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UNDERSTANDING THE DIFFERENCE BETWEEN THE STATUTORY AND EFFECTIVE CORPORATE INCOME TAX RATES: THE ROLE OF TAX INCENTIVES IN THE OECD COUNTRIES

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This study examines the gap between statutory and effective corporate income tax rates, with tax incentives identified as a key factor in this divergence. The objective is to quantify the gap and analyze the relationship between statutory and effective rates in the OECD countries in the period from 2000 to 2022. The methodological framework is based on the Devereux–Griffith model and employs descriptive statistics, t-tests, and correlation analysis. The empirical results demonstrate that tax incentives significantly shape the effective tax rate, thereby contributing to its deviation from the statutory rate. The analysis confirms a positive correlation between the two rates and identifies statistically significant differences in certain years. The findings contribute to the literature on tax policy and provide practical guidelines for policymakers aimed at reducing the gap between rates and improving the transparency of tax incentives.

Keywords: corporate income tax, statutory tax rate, effective tax rate, tax incentives, OECD countries

JEL Classification: H25, H32, O38

INTRODUCTION

Corporate income tax (CIT) is one of the most significant forms of taxation, playing a crucial role in stimulating economic growth and development

(Đurović Todorović, Đorđević, Mirović, Kalaš & Pavlović, 2024; Ristić Cakić, Kalaš, Đurović Todorović & Đorđević, 2025). Therefore, ensuring the efficient administration and collection of this tax is of paramount importance. The existing differences between effective and statutory tax rates highlight the issues related to tax alignment and revenue collection (Schaffer & Turley, 2019). These discrepancies often reflect broader challenges in tax governance,

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including compliance gaps and the strategic use of incentives by multinational companies. Since effective tax rates are shaped by tax incentives, the extent of this disparity largely depends on the number of tax incentives and the way they are structured.

This study examines the difference between statutory and effective corporate income tax rates, identifying tax incentives as a key factor influencing this gap. The research focuses on the analysis of tax incentives which represent a decisive element in the formation of effective tax rates. The study aims to investigate the disparity between the statutory and effective corporate tax rates in the OECD countries, assess the magnitude of the gap, and examine the relationship between the two rates. The study covers the period from 2000 to 2022, and employs the methodological approach that combines descriptive statistics, t-tests, and correlation analysis based on the Devereux-Griffith model. The findings indicate that tax incentives play a significant role in shaping the effective tax rate, thereby contributing to the difference between statutory and effective rates. The statistical analysis carried out in this paper confirmed a clear and positive association between the statutory and effective corporate tax rates (Pearson's correlation coefficient in 2022 = 0.56; $p < 0.05$). A statistically significant difference between these rates was also identified in certain years (e.g. 2021: $t(29) = 3.162$; $p < 0.05$). This research provides valuable insights into the relationship between tax policy, tax incentives, and the effective tax burden, offering useful guidance to policymakers seeking to optimize tax systems. Furthermore, the results can help policymakers reduce the gap between statutory and effective rates and improve the transparency of tax incentives.

Tax incentives remain an open question in the literature as tax policymakers decide whether to implement them or not (McIntyre, 2017). Tax incentive policy encompasses the measures and instruments of government intervention aimed at fostering growth and development (Đurović Todorović, Đorđević & Ristić, 2018; Đurović Todorović, Ristić Cakić & Starčević, 2022). Tax incentives can be defined as benefits designed to modify taxpayers' business environment, with the ultimate goal of increasing

their investments. Additionally, tax incentives can be understood as mechanisms that reduce the tax burden on businesses, thereby influencing their behavior and encouraging them to invest in specific sectors or regions (Kigen, 2011). In the CIT domain, tax incentives represent the most important form of tax incentives, used equally across all countries, regardless of their development level (Easson, 2004). The significance of managing these tax incentives was emphasized in 2011, when the International Monetary Fund (IMF), the United Nations (UN), the OECD, and the World Bank (WB) jointly reported that efficient tax incentive policies for corporate income tax were crucial for developing countries (International Monetary Fund, Organisation for Economic Co-operation and Development, United Nations & World Bank, 2011). It was particularly highlighted that the effectiveness of tax incentives could be compromised if they were granted broadly, thereby increasing the risk of the abuse and a potential loss of tax revenues. Guidelines were then provided to policymakers on whether to adopt tax incentives or not and how to design them most effectively.

The number of tax incentives significantly determines the gap between statutory and effective tax rates. The gap between these tax rates can jeopardize tax revenue collection and indicates that CIT is inefficient and that tax evasion is also present. Therefore, this paper examines tax incentives as a crucial element of CIT. This research aims to examine the difference between the statutory and effective corporate income tax rates in the OECD countries, assess the magnitude of the gap, and analyze the relationship between the two rates. The following hypotheses are examined:

- H1: There is a statistically significant difference between the statutory and effective corporate income tax rates in the OECD countries.
- H2: Tax incentives significantly influence the formation of the effective tax rate, contributing to the gap between statutory and effective corporate tax rates.
- H3: Statutory and effective tax rates are positively correlated.

The hypotheses are tested on a sample of the OECD countries in the period from 2000 to 2020, using descriptive statistics, t-tests, and correlation analysis. The paper is structured into four main parts, in addition to the introduction and the conclusion. The first part presents relevant research in tax incentives in the CIT domain which indicates that they are a significant factor in determining the levels of effective tax rates and the existence of the gap between the statutory and effective rates. The second part explains the impact of tax incentives on the effective tax burden. The third part evaluates the gap between the statutory and effective corporate income tax rates. The fourth part examines the relationship between the two rates and the significance of the relationship between them. The conclusion offers recommendations for tax policymakers.

LITERATURE REVIEW

The impact of tax incentives on investment and economic growth

Economic growth is a complex and long-term process (Gligorić Matić & Jovanović Gavrilović, 2022). The number of tax incentives offered within a tax system depends on whether the state aims to stimulate economic growth, develop specific sectors, or support certain taxpayers (Šimović & Bratić, 2009). An increasing number of developing countries are showing interest in introducing tax incentives directed towards investment, growth, and innovation (Crespi, Giuliodori, Giuliodori & Rodriguez, 2016). The use of tax incentives to encourage investment is also a well-known instrument in many countries, although empirical evidence regarding the effectiveness of this policy remains rather inconclusive (Zee, Stotsky & Ley, 2002).

Some contemporary authors argue that tax incentives do not necessarily result in greater inflows of foreign direct investment (FDI) and that FDI does not always generate sustained economic growth and development (Brauner, 2013; Viet Le & Elliott, 2023).

Nevertheless, certain examples (such as China) demonstrate that well-designed tax incentives can contribute to high investment rates and are becoming one of the main drivers of economic development. These findings suggest that tax incentives can exert a significant, though not always consistent, impact on economic growth, thereby raising questions regarding their long-term effectiveness. At this point, another strand of the literature emerges, emphasizing the shortcomings and limitations of tax incentives.

Critiques and limitations of tax incentives

Although tax incentives are often regarded as instruments for enhancing equity and competitiveness (Callihan, 1994; Đurović Todorović *et al*, 2018), part of the literature identifies them as inequitable and inefficient tools for stimulating economic activity, arguing that they introduce distortions, create a “deadweight subsidy effect,” and generate unequal effective tax burdens for firms of a similar economic capacity.

Their selective nature undermines the neutrality of the tax system, while their complexity and high administrative costs further constrain their application (Appelt, Bajgar, Criscuolo & Galindo-Rueda, 2025). In the literature, they are often referred to as “tax expenditures,” as they reduce corporate income tax revenues and require continuous monitoring by tax authorities (Brauner, 2013). The evidence also indicates that tax incentives may fail to attract highly skilled labor or substantial FDI in the long run (Ivanov, 2018).

Building on these critiques, the recent literature increasingly shifts the focus towards specific forms of tax incentives – particularly green and R&D incentives – which are seen as responses to the challenges of sustainable development and technological innovation.

Green and R&D tax incentives

The contemporary literature underscores the role of tax incentives in advancing green transition and

innovation. The use of tax incentives directed at environmental protection has become increasingly common (Zeng, Ji & Huang, 2025). A growing number of studies have been assessing the effectiveness of such incentives and their impact on green transition, thereby creating favorable conditions for sustainable investment. Furthermore, R&D tax incentives have become the primary instrument used to encourage firms to invest in research and development (Appelt *et al*, 2025). The rising interest in environmental protection has also led to the introduction of incentives targeting the development of renewable energy sources and environmentally friendly technologies (Zeng *et al*, 2025; Yin, Zhang, Cai, Zhang & Zhu, 2025). These incentives are closely tied to the achievement of sustainable development goals and ESG standards.

Particular importance is attributed to R&D tax incentives, which have become the dominant tool for promoting innovation in the OECD countries. S. Appelt *et al* (2025) demonstrate that, although micro- and macro-level evidence is not always consistent, well-designed incentives can substantially increase R&D investment. Similarly, J. F. Sapar and E. R. H. Kusuma (2025) emphasize that tax policy must be integrated with other fiscal measures – such as subsidies and “green financing” – in order to achieve sustainable development objectives.

These recent studies indicate that, although tax incentives are frequently criticized, they do remain an indispensable instrument of fiscal policy. Their significance is increasingly measured by their contribution to the sustainability and innovation capacity, rather than solely by their traditional impact on investment.

THE IMPACT OF TAX INCENTIVES ON THE GAP BETWEEN THE STATUTORY AND EFFECTIVE CIT RATES IN THE OECD COUNTRIES

The relevance of tax incentives within the OECD framework is also confirmed by the structural

reforms implemented in the countries such as the United States, Japan, and Switzerland, which all have introduced competitive preferential tax regimes aimed at attracting foreign investment and stimulating capital inflows. Such fiscal measures have intensified divergences in corporate taxation systems, giving tax incentives an international dimension and making them the subject of global tax competition. Appropriate statistical procedures including descriptive statistics, t-tests, and correlation analysis were applied so as to conduct a quantitative analysis of the dynamics of effective corporate tax rates, assess the gap relative to the statutory rates, and examine their interdependence.¹

The data comparable across the analyzed countries were obtained from the reports issued by the Centre for European Economic Research (Zentrum für Europäische Wirtschaftsforschung – ZEW, 2025). Although the applied methodological framework based on the Devereux-Griffith model combined with descriptive statistics, t-tests, and correlation analysis provides a reliable assessment of the differences between the statutory and effective corporate income tax rates in the OECD countries, certain limitations must be acknowledged.

First, the calculation of effective tax rates relies on the modeled assumptions that do not fully reflect the complexity of national tax systems and the various forms of tax incentives. Consequently, discrepancies may arise between the computed and the actually paid effective tax rates. Second, the analysis is focused on the aggregate level and cross-country comparability within the OECD, whereas microeconomic aspects (e.g. firm- or sector-level data) are not included. This omission limits the insights into the heterogeneity of tax incentive effects across industries and types of firms. Third, the applied statistical techniques (t-tests and Pearson’s correlation) allow for the identification of differences and associations, but not for causal inferences between the variables. In other words, the results reveal the existence of the relationship between the statutory and effective rates but cannot determine the direction or underlying mechanisms of causality. Finally, the study spans from 2000 to 2022; however, specific circumstances (e.g. the effects of

the global financial crisis or the COVID-19 pandemic) may have temporarily disrupted usual patterns, thereby limiting the generalizability of the findings to other time horizons.

Figure 1 shows the average effective CIT rate in the OECD countries, which leads to the conclusion that the tax policies vary between the OECD countries. Estonia has the lowest effective tax rate, whereas Japan has the highest. Interestingly, between 2005 and 2018, the United States had the highest effective tax rate, which was significantly reduced following the reforms aimed at repatriating income from abroad and stimulating the economy. The trend of the average effective tax rate in the OECD countries showed a tendency to decline from 2005 to 2022.

In Figure 1, a slight decrease in the effective tax burden can be observed. Unlike the EU market, the OECD countries rely much more on financial incentives. The reason for this policy is their flexibility, which distinguishes these incentives from tax incentives. Significant tax incentives were introduced at the end of 2008 in order to mitigate the

consequences of the crisis. At that time, the United States created its policy for recovery from the crisis by introducing new tax incentives, including accelerated depreciation incentives. This policy provided good results, considering that redesigning tax incentives was effective during the global financial crisis. In addition to the special tax regimes used in the OECD countries to compete for capital, the harmonization of tax rules can also be said to be a desirable trend here.

In the OECD countries, the highest number of reforms took place in 2009, following the Global Economic Crisis. Between 2009 and 2020, effective tax rates gradually decreased in order to mitigate the effects of the crisis and stimulate economic activity. The biggest reductions in the effective tax burden from 2005 to 2020 occurred in Greece (-9.5% in 2010), Turkey (-9.1% in 2006), and the U.S. (-9% in 2019). The maximum increase in the effective tax rate was recorded in Greece (+8.7% in 2009). The years following the COVID-19 pandemic crisis significantly deviated from the other years. The most recent year analyzed showed the highest number of changes in the effective tax rates among the OECD countries. This dynamic

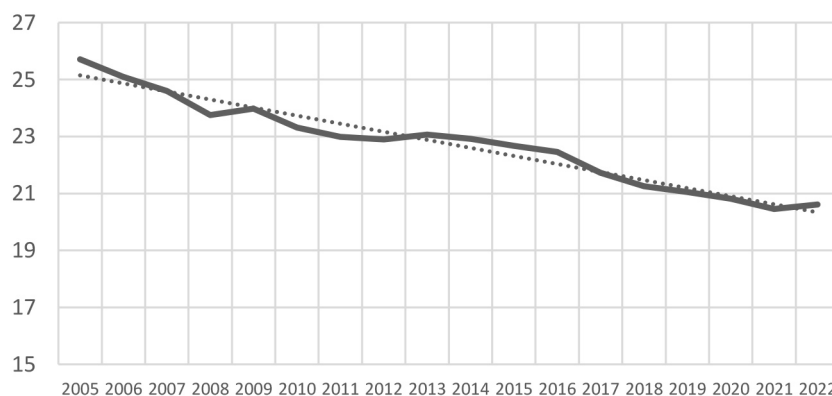


Figure 1 The trend of the average effective CIT rate in the OECD countries (in %)

Source: Authors, based on the data obtained from the ZEW (2025)

Table 1 The intensity of tax competition in the OECD countries (the number of changes in the effective tax rate)

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	*
Total changes	15	16	15	17	13	13	13	14	15	15	12	16	13	11	6	204

Source: Authors

of the tax policy adjustments aimed at reducing tax burdens and creating more favorable conditions influenced both the economic development of and tax revenues in the OECD countries. According to the latest analyzed data (Table 2), the effective tax rates suffered from as many as 24 changes. The increase can explicitly be linked to the COVID-19 crisis. Notably, Italy and the United Kingdom significantly lowered their rates (-6.8%), as did the U.S. (-6.4%).

Table 2 The changes of the effective tax burden in the OECD countries (in %)

Country	2021	2022
Austria		1.7
Belgium		1.2
Greece	-1.8	-0.6
Denmark	0.8	
Estonia	-1.9	6.2
Ireland	-4.7	3.4
Italy	0.1	-6.8
Japan	-6.6	7.6
Canada	-0.1	-0.1
Latvia		2.6
Lithuania		3.4
Luxembourg		2.1
Hungary		-0.3
Germany		-1.9
Norway		1.3
Poland	0.8	-0.8
Portugal		6.1
USA		-6.4
Slovakia		2.2
Slovenia		0.4
Turkey	-0.9	5.4
UK		-6.8
Finland		
France	-3.4	-2.1
Netherlands		0.7
Czech Republic	0.3	
Switzerland	-1.2	0.7
Sweden	-0.7	
Spain		
Total changes	13	24

Source: Authors

THE DISCREPANCY BETWEEN THE STATUTORY AND EFFECTIVE CIT RATES AS THE BASIS FOR THE DEVELOPMENT OF FISCAL POLICY IN THE OECD COUNTRIES

With the exclusion of the last two years, when the movement of the gap was largely influenced by the consequences of the COVID crisis and no accurate picture of the discrepancy between the effective and statutory CIT rates was possible to see, the gap in the OECD countries was not expected to be significantly large. Figure 2 illustrates the gap between the rates in the OECD countries from 2005 to 2022. The trend of the rates shows a continuous and mild decline, which is the result of tax competition within this organization.

On the global capital market, there is clear competition among countries in attracting investors through tax incentives and other fiscal benefits. By setting the effective tax rate at an appropriate level, the OECD countries define the intensity of the tax burden and thereby engage in international competition in the field of corporate taxation. The discrepancy between the effective and statutory tax rates varied over the observed period. It can be perceived, however, that the gap between the average effective and statutory rates in the OECD countries is considerably narrower than in the European Union member states, suggesting that the OECD countries pursue a strategy of broadening the tax base, while simultaneously reducing the statutory rates in order to stimulate economic activity (European Commission, 2025). Unlike the EU, the OECD less relies on the policies in which tax incentives and fiscal adjustments decisively shape economic outcomes; instead, the OECD member countries more consistently follow the theoretical principles aimed at narrowing the statutory-effective tax rate gap. Although this difference in the OECD countries is relatively small, it cannot be concluded that the statutory rate has no effect on the effective tax rate without further empirical investigation. Table 3 shows the descriptive statistical indicators of the statutory and effective corporate income tax rates in the OECD countries and serves as the basis for further quantitative analyses of their discrepancy.

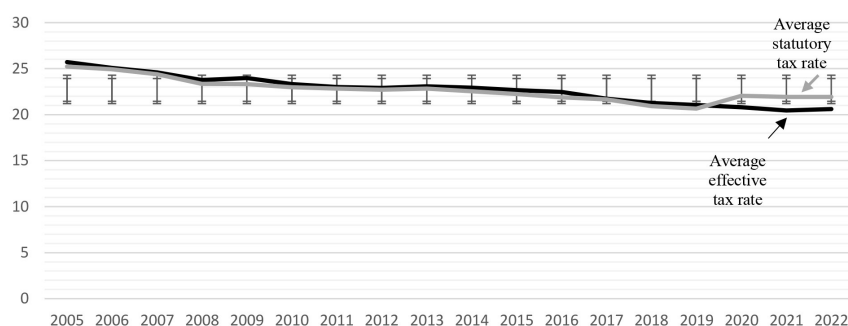


Figure 2 The deviation of the effective tax rate from the statutory tax rate in the OECD countries (in %)

Source: Authors

The data accounted for in Table 3 point to several relevant facts. The average effective corporate income tax rate in the OECD countries was 25.71% in 2005, while the average statutory rate in the same year was 25.22%. By 2022, these values had declined, with the effective rate standing at 20.39% and the statutory rate standing at 20.18%. In 2005, the range of the effective tax rates extended from a minimum of 12.70% (Lithuania) to a maximum of 41.70% (Japan), whereas the statutory rates ranged from 8.5% (Switzerland) to 35% (the United States). In the final year observed, the picture had shifted – the effective rates had ranged from 10.80% (Estonia) to 27.50% (Japan), while the statutory rates had varied from 8.5% to 30%. The values of the standard deviation, as a summary statistical indicator, confirm the existence of a certain interval of oscillation between the effective and statutory corporate tax rates in the OECD countries, indicating relative homogeneity in their movement over the analyzed period.

The data analysis suggests that there was greater consistency in the years before the COVID-19 crisis, when a significant gap emerged between the effective and statutory tax rates (Table 4). The results of the Kolmogorov-Smirnov (K/S) test indicate that the data follow a normal distribution, which justifies the application of further analysis. The K/S test is statistically significant ($p > 0.05$). The results obtained from the t-test showed no statistically significant differences between the observed tax rates (Table 5).

Table 3 The descriptive statistics of the statutory and effective CIT rates

Variable	Minimum	Maximum	Average value $\bar{x}$	Standard deviation s
S/2005	8.50	35.00	25.2260	7.09657
S/2006	8.50	35.00	24.9219	6.73985
S/2007	8.50	35.00	24.4071	6.43764
S/2008	8.50	35.00	23.3322	6.45642
S/2009	8.50	35.00	23.3240	6.29999
S/2010	8.50	35.00	22.9791	6.53110
S/2011	8.50	36.10	22.8369	6.68956
S/2012	8.50	36.10	22.6990	6.83257
S/2013	8.50	38.00	22.8393	6.87229
S/2014	8.50	38.00	22.5290	6.86011
S/2015	8.50	38.00	22.2480	6.73490
S/2016	8.50	35.00	21.8836	6.33351
S/2017	8.50	44.43	21.6546	7.53558
S/2018	8.50	34.43	20.9212	5.82891
S/2019	8.50	34.43	20.6567	5.65093
S/2020	8.50	32.00	19.9522	5.57527
S/2021	11.10	31.70	22.2241	5.45158
S/2022	8.50	30.00	20.1876	4.91120
E/2005	12.70	41.70	25.7103	7.74506
E/2006	14.30	41.70	25.0897	7.60777
E/2007	14.30	41.30	24.6000	7.39841
E/2008	12.70	41.30	23.7517	7.05239
E/2009	13.80	41.70	23.9759	7.02143
E/2010	11.80	41.70	23.3103	7.06568
E/2011	12.20	41.70	22.9931	6.95197
E/2012	12.40	40.10	22.8931	6.94946
E/2013	12.10	40.10	23.0655	6.89463
E/2014	13.60	38.30	22.9172	6.85467
E/2015	13.60	38.30	22.6690	6.93872
E/2016	13.60	38.40	22.4621	6.72742
E/2017	11.10	36.50	21.7310	6.66125
E/2018	11.00	34.10	21.2552	5.99533
E/2019	11.10	34.10	21.0517	5.79264
E/2020	11.10	34.10	20.8138	5.64109
E/2021	9.40	34.10	20.3483	5.82480
E/2022	10.80	27.50	20.3931	4.30390

Note: S – the statutory CIT rate; E – the effective CIT rate.

Source: Authors

Table 4 The results of the Kolmogorov-Smirnov normality test

Test/Variables	S/05	S/06	S/07	S/08	S/09
K/S S	0.582	0.489	0.476	0.642	0.658
Sig.(2-tailed)	0.888	0.970	0.977	0.805	0.780
Test/Variables	S/10	S/11	S/12	S/13	S/14
K/S S	0.561	0.606	0.549	0.357	0.483
Sig.(2-tailed)	0.911	0.856	0.924	1.000	0.974
Test/Variables	S/15	S/16	S/17	S/18	S/19
K/S S	0.611	0.562	0.841	0.883	0.772
Sig.(2-tailed)	0.849	0.910	0.479	0.417	0.591
Test/Variables	S/20	S/21		S/22	
K/S S	0.842	0.750		0.878	
Sig.(2-tailed)	0.478	0.628		0.423	
Test/Variables	E/05	E/06	E/07	E/08	E/09
Kolmogorov-Smirnov S	0.483	0.756	0.689	0.494	0.632
Asymp.Sig.(2-tailed)	0.974	0.618	0.729	0.968	0.819
Test/Variables	E/10	E/11	E/12	E/13	E/14
K/S S	0.558	0.626	0.599	0.551	0.777
Sig.(2-tailed)	0.914	0.829	0.866	0.922	0.581
Test/Variables	E/15	E/16	E/17	E/18	E/19
K/S S	0.642	0.676	0.673	0.424	0.530
Sig.(2-tailed)	0.805	0.750	0.755	0.994	0.941
Test/Variables	E/20	E/21	E/22		
K/S S	0.645	0.531	0.703		
Sig.(2-tailed)	0.800	0.941	0.706		

Source: Authors

Table 5 The results of the t-test

Year	Average value of the difference $\bar{x}$	Standard deviation	Significance (2-tailed)
2005	-0.48431	4.86989	0.596
2006	-0.16776	4.92988	0.856
2007	-0.19293	4.77235	0.829
2008	-0.41948	5.04949	0.658
2009	-0.65190	5.13974	0.500
2010	-0.33121	4.95797	0.722
2011	-0.15617	4.86070	0.864
2012	-0.19410	4.68255	0.825
2014	-0.22617	4.87099	0.804
2015	-0.38824	4.54468	0.649
2016	-0.42100	4.84217	0.643
2017	-0.57845	4.78539	0.520
2018	-0.07641	5.44101	0.940
2019	-0.33397	5.49878	0.746
2020	-0.39500	5.27351	0.690
2021	-0.86155	5.75286	0.427
2022	1.87586	3.19516	0.004
2023	-0.20552	4.35447	0.801

Source: Authors

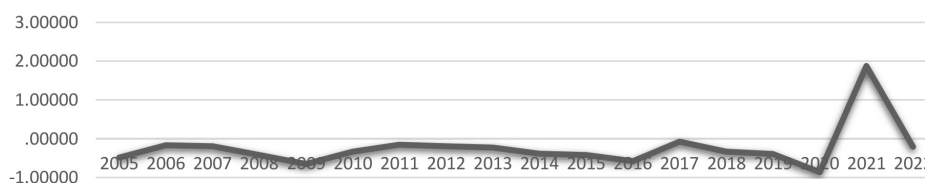


Figure 3 The differences in the average values for the effective and statutory rates in the OECD countries

Source: Authors, based on the data obtained from ZEW (2025), Effective tax levels using the Devereux-Griffith methodology

When comparing the mean values, it is important to highlight that the mean values for both the effective corporate income tax rate and the statutory corporate income tax rate do not differ significantly. Moreover, it can be concluded that these differences are much smaller compared to those observed in the EU member countries. The paired sample t-test revealed which set of results had higher mean values. In 2022, no significant difference was found between the tax rates, $t(29) = 0.254$, $p > 0.05$. However, in 2021, a significant difference was found between the rates, $t(29) = 3.162$, $p < 0.05$.

The magnitude of the difference in the paired samples t-test, or the calculation or determination of the difference between these rates, can be seen through the interpretation of the eta squared indicator.

$$e_{2021} = \frac{(3.162)^2}{(3.162^2 + 29 - 1)}; e_{2021} = \frac{9.998244}{37.998244}; e_{2021} = 0.26 \quad (1)$$

$$e_{2022} = \frac{(0.254)^2}{(0.254^2 + 29 - 1)}; e_{2022} = \frac{0.064516}{28.064516}; e_{2022} = 0.002 \quad (2)$$

The value of the coefficient in 2022 was 0.002, which shows that there was a small difference between the rates in the OECD countries in that year. In other words, there is a small difference between the effective and statutory CIT rates in the OECD countries. Over the observed period from 2005 to 2022, no significant difference was noticed between the analyzed rates, except in 2021, when the effective tax rate significantly deviated from the statutory tax rate.

THE EMPIRICAL ASPECTS OF THE RELATIONSHIP BETWEEN THE STATUTORY AND EFFECTIVE CIT RATES IN THE OECD COUNTRIES

The results of the correlation analysis presented in Table 6 indicate the intensity and direction of the interdependence between the statutory and effective tax rates in the OECD countries. The application of Pearson's correlation coefficient as a parametric indicator of linear association reveals a strong and statistically significant positive correlation between the variables under observation. In the final year analyzed, the coefficient reached the value of 0.56 ($p < 0.05$), confirming that the dynamics of the statutory rates largely determine the level of the effective rates.

The economic implications of this finding suggest that the statutory rate remains the key benchmark for shaping the tax burden, while tax incentives and adjustments function as the modifiers that either mitigate or amplify its actual impact. In other words, a higher statutory rate generally leads to a higher effective tax burden, although the ultimate intensity depends on the scope and design of incentives. This result indicates that tax incentives are an important policy instrument through which states can strategically influence the gap between the statutory and effective tax rates, albeit within the boundaries set by the statutory framework.

In all the observed years, a strong and statistically significant positive correlation was confirmed between the statutory and effective tax rates, thus demonstrating the existence of a robust relationship

Table 6 The results of the correlation analysis of the statutory and effective tax rates

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013
Pearson's correlation coefficient	0.788	0.770	0.771	0.724	0.707	0.737	0.747	0.769	0.750
Significance	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Year	2014	2015	2016	2017	2018	2019	2020	2021	2022
Pearson's correlation coefficient	0.780	0.750	0.733	0.713	0.568	0.576	0.474	0.841	0.560
Significance	0.000	0.000	0.000	0.000	0.001	0.001	0.009	0.000	0.002

Source: Authors

between these variables. As early as 2005, the value of Pearson's correlation coefficient was 0.788 ($p < 0.001$), indicating a very strong association. In the final analyzed year, the coefficient value was somewhat lower but still reflected a strong and statistically significant correlation, implying the relative stability of the relationship over a longer time horizon. The results suggest that, in the OECD countries, the differences between the statutory and effective tax rates appear within a limited scope as the dynamics of the effective rate are largely dependent on the statutory framework. At the same time, the positive linear relationship demonstrates that the statutory rate represents the primary determinant, while tax incentives function as the modifiers that influence the final level of the effective tax burden. In other words, a higher statutory rate is generally associated with a higher effective burden, although the actual strength of this relationship depends on the scope and structure of tax incentives. Compared to the EU countries, the narrower gap in the OECD countries is associated with differences in the tax policy. The OECD countries tend to pursue strategies for broadening the tax base and lowering statutory rates, whereas the EU member states often retain a broader range of tax incentives. It may also be concluded that the OECD countries rely less on selective, sector-specific incentives compared to the EU countries, thereby reducing the gap between the statutory and effective rates.

However, a substantial divergence between these rates was recorded during the times of crisis. The changes in the effective tax rates during the 2008 global

financial crisis and the COVID-19 pandemic were linked to the measures aimed at stimulating economic activity. Governments introduced expansionary tax incentives (e.g. accelerated depreciation in the United States, rate reductions in Turkey and Greece) so as to encourage investment and preserve liquidity. During the COVID-19 crisis, many OECD countries temporarily reduced tax rates or allowed deferred tax payments (e.g. Italy, the UK, and the US), which led to a record number of changes in the effective tax rates (Table 2).

CONCLUSION

This study provides a comprehensive analysis of the relationship between the statutory and effective corporate income tax rates in the OECD countries, emphasizing the influence of tax incentives on these dynamics. The findings are particularly relevant in the context of global tax policy shifts, such as the OECD's Inclusive Framework on Base Erosion and Profit Shifting (BEPS) which seeks to standardize corporate taxation and limit profit shifting.

The research highlights that well-structured tax incentives play a pivotal role in shaping corporate investment behavior and enhancing economic competitiveness. The countries that have strategically implemented tax incentives, such as reduced tax rates, tax holidays, accelerated depreciation, and tax credits, have managed to attract foreign direct investment and stimulate innovation and sustainable

growth. However, the study also identifies challenges, including the risk of the tax base erosion and the potential for a revenue loss when incentives are applied too broadly.

The results of the conducted research confirm all the hypotheses posed and emphasize the key role of tax incentives in shaping the effective tax rate. First, a statistically significant difference was found between the statutory and effective CIT rates in the OECD countries, confirming the hypothesis H1. This difference indicates the presence of the factors that contribute to reduction in the effective tax rate compared to the statutory tax rate, further highlighting the importance of analyzing tax incentives. Furthermore, the analysis showed that tax incentives had a significant impact on the formation of the effective tax rate, confirming the hypothesis H2. A greater number of tax incentives contributes to a larger gap between the rates, which aligns with the emerging literature on “tax expenditure efficiency,” which argues that incentives should be regularly audited in order to ensure that they meet their intended economic goals. Finally, a positive correlation between the statutory and effective tax rates was confirmed, which aligns with the hypothesis H3. This finding implies that the countries with higher statutory tax rates also generally have higher effective tax rates, although their final value is significantly influenced by tax incentives and other fiscal instruments. Moreover, the correlation analysis confirms a strong positive relationship between the statutory and effective tax rates, indicating that adjustments to statutory tax rates significantly impact the actual tax burden on corporations, which suggests that policymakers must carefully design and implement tax incentives in order to balance the goals of competitiveness and fiscal sustainability.

The overall results of the research provide important insights for tax policymakers, emphasizing the need to align the use of tax incentives as instruments for stimulating economic growth with the preservation of stable tax revenues. Policymakers should prioritize transparency (e.g. public registers of incentive beneficiaries) and adopt dynamic frameworks for evaluating the performance of tax incentives against

macroeconomic indicators. An efficient design of tax incentives can contribute to optimizing fiscal policy, reducing inefficiencies, and increasing the transparency of the tax system. Another recommendation is to direct tax incentives towards sectors with high multipliers (e.g. innovation, green technologies).

The limitations of this research study relate to its aggregate-level approach and the inability to establish long-term causal relationships. Future research should incorporate microeconomic-level data (e.g. firms or sectors), as well as the advanced econometric techniques that can more precisely identify the effects of the specific types of tax incentives.

ENDNOTE

- 1 Given the complexity of calculating effective tax rates and their lack of transparency, Australia, Chile, Iceland, Israel, South Korea, Mexico, and New Zealand were excluded from the group of the OECD countries. The effective tax burden was measured using the Devereux-Griffith model (Spengel, Schmidt, Heckemeyer, Nicolay, Bartholmeß, Ludwig, Steinbrenner, Buchmann, Bührle, Dutt, Fischer, Spix & Stage, 2020).

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