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CORPORATE INCOME TAX AND ECONOMIC GROWTH: EMPIRICAL EVIDENCE FROM THE EUROPEAN UNION

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Abstract: The subject of this research is the relationship between corporate income tax and economic growth in European Union countries. Given that corporate income tax is often considered one of the most harmful tax forms for economic development, this study aims to examine its effects on GDP growth. The research investigates both the theoretical foundations and empirical evidence regarding the influence of corporate taxation on economic activity. The main objective of the study is to determine whether corporate income tax has a positive or negative impact on economic growth. Using statistical and econometric analyses based on data from EU member states for the period 2000–2020, the study evaluates the interdependence between corporate income tax revenues and GDP growth rates. The findings indicate a mixed effect: while in some countries corporate income tax negatively correlates with economic growth, in others, a positive relationship is observed, suggesting that well-structured tax policies can contribute to economic stability and development. The results of this research can be useful for policymakers in designing more effective corporate taxation policies that support economic growth while maintaining fiscal sustainability.

Keywords: corporate income tax, economic growth, European Union, tax reforms

Introduction

Corporate income tax (CIT) plays a pivotal role in shaping the economic landscape of nations, especially within the European Union (EU). Given its influence on business decisions, investment behaviors, and overall economic development, the relationship between corporate taxation and economic growth has been a topic of extensive debate among economists, policymakers, and business leaders. While corporate income tax is often viewed as a tool for maintaining a country's stability, its impact on economic growth is more complex and nuanced.

Over the past few decades, there has been growing interest in understanding the effects of CIT on economic performance, particularly in the context of EU member states. Despite the varying tax policies and rates across countries, corporate taxation remains a key determinant of business strategies and economic dynamics. For some nations, high corporate tax rates are seen as a barrier to investment and growth, potentially discouraging businesses from expanding or relocating. In contrast, others argue that well-structured corporate tax systems can foster innovation, increase tax revenues, and ultimately contribute to economic stability and growth. This research aims to explore the relationship between corporate income tax and economic growth within the EU. By analyzing empirical data and employing statistical tools, the study seeks to assess the direct and indirect effects of CIT on GDP growth in EU countries over the period from 2000 to 2020. Through this analysis, the research will contribute to a better understanding of the role of corporate taxation in shaping economic outcomes, offering valuable insights for policymakers aiming to optimize tax policies for sustainable economic growth.

The study will examine the theoretical foundations of corporate taxation, explore existing literature on the topic, and present empirical findings based on data from various EU countries. Ultimately, the objective is to provide a comprehensive analysis of whether corporate income tax serves as a hindrance or a facilitator of economic growth within the European Union.

The Role of the Existing Corporate Income Tax Model in Promoting Economic Growth: A Literature Review

According to previous studies assessing the impact of different tax forms on economic growth, corporate income tax has been identified as the most detrimental (Johansson et al., 2008). Some authors argue that this type of tax serves as an essential policy instrument, influencing businesses and their investment decisions indirectly through its effects on the fiscal treatment of depreciation, the structure of production financing, and business location. Modern business conditions increasingly highlight the need to understand the role of various tax forms in a country's economic growth and development. While a well-designed tax policy is imperative for every country, it is also an ongoing topic in financial management. The primary objective of corporate income tax policy in contemporary economies is to stimulate and support economic entities in their development. Therefore, if the taxation of corporate profits acts as a constraint on a country's economic growth, its overall stability may be at risk.

In contemporary economic literature and tax policy, corporate income tax is recognized as one of the most economically significant tax instruments due to its substantial effects on economic efficiency and growth, despite its limited fiscal yield (Arsić & Ranđelović, 2017). Unlike personal income tax or indirect taxes, corporate income tax does not generate high fiscal revenues. However, it has both a stabilization and a developmental function. This tax can help mitigate cyclical economic fluctuations, thereby contributing to financial and economic stability. At the same time, corporate income tax plays a crucial role in economic growth and development, particularly in addressing regional disparities (Đurović Todorović et al., 2019).

Given the high mobility of capital and labor, countries engage in tax competition by adjusting corporate tax rates. Empirical research has shown that corporate tax rate changes can negatively impact GDP (Lee & Gordon, 2005; Romer & Romer, 2010; Mertens & Ravn, 2013). Some studies have found a negative correlation between corporate tax rates and economic growth, estimating that a 10% reduction in tax rates can lead to a 1-2% increase in economic growth. As corporate income

tax is highly sensitive to economic cycles, it significantly influences corporate financial decisions (Delgado et al., 2014). It affects various economic factors, including relative prices, compliance costs for taxpayers, investment in research and development, innovation, and capital flows (Arsić & Ranđelović, 2017).

Despite its importance in most tax systems, corporate income tax can also have negative repercussions on economic growth, primarily due to tax competition. This competition has led to a continuous decline in statutory tax rates. In the EU, corporate tax harmonization has not been fully achieved, and member states apply different methods for calculating taxable income, leading to significant variations in tax bases, incentives, and anti-double taxation rules. These disparities, driven by corporate tax competition, have influenced economic growth patterns across countries.

In the context of globalization, no uniform corporate tax concept exists worldwide. As a result, domestic and international literature offers diverse perspectives on the economic implications of corporate taxation. Globalization and regionalization are key factors complicating economic development, further fueling debates on the relationship between corporate income tax and economic growth in corporate finance literature. Numerous studies have sought to establish a negative relationship between corporate income tax and economic growth (Plosser, 1992). Empirical research supports this claim, particularly OECD studies analyzing data from 70 countries, which highlight the adverse impact of corporate taxation on economic growth, with tax rates being the primary explanatory factor (Lee & Gordon, 2005). Additional OECD research covering the period 2000-2011 confirmed the negative effect of corporate tax on economic growth, leading to policy recommendations for tax reductions (Macek & Janků, 2015). Similarly, a study spanning 1976-2010 found a strong correlation between corporate tax rates and economic growth, reaffirming negative effects across 25 OECD countries (Dackehag, 2012). The same trend has been observed in EU member states, with a study covering 19 EU countries from 1965-2003 confirming the adverse impact of corporate taxation on economic growth.

However, later research presents a different perspective. Some studies highlight a positive relationship between corporate income tax and

economic growth (Devereux et al., 2002). A positive correlation was also identified in OECD countries from 1979-2002 (Clausing, 2007). More recently, Ristić Cakić et al. (2024) found a positive corporate tax effect in 20 out of 28 analyzed EU countries, including Serbia. These findings suggest that corporate income tax, as an inherent feature of modern tax systems, can have both positive and negative effects on economic growth. However, the validity of this conclusion depends on the assumptions underlying these studies. In this paper, the effects of corporate income tax will be further examined to develop a well-founded conclusion.

Analysis of the Interdependence Between Corporate Income Tax and Economic Growth

Several factors indicate that corporate income tax affects economic growth. Beyond its key tax components, which individually influence economic growth, corporate profit taxation also impacts entrepreneurial activity-one of the primary drivers of growth and technological change worldwide (Dackehag & Hansson, 2012; Đurović Todorović et al., 2022).

Table 1: Descriptive statistics

Variable	*N*	*Average value*	*Standard deviation*	*Minimum*	*Maximum*
BDP	587	464,252.4	718,997.8	4,412.4	3,449.050
CIT	567	12,096.45	18575.42	47.7	96.596

Source: Authors' calculation, SPSS output

Building on the various research perspectives analyzed in the first part of the dissertation, an empirical analysis will be conducted to assess the significance of the corporate income tax burden on economic growth using the SPSS 23 statistical tool. The study examines the trends in corporate income tax and GDP, both expressed in millions of euros, across the EU from 2000 to 2020.

A slight increase in corporate income tax collection (CIT) relative to GDP trends has been observed. This trend is associated with a broader tax base and a reduction in corporate income tax rates (Tahlová & Banociová, 2019). The average GDP value over the analyzed 20-year period is €464,252.4 million, while the average value of CIT for the same

period is €12,096.45 million. The minimum recorded GDP within the analyzed group of countries is €4,412.4 million, observed in Malta (2000).

The minimum recorded CIT within the analyzed sample amounts to €47.7 million and was observed in Latvia (2019). The highest GDP value was recorded in Germany (2019), while the maximum CIT revenue was also observed in Germany (2018). Subsequently, the interdependence between CIT and GDP was examined. GDP was expressed through the GDP growth rate (%), while CIT was expressed as a percentage of GDP. Based on the conducted data normalization, the interdependence of the observed variables was established. The relationship between CIT and GDP was analyzed using correlation analysis. The assessment of the observed variables was conducted using Pearson's correlation coefficient, which ranges from -1 to +1. Through this parametric test, the strength of the relationship between the analyzed tax form and economic growth in EU member states was determined. The results of the correlation analysis are presented in Table 2. Based on the conducted analysis, it can be concluded that there is a moderate degree of correlation between corporate income tax and economic growth (Gupta, 1999).

Table 2: Correlation Matrix of CIT and GDP for EU Countries (2000-2020)

	BDP	***CIT***
BDP	1.000	0.219
Sig. (2-tailed)		0.000
CIT	0.219	1.000
Sig. (2-tailed)	0.000	

Source: Authors' calculation, SPSS output

In order to draw appropriate conclusions from the analysis of these variables, regression analysis is used. The dependent variable in the regression models was GDP, and the independent variable was CIT. Table 3 presents the coefficients of the regression equations for each EU member state. In the majority of regression equations, the predictive power of the independent variable (R-squared coefficient: R^2) is high, indicating that corporate income tax explains a large portion of the variation in GDP. Table 3 also shows the direction and strength of the correlation between CIT and GDP at the level of EU countries during the period from 2000 to 2020.

Table 3: Regression results

Country	*Austria*	*Belgium*	*Croatia*	*Bulgaria*	*Czech Republic*	*Denmark*	*Estonia*
R2	0.380	0.391	0.132	0.340	0.470	0.061	0.111
B1	222.316	145.872	203.275	215.700	246.542	-115.192	-325.997
Sig.	(0.002)	(0.002)	(0.106)	(0.006)	(0.001)	(0.281)	(0.141)
Country	France	Finland	Germany	Hungary	Greece	Italy	Ireland
R2	0.611	0.348	0.234	0.048	0.288	0.244	0.050
B1	195,069	187.748	162.469	79.627	301.223	283.459	141.342
Sig.	(0.000)	(0.005)	(0.026)	(0.339)	(0.012)	(0.023)	(0.329)
Country	Latvia	Lithuania	Luxembourg	Malta	Netherlands	Poland	Portugal
R2	0.025	0.040	0.197	0.574	0.358	0.351	0.064
B1	120.984	73.540	-176.368	173.846	140.203	176.766	185.391
Sig.	(0.491)	(0.387)	(0.044)	(0.000)	(0.004)	(0.005)	(0.270)
Country	Sweden	Slovakia	Slovenia	Romania	Spain	United Kingdom	Cyprus
R2	0.026	0.035	0.315	0.425	0.502	0.145	0.019
B1	81.762	106.390	251.357	368.372	246.454	85.190	33.241
Sig.	(0.485)	(0.420)	(0.008)	(0.001)	(0.000)	(0.098)	(0.564)

Note: p values in ( )

Source: Authors' calculation, SPSS output

Positive reflections of CIT on GDP can be observed in most of the analyzed countries. A negative correlation is present in Denmark and Estonia, but it is not statistically significant. The results of the regression analysis show that there is a significant difference in the impact of CIT on GDP between countries. The greatest impact can be observed in France, Malta, and Spain ($p< 0.001$). Based on the estimated values of the beta coefficients (β1) for the independent variable, a statistically significant positive correlation between the variables exists in

the Czech Republic, France, Malta, Romania, and Spain at a 1% significance level ($p < 0.01$). A positive correlation between CIT and GDP at a 5% significance level ($p < 0.05$) is found in Austria, Belgium, Bulgaria, Finland, the Netherlands, Poland, and Slovenia. According to the data from Table 37, statistical significance is recorded in 17 EU member states. It can be concluded that CIT is not a predictor with a significant impact in all countries, but its positive impact has been established in the majority of EU member states. This model is most accurately explained by the examples of France $F(61.1) = 61.1$, $p < 0.001$, Malta $F(57.4) = 57.4$, $p < 0.001$, and Spain $F(50.2) = 50.2$, $p < 0.001$.

Concluding Remarks on the Effectiveness of the Existing Corporate Income Tax System

We have developed facts showing that CIT has a positive correlation with economic growth in many EU countries, with significant effects observed in countries like France, Malta, and Spain. However, the impact of CIT on GDP varies across countries, influenced by different economic conditions, tax structures, and fiscal policies. The interdependence between corporate income tax and economic growth, as evidenced in the analyzed countries, does not ensure the efficiency of the existing corporate income tax system. On the contrary, the imperfections and ambiguities surrounding this form of taxation lead to numerous problems in its functioning.

One of the biggest challenges in the functioning of corporate income tax has been the internationalization of production (Carpentieri, et al., 2019). In such an environment, a large number of companies entering international markets were actively seeking asymmetries and deficiencies in this tax form. Considering the benefits that different national tax systems can offer, companies sought lower tax burdens and greater opportunities to avoid them. Adding to this the effects of digitalization and globalization, traditional systems for addressing issues related to corporate income tax have become dysfunctional. Companies are avoiding investments in machinery, factories, or offices. More and more investment is directed toward knowledge and intellectual capital, as profits can be made without traditional capital goods.

One of the problems that arises in practice is the imperfection of tax legislation and the large number of ambiguities in the provisions defi-

ning this tax form. Undoubtedly, this leads to a series of mistakes by tax authorities, as well as by legal entities that must apply these provisions. Given the ambiguities in tax legislation, it is not uncommon for tax authorities to exceed their powers during tax audits, leading to a decline in trust in regulatory bodies. The current corporate income tax system is also attributed the following shortcomings: the mechanism for paying corporate income tax leads to the outflow of funds from companies and their unavailability; tax incentive systems are inefficient and hinder legislative bodies from implementing fiscal policy; the method of taxation in the existing corporate income tax system, which is based on adjusting financial results before taxation, complicates the taxation process and makes pre-tax income non-transparent for auditors, further encouraging tax evasion opportunities (Paientko & Proskyra, 2016). Some theorists argue that the existing corporate income tax system is seriously compromised, particularly in countries with lower national income. This is supported by the trend of falling tax rates, which approximates a reduction to zero (Weichenrieder, 2009). Namely, the corporate income tax model suggests that in "small" countries, there is greater elasticity of the tax base, as lower tax rates attract a large amount of capital. On the other hand, "large" countries suffer significant losses with reduced tax rates and must attract much more new capital to offset these losses, which also explains why tax havens are formed in small countries.

Due to these problems, nearly all tax systems in recent years have been addressing issues related to tax base erosion and capital flight associated with profit shifting. The global distribution of income has led to serious problems in tax systems. Estimates of revenue losses from corporate income tax are significant, and it is considered that about one-third of these losses are related to developing countries (Crivelli et al., 2016). As a result of increasing capital mobility, the literature has raised the question: how should corporate income tax be levied in a globalizing economy, if the existing profit taxation system is considered ineffective? (Sørensen, 2004). The answer is still not unified among theorists, and this issue is still being intensively discussed. Not only among economists but also among economic policymakers. In recent years, policymakers have been paying more attention to reforms

aimed at increasing the efficiency of the corporate income tax system in the context of high capital mobility. In the battle for capital and the creation of a better business environment, in the absence of national borders, tax systems are increasingly aware that a reformed income taxation system is a necessity.

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POREZ NA DOBITAK I EKONOMSKI RAST: EMPIRIJSKI DOKAZI IZ EVROPSKE UNIJE

Rezime: Predmet ovog istraživanja je odnos poreza na dobit preduzeća i ekonomskog rasta u zemljama Evropske Unije. S obzirom da se porez na dobit preduzeća često smatra jednim od najštetnijih poreskih oblika za ekonomski razvoj, ova studija ima za cilj da ispita njegove efekte na rast BDP-a. Istraživanje analizira kako teorijske osnove tako i empirijske dokaze o uticaju oporezivanja preduzeća na privrednu aktivnost. Osnovni cilj studije je da se utvrdi da li porez na dobit preduzeća ima pozitivan ili negativan uticaj na privredni rast. Koristeći statističke i ekonometrijske analize zasnovane na podacima iz zemalja članica EU za period 2000–2020, studija ocenjuje međuzavisnost između prihoda od poreza na dobit preduzeća i stopa rasta BDP-a. Nalazi ukazuju na pomešani efekat: dok u nekim zemljama porez na dobit preduzeća negativno korelira sa ekonomskim rastom, u drugim se primećuje pozitivna veza, što sugeriše da dobro strukturisana poreska politika može doprineti ekonomskoj stabilnosti i razvoju. Rezultati ovog istraživanja mogu biti korisni kreatorima politike u kreiranju efikasnije politike oporezivanja preduzeća koja podržava ekonomski rast uz održavanje fiskalne stabilnosti.

Ključne reči: porez na dobit preduzeća, privredni rast, Evropska Unija, poreske reforme