STATE AID AND THE DEVELOPMENT OF THE ECONOMIC ENVIRONMENT

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Abstract
This article explores the complex relationship between state aid and the evolution of economic environment, with a particular focus on the competitiveness of the regions where the aid beneficiaries activate. Many economic theories and ideas discuss the impact of state involvement on economic growth, emphasizing that excessive intervention can result in inefficiencies and distortions. However, targeted and strategic aid has the potential to stimulate economic growth, promote innovation, and address market failures. The paper compares EU regions with a high Competitiveness Index to those at the bottom of the competitiveness list, examining the volume and nature of aid provided to companies in these regions. The aim is to determine whether a direct relationship exists between aid and competitiveness. The findings generally confirm the previous research highlighting the beneficial effects of state aid on businesses' competitiveness, but with some original findings. We discovered that state aid supports the competitiveness of the beneficiaries, but some types of aid are more appropriate to sustain a company and make it more competitive. State aid promoting training, research, development, and innovative activities and infrastructure has greater potential to help companies become more competitive in the present global market.

Keywords
state aid, competitiveness, economic growth, state intervention, development, market failure.

JEL Classification
O18 Economic Development: Urban, Rural, Regional, and Transportation Analysis; Housing; Infrastructure.

Introduction

The involvement of the state in commercial relations that constitute the foundation of the economy appeared with the dawn of human history organized in a consolidated political and social system. Whether it was the rulers of ancient Egypt, imperial China, conquering Rome, kingdoms or empires in medieval Europe, or modern states on different continents,

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they all intervened, to a small or large extent, to impose rules that did not stem directly from the unadulterated course of the market. Some measures had in mind the good running of the city and the protection of consumers; others pursued selfish goals of a more or less personal nature of the rulers.
The role of state aid in fostering economic development has been a subject of extensive debate among economists and policymakers. While some advocate for robust government interventions to stimulate growth, others caution against potential distortions and inefficiencies that such aid might introduce into market mechanisms. Understanding the intricacies of this relationship is crucial in crafting effective policies conducive to sustainable economic progress.
The benefits received by the companies through public support, in condition out of the market, are known as "subsidies" (WTO) or "state aid" (TFUE). The main elements are: (i) a direct or indirect contribution (ii) by a public body (iii) which confers an advantage to a company or sector that (iv) distort competition and trade. All four criteria have to coexist in order to be named state aid.
The present article is trying to identify information and data that supports the idea that a well based public intervention in supporting undertakings, in order to eliminate or attenuate a market failure, is welcomed and induces more positive effects than negatives one. In order to do this, we looked at economic competitiveness as a highly positive attribute for a region because it fosters higher incomes for businesses, which translates into the possibility of making new investments, for workers and their families, which enables them to have a higher standard of living, and for local government, which is able to fund improved public services and infrastructure thanks to taxes collected.
The paper makes a correlation between the level of state aid granted in certain regions of the European Union and the level of competitiveness of the companies located in those regions. The primary hypothesis considered by the authors is that the level of competitiveness of the regional economy is directly proportional to the volume of state aid disbursed to the company located in that region. The second hypothesis is that some types of aid influence competitiveness to a greater degree than others.
First, pertinent research on the disputed significance of state interference in the market is examined, with a focus on both the advantages and disadvantages of such action. Next, using data from Romania's state aid register and specially designated websites administered by the European Commission, an empirical analysis is conducted to assess the study's assumptions. Finally, we summarize and discuss our findings, aiming at contributing to the debate on the necessity and appropriateness of the implementation of state aid measures.

1. Review of the scientific literature

1.1. The concept of state aid

Article 107(1) of the Treaty on the Functioning of the European Union statues that *"…any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the*

production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the internal market."
That criteria are cumulative. Therefore, if the public measure targets entities that are not involve in economic activities or are implemented in full compliance with the market rules or are of general character or are small enough not to distorts competition and affect trade, we are not in a presence of a state aid measure.

1.2. The instruments of state aid

The notion of state aid implies the existence of an advantage that can be transfer from the state, using various tools, to an economic entity. There is a numerous type of instruments employed by governments worldwide in granting state aid.
The most frequently used is direct funding that have numerous variants: grant, subsidy, interest rate subsidy, prime guarantee subsidy, repayable advances etc. A special form of transferring a direct aid is the use of equity (including the increase in share capital) for support a company. In the category of state aid, General Court (1999) included also a situation when a public administration buys access tickets to a ferry line in order to promote the local tourism among foreign tourists, but the volume of the tickets exceed the transport capacity of the ferry vessels, so did not meet an actual need.
Public authorities can choose to support an economic operator by renouncing the revenues due to him. The most frequent way is related to tax incentives (taxes, social security contributions, excise duties etc.) by implementing measures of reduction or exemption of budgetary obligations.
State grants aid if issues a guarantee or provide a loan outside the market conditions, i.e. without a proper remuneration. These support measures mitigate risks for lenders, enabling companies to secure loans at better terms.
Special prices, under the market price for public sales or above the market price for public procurement, are methods of delivering an aid to an undertaking. Targeted public services or infrastructures dedicated to a specific enterprise are other faces of the same concept: state aid.
According to European Commission (2006), even a political declaration of an important representant of the state could be looked as aid if that improves the economic status of the company covered by that statement.

1.3. The state aid compatibility

According to the Treaty on the Functioning of the European Union (European Commission, 2023b), as a general rule, granting state aid is forbitten in European Union, with the exception of circumstances in which their implementation results in the achievement of specified objectives deemed compatible.
Article 107 (2) and (3) of the Treaty on the Functioning of the European Union statues that some aid shall be compatible or may be considered to be compatible with the internal market if are under specific objectives such as: i) diminishing or alleviating the damage caused by natural disasters or exceptional occurrences; (ii) encouraging the economic growth of areas where there is severe underemployment or a low standard of living; (iii) facilitating the completion of a significant project of common European interest or

addressing a significant disruption in a Member State's economy; (iv) encouraging the growth of specific economic sectors or activities, without harm trade conditions in a way that is against the interests of the common interest; (v) promoting heritage conservation and culture without affect competition and Union trading conditions in a way that is against the interests of the common interest;

These objectives are of general character and European Commission came with some other complementary objectives that are considered compatible, like: supporting SMEs, research, development and innovation, employment, training, environment protection, renewable energy, broadband, rescue and restructuring etc.

The aid measures implemented by Member States have to fulfil all the conditions indicated in the European Commission's regulations, communications and decisions in order to be considered compatible and, by way of consequence, legally granted.

The state involvement

The public involvement in economy has been a topic of significant interest in economic literature. State aid, in the form of subsidies, grants, guarantees, soft loans, tax breaks, equity, and other financial incentives, provided by governments to businesses is one of pillar of that state involvement.

The possible engagement of the state in the economy is widely discussed in the modern period, with many academics restricting this position to "royal" duties like preserving order, policing, defence, and international affairs (Cerna, 2018). This "laissez faire et laissez passer" philosophy is founded on the belief that private initiative, individual freedom, and the laws of the market economy should all remain unaffected (Cerna, 2018). The invisible hand that Smith (2011) describes serves as a metaphor for this way of thinking.

On the other hand, some opposing viewpoints believed that public action was essential. Western political leaders implemented a number of policies that resulted in significant shifts in the definition of the state's place in society. Thus, the idea of state responsibility for the population's well-being was introduced by Bismark in Germany, Gladstone and Disraeli in Great Britain, and F. Roosevelt in the United States. The terms "Social State" or "Wealth State" refer to this new class of state. Whatever the title, its central feature is that the state uses market mechanisms to safeguard residents from unforeseen events and to ensure that they have a minimal standard of living.

The development of microeconomics highlighted the need for state involvement in the economy. Thus, at the dawn of the 20th century, economists from the school of welfare economics, such as Marshall (2012) and Pigou (1932), stated that the state must intervene through indirect (administrative regulatory) or direct (taxation, subsidy) means to combat negative effects (underdevelopment, economic crisis, pollution), or support the emergence of positive effects (competitiveness, research, employment). One of the important elements of the position expressed was support for the need for state financing, from budgetary sources, of certain services open to the general public, such as, for example, street lighting, the major infrastructure projects as construction of railways, roads and rivers channels, etc., while the market cannot offer them in conditions of major accessibility.

J. M. Keynes's economic analyses drew findings, published in February 1936, that were impacted by the 1929–1933 crisis. Keynes (2009) argues that the market economy's self-regulating mechanisms do not always result in the best distribution of resources. As a result, in modern economies that are marked by wage and price rigidity as well as uncertainty, the way the markets operate may result in high and prolonged unemployment because of the negative expectations that both consumers and business owners have. Therefore, in order to achieve full employment of the workforce, the state must encourage economic growth, stimulate the economy, and implement coordinated policies that boost consumption. This can be done by increasing public spending and implementing new economic policies.

Economic scholars such as Stiglitz (2002) and Rodrik (2018) have clarified the complex effects of government intervention on economic growth. Nobel laureate Stiglitz argues that, when used wisely, state aid may correct market failures, spur innovation, and support sectors vital to long-term expansion. Conversely, Rodrik emphasizes the importance of balancing state intervention with market forces, cautioning against excessive protectionism and inefficiencies stemming from excessive state control.

The renowned economist Ha-Joon Chang explored also the role of the state in economic development. Chang (2002) examines how developed countries often used protectionist policies and state aid in their own history of development, while advocating similar strategies for developing nations. He is in favour of using the idea of a "developmental state" as a template for growth in the economy. The concept covers the situation when a government extensively takes action in the economy to support industrialization and economic progress. Chang contends that in order to defend home markets, promote the competitiveness of industries, direct economic policy, and provide essential infrastructure, governments should take the initiative. He highlights that public bodies are important actors in the growth of the economy. He believes that a combination of helpful public policies and market institutions is the foundation of prosperous economies. According to him, key factors in determining economic results include industrial policy, efficient public regulation, and the protection of IP rights.

That idea was nuanced later by Andreoni and Chang (2019). They stated that a national industrial policy coordination could introduce consistency and cohesiveness, and eliminate tensions and overlapping from the point of view of the effects of the direct relation between the state and the market, that suggested the necessity of a public intervention, but limited to strategically chosen domains and actions. Also, according to Lin (2010), the government should actively assist in promoting infrastructure development and industry modernisation as a complement to having a strong market system.

Mazzucato (2018) emphasized also the state's entrepreneurial role and the ways in which investments and interventions from the government may spur development, innovation, and economic progress. The idea of a sluggish, bureaucratic state against a vibrant, creative private sector is thoroughly disproved by Professor Mazzucato by highlighting how the state frequently assumes significant risks in funding and promoting high-risk, high-reward inventions that the private sector could disregard due to uncertainty, debunking the myth that the private segment carries all the risk. She demonstrates this

reality through a series of case studies ranging from IT, biotech, nanotech, to today's developing green tech. In effect, private business only musters the bravery to allocate funds after an entrepreneurial public administration has taken already the risky measures. For example, the Internet, GPS, the touch screen, and voice-activated apps are all public initially subsidized technologies that contribute to the current devices seeming "smart". More, Mazzucato (2018) questions also the myth that the state only acts as a regulator, arguing that it also actively influences and produces markets through standards-setting, research funding, and investment targeting in specific industries or technologies. More, Mazzucato (2023) reject the public goal of achieving much growth without paying attention to what kind of growth the society received. By reorienting public organizations around ambitious objectives rather than restricted growth ambitions, the economy will advance in the proper direction and address the key issues of the future.
These theses regarding the imperativeness or the lack of necessity of state involvement in the market mechanism are further treated and developed under other perceptions like ethical imperatives or historical perspective. Amartya Sen, a Nobel laureate in economics, contends that state assistance and development programs must take social justice issues into account. Achieving economic growth alone, without tackling inequality and making sure resources are distributed fairly, might not result in true development or advancement of society. Sen (1993) emphasizes the significance of human development that goes beyond financial metrics. Enhancing human qualities, such as access to resources, healthcare, political freedom, and education, is more important than merely raising GDP. Chang (2019) argues that historical context is crucial for comprehending economic progress. He highlights the value of learning from the past experiences of prosperous economies in order to provide developing nations with guidance and understanding. Chang disproves the idea that wealth can only be attained through free-market policies by looking at how nations like the USA, Japan, and South Korea evolved.
Also, the economic literature has referrals to the type of the public interventions. Acemoglu and Robinson (2013) support the idea that government play a pivotal role in a state's prosperity or ruin. Institutions are categorized as extractive or inclusive by them. Prosperity is typically associated with inclusive institutions that support the rule of law, wide involvement, creative thinking, and the protection of property. Extractive institutions, on the other hand, impede societal advancement and economic progress by consolidating power and wealth in the hands of a small number of people.
The negative impact of state funding in economy was revealed even in the case of the assistance provided by foreign states. Krueger (1986) highlighted the limited impact of foreign aid on economic development and the potential negative effects of aid, such as fostering dependency, distorting incentives for domestic policies, and exacerbating inefficiencies in recipient countries' economies. She advocated for the importance of market-oriented policies and the role of free-market mechanisms in fostering economic growth. She already emphasized the importance of a level playing field implication of the state. The same conclusion revealed Easterly (2003).
In the context of analysing the involvement of the public administration in the function of the market, Krueger (1974) made the term "rent-seeking" widely known. It describes

societies where the main goal is the pursuit of possessions or money through actions that redistribute already-existing wealth rather than creating any new value. Instead of adding value via constructive endeavours, it centres on people or organizations attempting to profit financially by influencing the social or political landscape. In order to obtain abnormal advantages by public funding, special taxation, or other forms of shielding from the government, individuals or groups may resort to tactics like influencing, fraud, rent extraction, or monopolistic conduct. These activities don't advance performance or general prosperity; instead, they are taken to obtain a bigger portion of the riches or resources already in existence. In a rent-seeking society, as Krueger (1974) pointed out, public intervention is not in the interest of the many, but in the interest of the privileged few, and the effects will not create economic development.

The theoretical underpinnings of state aid encompass various economic theories, including neoclassical, industrial organization, and evolutionary economics. Neoclassical economists argue that state aid may distort market mechanisms and result in inefficiencies, whereas industrial organization theorists emphasize the strategic role of government intervention in correcting market failures. Evolutionary economists highlight the role of state aid in fostering technological innovation and industry evolution.

Empirical research has looked at how governmental aid impacts economic growth. Some studies (Păun, 2014; Cardenete and Delgado, 2013; Mosionek-Schweda and Tokarski 2014; Androniceanu et al. 2020; Bužinskienė and Rudytė, 2015) suggest that targeted and strategic state aid can positively influence GDP growth by promoting investment, creating jobs, and fostering industry-specific advancements. However, others (Bartha and Horváth, 2023; Asmund and Benito 2021; Balzaravičienė and Pilinkienė, 2012; Lewandowska et al., 2015; Rupliene et al., 2017) argue that excessive or misdirected state aid can lead to resource misallocation, crowding out private investment, and impeding long-term economic growth.

The competitiveness of a region hinges on its capacity to create advantageous business environments, facilitate the successful marketing of products and services in both local and international markets, and ensure advancements in employment and living standards for the people (OECD, 2023). The public authorities are conscious that achieving regional competitiveness is a necessary step towards ensuring the prosperity that every democratic country aspires to. Therefore, they use every tool at their disposal, including state aid. Although state aid plays a crucial role in supporting businesses both in the EU and worldwide, there is a lack of research on how it affects the competitiveness of national or regional economies. The idea that public funding is an instrument for reaching a good level of competitiveness is presented in several analyses.

The relationship between state aid and industrial competitiveness is a focal point in the literature. Proponents (Gherghinescu et al., 2008; Barro, 1990; Ferreiro and Sousa, 2019; Pinto et al., 2019; Stead, 2015) argue that state aid can enhance the competitiveness of domestic industries, especially in high-tech sectors, by providing necessary support for research, development, and infrastructure. Conversely, critics highlight the potential for state aid to create market distortions, favouring specific companies or industries, thereby impeding fair competition (Garcia-Milà and McGuire, 2001; Ramajo, 2008; Mohl and Hagen, 2010; Naseemullah, 2023; Zhu et al., 2019). In this context, the unlimited support for the “national champions” can results in an effect of abuse of dominant position, with negative consequences for other players on that specific market (Porter, 1990).

According to Androniceanu et al. (2020) the objective of attaining economic and social aspirations, while ensuring a growing level of societal welfare, results in the establishment of a competitive market and economy, in general. Remeikiene and Gaspareniene (2016) came to the conclusion that the structural support provided by the EU had a favourable impact on Lithuania's economy's competitiveness in the present global economy.

Porter (1990) asserted that numerous industries in Germany, Italy, Switzerland, South Korea, or Japan prospered despite the infrequent, insignificant, or ineffective government interventions. But also, recognized that the state involvement is necessary for supporting the national competitiveness. And the public roles are to stimulate changing, encouraging the internal competition and promote innovation. Thus, a high level of productivity is reached and competitiveness will follow. The national economic environment is one of the most important factors that could facilitate a competitive advantage for businesses living in that environment. And the state could have it share in creating a competitive business environment by funding specialized training, industrial and services clustering, investments in new technologies, research, innovation and knowledge transfer.

Chia (1994, 2005, 2014) highlights the effectiveness of the Singapore Government's strategy in maintaining the competitiveness of the national economy. They achieve this by offering fiscal incentives and providing various financial programs to support companies in their growth, research and development activities and training initiatives. Those state aid measure were added to the government initiative on developing physical infrastructure, establishing a reliable educational network, and maintaining a friendly and stable bureaucratic system. In a specific case of the Italian state intervention for introducing broadband infrastructure in the white areas, Matteucci (2019) found that the ratio between the benefits and drawbacks of the public intervention were in favour of the former. And in the age of digitization, the introduction of non-discriminatory access to a modern communication network unequivocally increases the competitiveness of the companies that will use it. A public state aid initiative in Canada that was designed to promote exports increased the competitiveness of the enrolled small and medium-sized high-technology enterprises and allowed the consolidation of their business. (Francis and Collins, 2004).

In a conclusion, the scientific literature approaches the topic of state engagement in the market from various perspectives, offering insights into the effectiveness, limitations, and impact of public involvement, including through the use of state aid, on economic development of nations. Some papers made the analyses of the relationship between state aid and the level of competitiveness as general concept at the level of companies or regions / countries. Their works are valuable resources for understanding the complexities of this relationship. However, it is important to note that our investigation into literature does not find any research that examines the relationship between the competitiveness index, as provided by the European Commission's services, and the amount of state aid given to companies operating in those specific areas.

2. Research methodology

State aid, as a tool used by governments to support industries and stimulate economic growth, has sparked extensive debates among economists and policymakers. The debate revolves around its efficacy, potential distortions in market dynamics, and its role in fostering or hindering economic development. This review aims to analyse and synthesize existing literature and data to provide insights into the complex relationship between state aid and economic development.

As main tool, we used the comparation between the level of regional competitiveness for NUTS 2 regions of the European Union and the state aid granted to companies located in those regions.

For evaluate the level of the regional competitiveness, we selected the EU Regional Competitiveness Index (RCI). RCI is an instrument used by the European Commission (2023a), starting from 2010, to assess and compare the competitiveness of European regions at NUTS-2 level. It evaluates a region's capacity to provide a compelling and enduring setting for firms and residents, considering various economic, social, and environmental factors. The 11 pillars that make up the Competitiveness Index's composition and its three sub-indices ("Basic", "Efficiency", and "Innovation") represent the various facets of competitiveness. Figure 1 depicts the framework's organizational structure of the Competitiveness Index.

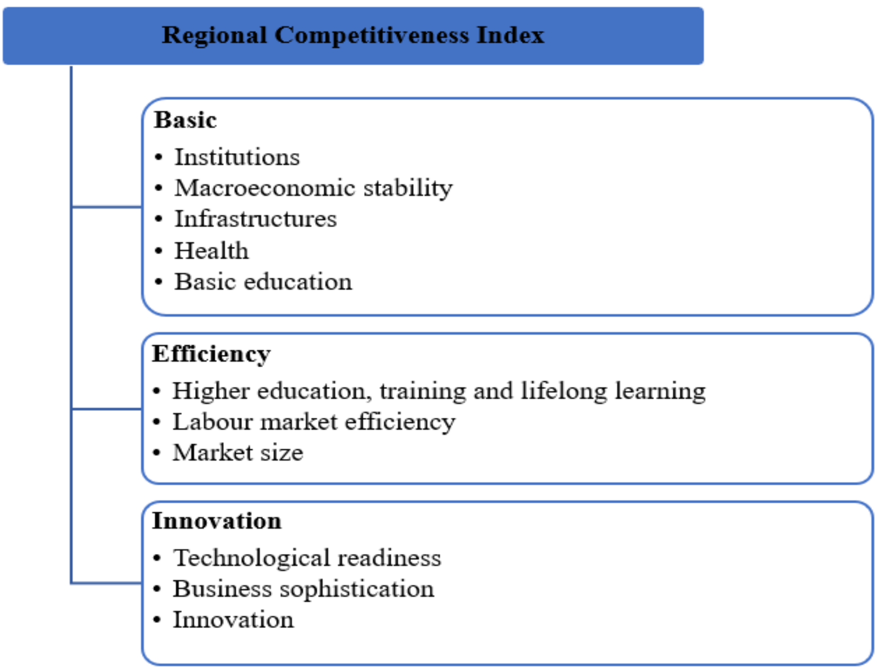

Figure no. 1: Regional Competitiveness Index's framework structure

The data regarding state aid were obtained from EU transparency website (2023) and from Romanian national state aid register (RegAS). In accordance with the EU transparency standards for state aid, European Commission created a public search website in order to allow the public access to state aid individual award data provided by Member States since 2016. Starting to 2023, the data reveal by the EU transparency website includes all the individual state aid above EUR 100.000. Previously, the transparency threshold was EUR 500.000. For Romanian regions, the data regarding the state aid granted was downloaded from the state aid national data base (RegAS).
The Competitiveness Index categorize the EU NUTS-2 regions in 3 main groups: the EU more developed regions, the EU transition regions and the EU less developed regions.
The assessment we made, based primarily on the data mentioned above, was focused on the competitiveness disparities between the 9 top-performing regions in the EU (ranks 1-9) and the bottom 9 regions (ranks 226-234). In the first category there are five Dutch regions, one Belgian and three from France, Denmark and Sweden. Six Romanian areas, one Greek and two Bulgarian are located at the other extreme of the spectrum.
The analysis was based on the data presented by the Commission in the last report on Competitiveness Index (RCI 2.0). RCI 2.0 refers to the index's 2022 edition, thus the perspective being elaborated with year 2022 as reference. The previous RCI editions were 2010, 2013, 2016 and 2019.
In relation to the volume of state aid granted for each region, we downloaded, from EU transparency website (that covers the period starting with 2016) and from RegAS, and analysed all data regarding state aid granted, in each of those regions, in-between 2016-2023.

3. Results and discussions

The main objectives of state intervention are to achieve economic growth, industrial competitiveness and innovation and socio-economic development and reduction of inequalities. For achieving that goals, four main instruments allow state to participate in the economic life. The regulatory actions that have as core the fiscal environment. The state can impose low or high levels of taxation, bureaucratic duties or activities interdiction. Public investment, mainly in infrastructure (transport, education, health, utilities, communication, defence against disaster etc.) is a second level of action that can boost economic growth potential, lower transaction costs for entrepreneurs, raise the rate of return on private investment, and eventually raise a sufficient amount of taxes to cover the initial outlays. As a third possibility, the state can assume the role of a minor or major player on the market using public undertakings. The last position is as grantor of state aid which aims to boost certain economic sectors or horizontal activities such as research-development or environmental protection.
The impact of state aid on socio-economic development and income inequality remains a contentious issue. While targeted aid programs can alleviate regional disparities and support marginalized communities, there are concerns that poorly designed subsidies might exacerbate inequality and benefit privileged sectors or individuals.

The process of turning the state into a “welfare state” persisted after World War II and was accelerated by the steps taken in the majority of Western nations to shield their citizens from the major hazards of life, such as sickness, joblessness, and elderly years, along with the concentration of resource allocation in favour of the most impoverished people and families.

In certain democratic nations with a market economy, like, for example France, the government has also taken on the role of economic planning. However, the plan only attempted to direct investments in the priority areas for economic growth, limiting itself to the establishment of specified numeric or qualitative objectives, set by consensus with the social partners (companies, unions). The government was regarded as an “uncertainty reducer” because of this (Kolm, 2010). In pursuing the objective of eliminate or alienate the market failures, the public administration can become a big producer, using the public undertakings, thus assuming the role of a large employer and a large consumer of resources. In France, Italy, Great Britain or Germany the state assumed such a role, both at the local and central level.

The major economic forces of the world, USA, EU, China, implemented comprehensive plans for supporting the national economies in order to maintain or to boost the competitiveness of the companies in a more and more competitive global environment.

In 2015, under its “Made in China 2025” policy, China declared that it would allocate $350 billion in subsidies to ten critical future industries, including robotics, advanced computers, electric vehicles and EV batteries, and mobile gadgets. In order to develop Chinese businesses that are capable of competing both locally and internationally, the goal is to lessen China’s dependency on imports of foreign technology and to substantially invest in its own technologies.

The Inflation Reduction Act (IRA, 2022) implemented in USA starting to August 2022 is a budgetary reconciliation package with eight sections that address a wide range of US policy. IRA’s primary goals are to invest in national production of clean energy and to reduce inflation. Focusing on the State aid components of IRAs, the primary tools will be tax credits and deductions from taxes. It will also, to a smaller extent, issue loans, grants, and loan guarantees. The CHIPS and Science Act (CHIPS Act, 2022) is an additional US support program that seeks to bolster American industrial production, supply chains, and R&D expenditures, as well as the workforce of the years to come. The ultimate goal is to maintain US leadership in emerging industries such as nanotechnology, clean energy, quantum computing, and artificial intelligence.

In order to support European enterprises' competitiveness, the European Union has developed a number of programs to fulfil the needs that have been identified. For the years 2021–2027, InvestEU (2021) provides a further stimulus to investment, innovation, and job development in Europe. It seeks to use an EU funding guarantee to start a fresh wave of investments totalling more than €372 billion. REPowerEU (2022) has as goal to support EU in diversifying its energy sources, generating clean energy, and conserving energy in the wake of the EU's energy supply being adjusted to the conflict in Ukraine. Presented on February 1, 2023, the EC's Green Deal Industrial Plan (2023) aims to accelerate the shift to carbon neutrality while also making Europe's net-zero industry more competitive. In order to meet Europe's aggressive climate ambitions, the Plan seeks

to create a more favourable environment for the EU to increase its production capacity for net-zero technology and goods. It is built around four bases: open commerce for robust supply chains, accelerating access to financing, improving skills, and a predictable and straightforward regulatory framework.
Romania's Recovery and Resilience Plan (PNRR, 2021) was developed in response to the urgent need to support a robust recovery while strengthening Romania's economy and society and preparing it for the future, following the extraordinary crisis brought on by the COVID-19 epidemic. The Romania's plan contains reforms and investments that are aiming to help Romanian economy to become more robust, sustainable, and better equipped to handle the opportunities and difficulties presented by the green and digital transition because to the investments and changes made in it. Romania upgraded its recovery and resilience plan on December 8, 2023, adding a REPowerEU chapter.
There are numerous state aid measures that aim at supporting Romanian companies' competitiveness. Two of the longest state aid schemes are administrated by Ministry of Finance. There were opened in 2014 and promote regional development by creating new jobs (Government Decision 332/2014) and investments that have a major impact on the economy (Government Decision 807/2014). The stage, on 30.6.2023, of implementation of projects approved for financing under the two schemes is presented in Table no. 1.

Table no. 1. The stage of implementation of projects approved for financing (on 30.6.2023)

Aid schemes	Total value of planned investment (eligible expenses)	Value of approved state aid	Total value of the investment created (eligible expenses) by 30.06.2023	Amount of state aid paid by 30.6.2023	No. of new jobs created by 30.6.2023
	EUR million	EUR million	EUR million	EUR million	
Government Decision 332/2014	564.23	247.66	140.32	34.55	9,045
Government Decision 807/2014	3,506.36	1,518.87	1,841.73	555.46	12,748

Source: https://mfinante.gov.ro/hg-332/20141 and https://mfinante.gov.ro/hg-807/20141.

The data reveals that the two schemes are responsible for supporting investment of over €4 billion in eligible expenditure alone. There are other hundreds of millions of euros in ineligible expenses (according to state aid rules) that must be added to get the full value of the investments made. Furthermore, we must keep in mind that primary investments have a spillover impact and are augmented in value by collateral investments made by other companies that collaborate with the state aid beneficiaries. And is worth to mention that that schemes includes the obligation for the beneficiary to pay taxes at a value that at least equals the amount of aid received.

The competitiveness and state aid

In the present globalized market, any company have to struggle to offer better products and services at competitive prices to their clients. Nowadays, an undertaking has to compete not only with business located in his proximity but also with similar companies situated in other region of the country or of the world.

The effort to be competitive is not a result that belongs exclusively to the entrepreneur. The economic environment where he works influences in a great measure the capability of the enterprise to be successful.

According to European Commission (2023a), "*Regional competitiveness is the ability of a region to offer an attractive and sustainable environment for firms and residents to live and work*". The primary competitiveness determinants for each NUTS-2 level area in the European Union have been measured since 2010 by the EU Regional Competitiveness Index (RCI). The Index assesses a region's capacity to provide a desirable environment for businesses and citizens to live and work using a wide range of metrics. RCI 2.0 refers to the index's 2022 edition, which is based on an upgraded methodology.

The European Commission analysis covers 234 regions of European Union and grouped them in 3 categories: more developed region, transition region and less developed region. In Table no. 2 are enumerated the first 9 and last 9 EU regions according to the level of RCI 2.0.

Table 2. Top 9 and bottom 9 EU regions by RCI 2.0 level

Top 9			
Member State	**Region name**	**RCI**	**Rank**
Netherlands	Utrecht	151,1	1
Netherlands	Zuid-Holland	142,5	2
France	Ile-de-France	142,0	3
Netherlands	Noord-Brabant	140,6	4
Netherlands	Amsterdam and its commuting zone	140,6	4
Sweden	Stockholm	138,9	6
Denmark	Hovedstaden	137,7	7
Belgium	Brussels and its commuting zone	136,3	8
Netherlands	Gelderland	135,7	9
Bottom 9			
Member State	**Region name**	**RCI**	**Rank**
Romania	Nord-Vest	56,0	226
Bulgaria	Yugoiztochen	53,4	227
Greece	Sterea Elláda	53,2	228
Romania	Centru	52,5	229
Romania	Sud-Muntenia	52,1	230
Romania	Sud-Vest Oltenia	50,2	231

Bulgaria	Severozapaden	49,0	232
Romania	Nord-Est	47,0	233
Romania	Sud-Est	46,1	234

Source: European Commission (2023a).

The geographic distribution of the 18th EU regions, distributed at the top and at the bottom of the ranking drawn up by the European Commission, is presented in Figure 2.

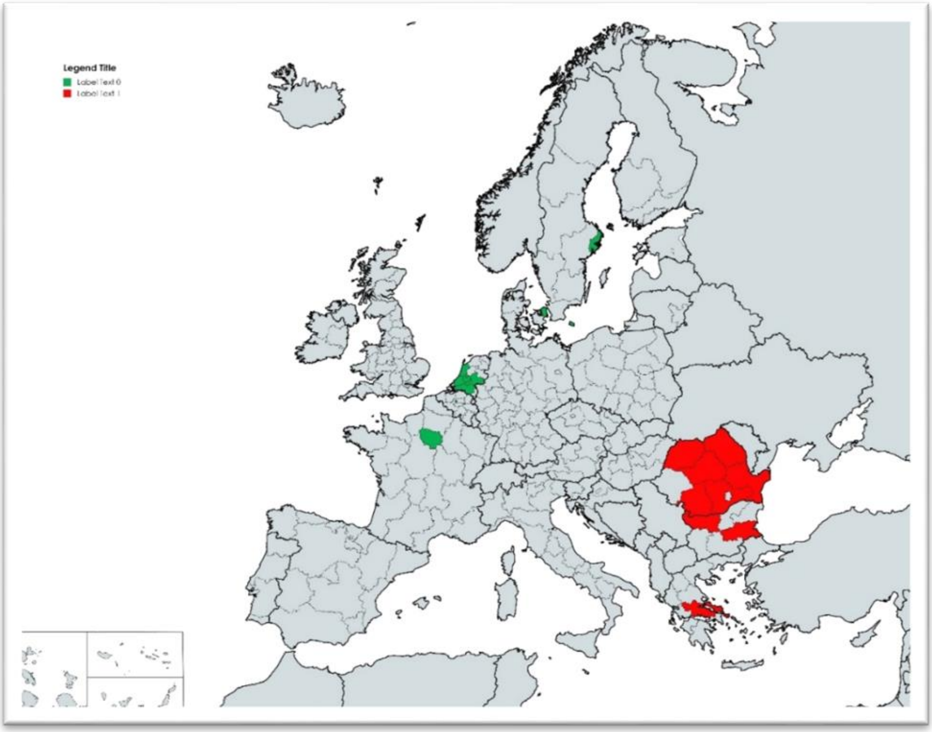

Figure 2. The geographic distribution of the 18th EU regions
Source: Authors interpretation based on European Commission (2023a) data.

Since the first edition, released in 2010, the RCI has three sections: "Basic", "Efficiency", and "Innovation", comprising 11 pillars that outline the various facets of competitiveness. Between the pillars, the closest indicators in relation with the business environment are those gathered under the "Innovation" sub-index that includes: "technological readiness" (measured as existence of high-speed broadband access, above-basic overall digital skills, trade over internet), "business sophistication" (based on employment and value added in K-N sectors, SMEs with innovation cooperation activities and SMEs introducing marketing or organisational innovation) and "innovation" (described as patent, design and trademark applications, core creative class employment, knowledge workers, R&D expenditure, employment in technology and knowledge-intensive sectors).

The goals that state aid measures aim to achieve include those three pillars, of "technological readiness," "business sophistication", and "innovation," which foster advancement at the highest level of economic growth. As mentioned above, state aid supports in high measure private initiatives in relation with research, development and innovation activities, employment and training of highly qualified staff, investments in information and communication technologies. Public aid granted allows companies to diminish the risks of implementing daring business ideas and to make the necessary investments for putting a competitive product or service on the market. That’s why we can emphasize the important relation between granting "good" stat aid and the level of competitiveness of the beneficiary of that measure.

As indicated by European Commission (2023a) in the comparation of the 3 regions ranked highest and lowest for every phase of development category, important differences appear in the area of business environment. The "Basic", "Efficiency", and "Innovation" aspects are more develop in the superior part of the list compared to the final position.

In order to consolidate the idea that state aid is one of the most important factors that influence the companies strengthens on the market, we extracted from EU transparency website (2023) and RegAS data regarding the state aid granted in the period 2016-2023 in each of the 18 regions mentioned in Table 2. The combined information about the value of state aid granted to beneficiaries in these regions is displayed in Table no. 3.

Table no. 3. State aid granted in the 18 EU regions

Member State	Region name	Rank	State aid (EUR million)	Period of granting state aid
Netherlands	Utrecht	1	1,302.57	2016, 2019-2023
Netherlands	Zuid-Holland	2	10,288.56	2019-2023
France	Ile-de-France	3	3,217.34	2016-2022
Netherlands	Noord-Brabant	4	4,265.81	2018-2023
Netherlands	Amsterdam and its commuting zone	4	8,062.09	2019-2023
Sweden	Stockholm	6	913.46	2016-2022
Denmark	Hovedstaden	7	398.96	2016-2023
Belgium	Brussels and its commuting zone	8	142.34	2016-2022
Netherlands	Gelderland	9	6,659.93	2016-2023
Romania	Nord-Vest	226	65.46	2017-2022
Bulgaria	Yugoiztochen	227	77.11	2017-2022
Greece	Sterea Elláda	228	1,244.29	2016-2023
Romania	Centru	229	150.23	2017-2022
Romania	Sud-Muntenia	230	380.10	2017-2022
Romania	Sud-Vest Oltenia	231	43.69	2017-2022

Bulgaria	Severozapaden	232	63.99	2017-2023
Romania	Nord-Est	233	309.12	2017-2022
Romania	Sud-Est	234	43.75	2017-2022

Source: EU transparency website (2023) and RegAS.

The data show that the budget allocated for state aid granted to enterprises located in the regions listed in the upper part of Table 3 is, with one exception (Brussels and its commuting zone), much higher than the amounts received by the companies from the regions in the lower part of the table. Three regions, Zuid-Holland, Amsterdam and its commuting zone and Gelderland totals a value of more than EUR 25 billion, more than the other region combined. This is an important indicator of the fact that state aid can support the growth of the business environment creating the premises for a robust competitiveness of the companies.

It should be emphasized, however, that state aid is only one of the factors that compete to increase the competitiveness of companies. In order to achieve a high degree of competitiveness, it must be combined with a set of factors that also concern the existing institutional framework, the stability of the macroeconomic framework, unrestricted access to performing infrastructures, the existence of superior education and health systems. Excellent performances are the result of several components working together. A solid formula for economic success, is to make improvements simultaneously in a number of sectors rather than focusing on being the best in just one or a select few.

Also, we have to emphasize that the process of granting aid has to be properly implemented. This implies that the volume of state aid is important, but an approach based on impact, which includes a balancing analysis of positive and negative consequences, is also needed in order to avoid an unnecessary expenditure of state funds (Friederiszick et al., 2007). For that, a well-founded method of disbursing public money is a method that, apparently, some of the European public administration learned to implement, and the results regarding business competitiveness are obvious.

The volume of compatible state aid is crucial in enhancing the economic environment to be competitive in quality, prices, and innovation. However, we acknowledge the need for more research on the significance and level of state aid quality considering its objective and economic soundness.

As mentioned above, under the Regional Competitiveness Index 2.0, some of the indicators review the business environment for "technological readiness", "business sophistication" and "innovation". In order to match those competitiveness criteria with types of public support for companies to evolve in those dimensions, we identified state aid that have similar objectives. Thus, EU rules consider as compatible with the internal market state aid promoting: investment for research infrastructures; testing and experimentation infrastructures; industrial research; experimental development; fundamental research; feasibility studies; innovation aid for SMEs; process and organisational innovation; execution of an important project of common European interest; experimental development; innovation clusters; broadband infrastructures; training etc. Starting from this concept, we extracted from the general tables of state aid granted in the 18 EU regions the total aid granted for those specific objectives that support the "technological readiness", "business sophistication" and "innovation". The share of aid with specific objectives in the total value of state aid granted to beneficiaries in these 18 regions is displayed in Table no. 4.

Table no. 4. Share of specific objectives State aid in total State aid granted

Member State	Region name	Rank	RDI state aid % in total state aid
Netherlands	Utrecht	1	17%
Netherlands	Zuid-Holland	2	7%
France	Ile-de-France	3	51%
Netherlands	Noord-Brabant	4	3%
Netherlands	Amsterdam and its commuting zone	4	1%
Sweden	Stockholm	6	10%
Denmark	Hovedstaden	7	13%
Belgium	Brussels and its commuting zone	8	31%
Netherlands	Gelderland	9	6%
Romania	Nord-Vest	226	3%
Bulgaria	Yugoiztochen	227	1%
Greece	Sterea Elláda	228	0.4%
Romania	Centru	229	3%
Romania	Sud-Muntenia	230	3%
Romania	Sud-Vest Oltenia	231	1%
Bulgaria	Severozapaden	232	5%
Romania	Nord-Est	233	2%
Romania	Sud-Est	234	0.3%

Source: EU transparency website (2023) and RegAS.

According to the data, the support for adoption of new technologies, staff training, and innovation plays a significant role in the aid granted to top-ranking regions. Among the nine regions, six have a double-digit percentage of specific aid in the total aid, with Ile-de-France leading with an impressive 51%. In contrast, the lower-ranking regions receive a much smaller proportion of specific aid, ranging from 0.3% to 5%. This observation reinforces the notion that state aid contributes to the development of a region's economic competitiveness, under the condition that it is proportionate and properly targeted.

It is evident that public funding plays a crucial role in stimulating investment, educating staff, and adopting advanced technologies. These outcomes would not be possible without the incentive effect provided by the aid. By investing in tools that enhance efficiency, innovation, and quality standards, businesses can enhance their competitiveness in both local and global markets. This competitive advantage enables companies to boost their revenue and strengthen their financial position, facilitating their growth in alignment with market demands. Ultimately, these positive outcomes have a beneficial impact on the overall regional environment.

In general terms, the present study aligns with the findings of previous research (Gherghinescu et al., 2008; Barro, 1990; Ferreiro and Sousa, 2019; Pinto et al., 2019; Stead, 2015; Porter, 1990; Chia, 1994, 2005, 2014; Matteucci, 2019), emphasizing the positive impact of state aid on the competitiveness of companies. In our article, we go into further detail about the volume and the type of aid that the state disbursed to companies, identifying that economic environment from the regions with higher competitiveness received more aid and specially aid that supports training, research, development and innovative activities and infrastructure, than the undertakings from the lowest part of the list. These are measures that enable undertakings not only to survive and to persist in a low competitive structure and attitude, but to grow and expand.

The evidence presented here supports the notion that well-designed and targeted state aid measures can indeed enhance the competitive edge of firms, fostering innovation, growth, and market resilience. However, it is crucial to emphasize that the effectiveness of such aid hinges greatly on its judicious design and implementation. Misguided state aid policies run the risk of unintended consequences, including the consolidation of dominant market positions, the crowding out of potential investors, and the perpetuation of inefficiencies within the market. Moving forward, policymakers and regulatory bodies must exercise caution and diligence in their approach to state aid, ensuring that it is targeted, tailored and structured to foster genuine competition and innovation while maintaining fair competition and guarding against potential distortions that could hinder market efficiency and long-term growth. By doing so, we can contribute to a more robust and dynamic economic landscape that benefits both companies and the broader society. It goes without saying that additional research might be done to determine the extent to which different forms of governmental assistance impact the competitiveness of businesses and areas.

Conclusions

The literature review underscores the multifaceted nature of the relationship between public funding and economic development. Whatever the theoretical perspectives were presented throughout time, in the present day, reality shows that developed states are involved in the creation and implementation of gigantic networks of support for the economic environment, targeting new investments and job creation.

For analysing the idea that state aid is an important factor in creating and supporting innovative companies that allow the development of the economic environment, the present study made an individual comparison on the volume of state aid granted to undertakings in different European regions and the competitiveness level of those regions. This paper generally confirms the previous research highlighting the beneficial effects of state aid on businesses' competitiveness, but comes to some original findings. Due to the numerous types of market failures that state aid addresses, there are multiple objectives with which compatible aid has to comply. We reveal that state aid supports the competitiveness of the beneficiaries, but some types of aid are more appropriate to sustain a company and make it more competitive. State aid promoting training, research, development, and innovative activities and infrastructure has greater potential to help companies become more competitive in the present global market. These types of aid are complex and require a high level of expertise on the part of the aid grantors to identify the right projects to be financed and to monitor the impact of the state aid in order to implement the necessary adjustments to adapt the public measures to the rapid evolution of the markets.

In order to strengthen the competitive power of beneficiaries, regions with lower Competitiveness Indexes must not only increase assistance levels but also pay particular attention to delivering aid that supports research, development, and innovation.

Future research should focus on evaluating the effectiveness of different forms of state aid, considering the nuances of specific industries and socio-economic contexts, to formulate policies that optimise their contribution to sustainable economic development through a well-targeted approach.

References

[1] Acemoglu, Daron and Robinson, James Alan (2013). *Why Nations Fail: The Origins of Power, Prosperity and Poverty*. London, England: Profile Books.

[2] Andreoni, Antonio and Chang, Ha-Joon (2019). *The political economy of industrial policy: Structural interdependencies, policy alignment and conflict management*. Structural Change and Economic Dynamics, Volume 48, Pages 136-150.

[3] Androniceanu, Ane-Mari; Kinnunen, Jani; Georgescu, Irina and Androniceanu, Armenia (2020). *A Multidimensional Approach to Competitiveness, Innovation and Well-Being in the EU Using Canonical Correlation Analysis*. Journal of Competitiveness. 12. 5-21.

[4] Asmund, Rygh and Benito, R. G. Gabriel (2021). *Governmental goals and the international strategies of state-owned multinational enterprises: a conceptual discussion*. Journal of Management and Governance. 26.

[5] Barro, Robert J. (1990). *Government spending in a simple model of endogenous growth*. Journal of Political Economy 98(S5): 103-125.

[6] Bartha, Ildikó and Horváth, Tamás, M. (2023). *State Aid as a Risk in the Policy of Competitive Advantages in the European Union*. Studia Iuridica Lublinensia, 32(2). Pages 35-55.

[7] Balzaravičienė, Sigita and Pilinkienė, Vaida (2012). *Comparison and review of competitiveness indexes: Towards the EU policy*. Economics and management. 17 (1).

[8] Bužinskienė, Rita and Rudytė, Dalia (2015). *The Impact of Knowledge Generating Investment on GDP Growth*. Economics and Business. 26.

[9] Cardenete, Manuel Alejandro and Delgado, María del Carmen (2013). *Analysis of the Impact of the European Funds in Andalusia in 2007-2013 Using a General Equilibrium Model*. Modern Economy. 04. Pages 448-452.

[10] Cerna, Silviu (2018). *Rolul economic al statului: o veche problemă rămasă deschisă*. Ziarul Financiar. Retrieved from http://www.zf.ro/opinii/rolul-economic-al-statului-o-veche-problema-ramasa-deschisa-16933651. Accessed 2 December 2023.

[11] Chang, Ha-Joon (2002). *Kicking Away the Ladder*. London, England: Anthem Press.

[12] Chia, Siow-Yue (1994). *Trade, Industry and Government: The Development of Organisational Capabilities in Singapore*. Asia Pacific Business Review, 1:1, Pages 52-70.
[13] Chia, Siow-Yue (2005). *The Singapore Model of Industrial Policy: Past Evolution and Current Thinking*. Paper for presentation at the Second LAEBA Annual Conference, Buenos Aires, Argentina.
[14] Chia, Siow-Yue (2014). *Singapore and the IT revolution*. Asia Forum2000: Globalization and the IT Revolution. Singapore.
[15] CHIPS Act (2022). Retrieved from https://www.whitehouse.gov/briefing-room/statements-releases/2022/08/09/fact-sheet-chips-and-science-act-will-lower-costs-create-jobs-strengthen-supply-chains-and-counter-china/. Accessed 7 January 2024.
[16] Easterly, William (2003). *Can Foreign Aid Buy Growth.* The Journal of Economic Perspectives, vol. 17, no. 3, Pages 23–48.
[17] European Commission (2006). Commission Decision 2006/621/EC of 2 August 2004 on the State Aid implemented by France for France Télécom. Official Journal 2006 L 257, Page 11.
[18] European Commission (2023a). *EU Regional Competitiveness Index 2.0 2022 edition. Revised, May 2023*. Authors: Lewis Dijkstra, Directorate-General for Regional and Urban Policy; Eleni Papadimitriou, Joint Research Centre of the European Commission; Begoña Cabeza Martinez, Joint Research Centre of the European Commission; Laura de Dominicis, Directorate-General for Regional and Urban Policy; Matija Kovacic, Joint Research Centre of the European Commission. Luxembourg: Publications Office of the European Union.
[19] European Commission (2023b). *State aid rules in the EU*. Retrieved from https://ec.europa.eu/competition/state_aid/overview/index_en.html. Accessed 7 January 2024.
[20] EU transparency website (2023). Retrieved from https://webgate.ec.europa.eu/competition/transparency/public?lang=en. Accessed 10 January 2024.
[21] Ferreiro, Maria de Fátima and Sousa, Cristina (2019). *Governance, institutions and innovation in rural territories: The case of Coruche innovation network*. Regional Science Policy & Practice. Volume 11, Issue 2. Pages 235-251.
[22] Francis, June and Collins, Collleen (2004). *Impact of Export Promotion Programs on Firm Competencies, Strategies and Performance: The Case of Canadian High-Technology SMEs*. International Marketing Review. Vol. 21. no. 4/5. Pages 474-495.
[23] Friederiszick, Hans, Röller, Lars-Hendrik and Verouden, Vincent (2007). *European State Aid Control: An Economic Framework*. In book: Handbook of Antitrust Economics, Chapter: European State Aid Control: An Economic Framework. Publisher: MIT Press.
[24] Garcia-Milà, Teresa and McGuire, Therese. (2001). *Do Interregional Transfers Improve the Economic Performance of Poor Regions? The Case of Spain*. International Tax and Public Finance. 8. Pages 281-296.
[25] General Court (1999). Judgment of the General Court of 28 January 1999, BAI v Commission, Case T-14/96, ECLI:EU:T:1999:12, paragraphs 74 to 79.

[26] Gherghinescu, Oana; Kolodziejak, Andreas and Gherghinescu, Gheorghe (2008). Competitiveness of the European Union under the structural funds framework and the Lisbon Agenda. Finance - Challenges of the Future. University of Craiova, Faculty of Economics and Business Administration. vol. 1(8), pages 156-161.
[27] Government Decision 332/2014. State aid scheme for investments that promote regional development by creating new jobs. Retrieved from https://mfinante.gov.ro/hg-332/20141. Accessed 7 January 2024.
[28] Government Decision 807/2014. State aid scheme for investments that have a major impact on the economy. Retrieved from https://mfinante.gov.ro/hg-807/20141. Accessed 7 January 2024.
[29] Green Deal Industrial Plan (2023). Retrieved from https://ec.europa.eu/commission/presscorner/detail/en/ip_23_510. Accessed 7 January 2024.
[30] InvestEU (2021). Retrieved from https://investeu.europa.eu/index_en. Accessed 10 January 2024.
[31] IRA (2022). Retrieved from https://www.congress.gov/bill/117th-congress/house-bill/5376/text. Accessed 10 January 2024.
[32] Keynes, John Maynard (2009). *Teoria generală a ocupării forței de muncă, a dobânzii și a banilor* (The original title: *The General Theory of Employment, Interest and Money*, published in February 1936, Translator: Corina Mădălina Haita). Bucharest. Publica publishing house.
[33] Kolm, Serge-Christophe (2010). *History of public economics: The historical French school*. The European Journal of the History of Economic Thought.
[34] Krueger, Anne Osborne (1974). *The Political Economy of the Rent-Seeking Society*. The American Economic Review, vol. 64, no. 3, Pages 291–303.
[35] Krueger, Anne Osborne (1986). *Aid in the Development Process*. The World Bank Research Observer, vol. 1, no. 1, Pages 57–78.
[36] https://mfinante.gov.ro/hg-332/20141 Accessed 10 January 2024.
[37] https://mfinante.gov.ro/hg-807/20141 Accessed 10 January 2024.
[38] Lewandowska, Anna; Stopa, Mateusz and Humenny, Grzegorz (2015). *The European Union Structural Funds and Regional Development. The Perspective of Small and Medium Enterprises in Eastern Poland*. European Planning Studies. 23. Pages 785-797.
[39] Lin, Justin Yifu (2010). *New Structural Economics: A Framework for Rethinking Development*. Policy Research Working Paper no. 5197. World Bank, Washington, DC.
[40] Marshall, Alfred (2012). *Principles of Economics*. Promethean Press publishing house. Bucharest.
[41] Matteucci, Nicola (2019). *The EU State aid policy for broadband: An evaluation of the Italian experience with first generation networks*. Telecommunications Policy. Volume 43, Issue 9.
[42] Mazzucato, Mariana (2018). *The Entrepreneurial State*. Harlow, England: Penguin Books.
[43] Mazzucato, Mariana (2023). *Rethinking Growth and Revisiting the Entrepreneurial State*. Project Syndicate. Retrieved from https://www.project-

syndicate.org/commentary/growth-entrepreneurial-state-direction-more-important-than-rate-by-mariana-mazzucato-2023-08?barrier=accesspaylog. Accessed 2 January 2024.
[44] Mohl, Philipp and Hagen, Tobias (2010). Do EU structural funds promote regional growth? New evidence from various panel data approaches. Regional Science and Urban Economics. Volume 40. Issue 5. Pages 353-365.
[45] Mosionek-Schweda, Magdalena and Tokarski, Maciej (2014). *The Absorption of the European Funds Granted to Poland for the Period 2007-2013 – Examples of Projects and Evaluation*. Retrieved from https://www.researchgate.net/publication/270647449_The_Absorption_of_the_European_Funds_Granted_to_Poland_for_the_Period_2007-2013_-_Examples_of_Projects_and_Evaluation. Accessed 26 February 2024.
[46] Naseemullah, Adnan (2023). The political economy of national development: A research agenda after neoliberal reform? World Development. Volume 168.
[47] OECD (2023). Retrieved from https://www.oecd.org/regional/regional-policy/regionalcompetitiveness.htm. Accessed 26 February 2024.
[48] Păun, Cristian (2014). *The Socio-economic Impact of European Funds on Eastern European Countries*. International Review of Social Research. Volume 4. Issue 1. Pages 49-56.
[49] Pigou, Arthur Cecil (1932). *The Economics of Welfare*. London: Macmillan & Co., 1932. Fourth Edition.
[50] Pinto, Hugo; Healy, Adrian and Cruz, Ana Rita (2019). *Varieties of capitalism and resilience clusters: An exploratory approach to European regions*. Regional Science Policy & Practice. 11. Pages 913–933.
[51] PNRR (2021). Retrieved from https://mfe.gov.ro/pnrr/. Accessed 6 January 2024.
[52] Porter, Michael E. (1990). *The Competitive Advantage of Nations*. Free Press. New York.
[53] REPowerEU (2022). Retrieved from https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/repowereu-affordable-secure-and-sustainable-energy-europe_en. Accessed 8 January 2024.
[54] Ramajo, Julián M.; Márquez, Miguel A.; Hewings, Geoffrey J.D. and Salinas, Mariá M. (2008). *Spatial heterogeneity and interregional spillovers in the European Union: do cohesion policies encourage convergence across regions?* European Economic Review 52. Pages 551-567.
[55] RegAS - The Romanian national Register of state aid. Accessed 18 December 2023.
[56] Remeikiene, Rita and Gaspareniene, Ligita (2016). *Evaluation of the Impact of the EU Structural Support on the Competitiveness of Lithuanian Economics*. Central European Journal of Public Policy. 10. 1-11.
[57] Rodrik, Dani (2018). *Straight Talk on Trade: Ideas for a Sane World Economy*. Princeton University Press.
[58] Rupliene, Dovile; Garšvienė, Lina; Rudytė, Dalia; Skuncikiene, Solveiga and Bajorūnienė, Roberta (2017). *The evaluation of impact of municipalities' fiscal competitiveness on economic growth*. CBU International Conference on Innovations in Science and Education. Vol 5.

[59] Sen, Amartya (1993). *Markets and Freedoms – Achievements and Limitations of the Market Mechanism in Promoting Individual Freedoms*. Oxford Economic Papers, Volume 45, Pages 519–541.
[60] Smith, Adam. (2011). *Avuția națiunilor* (The original title: The Wealth of Nations, published in 9 March 1776, Translator: Monica Mitarcă). Publica publishing house. Bucharest.
[61] Stead, Dominic (2015). *What does the quality of governance imply for urban prosperity? Habitat International*. Volume 45, Part 1. Pages 64-69.
[62] Stiglitz, Joseph Eugene (2002). Globalization and its Discontents. W. W. Norton & Company.
[63] TFUE - Treaty on the Functioning of the European Union (art. 107 (1)).
[64] WTO – *Agreement on Subsidies and Countervailing Measures: Overview*. Retrieved from https://www.wto.org/english/tratop_e/scm_e/subs_e.htm. Accessed 2 December 2023.
[65] Zhu, Jian Jun (John); Tse, Caleb H. and Li, Xu (2019). *Unfolding China's state-owned corporate empires and mitigating agency hazards: Effects of foreign investments and innovativeness*. Journal of World Business, Volume 54, Issue 3. Pages 191-212.