic burden (Martini 2013). Such factors play a crucial role in the development and importance of designing practical and objective Surveys.

### 4.2. Main Data Sources

GEE provided the group with an Excel document containing vast information about the firms that received EU Funds between February 2015 and February 2022 from COMPETE2020. Some of the disclosed details were, e.g., the beneficiary's name and the public entity in charge of the funds' attribution in Portugal. Afterward, the program designation in the country was part of the filtering process since the group was solely interested in analyzing the program focused on SMEs, APOIAR. Finally, other interesting elements in the Excel file were several critical dates related to the application - submission, approval, project's beginning and end - and the investment amount, divided into self-financing and the EU-covered part.

Through NOVA SBE, the group has access to an extensive database concerning firms' structural and financial data, Bureau van Dijk's Sabi/Orbis. Over 900 thousand companies are cataloged in this source, which includes information such as the name of their directors and respective contacts, the size and sector of the firms, and their main accounting results, i.e., the EBIT, EBITDA, sales, and total assets. Sabi/Orbis was also instrumental in constructing a second comprehensive dataset, created using the characteristics of the treated firms present in COMPETE's document. At a later stage of the project, this tool was an essential part of the individual contributions to the report, given the number of important variables it provides to both constructed datasets.

By now, it should be clear that the group relied on two different datasets. The first one was composed of firms that responded to either of the questionnaires - a smaller database (678 observations, 78 Treated, 600 Control). On the other hand, the second dataset was built upon the unique features of firms that received EU Funds between 2015 and 2022 - an extensive database (500.789 observations, 11917 Treated, 488.872 Control).

### 4.3. Control and Treatment Group Construction

The central research problem behind this project has been clear since the group first contacted GEE's proposal in January. Keeping in mind the purpose of gathering feedback from Portuguese SMEs regarding administrative costs, the questions posed in both Surveys had to involve diverse approaches. A mandatory question concerning the firm's fiscal number (NIF) was implemented to ensure precise identification of the responding firms. Later on, this information also made it possible to find the remaining characteristics of the firms on Sabi/Orbis, essential to pursuing further analysis without asking too many firm-related questions. Another example of a clear and unbiased binary question was whether the available EU Funds corresponded to the firms' needs. In this case, should the firm answer negatively, the questionnaire displayed a text field for the firm to justify its stance, which had an important role in drawing conclusions and recommendations for the project.

The questionnaires which would provide the basis for the first dataset included categorical- and numerical-type questions**.** In order to grasp the impact of the EU Funds on a given company, the group asked which practical outcomes arose in the post-funding period. Potential options included increasing sales or firm size, a more significant percentage of exports, a higher level of workforce qualification, or innovation growth. Discrete-type questions were also introduced. One such example is a question in which the responding firm

can classify possible policy changes that would tackle the broader issue of bureaucracy on an ordinal scale from 1 to 5.

Departing from COMPETE2020's Excel document, the group had access to the company names of 26904 firms that received European Funds. This was the Treatment Group's population. Using this information on the *nif.pt* website, 16309 fiscal numbers were manually found. After pre-formatting and uploading three documents Sabi/Orbis could read, 8686 e-mails were obtained, representing 53% of the matched fiscal numbers and 32% of the observed initial firms. Since retrieving fiscal numbers was a rather time-consuming process, the main Survey was distributed separately over three weeks.

Sometime later, the group was dissatisfied with the low rate of completed surveys since only seven firms had finalized the questionnaire. By the end of that week, it was clear that some adjustments were in order, particularly in terms of the text on the cover of the Survey and in the body of the e-mail. For instance, some text parts were removed altogether, and others were changed to appear more appealing to the firms, involving a more direct approach and highlighting the benefits of reduced bureaucracy.

From then on, the following cycles of e-mails were to incorporate these changes, which later yielded a more significant number of respondents. In the end, the group obtained 88 responses, a notable increase from the initial number of answers. It should also be mentioned that each *round* of e-mails was accompanied by a reminder message sent a few days later. Although the target firms were well defined - SMEs with similar characteristics (e.g., size) that had (Treatment Group) and had not (Control Group) received funding in the past eight years, the sample size ended up being very different across both groups. Only 88 answers were registered on the Treatment survey, while 600 firms replied to the control one.

Considering that both groups have different characteristics, not all questions on the final versions of each Survey are the same. However, most questions on the Control Group

questionnaire have been adapted from the Treatment one, which was developed earlier in the project. For instance, in the Treatment questionnaire, the group asks if the firm would advance with its project without European Funds. Meanwhile, the Control one concentrates on whether the company would have undertaken different strategic decisions should it have received funds.

Finally, to ensure the Control Group was correctly constructed, its questionnaire was not to be released until all answers from the Treatment Group were registered. This way, after carefully analyzing the Treatment Group's characteristics, the group could use the filtering options of Sabi/Orbis to contact firms with similar features exclusively. As soon as the Treatment Group survey was concluded, the group retrieved the NIFs of the responding firms and ran them through Sabi/Orbis. This way, many filters could be applied to gather more information and data about the respondents. Such knowledge is critical to examining and analyzing the specific characteristics of the Treatment Group firms. It is also essential to establish the overall framework that would be used to develop a reliable Control Group.

In particular, the criteria applied were Turnover, the Latest available number of employees, EBITDA, Total assets, Total liabilities, Sales, CAE Rev. 3 (Primary Code), and, lastly, whether Sabi/Orbis contained the e-mail address of the firm. For each numerical variable, the considered interval was limited by the minimum and maximum values of the Treatment Group's responding firms. It is also important to note that the aforementioned financial criteria were measured in thousands of euros. In contrast with the main questionnaire, this Survey was deployed over a week due to time-related constraints. To better understand the firms who had completed either of the Surveys, the final version of the first database was composed of the obtained answers to each question and additional information regarding the firms' indicators, imported from Sabi/Orbis. This was done with the intent to run regressions with bureaucracy-related indicators serving as a Dependent Variable, particularly through a composite indicator based on Survey questions.

As for the second, larger database, it was constructed using the NIFs of Treated Firms and Sabi/Orbis. Once all the possible fiscal numbers were collected for this initial document, the group withdrew their key characteristics from Sabi/Orbis. This process ensured that essential information concerning the treated firms was obtained, securing a more extensive set than the one acquired through the Survey. Afterward, the group calculated the maximum and minimum values for each variable of interest: the number of employees, turnover, total assets, total equity and liabilities, and sales for each category's last available year. Next, the obtained values were run through Sabi/Orbis, to encompass firms that share similar features with the Treated ones. Due to the number of firms that met the aforementioned criteria (500.648), the respective Excel file was split into several smaller ones so that the firms and their individual information could be imported to Stata.

For this group of firms, the final database was constructed with firm-related information and other results of interest. The underlying objective of this process was to allow the group to experiment with a number of different variables in terms of running regressions. Some retrieved variables of interest are the date of establishment, the region, the EBITDA, or the intangible fixed assets.

### 4.4. Descriptive Statistics

To begin with, Descriptive Statistics are typically perceived as an interesting and straightforward way to introduce a recently created dataset and its features. Considering the specific context of this project, this perspective took on additional importance, given the group's low number of responses, particularly in the Treatment survey.

Regarding Categorical Variables (e.g., Q5 of the Treatment Survey), the main statistical instruments used to analyze this type of data are frequency tables, split into absolute and relative frequencies. Likewise, the mode can be presented as a result of the category with the

highest absolute frequency. For a simple yet informative visualization, bar and pie charts are usually the chosen method. As for Numerical Variables (e.g., Q17 of the Treatment Survey), they are divided into Location Measures and Dispersion Measures.

Location Measures are, in turn, divided into Central and Non-central tendency ones. While the former includes the mean, the median, and the previously mentioned mode, the latter comprises quantiles, percentiles, and deciles. Once more, considering the reduced number of answers obtained, the quantile will be the sole measure of interest. By contrast, Dispersion Measures encompass the range, interquartile range, and standard deviation. Lastly, histograms are the preferred option to plot continuous numerical data. For the individual parts, each group member will select the Descriptive Statistics that convey the most noteworthy results.

### 4.5. Multilinear Regressions

The group could establish a Dependent Variable for the first, smaller database by creating a composite indicator based on the Survey's answers. By doing so, a bureaucracy-related variable was created to gather the firms' overall perceptions regarding the main topic of this project. It includes responses associated with tasks one usually perceives as bureaucratic, such as filling forms, collecting an extensive degree of information, and dealing with complex legislation. On the right-hand side of the equation, variables related to a firm's economic performance and firm-related characteristics were tested.

However, running regressions on small datasets implies several issues regarding the accuracy of the performed analysis. While these operations can not always assure statistically significant results, if the p-value does not meet the minimum threshold of 0.05 significance, finding two or more correlated variables does not imply causality. Regardless, the value of the coefficient of determination states how much of the Dependent Variable is explained by the

Independent ones. Each group member will experiment with different variables in Stata in an attempt to obtain interesting results.

### 4.6. Policy Evaluation Methods

The second, more extensive database allows the group to test two of the previously studied Policy Evaluation Methods - Differences-In-Differences (DiD) and Propensity Score Matching (PSM). DiD offers the possibility to understand before-after patterns and Treatment-Control group differences. PSM adds an extra layer of certainty to the Average Treatment Effect on Treated (ATET) or Average Treatment Effect (ATE) result by matching similar observations across both groups. This can be achieved either through a Nearest-Neighbor matching process or a Radius one (Cunningham 2021).

Both methods have specific assumptions that need to be met to be properly implemented. DiD requires the Parallel Trends Assumption to be verified, i.e., changes in outcome for these groups would be predictably equal over time if treatment had not occurred. In turn, PSM is slightly more demanding - it needs two assumptions to hold. The first one, Conditional Independence, implies that uptake of a particular program - in this case, EU Funds - is based solely on observed characteristics. The last assumption refers to the quality of the Common Support region, which requires Treatment observations to have comparable Control ones.

Considering the nature of the large database, the group did not identify any problems with the Parallel Trends or Common Support assumptions. However, Conditional Independence may not hold since Treatment take-up - receiving EU Funds - may be determined by unobservable characteristics to the group or those involved in the application acceptance process. One practical example of such an unobservable feature could be the usage of a consultancy firm to help throughout the application process. Some firms have access to these

third-party resources, whereas others do not. This difference may have unnoticeably impacted the results stemming from the application process, an effect the group could not control.

# 5. Results

## 5.4. HOW DO ADMINISTRATIVE COSTS IMPACT PORTUGUESE FIRMS IN THE CONTEXT OF THE EUROPEAN FUNDS - Vasco Silva

### 5.4.1 Introduction

Bureaucracy was developed with the intention of standardizing procedures to make it less ambiguous and therefore faster. However, as societies require more and better monitoring of public spending, heavier bureaucratic mechanisms are put into place which can create delays and unnecessary costs. At the same time technology and firms evolve at a fast pace. The clash between these two realities means that with time, if the bureaucratic model is not rethought it will end up limiting economic growth.

In this study I want to analyze the impact that red tape - from the public administration side and in the application procedure for the European Funds - has on the performance of SMEs.

I will do this by looking at a dataset provided by one of the existing programs in Portugal, Programa Operacional Inclusão Social e Emprego (POISE), and by using two metrics which can be impacted by delays in the application's approval time. They are the Working Capital - which measures a company's liquidity - and the Operating Revenue – which measures the revenue generated by its companies' primary business activities.

I find this topic especially important since these Funds are given as grants. They represent a big share of the Portuguese public investment and represent a chance that the EC gives to its members to develop and catch up with the more developed. Wasting this

opportunity due to Bureaucratic Delays seems dangerously easy and can push Portugal towards the least developed in the community.

In the case of Portugal this can be extremely harmful since its SMEs represent 99,9% of its economy, of which 96% are Micro, and these kinds of companies are very sensitive to delays in Government interactions due to its extreme credit constraints.

Measuring the Impacts of Red-tape

Rainey, Pandey and Bozeman (1995) define red-tape as the: "rules, regulations, and procedures that remain in force and entail a compliance burden for the organization but have no efficacy for the rules functional object" (p.567).

One of the biggest challenges I faced was in how to measure red-tape. There isn't much literature on this topic but I decided to proceed as Bozeman, Reed and Scott (1992) who state that "red-tape is perhaps better measured by the time required to complete tasks" (p.292).

On the common part our group implemented a survey which had questions focused on quantifying some of these costs. Unfortunately, we had very few responses (for these specific questions we had around 32 answers) and I decided that I needed a more consistent dataset to make such an analysis.

After talking to several people that work in the Operational Programs in Portugal, I realised that each program has a dataset where deadlines such as call for tender, submission day and approval day are recorded. I managed to have access to the one from Programa Operacional Inclusão Social e Emprego (with NIFs) and another one from Agência para o Desenvolvimento e Coesão that aggregates information on all the existing programs (without NIFs).

Since there were no existing datasets with information on the costs and time it takes to do an Application for the European Funds in Portugal, I decided to create a proxy for red-tape which is the Application Approval Time by using POISE's data.

This proxy is the difference in days between the date of submission of the application and the date of the first response from the competent authority (more requisites = bigger approval time). This allowed me to get free of the extended periods for clarifications and it is still very much important because a delay in this first step will automatically push forward future deadlines.

### 5.4.2 Literature Review

Standard Cost Model

A very popularised method used to monitor and measure bureaucratic costs is called the Standardised Cost Model (SCM). This Model consists of three steps: listing the standard procedures every organisation has to go through established in the regulations; identifying how frequently these procedures are done in a certain amount of time, how much time it takes to do it and the wages of the people in charge of doing so; finally the total time expenditure is calculated by multiplying all these costs. (TOOL #60, European Commission)

The first country to implement this method in a systematic way was the Netherlands where it was developed in the mid-1990's. Since the 1950's the private sector had been making pressure for the state to lower the administrative costs to release businesses from excessive regulatory burdens (Torriti, J. 2012).

Proxies for Bureaucracy

In The Macroeconomic Impact of Public Payment Delays and Arrears, Westphal, Klemm and Viefers (2015) talk about the impact that the Government Payment discipline has on the private sector.

Public accounts do not usually keep a record of delays and arrears and so the authors had to design a way to measure it. To solve for that, they decided to create proxies which can estimate government arrears. These consisted in looking at the deadlines established in the Public Accounting System such as: spending commitments, payment orders and actual payments. The difference between these stages would give an approximated estimation of the real delays.

To measure the impact on the private sector they focused on two indicators: the impact of arrears on profit growth and the impact on the likelihood of bankruptcy.

The impact on growth was calculated using three measures: first, they use a measure of delays as a share of GDP; second, they employ their estimation of arrears overdue more than 90 days as a share of GDP; third, they consider the amount of accounts payable as a share of GDP.

For the calculation of the impacts on short-term liquidity they used Moody's measure of Distance to Default. This indicator measures the number of standard deviations that it takes a shock to be large enough that it makes a company's asset value lower than the value of the its debt. KMV is a Credit Valuation Model that showcases the correlation between the attributes of the borrowing entity and its potential bankruptcy. It was developed by Keaholfer, McQuown and Vasicek in 1974 and is founded on assumptions of Merton´s bond pricing model (Merton, 1974).

KMV serves the purpose of monitoring changes in a company's credit standing and enables it to estimate the probability of defaulting on its obligations (Vasicek, 1984).

In Red Tape and Task Delays in Public and Private Organizations, Bozeman, Reed and Scott (1992) try to analyze two components of red-tape - delays and relativeness - and to see how they fair in the two sectors. To do that they rely on clarifying the concept of red-tape before performing interviews and on measuring the delays in tasks performed by both sectors. Delays are in their opinion a more practical way of measuring the impact of red-tape since it has a direct impact in the well-functioning of both kinds of organizations and it's entirely connected to the complex rules and procedures attached to the concept. They find that the private sector is connected to higher levels of red-tape.

Measuring the impact of red-tape on firm's performance

In Red Tape: A Review and Assessment of Concepts and Measures, Pandey and Scott (2002) try to have a better understanding of how the concepts used in surveys influence the perception levels inside an organization and how these perceptions influence firm performance. For that they collect several metrics and apply them to a survey that was sent to the top managers of the organisations in the sample (which was collected from the National Administrative Studies Project, a consortium of researchers at several universities).

These metrics focused on 4 levels: a Global Measure of Red-Tape, which evaluated the overall perspective of the administrative rules using a 0 to 10 rating of statements; Personnel Red-Tape, evaluated how rules impacted manager promotion/firing using a 4-point Likert scale to classify statements; Administrative Delay-Based Measures, measured how much time (in weeks) was needed to get an approval to a formal request made; finally Number of Decision Makers, which measured how many people had to be involved for the specified actions to happen.

### 5.4.3 Data

For the data I use 4 sources. The first one is a survey created in the common part. With it I collect information from the Companies side to understand what the efforts are to perform an application. It contains both quantitative data, concerning costs and timelines, and qualitative data, regarding difficulties found in the process and main characteristics of the company that make bureaucracy a more cumbersome process.

It was done in the platform Qualtrics and had the purpose of complementing the data already existent from questionnaires such as INE's Custos de Contexto (for financing) to enable us to understand the troubles and concerns of the companies in the process.

The second source comes from the Agência para o Desenvolvimento e Coesão (ADC). It consists of a dataset aggregating the timelines and status of application of all 16 Operational Programs existent in Portugal: Time at which the procurement was open; time when firms handed-in their applications; if the application was approved or not and more.

Unfortunately, this dataset didn't have the identification numbers (due to confidentiality) of the companies and therefore I couldn't use it for the analysis. Instead, I used it to do a general characterization of the applications.

The third data source comes from Programa Operacional Inclusão Social e Emprego (POISE) which is one of the 16 programs with a focus on social inclusion and employment. This dataset comprises information on the applications (deadlines, amounts granted etc) and has the identification numbers for all of them. For that reason, I used this dataset, merged with data from ORBIS, to perform the regression analysis.

This dataset has some advantages and shortcomings when compared to the one from ADC. The disadvantage is obviously the size, while POISE had 4 852 observations the one from ADC had 244 082 observations. Given that our study mainly focuses on SMEs when filtering the observations, we're left with a much smaller sample in POISE which might compromise its representativeness. The advantage is that we're comparing the effects inside one program only. This is good as it shows the effects more clearly. The effects of the Funds might show up differently in the company's results according to the purpose of the to which companies apply to (for example infrastructure and employee training).

The last source is a dataset called ORBIS. This is a dataset from Bureau Van Dijk which is a publisher of business information and specialises in private company data combined with software for searching and analysing companies.

With ORBIS I was able to get the two indicators needed for the analysis. Unfortunately, it didn't recognise as many NIFs as expected which hindered the size of the sample that had already suffered a big cut after filtering the POISE dataset for SMESs.

### 5.4.4 General Characterisation of the Application Procedure

Companies that want to apply to one of the Funds must go to the Portugal 2020 website and fill in the application form. Both the procedure and the form are the same for all the 16 available Operational Programs. The applications will be redirected to each of the program's cabinets where they will be analysed. The answer has to be given, and duly justified, by the Agência para o Desenvolvimento e Coesão within 60 working days (81 normal days). This period can be extended if further explanations are needed.

On the dataset I got from ADC there were 244 082 applications. Of these, the main types of activity to benefit from assistance from the Funds were: Traditional type restaurants, Cafés, Local Administration, Furnished accommodation for tourists and finally Vocational training. The remaining activities in the top 15 are in the field of restaurants, tourism and transportation. In terms of geographical distribution, the region that saw the biggest number of applications was the North, accounting for approximately 36% of the observations followed by the Metropolitan Area of Lisbon and the Center regions. If we look deeper, however, one can clearly see that the biggest amount of applications are concentrated in the two major cities of Lisbon and Porto which together take up 39% of the observations (with Lisbon having a slight advantage of around 0,6%). When it comes to the OP's, the "Programa Operacional da Competitividade e Internacionalização" was by far the program with most applicants followed by the Programa Operacional do Norte and the Programa Operacional do Centro.

The forms used to make an application are composed of 8 steps which go from giving information about the applicant entity, explaining the project, its purposes and objectives, to showcasing the business plan. On average these applications take around 37 days to be completed and average a cost of 14 178€ (source: survey).

From the feedback given in the surveys, applicants complain that the forms are very complicated, especially given that there's a chance of not being approved, and that the information required in them can be hard to get. This might explain why 61,33% of the survey respondents applied to one of the funds through consultancy firms that specialise in making applications (to fasten the process and increase the chance of approval).

Even so, the approval rate of Portugal 2020 sits at 81% with the Programa Operacional da Inclusão Social e Emprego being the one who is more selective with more than half of the applications being refused. Even though the approval rate is quite high, it's daunting to reflect

on how much funding is wasted, at a national level, in the application procedures for companies that are refused. For the duration of the program 657,512,973.24€ were not invested in the Portuguese economy in the hope of more funding (if we consider that an application costs on average 14 178€, according to the survey). This value is still very far from the expense implemented (15 703 M€) and even further from the one given (26 000M€) but it is still a very high level of funding that is wasted – represents 2,5% of the grants given - and therefore needs improving.

When it comes to the response time only 61.78% of the whole applications got an answer in time (60 working days or 84 days if weekends are included), a quarter received the first response after 152 days and 10% only after 285 days.

As explained in the first part of this report the purpose of this individual topic is to try to analyse the impact that delays in the process of approval have in the growth of the Portuguese SMEs. I have briefly shown an estimation of the cost that cumbersome bureaucratic procedures might have at a national level but most importantly I am interested in understanding the Microeconomic impact of red-tape.

POISE Dataset

This dataset came with 4851 observations. From these observations 792 were public, 2 393 processes were still being finished (already approved but not finished), 118 applications were being processed and 1059 were not SMEs. These were dropped because: ORBIS does not contain information on public firms; results would only appear if a company had completed the whole cycle (therefore the funds were already applied); and because our focus is on SMEs.

From the remaining 489 observations I downloaded their NIFs to ORBIS to get the respective Operating Revenue and the Number of Employees and we were left with 406 observations.

This obviously had a reflex on the results but with the short time we had for this project and the amount of time it takes to have access to a new dataset (this one took one month to obtain from the three and a half we had) I decided to proceed my analysis with it.

As this program is specific for training and employment there were two analysis that I could make. One was to study the effect of bureaucratic delays on the Employment Growth and the second would be to see the impact of delays on the financial results of the company (employees with better training are more productive which lead to better results and the other way around). I realised, however, that the type of subprograms (choice of grants inside POISE) that exist to support hirings were solely used by public firms (ORBIS does not have data on them) which compromised the first approach (I still made an analysis which is in the appendix 4, Fig. 1). I therefore decided to study the second.

### 5.4.5 Methodology

The Method used was a Multi-Linear Regression for the Growth of the Financial Results on the Application Approval Time and on the following factorial variables Size, Sector, Region and Approval Year (the 4 last ones will be used as dummies).

$$Y = \beta_1 + \beta_2 \text{ Application Approval Time} + \beta_3 \text{ Company dimension} + \beta_4 \text{ Sector} + \beta_5 \text{ Region} + \beta_6 \text{ Year of Approval}$$

This model shows how much delays impact the ability of companies to improve their results by controlling for the variables that could influence the outcome variable. The control variables chosen were the following: Company dimension, as of course the results will grow at different rates according to the firm sizes; Sector, since there are very different sectors from

consultancy to human health and social support activities which have different behaviours in this regard; Region, because some regions might have a specific characteristic that induces in disparities of growth and this could produce a biased effect; and finally the Year of Approval since the results will have a different reflexion in the results of 2022 according to the year they got the approval (results will appear later for firms approved in 2018 than compared to those approved in 2016).

To measure the evolution of the financial results, I collected data for the WC and OR of each company for the years of 2014 and 2021 (last available year). I chose 2014 because it's the year before the beginning of the program and 2021 because it's the most recent year (results take time to appear and so I chose the biggest period I could). For the growth rate I created a new variable that measured the growth between the two years.

$$\text{Growth Rate} = (\text{Present Value} - \text{Past Value}) / \text{Past Value}$$

### 5.4.6 Empirical Results

Operating Revenue Growth

For this outcome, the results were insignificant and the model explained very little of its variation, only around 4% (Table 1 and Figure 3). Nonetheless we see a negative effect of approval delays in the growth of the OR. For each additional day that it takes to get an approval the OR growth rate between 2014 and 2021, on average, diminishes by 0,00685%. So, if a company takes around 203 days (average for the dataset, appendix 4 Figures 2, 3 and 4) to get a response, its operating revenue growth between 2014 and 2021 will be on average smaller by 0.84% than compared to one that got a response under 81 days (period established in the regulations to get a response).In my view the size of this effect might be associated with one factor which is the period at which this analysis occurs. Effects of increased productivity due

to personnel training take time to appear in the ORs of companies. Extending the observational period could possibly show a more sizable effect. Unfortunately, the program is very recent and so the data available ends in 2021. To worsen the scenario, around 99% of the companies enrolled from 2017 onwards which leaves very little room for the results to show (Appendix 4 Fig 4).

Working Capital

For the working Capital the situation is similar. The result is insignificant and the model explains little of its variation, around 6% (Table 1 and Fig. 3). There is, however, just like in the OR, a negative impact of approval delays in the growth rate of the Working Capital. An additional approval day means on average a reduction in the growth rate of the WC of 0,045%. So, for a company that takes around 203 days to get a response from ADC, it's WC growth rate between 2014 and 2021 will be, on average, 5.49% smaller than one that gets a response under 81 days.

Here the impact is much higher. I think the reason lies in the fact that 93% of the applications in the dataset are from Micro and Small companies. These are characterized for having very tight credit constraints and therefore a delay in the response has a bigger impact in their financial situation.

Unfortunately, even though the results show a negative effect, the significance levels are very low. This means that we cannot conclude that there is an effect at the population level or that the effect is solely attributed to the delays in application approval. This applies to both the Operating Revenue and Working Capital results.

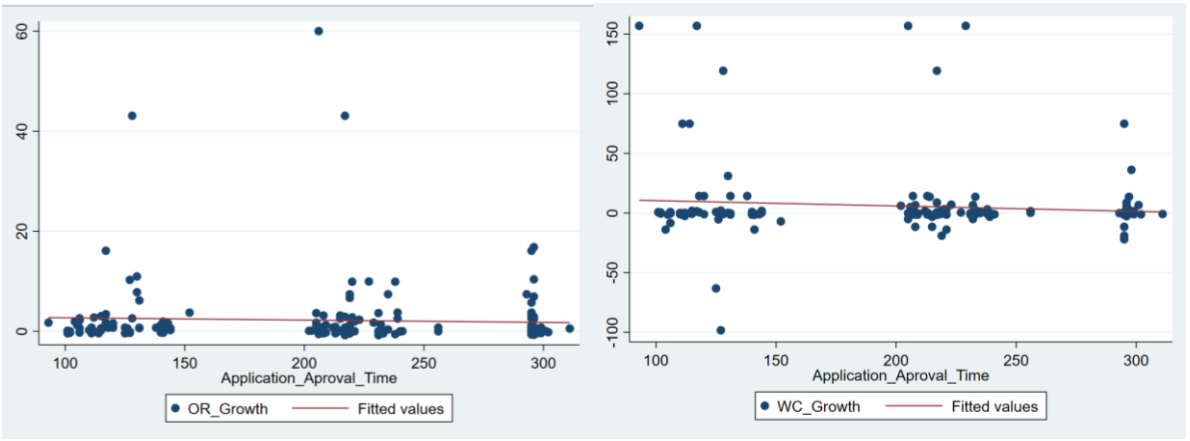


Figure 9. Growth Rate of both the WC and OR as the Approval Time gets extended. Note: The scale is not the same due to the

| VARIABLES | (1) OR Growth | VARIABLES | (2) WC Growth |
|---|---|---|---|
| Application Approval Time | -0.00685 | Application Approval Time | -0.045 |
| | (0.00797) | | (0.0353) |
| Medium Size | -2.386 | Medium Dimension | -6.699 |
| | (2.262) | | (9.870) |
| Small Size | -1.721 | Small Dimension | 1.695 |
| | (1.086) | | (4.816) |
| Sector = 69 | -1.795 | Sector = 69 | 6.591 |
| | (8.480) | | (36.90) |
| Sector = 70 | 0.901 | Sector = 70 | 3.385 |
| | (5.106) | | (22.22) |
| Sector = 71 | -1.319 | Sector = 71 | 3.511 |
| | (8.452) | | (36.77) |
| Sector = 72 | 5.827 | Sector = 72 | -4.365 |
| | (7.028) | | (30.58) |
| Sector = 82 | 2.613 | Sector = 82 | 19.31 |
| | (6.923) | | (30.12) |
| Sector = 85 | 2.330 | Sector = 85 | 9.198 |
| | (4.958) | | (21.58) |
| Sector = 86 | 0.456 | Sector = 86 | -13.14 |
| | (6.285) | | (27.34) |
| Region = North | 1.792 | Region = Centre | 11.04 |
| | (1.119) | | (30.47) |
| Approval Year = 2017 | 3.200 | Region = North | 0.0726 |
| | (4.999) | | (30.33) |
| Approval Year = 2018 | 3.331 | Approval Year = 2017 | 0.0246 |
| | (4.987) | | (21.77) |
| Constant | -1.804 | Approval Year = 2018 | -0,821 |
| | (7.031) | | (21.70) |
| | | Constant | 3.143 |
| Observations | 188 | | (43.44) |
| R-squared | 0.036 | | |
| F-Stat | 0.50 | Observations | 183 |
| Prob > F | 0.9216 | R-squared | 0.058 |
| | | F-Stat | 0.74 |
| | | Prob > F | 0.7272 |

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Figure 10. Linear Regression of OR and WC

### 5.4.7 Conclusion, Recommendations and Limitations

As public spending increases (Appendix 4, Fig.6) and the perception levels of corruption sit very high, societies demand more and better monitoring of taxpayers money. This poses a problem as companies keep increasing the pace at which they and their performance gets hindered by the interaction with the public institutions which demands cumbersome bureaucratic procedures.

In this study I try to measure the impact that red-tape has on the performance of Portuguese SMEs - in the context of the European Funds - by looking at a dataset obtained from one of the 16 Operational Programs in Portugal (POISE).

Since there were no existing data which measured bureaucratic delays in the process of approval for the program Portugal 2020, I created a proxy which is the Application Approval Time. This proxy consists of the difference between the day of the First Response and the day of Submission.

To measure the impact on the firm's performance I resort to two metrics which were obtained from the ORBIS dataset by uploading the existing NIFs. They are the Operating Revenue, which shows how much money is generated from the day-to-day business activities, and the Working Capital, which measures the firsm short-term financial health.

I downloaded those two metrics for the years of 2014 and 2021 and then computed the Growth Rate for each of them. Later I analyse their response to an additional day of response time.

Even though the models explain very little of the outcomes variation, the analysis shows negative effects of an additional response day on both the Operating Revenue Growth and the Working Capital Growth.

So, if a company takes around 203 days (average for the dataset) to get a response, its operating revenue growth between 2014 and 2021 will be on average smaller by 0.84% compared to one that got a response under 81 days (period established in the regulations to get a response). At the same time, for a company that takes around 203 days to get a response from ADC, its WC growth rate between 2014 and 2021 will be, on average, 5.49% smaller than one that gets a response under 81 days.

Since the results are nonsignificant I am not in a position to make recommendations to the process of application. What I would recommend is enlarging the information in the dataset. For further studies in this topic, working with a bigger dataset such as the one ADC has would allow to have more robust results. At the same time, having more information such as payment dates would allow researchers to separate the effects of approval delays and the effect of arrears (payments delays).

The main limitations regarding this study are in my opinion related to the dataset and the time available to conduct the analysis. I really wanted to measure bureaucracy but accessing data which would allow me to do it proved to be very hard. Getting POISE's dataset was a big step forward but it still had major shortcomings. The topic proposed by GEE was to be mainly focused on SMEs and unfortunately POISE attracts very little of those enterprises when compared to other programs. Filtering the dataset to those desired left very little observations which compromised the robustness and validity of the results. Having more time would give me the chance to get a more appropriate dataset which in turn would allow me to do a more complex analysis

## 6. Concluding Remarks & Recommendations

### 6.1. Brief Introduction and Study Limitations

This Policy Analysis Project adds to the existing literature regarding SMEs and their relevance to a country's economy by studying the impact of funds on firms' performance, the impact of red tape on firms' performance, and the influence of their geographical location in receiving funding. However, as far as we know, this is the first project to encompass the dimension of bureaucracy, specifically in the context of Portuguese SMEs' access to European funds.

To reach a tangible measure of bureaucracy, we turned towards firms' perception on the matter, questioning respondents about their perspectives regarding various stages of the application process: before, during, and after. Afterward, the answers to these questions were merged into one single variable, later used in Regression Analyses. Although non-significant, the ensuing regression results suggest that Treated firms have a higher bureaucratic perception than Control firms and that companies that outsourced their application may have had a reduced notion of existing red tape. There may be a negative correlation between a possible effect of red-tape on a firm's Operating Revenue, although the results are non-significant.

Evaluating firms' performance directly, considering the variables of Operating Revenue/Turnover, Sales, and Tangible Fixed Assets, we conclude that European funds positively impact Portuguese SMEs' growth. For Intangible Fixed Assets, the results are less clear, which seems to suggest that the funds may not alter firms' investment in R&D. By analyzing the data from a geospatial point of view, we observe that most approved projects belong to companies located on the Portuguese coast, leading us to believe that there may be a loose connection between further distance from the major urban areas and a lower approval rate.

Staying in the realm of potential limitations to the present study, one possibility may be related to the group's selection of control variables. While valuable to help explain the impact of European funds through various methods, these variables may be biased through the effect of other funds or other types of financing on firms, such as bank credit or loans. In fact, this may condition the analysis of the companies' performance, given that there is no practical way to account for this external effect.

Another component that could be further explored which the group did not consider was the effect of co-financing the approved projects on firms. These projects often present a significant financial burden, one that not all firms can bear. Indeed, this fact may help explain the ex-ante differences found in business size. In the case of some financial outcomes, the effect of the funds may not materialize in a short period. For example, some investments may result in economies of scale later, reducing the average cost of each produced unit. At the same time, there is a learning curve associated with advanced technology. Our analyses focus mainly on short- and medium-term impacts, which may not reflect these phenomena.

A different possible limitation of the study is the limitation of the geographical aspect since the sample is limited. Therefore, in future expansions of this work the geo-economic analysis of the survey should include a larger sample that allows for all variables to be considered in the realm. Moreover, doing a quantitative analysis on the distance could also be interesting as it could potentially tell us the significance of the distance to the seaside and the impact in the realm of the funds' application.

### 6.2. Individual Conclusions and Policy Recommendations - Tomás Soares

The first results' individual assignment attempted to connect firm-level characteristics, such as firm age, number of employees, and respondent qualifications, to the perception of

bureaucracy in the application process of obtaining EU Funds. Its Literature Review subchapter attempts to show different perspectives on bureaucracy from various disciplines and highlights Mintzberg's and Weber's non-negative views of bureaucracy. It is curious how both these authors present a contrasting view of bureaucracy to today's prevailing belief. Simultaneously, Besley et al. paper results are introduced and hint toward the latter, that bureaucracy-type characteristics (e.g., procedures formalization) significantly impact a company's configuration and size.

Despite some non-significant results and small coefficients, the shorter database traces the direction that firms who receive funds tend to experience more bureaucracy throughout their application process. As for firm age, it was found that the older the firm, the less bureaucracy it perceives, which is in accordance with Allcorn's thesis. The DiD expression in this chapter holds 2021s sales as a dependent variable and shows that EU Funds positively impacted Portuguese SMEs in this regard. Afterward, one could confirm the previous results using the larger database that provides significant coefficients. Through DiD and PSM policy evaluation methods, one could understand that firms receiving public support tend to have their business growing over time. ATEs and ATETs estimation displayed similar findings.

The main recommendations from this individual results chapter arise from these remarkable - but, fortunately, not striking - results. If, on the one hand, it has been shown that firms receiving public support sell more later, one must do its utmost to understand why larger firms often have easier access to them. It is not difficult to wonder why this holds, i.e., higher revenue and larger businesses can, e.g., afford to reach third-party consultancy firms that assist with the application process. However, regional development public support is also directed at those SMEs that are initiating their path and do not have such possibilities. Therefore, making the EU Funds application procedure less resource-consuming for smaller SMEs is crucial to democratizing access.

Another recommendation arises from firms that receive funds having a worse bureaucratic perception of the process. Though one could picture such a result in advance, this hints at the direction that publicly-owned institutions must make an effort to advertise the application process to EU Funds as SME-friendly. All in all, showcasing parts of the application procedure on communication channels and training public servants to be better prepared for the main questions arising are examples of policy suggestions.

### 6.3. Individual Conclusions and Policy Recommendations - Inês Mendes

The literature highlighted that SMEs that benefited from EU funds increased their private expenditure on R&D, expanded their technology and product development and boosted the number of innovations. Therefore, the policy project analysis focused on analyzing the impact of the funds on R&D investment by SMEs through a proxy, investment in intangible assets. The companies in the research received funds under four incentive systems: Liquidity Incentives System, Incentives System for the Qualification and Internationalization of SMEs, and the Incentives System for Business R&D. The results indicate, on the one hand, that SMEs do not increase their investments in intangible assets after receiving funds. On the other hand, investments in tangible assets increase significantly.

Considering the reasons that may lead SMEs to underestimate or not invest in R&D, such as lack of knowledge on how and where to obtain the necessary skills or the fact that R&D is influenced by the technological characteristics of the sector they belong to, some recommendations emerge. However, to be consistent, the recommendations consider the diversity of SMEs.

Firstly, business associations, particularly sectoral associations, should seek to develop strategic visions about the technological developments they foresee as essential for companies

in their sectors, trying to formulate proposals for strategic mobilizing projects for the sector. Universities also play a significant role since businesses with R&D already seek to engage with them.

Secondly, the government should be more proactive in encouraging partnerships between SMEs and research organizations. Indirect R&D support, such as consulting, mentoring, and networking, can complement direct support in increasing innovation and good support in applying for EU funds. The construction of a widespread database between SMEs and other companies, universities and research institutes supports [CM1] the diffusion of information about market needs and the scientific seeds of R&D activities and using networked intermediaries makes it easier for SMEs to connect with potential partners.

### 6.4. Individual Conclusions and Policy Recommendations - Diogo Silva

Within this individual project segment, the goal was to present the impact of European funds on a tangible financial variable, Operating Revenue/Turnover. In fact, this objective was achieved, given that positive and often statistically significant results were found, just as the reviewed literature suggests, highlighting the importance of this valuable financial instrument for the country and its entrepreneurs. Therefore, it remains critical to continuously monitor and upgrade funds' diffusion channels.

Nonetheless, there are some Policy Recommendations to consider arising from this individual assignment. Previously, it has been evident that companies that receive funds are ex-ante, often much larger than those that do not. This reality, along with some comments and insights gathered from the questionnaires, indicates that there seems to be a discrepancy between SMEs. It appears that the larger firms in this group are more capable of bearing the costs associated with an application process. Alongside this apparent disparity, the individual

assignment demonstrates that larger firms tend to grow more than Control Group companies, which may be widening this gap. Considering the possible benefits arising from the funds verified in this individual part, access to European funds must be further extended to micro and small Portuguese companies. Frequently, there is not so much a lack of funds as there is not enough information about firms' possibilities in this regard. Therefore, it is essential to reduce the costs associated with an application for micro and small companies and, at the same time, promote the advantages that could arise from these funds.

One such example could be associated with expanding the existing information campaigns about European funds, as well as disseminating the potential benefits that stem from them. Firms should be able to freely access information about their funding options so they may prioritize them. Moving forward, it is also interesting to consider establishing more accessible channels of project evaluation and access to funds for these micro and small businesses better suited to their resources and needs. Another recommendation could be the creation of a state-sponsored department specifically intended to support small and micro-entrepreneurs in formulating their applications and addressing potential concerns they may have. In the near future, this could be a possible subject for a research project that could interview smaller entrepreneurs and gather direct recommendations to improve and expand accessibility.

### 6.5. Individual Conclusions and Policy Recommendations - Vasco Silva

As public spending increases and the perception levels of corruption are very high, societies demand more and better monitoring. This poses a problem as companies operate at a faster pace as time passes, and their performance gets hindered by interaction with public institutions, which demands cumbersome bureaucratic procedures. In this study, I try to measure the impact that bureaucracy has on the performance of Portuguese SMEs - in the

context of the European Funds - by looking at a dataset obtained from one of the 16 Operational Programs in Portugal (POISE).

Since there were no existing data that measured bureaucratic delays in the process of approval for the program Portugal 2020, I created a proxy which is the Application Approval Time. This proxy consists of the difference between the day of the First Response and the day of Submission. To measure the impact on the firm's performance, I resort to two metrics which were obtained from the ORBIS dataset by uploading the existing NIFs. They are the Operating Revenue, which shows how much money is generated from the day-to-day business activities, and the Working Capital, which measures the firm short-term financial health.

I downloaded those two metrics for the years 2014 and 2021 and then computed the Growth Rate for each of them. Later I analyze their response for an additional day of response time. Even though the models explain very little of the outcome variation, the analysis shows the negative effects of an additional response day on both the Operating Revenue Growth and Working Capital Growth.

So, if a company takes around 203 days (average for the dataset) to get a response, its operating revenue growth between 2014 and 2021 will be on average smaller by 0.84% compared to one that got a response under 81 days (period established in the regulations to get a response).

Since the results are nonsignificant I am not in a position to make recommendations to the process of application. What I would recommend is enlarging the information in the dataset. For further studies in this topic, working with a bigger dataset such as the one ADC has would allow to have more robust results. At the same time, having more information such as payment dates would allow researchers to separate the effects of approval delays and the effect of arrears (payments delays).

### 6.6. Individual Conclusions and Policy Recommendations - Luís Mota

The main objective of this segment was to assess the importance of geography in the context of the access to European Funds and the consequent economic development of the country in regard to existing territory asymmetries and the impact of the funds. The exercise showed us that funds are evenly distributed across the country which reassures the goal of improving territory cohesion.

However, the existing literature showed that the discrepancies between the Portuguese regions of the seaside and the interior are notorious. For instance, the impact on the proximity to Lisbon impacting the purchasing power per capita (Silva, 2014), and that belonging to a seaside municipality also improves the level of purchasing power of the citizens. Additionally, a different study found that the neighboring municipalities' access to funds affect the overall region which showcases that this geographical particularity should be taken into consideration when creating policy to increase fund effectiveness across Portugal.

From the survey analysis we also gathered information on the difficulties companies face regarding the access to funds and their perception in some variables of the application process. The opinion of unsuccessful companies regarding the usage of external agencies in the application process is particularly interesting because these companies can arguably be used by policy-makers and companies to decrease the difficulty level of the application for the later and to create valuable program dissemination and Q&A sessions for the first.

Hence, some policy recommendations can be done based on the previous analysis. The investment in communications infrastructures like rail can be an important mechanism to help the companies, citizens and products move, increasing the overall market scale of those regions. Moreover, decentralizing Portugal and giving more autonomy to regions can also positively

impact those regions as they gather more tools to create tailor-made plans that suit their regions better and allow them to develop.

To do so, it is important that external agencies have a bigger role, even on a regional aspect and not only at the municipal level. This last recommendation can also positively impact the funds' performance on the economic development by differentiating the type of monitoring done per the characteristics of the regions.

Lastly, investments in education and training are important tools to increase the competitiveness level of the Portuguese companies but also to facilitate the application process by providing more information and help.

### 6.7. Survey Policy Recommendations

The purpose of the surveys was to obtain information that was not available to us from previous analyses so that we could have a clearer understanding of how European Funds work and their impact on companies. The group mainly focused on closed-answer questions since it would be more practical in statistical terms. Regardless, the information we obtain is limited to our reflections on the subject, given that respondents may only choose from the options provided. Therefore, we thought it would be critical to have an open answer question to let respondents share their personal experiences and suggestions. These are especially important for the concluding segment of this assignment: policy recommendations. The group has been analyzing the process as an outsider, comprising different perspectives contemplated in the individual parts. However, we lack the hands-on experience that would allow us to understand the real challenges firms face. Having an open answer question makes it possible to incorporate a more direct and holistic view on the matter. Thus, we have organized the answers around four main axes.

Many companies note that communication takes a long time, which is detrimental. Some firms stated that their candidacies were dropped because the contact with the respective entities took too long, and the application period was over before they could apply. Considering the widespread availability of digital means nowadays, companies feel that communication should be faster and more regular to ensure the process is running smoothly and warn applicants of eventual requests and additional clarifications needed in due time.

Some firms, especially smaller ones, state that information regarding EU funds and respective applications is not well disseminated. Moreover, this idea is reinforced by the fact that companies chose "choosing and finding the right Operational Program (OP) to apply for" as the most challenging step to comply. Many OPs have different deadlines, and such information can be difficult to track. Similarly, companies argue that the application period had already passed when they finally had access to knowledge about the program. Others noted that larger firms have an inherent advantage in accessing information since they have stronger connections to firm and sector associations. One policy recommendation arising from these suggestions would be centralizing the information regarding existing funds and their deadlines in a straightforward manner. This new channel would enable more accessible access to funds and increase the sense of transparency and fairness in the process among Portuguese SMEs. Still on the information front, another suggestion concerns the possible simplification of the technical language used in forms and other required procedures.

A large share of companies remark that the application procedure is too complex. Two recommendations are proposed to make it more agile. First is a better connection between state agencies regarding document sharing. Respondents report that it can be time-consuming to get the documents needed. The state could avoid this by creating a direct link between the respective entities, which is also associated with the topic of communication. A cloud-like platform in which firms and state entities would be able to share and access documentation

could be a possible solution. Such a tool would reduce the need for communication and respective delays.

In addition, some valuable suggestions were received regarding a potential diversification of assistance for applicants to EU funds. In particular, it was recommended that local or regional offices be established with the purpose of supporting companies in carrying out their application process. Eventually, such a measure would contribute to reducing some associated imbalances between the Portuguese coastal and inland regions. The third piece of advice is related to the development of online content, such as informational videos or a blog, which could shed some light on the process for firms without requiring a hefty investment from the state. Another option would be the concession of financial incentives to business associations. This measure would give them a prominent role in guiding SMEs towards a better understanding of the application procedures and the funds in general. Finally, a further suggestion involves the creation of application forms in all European languages in order to facilitate the process for foreign companies and citizens.

### 6.8. Policy Recommendations from Other Contexts

Different contexts and countries can be valuable tools for analyzing policy solutions. Therefore, to understand how well funds are used across Europe from a macro perspective, we will explore the utilization of European funds by EU member-states in diverse scenarios and focus on the relevant factors that may influence the quality of execution.

A country's absorption capacity can be defined as the degree to which a country is able to spend the financial resources that originate from the Structural Funds in a precise and efficient manner (Cace et al. 2009). Additionally, Cace et al. state that one may study this capacity from two perspectives. The first is linked to the capacity of absorption of the supply

side, related to the established institutional system managing the funds, and the second is the capacity of take-up from the demand side, i.e., the firms.

Moreover, the concerns regarding the proper utilization of European funds can be directed through two levels of institutional issues (Zaman et al. 2009): European and National Structures. The European Commission is the leading institution that influences the quality of the funds' execution. However, at the national level, connected to the present assignment, the authors identified the economy's structure, the administrative capacity, the political system, and countries' economic policies as important institutional factors that influence the absorption capacity.

Regarding the political system, corruption can also be a determinant factor in the quality of management of European Structural Funds. Mihailescu (2012) studied the impact of corruption on European funds' administration, comparing Poland and Romania. The author finds that Poland had a high degree of absorption capacity, supported by collaborative actions between mass media and civil society. This led to the highest economic growth in the EU in 2010, while corruption was declining. On the other hand, Romania still struggled to harness funds effectively. Mihailescu claims that strengthening the institutional system and the rule of law, improving transparency, efficiency, competitiveness, and multi-level governance were essential aspects of tackling the issues faced by Romania.

Additionally, in the Romanian case, the various factors influencing the inferior execution level are related to the lack of expertise and qualifications in accessing, managing, and evaluating European-funded projects, as well as the low managerial and financial capacity. (Bragaru, 2011) This author also reinforces the importance of local public institutions as the main responsible authorities in ensuring that funds are utilized to develop those regions effectively.

One way to safeguard the effectiveness of European Funds is to create effective monitoring and evaluation mechanisms that allow a proper assessment of projects. One study on the Hungarian and Slovakian experiences regarding funds absorption (Cartwright and Batory 2011), explores the impact of Monitoring Committees as tools to assist the member-states in evaluating the effect of the funds. Yet, the authors find that these committees were highly technocratic and lacked decision-making power. Nevertheless, these discussion bodies were also regarded as effective communication tools that may produce valuable information for decision-makers. The study finds that they gather essential information regarding projects' development and bolster the importance of cross-consultation among multiple stakeholders.

Lastly, several governance-related indicators can positively influence the absorption capacity of the member-states (Atchim and Borlea 2015). Between 2007 and 2013, These authors conducted a study concerning the determinant factors which affect the European funds' absorption. They find that adequate accountability, government effectiveness, regulatory quality, the rule of law, and reasonable control of corruption positively influence the state's ability to manage funds properly.

European Funds are a great instrument to generate development. European countries, entrepreneurs, and political institutions must be prepared to ensure those are being duly applied. These recommendations relate to developing institutions capable of harnessing the funds' potential. Therefore, member-states should design policies that tackle corruption and address issues related to education and training. At the same time, reinforcing the role of public institutions and providing them with tools and know-how to manage and monitor the funds while maintaining good democratic levels that facilitate the communication between stakeholders.

## 7. References


Achim, Monica Violeta, and Sorin Nicolae Borlea. 2015. "Determinants of the European Funds Absorption 2007-2013 in European Union Member-States." *The West East Institute*. The West East Institute. https://www.westeastinstitute.com/wp-content/uploads/2015/04/Monica-Violeta-Achim2.pdf.

Acs, Zoltan J, and David Bruce Audretsch. 1991. *Innovation and Small Firms*. The Mit Press.

Alexandre, Fernando, João Cerejeira, Miguel Portela, and Miguel Rodrigues. 2018. "Assimetrias E Convergência Regional: Implicações Para a Descentralização E Desconcentração Do Estado Em Portugal." Associação Comercial do Porto. https://cciporto.com/wp-content/uploads/2018/11/Assimetrias_e_Convergencia_Regional.pdf

Alexandre, Fernando. 2021. ""Avaliação Dos Incentivos Financeiros Às Empresas Em Portugal: QREN (2007-2013) E PT2020 (2014-2018)." *Repositório Da Universidade Do Minho*. Universidade do Minho. http://repositorium.sdum.uminho.pt/bitstream/1822/73555/1/WP%2009.2021.pdf.

Allcorn, Seth, and Howard Stein. 2020. *Ideology, Bureaucracy, Hierarchy, And Human Nature In Psychohistory*.

Ang, James. 1991. "Small Business Uniqueness and the Theory of Financial Management." *The Journal of Entrepreneurial Finance the Journal of Entrepreneurial Finance* 1 (1): 11–13. https://digitalcommons.pepperdine.edu/cgi/viewcontent.cgi?article=1108&context=je.

Barton, Sidney L., and Charles Henry Selfe Matthews. 1989. "Small Firm Financing: Implications from a Strategic Management Perspective." *Journal of Small Business Management* 27 (1).

Binks, M. R., C. T. Ennew, and G. V. Reed. 1992. “Information Asymmetries and the Provision of Finance to Small Firms.” *International Small Business Journal: Researching Entrepreneurship* 11 (1): 35–46. https://doi.org/10.1177/026624269201100103.

Beck, Thorsten, and Asli Demirguc-Kunt. 2006. “Small and Medium-Size Enterprises: Access to Finance as a Growth Constraint.” *Journal of Banking & Finance* 30 (11): 2931–43. https://doi.org/10.1016/j.jbankfin.2006.05.009.

Berger, Allen N., and Gregory F. Udell. 1998. “The Economics of Small Business Finance: The Roles of Private Equity and Debt Markets in the Financial Growth Cycle.” *Journal of Banking & Finance* 22 (6-8): 613–73. https://doi.org/10.1016/s0378-4266(98)00038-7.

Besley, Timothy J., Robin Burgess, Adnan Khan, and Guo Xu. 2021. “Bureaucracy and Development.” National Bureau of Economic Research. August 1, 2021. https://www.nber.org/papers/w29163.

Bolton, J.E. 1971. *Small Firms: Report of the Committee of Inquiry on Small Firms*. London: Her Majesty’s Stationary Office.

Bomberg, Elizabeth, John Peterson, and Richard Corbett. 2012. *The European Union: How Does It Work? Google Books*. OUP Oxford. https://books.google.pt/books?hl=en&lr=&id=rXFgGVC9b98C&oi=fnd&pg=PP2&dq=three+pillars+of+european+union&ots=SBqB20UioT&sig=iuSU_3nQ82e8EXaRMbIr_7Njiek&redir_esc=y#v=onepage&q=three%20pillars%20&f=false.

Bozeman, Barry, Pamela N. Reed, and Patrick Scott. 1992. “Red Tape and Task Delays in Public and Private Organizations.” *Administration & Society* 24 (3): 290–322. https://doi.org/10.1177/009539979202400302.

Bragaru, Constantin. 2011. “Absorption of European Funds, Priority Objective for Local Communities Development.” *Romanian Journal of Economic Forecasting* 35.

Brzakova, Kristyna, and Karolina Pridalova. 2016. “Comparison of Investment Costs for Companies Using EU Structural Funds and Investment Incentives.” Procedia Economics and Finance 39: 711–19. https://doi.org/10.1016/s2212-5671(16)30283-0.

Burns, Paul. 2001. *Entrepreneurship and Small Business Start-Up, Growth and Maturity*. Fourth edition. PALGRAVE.

Cace, Corina, Sorin Cace, Cristina Iova, and Victor Nicolaescu. 2009. “Working Together.” *Revista de Cercetare Și Interventie Sociala* 27 (27): 7–28. http://www.rcis.ro/images/documente/rcis27_01.pdf.

Card, David, and Alan B. Krueger. 1994. “Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania: Reply,” 1397–1420. https://davidcard.berkeley.edu/papers/njmin-aer.pdf.

Cartwright, Andrew, and Agnes Batory. 2011. “Monitoring Committees in Cohesion Policy: Overseeing the Distribution of Structural Funds in Hungary and Slovakia.” *Journal of European Integration* 34 (4): 323–40. https://doi.org/10.1080/07036337.2011.595486.

Checherita-Westphal, Cristina D., Alexander Klemm, and Paul Viefers. 2015. “Governments’ Payment Discipline: The Macroeconomic Impact of Public Payment Delays and Arrears.” *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.2568588.

Cunningham, Scott. 2021. “Causal Inference: The Mixtape.” Mixtape.scunning.com. 2021. https://mixtape.scunning.com.

Czarnitzki, Dirk, and Georg Licht. 2006. “Additionality of Public R&D Grants in a Transition Economy. The Case of Eastern Germany*.” *The Economics of Transition* 14 (1): 101–31. https://doi.org/10.1111/j.1468-0351.2006.00236.x.

Czarnitzki, Dirk, and Hanna Hottenrott. 2009. “R&D Investment and Financing Constraints of Small and Medium-Sized Firms.” *Small Business Economics* 36 (1): 65–83. https://doi.org/10.1007/s11187-009-9189-3.

Duarte, João, and Pedro Brinca. 2022. “Fundos Europeus Estruturais E de Investimento (FEEI) – Avaliação de Impacto Nas Diferentes Regiões Em Portugal.” *Agência Para O Desenvolvimento E Coesão*. https://www.adcoesao.pt/wp-content/uploads/Resumo-Estudo-Nova-FEEI_Impacto-nas-diferentes-regioes-em-Portugal.pdf.

EUR-Lex. 2022. “EUR-Lex - Economic, Social and Territorial Cohesion - EN.” Eur-Lex.europa.eu. 2022. https://eur-lex.europa.eu/EN/legal-content/glossary/economic-social-and-territorial-cohesion.html.

Eurocid. 2022a. “Cronologia Da Adesão | Eurocid.” Eurocid.mne.gov.pt. 2022. https://eurocid.mne.gov.pt/portugal-na-europa/cronologia-da-adesao.

———. 2022b. “Iniciativa REACT-EU | Eurocid.” Eurocid.mne.gov.pt. 2022. https://eurocid.mne.gov.pt/artigos/iniciativa-react-eu.

European Commission. 2003. “Commission Recommendation of 6 May 2003 Concerning the Definition of Micro, Small and Medium-Sized Enterprises.” https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32003H0361.

———. 2019. “European Structural and Investment Funds.” European Commission. 2019. https://ec.europa.eu/info/funding-tenders/funding-opportunities/funding-programmes/overview-funding-programmes/european-structural-and-investment-funds_en.

———. 2020a. “An SME Strategy for a Sustainable and Digital Europe.” Communication from the Commission to the European Parliament the Council the European Economic and Social Committee and the Committee of the Regions, March 10, 2020.

———. 2020b. “Unleashing the Full Potential of European SMEs,.” *European Commission*. European Commission. https://ec.europa.eu/commission/presscorner/detail/en/fs_20_426.

———. 2021. “The EU’s 2021-2027 Long-Term Budget and NextGenerationEU.” *Publications Office of the European Union*. Luxembourg: Publications Office of the European Union. https://data.europa.eu/doi/10.2761/808559

———. 2022a. “REACT-EU.” Ec.europa.eu. 2022. https://ec.europa.eu/regional_policy/pt/newsroom/coronavirus-response/react-eu/.

———. 2022b. “TOOL #60. THE STANDARD COST MODEL for ESTIMATING ADMINISTRATIVE COSTS 1. ADMINISTRATIVE COSTS and the ‘STANDARD COST MODEL.’” n.d. Accessed September 1, 2022. https://ec.europa.eu/info/sites/default/files/file_import/better-regulation-toolbox-60_en_0.pdf.

European Parliament. 2022. "The Maastricht And Amsterdam Treaties."

European Committee of the Regions. 2022. “Economic, Social and Territorial Cohesion - Subsidiarity Monitoring in the Area of Economic, Social and Territorial Cohesion.” Portal.cor.europa.eu. 2022. https://portal.cor.europa.eu/subsidiarity/policyareas/Pages/EconomicandSocialCohesion.aspx.

Faria, José Henrique de. Francis Kanashiro Meneghetti. 2011. “Burocracia Como Organização, Poder E Controle.” Revista de Administração de Empresas 51 (October): 424–39. https://doi.org/10.1590/S0034-75902011000500002.

Fernando, Jason. 2022. "What Is The Accounting Equation?". *Investopedia*. https://www.investopedia.com/terms/a/accounting-equation.asp.

Félix, Sónia. 2017. “Criação E Sobrevivência de Empresas Em Portugal.” Banco De Portugal.

Grinyer, Peter, and Masoud Yasai-Ardekani. 1981. *Strategy, Structure, Size And Bureaucracy*.

Hardeman, Sjoerd, and Lewis Dijkstra. 2014. “The EU Regional Human Development Index.” *JRC Publications Repository*. Luxembourg: Publications Office of the European Union. https://publications.jrc.ec.europa.eu/repository/handle/JRC90538.

Harrison, Jeffrey S., and Andrew C. Wicks. 2013. “Stakeholder Theory, Value, and Firm Performance.” *Business Ethics Quarterly* 23 (1): 97–124. https://doi.org/10.5840/beq20132314.

Hud, Martin, and Katrin Hussinger. 2015. “The Impact of R&D Subsidies during the Crisis.” *Research Policy* 44 (10): 1844–55. https://doi.org/10.1016/j.respol.2015.06.003.

INE. 2020 “Contas Regionais - Base 2016.” INE. INE - Instituto Nacional de Estatistica. December December 15, 2020. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwjNgMXh1oz6AhUB_4UKHXGTDp8QFnoECAgQAQ&url=https%3A%2F%2Fwww.ine.pt%2Fngt_server%2Fattachfileu.jsp%3Flook_parentBoui%3D469659499%26att_display%3Dn%26att_download%3Dy&usg=AOvVaw0t8z3hj6K0Z_oIqm99z4o2.

ISCTE-IUL – Dinâmia’CET. 2019. “Avaliação Do Impacto Dos Fundos Europeus Estruturais E de Investimento (FEEI) No Desempenho Das Empresas Portuguesas.” *Agência Para O Desenvolvimento E Coesão*. https://www.adcoesao.pt/wp-content/uploads/20190121_policy_brief_desempenhoempresas_comlink.pdf

Kamien, Morton I., and Nancy L. Schwartz. 1982. “Market Structure and Innovation.” RePEc - Econpapers. 1982. https://econpapers.repec.org/RePEc:cup:cbooks:9780521293853.

Kleinknecht, Alfred, and Bart Verspagen. 1989. “R&D and Market Structure: The Impact of Measurement and Aggregation Problems.” *Small Business Economics* 1 (4): 297–301. https://www.jstor.org/stable/40228531.

Kraay, Aart. 2014. “Government Spending Multipliers in Developing Countries: Evidence from Lending by Official Creditors.” *American Economic Journal: Macroeconomics* 6 (4): 170–208. https://doi.org/10.1257/mac.6.4.170.

Liberdade, Mais. 2022. “Taxa de Aprovação de Candidaturas a Fundos Europeus, Por Dimensão Da Empresa — Instituto Mais Liberdade.” Mais Liberdade. July 26, 2022. https://maisliberdade.pt/maisfactos/taxa-de-aprovacao-de-candidaturas-a-fundos-europeus-por-dimensao-da-empresa/.

Lukács, Edit. 2005. “The Economic Role of SMEs in World Economy, Especially in Europe.” *European Integration Studies* 4: 3–12. http://real.mtak.hu/91214/1/ISSN_1588-6735_vol_4_no_1_2005_eng_003-012.pdf.

Maak, Thomas. 2007. “Responsible Leadership, Stakeholder Engagement, and the Emergence of Social Capital.” *Journal of Business Ethics* 74 (4): 329–43. https://doi.org/10.1007/s10551-007-9510-5.

Martini, Maira. 2013. “Reducing Bureaucracy and Corruption Affecting Small and Medium Enterprises.” Edited by Marie Chêne. *Transparency International*. https://www.transparency.org/files/content/corruptionqas/380_Reducing_bureaucracy_and_corruption_affecting_small_and_medium_enterprises.pdf.

Merton, R. K. 1940. “Bureaucratic Structure and Personality.” Social Forces 18 (4): 560–68. https://doi.org/10.2307/2570634.

Mihailescu, Gratian. 2012. “Two Eastern European Countries with Different Paths: Why Polish Manage to Efficiently Absorb the European Money While Romania Remains with Its Funds Blocked.” *Researchgate.net*. https://www.researchgate.net/publication/255927094_Two_Eastern_European_Countries_with_Different_Paths_Why_Polish_manage_to_efficiently_absorb_the_European_money_while_Romania_remains_with_its_funds_blocked.

Mintzberg, Henry. 1979. *The Structuring Of Organizations*.

Nelson, Richard R. 1959. “The Simple Economics of Basic Scientific Research.” *Journal of Political Economy* 67 (3): 297–306. https://doi.org/10.1086/258177.

Niskanen, William A. 1994. *Bureaucracy and Public Economics*. Edward Elgar Publishing.

Rodriguez-Pose, Andrés, and Enrique Garcilazo. 2013. “Quality of Government and the Returns of Investment - Examining the Impact of Cohesion Expenditure in European Regions.” *OECD*. OECD. https://doi.org/10.1787/5k43n1zv02g0-en.

OECD. 2004. *The OECD-JRC Handbook On Practices For Developing Composite Indicators*.

———. 2022. “Indicators of Product Market Regulation - OECD.” Www.oecd.org. 2022. https://www.oecd.org/economy/reform/indicators-of-product-market-regulation/.

Pandey. Scott. 2002. “Red Tape: A Review and Assessment of Concepts and Measures.” *Journal of Public Administration Research and Theory* 12 (4): 553–80. https://doi.org/10.1093/oxfordjournals.jpart.a003547.

PORDATA. 2020. “PORDATA - Estatísticas, Gráficos E Indicadores de Municípios, Portugal E Europa.” Www.pordata.pt. 2020. https://www.pordata.pt.

———. 2022. “População Residente: Total E Por Grandes Grupos Etários.” Www.pordata.pt. August 23, 2022. https://www.pordata.pt/Municipios/Popula%C3%A7%C3%A3o+residente+total+e+por+grandes+grupos+et%C3%A1rios-390.

———. 2022. “Transferências Públicas Com a União Europeia - Quanto Recebe E Paga O País Para O Orçamento Comunitário?” Www.pordata.pt. February 22, 2022. https://www.pordata.pt/Portugal/Transferências+públicas+com+a+União+Europeia-2363

PORTUGAL2020. 2014. “Acordo de Parceria 2014-2020.” *PORTUGAL2020*. https://portugal2020.pt/wp-content/uploads/1._ap_portugal_2020_28julho_0.pdf.

Rainey, Hal G., Sanjay Pandey, and Barry Bozeman. 1995. “Research Note: Public and Private Managers’ Perceptions of Red Tape.” *Public Administration Review* 55 (6): 567. https://doi.org/10.2307/3110348.

Scherer, Frederic. 1965. “Firm Sizes, Market Structure, Opportunity and the Output of Patented Innovations.” *American Economic Review* 55: 1097–1125.

Schneider, C., and R. Veugelers. 2010. “On Young Highly Innovative Companies: Why They Matter and How (Not) to Policy Support Them.” *Industrial and Corporate Change* 19 (4): 969–1007. https://doi.org/10.1093/icc/dtp052.

Schumpeter, Joseph A. 1934. “Robinson’s Economics of Imperfect Competition.” *Journal of Political Economy* 42 (2): 249–59. https://doi.org/10.1086/254595.

Silva, José Ferreira, and J. Cadima Ribeiro. 2014. “‘As Assimetrias Regionais Em Portugal: Análise Da Convergência versus Divergência Ao Nível Dos Municípios.’” *DRd - Desenvolvimento Regional Em Debate* 4 (1): 84–109. https://doi.org/10.24302/drd.v4i1.440.

Simonen, Jaakko, and Philip McCann. 2008. “Firm Innovation: The Influence of R&D Cooperation and the Geography of Human Capital Inputs.” *Journal of Urban Economics* 64 (1): 146–54. https://doi.org/10.1016/j.jue.2007.10.002.

Soukiazis, Elias, and Micaela Antunes. 2006. “Two Speed Regional Convergence in Portugal and the Importance of Structural Funds on Growth.” *Ekonomia* 9 (2): 222–41. https://EconPapers.repec.org/RePEc:ekn:ekonom:v:9:y:2006:i:2:p:222-241.

Storey, David J. 2016. *Understanding the Small Business Sector*. Routledge. https://doi.org/10.4324/9781315544335.

Tavares, José Albuquerque, Ernesto Freitas, and João Pereira dos Santos. 2017. “O Impacto Económico Dos Fundos Europeus.” *Fundação Francisco Manuel Dos Santos*.

Fundação Francisco Manuel dos Santos. https://www.ffms.pt/FileDownload/78c38e40-c122-4048-a44a-63d2da645d9f/o-impacto-economico-dos-fundos-europeus.

Torriti, Jacopo. 2011. “Standard Cost Model: Three Different Paths and Their Common Problems.” *Journal of Contemporary European Research* 8 (1): 90–108. https://doi.org/10.30950/jcer.v8i1.322.

Van Dijk, Bob, René Den Hertog, Bert Menkveld, and Roy Thurik. 1997. “Some New Evidence on the Determinants of Large- and Small-Firm Innovation.” *Small Business Economics* 9 (4): 335–43. https://doi.org/10.1023/a:1007995919950.

Vasicek, Oldrich Alfons. 2005. “The Economics of Interest Rates.” *Journal of Financial Economics* 76 (2): 293–307. https://doi.org/10.1016/j.jfineco.2004.06.002.

Weber, Max. (1905) 1905. *Protestant Ethic and the Spirit of Capitalism*. S.L.: Wilder Publications.

World Bank. 2018. “Improving Public Sector Performance - Through Innovation and Inter-Agency Coordination”. World Bank https://documents1.worldbank.org/curated/en/833041539871513644/pdf/131020-WP-P163620-WorldBankGlobalReport-PUBLIC.pdf

World Bank. 2019. “Doing Business 2020 - Portugal.” *Doing Business*. World Bank Group. https://www.doingbusiness.org/content/dam/doingBusiness/country/p/portugal/PRT.pdf.

———. 2022. “GDP per Capita (Current US$) - European Union, Portugal.” Data.worldbank.org. 2022. https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=EU-PT.

Zaman, Gheorghe, and George Georgescu. 2009. “Structural Fund Absorption - a New Challenge for Romania?” *Romanian Journal of Economic Forecasting* 1 (10). https://ipe.ro/rjef/rjef1_09/rjef1_09_10.pdf.