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RESEARCH ARTICLE

Factual Changes in Inflation and National Income: Their Impact on the Tax Burden Within OECD Countries

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ABSTRACT

The main purpose of this research is to determine the salience of the mutual effects of inflation and national income on the tax burden. The rationale behind the incorporation of OECD countries within our model is to establish a comprehensive framework encompassing nations of varying developmental benchmarks, thereby comprehending the collective efficacy of the mean global tax encumbrance. Within this framework, the selection of variables within our model entails the inclusion of two distinct independent variables: inflation, a universally recognized financial phenomenon, and the average GDP variability, encompassing the entirety of OECD countries. The methodological approach followed in line with this objective is supported by the basic premise that functioning mechanisms that characterize macroeconomic assets such as inflation and national income, which play a fundamental role in tax burden analysis within OECD member countries, will emerge. Within the framework of this purpose, the variables subject to the model thus form a meaningful spectrum consisting of different effect sizes. Within this conceptual framework, the possible permutations of inflation rates and the inherent variability of national income provide important explanations that illuminate the outlines of average tax burden thresholds across OECD countries. Moreover, these explanations are important as touchstones in the structure that governs the articulation of global macroeconomic policies. While the noticed findings reveal the necessity of investigating the aspects of the subject determined by the variables mentioned above, they combine in the relevant model to create a convincing basis. Therefore, the comprehensive data analysis conducted in this study seeks to understand the above-mentioned interrelationships within the causal links paradigm that encompasses the model's constitutive variables.

INTRODUCTION

Economic indicators such as inflation, Gross Domestic Product (GDP) and tax burden, which are considered within the scope of OECD, have a tight interaction network between the basic components of the economic system, and the mutual scale effects between these factors are prominent. When considered within the framework of the OECD, each

of these three basic elements stands out as critical factors that deeply affect the OECD's main economic development goals and structural stability. For this reason, in the economic evaluations and policy making processes of the OECD, inflation levels, GDP size and taxation burden are taken into consideration as basic criteria, and they undertake guiding functions in monitoring economic performance and maintaining stability.

OECD countries, aiming to combat rising inflation rates and realise their growth targets, face the problem of inadequacy of public finance as the most critical obstacle to the current economic situation. In this situation, the need for financial resources has been determined to maintain the proportional increase in the tax burden in parallel with the rise in national income. On the other hand, the cost dynamics that emerge with implementing sectoral incentives to support economic growth emphasise the necessity of maintaining a balance between sector-specific growth targets and increasing tax burdens. In this context, OECD highlights that this structural financial and economic phenomenon creates a vicious circle for developing economies. Intended to the OECD this phenomenon, this accelerated the evolution of structural policy frameworks that emphasised the direct impact of inflation and growth rates on the tax burden and the scaling effect and created an empirical analysis model framework of the issue.

The relationship between tax burden and inflation refers to a phenomenon heavily associated with a structural transformation process in which the inflation effects of tax policies gain importance. In this context, the tax burden considered the dependent variable in this relationship, also exhibits an intertwined structure with factors such as demand elasticity of consumption expenditures and operating costs, as well as tax types. Thus, the impact of inflation and national income variability on the tax burden explains a complex but dependent relationship between the effects of inflation control on Gross Domestic Product, particularly in the context of tax policies that emphasize economic stability and sustainable growth targets. This dynamic also points to a critical dimension that OECD countries should examine, how the tax burden can be subject to an inflationary process under a structural effect.

Especially in OECD countries, the tax burden is also seen as an economic growth tool directly affected by the proportional changes in the general trends of tax revenues in Gross Domestic Product. In this context, it reflects a structural reality that high tax rates may affect labour markets, negatively affect employment, and thus impede economic growth targets. This reality explains how a tax burden factor is positioned, which is affected by the structural relationship between inflation and national income.

In this context, the interaction between Gross Domestic Product and inflationary effects should be considered from a holistic perspective, especially regarding tax burden variability. This reflects a significant relationship within a structural model. For this reason, the extent to which the effects of inflation and Gross Domestic Product on tax burden variability are substantial should be examined by associating them with the relevant tax rates and sectoral markets. This structural relationship model should reflect the interaction in which the tax burden is considered a direct dependent variable in the OECD framework. This should create a structural relationship model that reflects the proportional change in tax revenues to GDP and how inflationary effects are integrated into the process. This model can serve the purpose of better understanding the dynamics of OECD countries. This is manifested through the concurrent rise in the average inflation rates across OECD countries undergoing the same process and the growth patterns observed in their average GDP values. Thus, it indicates that the factors influencing the tax burden extend beyond inflation rates alone and are indirectly associated with the mounting national income values. This process gives rise to expenditures driven by inflation rates, fuelled by heightened demand. The deviations in economic growth trends in OECD countries underscore a shortfall from the desired level in recent years, particularly in comparison to emerging economies. Consequently, the acceptability of the effect values in the model contributes to a more robust integrity in terms of the target empirical estimates. Consequently, an analysis incorporating various component effect values is essential to entirely surmount the inevitability of augmenting fiscal burdens, particularly in the tax burdens, rising inflation rates, and the discordance in economic

growth trends. This significance has led to the perception of residual inflation a socio-economic phenomenon that detrimentally affects economic growth trends, notably during periods of inflation characterized by deviations in economic growth trends.

LITERATURE REVIEW

Theoretical background
The following is an extensive compilation of studies centered around inflation rates and GDP variability, encompassing their influence on the tax burden and the consequent emergence of scale effects within the Organization for Economic Cooperation and Development (OECD) parameters, which we are endeavoring to enumerate. This compilation scopes the independent variables that impact the tax burden within the purview of the OECD, as well as other studies examining the tax burden beyond the borders of the OECD, such as inflation and GDP. Besides, Table 1 substantially contributes to establishing a comprehensive and coherent framework and model for our research:

Table 1: Literature review on the effects of changes in economic growth and inflation rates on the tax burden

Person/Institution Doing the Study	The Name of Study	Location/Institution Where the Study Was Conducted	Objective of Evaluating and Findings
OECD (1991)	Taxing Profits in a Global Economy: Domestic and International Issues	OECD Publications, Paris, 1991.	This OECD study is one of the first to detect the global scale effects of tax burden and tax limits significantly.
OECD (1996)	Fiscal Measures to Promote R&D and Innovation	OECD Committee for Scientific and Technological Policy, OECD/GD(96)165, 1996.	This OECD study is one of the first to establish an empirically meaningful model framework for fiscal measures based on the tax burden at the global level.
Leibfritz et al. (1997)	Taxation and Economic Performance	OECD Economics Department Working Papers No. 176 OECD/GD(97)107, 1997.	In this study, which is one of the first institutional studies on the subject, the dynamics in forming the tax burden were determined clearly and meaningfully.
OECD/KIPF (2014)	The Distributional Effects of Consumption Taxes in OECD Countries.	OECD Tax Policy Studies, No. 22, OECD Publishing, Paris, 2014.	The study, which deals with the tax policies within the scope of the OECD in the recent period in terms of tax burden based on consumption, reveals current meaningful determinations.
Thomas and O'Reilly (2016)	The Impact of Tax and Benefit Systems on the Workforce Participation Incentives of Women	OECD Tax Policy Working Papers, 2016, Vol. 29.	The study, which reveals the relationship between tax burden and welfare at a global level, reveals critical determinations on the basis of the welfare dynamics impact of the tax burden.
Saez (2017)	Taxing the Rich More: Preliminary Evidence from the 2013 Tax Increase	Tax Policy and the Economy Volume 31, Number 1 2017, pp. 71-120.	This study, which deals with tax burden variability with tax changes, reveals essential empirical determinations of the relationship between welfare level and global tax burden.
Brys, Perret, Thomas, and O'Reilly (2018)	Tax Design for Inclusive Economic Growth	OECD Centre for Tax Policy And Administration OECD Taxation Working Papers, 2018, No. 26	This OECD study, which deals with global tax management based on the typical tax burden, determines the familiar dynamics of global tax management on this basis.

Cont.....

Person/Institution Doing the Study	The Name of Study	Location/Institution Where the Study Was Conducted	Objective of Evaluating and Findings
OECD (2018)	Tax Policies For Inclusive Growth in a Changing World	OECD Report to G-20 Finance Ministers and Central Bank Governors, July 2018.	This OECD Report is one of the critical global contemporary studies that determine the relationship between economic growth and taxation at the global level with empirical studies.
Saez and Stantcheva (2018)	A Simpler Theory of Optimal Capital Taxation	Journal of Public Economics, 162, 2018, pp. 120–142	A current study reveals the relationship between the taxation of capital and economic growth at the global level, with essential determinations based on the tax burden on capital.
Balsalobre-Lorente et al. (2021)	Taxes, R&D Expenditures, and Open Innovation: Analysing OECD Countries	Journal of Open Innovation: Technology, Market, and Complexity Vol. 7, Issue 1, No. 36 March 2021, pp. 1-12.	The study, which is directly based on the OECD tax burden variability, reveals the relationship between taxes and public expenditures with empirical determinations within the framework of tax reform.
Gross and Klein (2022)	Optimal Tax Policy and Endogenous Growth Through Innovation	Journal of Public Economics, 209, 2022 104645 pp. 1-20.	The effects of the change in the tax burden on the optimal limits at the global level are also emphasized based on OECD countries.
Johannesen (2022)	The Global Minimum Tax	Journal of Public Economics, 212, 2022, 104709. pp. 1-20.	It reveals the determination of the minimum tax burden components at the global level and the analysis of the periodic variations in these determinations.
Cerda and Valente (2022)	The Role of Capital Taxation on The Business Cycle: The Case of Chile, 1960–2019	Economic Change and Restructuring Vol. 55, Issue 1, 2022 pp. 83–108.	The study, which deals with the capital formation and economic growth effect of the tax burden at the national level, reveals the structural effect analysis of the sectoral tax burden.
Kim and Wan (2022)	The Effect of Fairness on Tax Morale in South Korea: A Framed Question Approach	International Review of Economics, Vol. 69, Issue 1, No 5, 2022, pp. 103-123.	The study is a study on tax burden and tax morale based on Korea. Impact components of tax burden variability are highlighted at the national level.
OECD (2023)	Evaluating the Long-run Sustainability of India's Fiscal Management with Structural Change	The Journal of Applied Economic Research Vol. 16, Issue 3-4, June 8, 2023 pp. 367–391	It includes analyzes in which the effects of long-term tax burden change and tax management approaches are discussed in a global framework.
Shankar and Trivedi (2023-b)	Assessing India's Fiscal Sustainability Considering Debt–Deficit and Financing Dynamics	Indian Economic Review Vol. 58, 2023, pp. 41–70.	It is a study that analyzes the relationship between tax changes public borrowing and public deficits, and the variability of tax burden at the national level within the framework of financial stability and reveals meaningful determinations.
WEF (2023)	Chief Economists Outlook	World Economic Forum, May 2023, Geneva - Switzerland	This current study on global tax management and its burdens presents a meaningful determination with the current characteristics of fiscal and economy-based macro-fiscal effect dynamics.

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Person/Institution Doing the Study	The Name of Study	Location/Institution Where the Study Was Conducted	Objective of Evaluating and Findings
IMF (2023)	Safeguarding Financial Stability Amid High Inflation and Geopolitical Risks	IMF Global Financial Stability Report, April 2023.	The study deals with the relationship between increasing global inflation rates and the financial balance tax burden and growth and reveals significant timely structural characteristics regarding actual determinations.
Berset et al. (2023)	The Fiscal Response to Revenue Shocks	International Tax and Public Finance Vol. 30, Issue 3, June 2023, pp. 814-848.	The scale effects of fiscal variability resulting from income shocks in countries, depending on fiscal policies based on countries, are discussed.
Schjelderup and Stähler (2023)	The Economics of The Global Minimum Tax	International Tax and Public Finance Vol. 30, Issue 4, August 2023, pp. 1118-1140.	Globally independent components in the formation of the optimal effects of tax burden change at the global level are discussed and the effects basis on the tax burden for countries within the scope of the OECD are examined.
Dybka et al. (2023)	Measuring The Model Uncertainty of Shadow Economy Estimates	International Tax and Public Finance Vol. 30, Issue 4, 2023, pp. 1107-1136	The results of the analysis of the uncertainty in tax burden options and the effects of shadow economy dummy variables on the tax burden are emphasized.

Outlook of Tax Burden Variability in Inflation and Economic Growth Process on OECD Basis

The scrutiny of individual percentage change values across OECD countries as indicative of growth trends, particularly with respect to the information inherent in percentage change values, frequently gives rise to methodologies in which the phenomenon of growth, quantified through GDP measurements, converges with inflationary metrics. This alignment can be attributed primarily to post-2020 circumstances wherein deviations in economic growth patterns have brought to the fore a coexisting stagnation characterized by a conspicuous upward trajectory, which can be correlated with escalations in inflation rates (ECB, 2010). Indeed, the manifestation of divergent inflation rates among OECD nations triggers an impact mechanism underscored by varying magnitudes, notably concerning developmental aspects, thereby elucidating the disparities inherent in economic growth trajectories (OECD, 2011). Consequently, the application of a weighted approach within the model introduces a weighted scale effect that significantly influences the assessment of the tax burden. Furthermore, a pivotal facet of comprehending the actual tax burden hinges upon the adoption of a pragmatic approach, wherein the average tax contributions made by different countries are considered in relation to their respective GDPs (Bassanini and Scarpetta, 2001). Presented in Table 2 below is an exhaustive overview of the notable trajectory observed in economic growth patterns within the purview of the OECD, predicated upon the average GDP fluctuations in recent years.

As seen in Table 2 above, as well as the values exhibited by countries contingent upon their development, there are different economic growth rates related to the OECD for other countries but not the OECD. This meaningful approach can be elucidated by the necessity of incorporating economic growth trends in actual terms into the model to facilitate a more transparent comprehension of the disparities in economic growth patterns, which can be expressed in different OECD countries (Balsalobre-Lorente et al., 2021). The inflationary process in OECD countries, particularly in recent years, has led to substantial deviations in economic growth patterns, exhibiting a structural relationship to the OECD average (Dumont et al., 2006). These deviations have transformed into a framework characterized by persistent inflation rates, resulting in an increased

tax burden, particularly within OECD countries (ECB, 2011). This phenomenon has notably affected the OECD, revealing significant fluctuations in the understanding of substantial changes in actual growth rates. This framework can be primarily attributed to the OECD and highlights certain countries in comparative positions (Schjelderup and Stähler, 2023).

**Table 2: Recent outlook of actual growth rates average of OECD countries**

	Average 2013-2019	2020	2021	2022	2023	2021Q4	2022Q4	2023Q4
				Per cent				
Real GDP growth[1]								
World[2]	3.3	-3.4	5.6	4.5	3.2	3.8	3.9	3.2
G20[2]	3.5	-3.1	5.9	4.7	3.3	4.1	3.8	3.3
OECD[2]	2.2	-4.7	5.3	3.9	2.5	4.4	3.3	2.2
United States	2.4	-3.4	5.6	3.7	2.4	5.1	3.0	2.3
Euro area	1.9	-6.5	5.2	4.3	2.5	4.9	3.3	2.1
Japan	0.8	-4.6	1.8	3.4	1.1	0.0	3.1	0.9

1 Percentage changes; last three columns show the change over a year earlier.
Source: OECD (2023-a)

The impact of inflation rates and the scale effect of increasing inflation rates on the tax burden within OECD countries emerge as the most significant and dominant factors (OECD, 2023-c). The OECD exhibits noteworthy fluctuations in average inflation rates, indicating an inflation volatility phenomenon since 1990 that encompasses stagnation, equivalence, and varying tax burden scale authority until 2022 (OECD, 2022-a). It should be noted that although recent trends suggest a decrease in the variability of food and energy prices as inflation rates increase, the period between 2000 and 2018 witnessed more stable periods following excessive fluctuations (Acar and Orhan, 2023). Nevertheless, average inflation rates, particularly in the early 1990s, hovered around 7.5% and 8% for the OECD. However, this percentage has escalated to approximately 11% after 2020, increasing tax rates, mainly due to the rising inflation rates in food and energy prices (Schjelderup and Stähler, 2023). Given the significant relationship and dependence between the tax burden effect and increasing inflation rates, it is imperative to consider these two independent variables together (Bordo and Levy, 2021). Graphic 1 below illustrates the upward trend in inflation rates, encompassing changes in energy prices and all items related to food consumption, goods, and services from 1990 to the present:
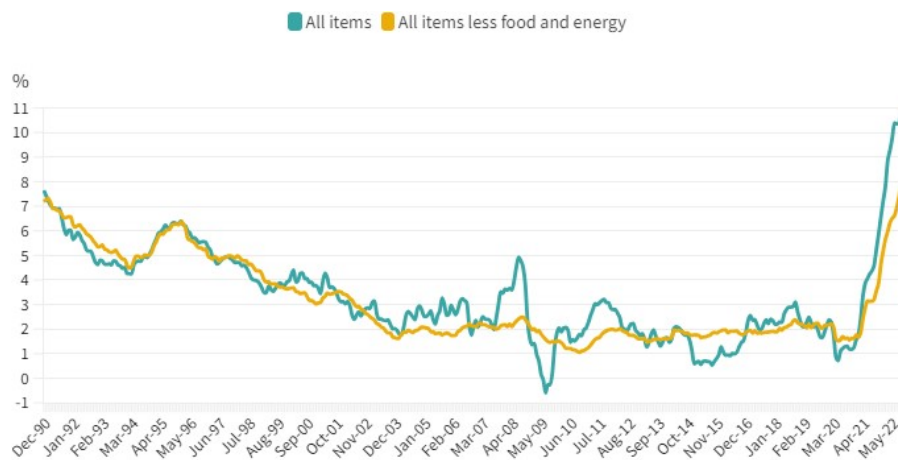

Figure 1: Inflation rates process based on the Consumer Price Index as the OECD average (Source: OECD, 2023-b)

As seen in Graphic 1 above, the factors contributing to inflation rate increases are deemed to be percentage value increments beyond the definitional inflation rates in OECD countries, and the aim is to confine these values to GDP, particularly at the actual level. This approach is predicated on the belief that it holds greater significance regarding the average tax burden among OECD countries (OECD, 2022-b). Primarily, when Graphic 1 above is compared with Table 2, changes in inflation rates reveal a significant stagnation and relative effect equivalence related to actual national income variability (Berset et al., 2023). This structural approach highlights the possible coexistence of scale effects with an association expressing factorial mutual equivalence with the inflation rates of countries within the scope of OECD countries. Emphasizing the issue regarding the tax burden in the inflationary process means that the sectoral financing needs intended for economic growth, along with the increasing need for public finance, should take place in the process (OECD, 2022-c).

Henceforth, the assessment of these methodologies concerning the imposition of fiscal obligations entails a procedural undertaking characterized by the incremental augmentation of tax encumbrances within specific sectors. This augmentation is predominantly predicated upon the foundational framework of Corporate Tax and is concomitantly transposed into incentive policies, thereby assuming a role of heightened sectoral advocacy endowed with enhanced connotation (OECD, 2022-d). The quandary of financial resource allocation germane to sectoral incentive policies gives rise to an adverse scaling manifestation occasioned by inflationary dynamics, a facet concomitant with the negative scaling influence within the same context (Shankar and Trivedi, 2022). Specifically, the interrelation between variables pertaining to tax burdens and economic progression resides within a construct that fundamentally engages with the trajectory of economic advancement indexed by Gross Domestic Product (GDP) (Dybka et al., 2022). The pronounced focus on this framework primarily emanates from the perspective of elucidating distinctions in scaling effects within an alternative model paradigm, relying upon an average derived from OECD nations that showcase discernible divergences in economic expansion. Illustrated in Graphic 2 hereunder are the ascertainable oscillations in corporate tax rates upon a sectoral foundation, coupled with the post-millennial developments.
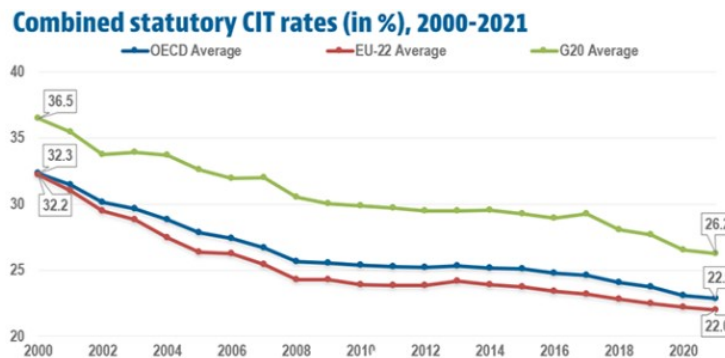
Figure 2: Changes in tax rates related to tax burden on average of OECD Countries
Source: OECD (2021-a)

As seen in Graphic 2 above, it can point to the tax burden options that can be expressed in this context, primarily through sectors, in a decreasing trend that can be expressed with different values regarding corporate tax, which is based on a logical basis. In the early 2000s, a notable reduction in the corporate tax rate from 32.3 percent to 22.9 percent in 2020, which aligns with the average OECD rate, was observed. This diminution engenders noteworthy implications, encompassing the facilitation of inducements for various sectors to ameliorate the encumbrances of taxation, the attenuation of plausible cost inflation that could impede the trajectory of inflation rates (Johannesen, 2022), and the forestalling of the

transmission of sector-specific inputs associated with cost inflation onto pricing strategies using constraints imposed upon taxation (OECD, 2022-e). The intricate interplay between fluctuations in the tax burden and economic expansion, particularly amidst the backdrop of inflationary circumstances, constitutes an enduring and evolving dynamic (Gross and Klein, 2023), wherein the multifaceted repercussions of fiscal variability assume salience (Creedy and Gemmell, 2017).

THE EMPIRICAL RESEARCH METHODOLOGY

The Organization for Economic Co-operation and Development (OECD) examines the tax burden by considering various factors. This study selected time-series-based variables such as inflation rates and the percentage change in gross domestic product (GDP) as factorial independent variables to represent the OECD. The NARDL (Nonlinear Bounds Testing Approach Data Analysis) approach was employed to investigate the impact of changes in inflation rates and economic growth on the tax burden, which served as the

dependent variable. Adopting a NARDL (Nonlinear Bounds Testing Approach) data analysis approach was motivated by the desire to account for the diverse effects over time.

To ensure the model's reliability, stationarity tests were conducted on all dependent and independent variables, with significance levels set at $p < 0.05$. Moreover, by differencing the variability levels of each series, a rigorous analysis was included during the relevant period after establishing stationarity. Furthermore, determining the "Threshold Effect" for the model necessitated evaluating the significance of the analysis results when each value deviated from the mean values. This phenomenon was achieved by implementing a "Threshold Limit Test," which tested the meaning, and based on a similar model, a panel data analysis framework was developed, and the prediction values were interpreted using scale values. Again, the significance of the standard deviation and R-square values that may arise from the VAR test was compared with the NARDL data analysis results, and the significance of the accuracy of the findings in the model was determined:

$$Y_i = \beta_0 + \beta_1 X_i + \beta_2 \hat{Y}_i^2 + \beta_3 \hat{Y}_i^3 + u_i \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots(1)$$

$$H_0 : \beta_2 = \beta_3 = 0$$
$$H_1 : \beta_2 \neq \beta_3 \neq 0$$

$$Y_t = \beta_0 + \sum_{k=1}^{m} \beta_{1i}\ Y_{t-1} + \sum_{i=0}^{n} \beta_{2i}\ X_{t-1} + e_t \qquad \ldots\ldots\ldots\ldots\ldots(2)$$

$$Y_t = \beta_0 + \sum_{k=1}^{m} \beta_{1i}\ Y_{t-1} + \sum_{i=0}^{n} \beta_{2i}\ X_{t-1}\beta_3 ECT_{t-1} + e_t \qquad \ldots\ldots(3)$$

$$lnOECD_{TB} = a_0 + \sum_{i=1}^{n} a_{1i}\, lnOECD_{TB\,(t-i)} + \sum_{i=1}^{n} a_{1i}\, lnOECD_{INFRTB\,(t-i)}$$
$$+ \sum_{i=1}^{n} a_{1i}\, lnOECD_{GDP\,(t-3)} + \mathcal{E}_t \qquad \ldots\ldots\ldots\ldots(4)$$

In addition, within the NARDL, which we took as a basis for the analysis, the variability of the tax burden (OECD_TB), which is the dependent variable, is expressed by considering the dependent variability

trend based on the negative and positive shocks as the dependent variable, with the equations written in the following order:

$$x_t^- = \sum_{i=1}^{p} \Delta x_i^- = \sum_{i=1}^{p} \min(\Delta x_i, 0)$$

$$x_t^+ = \sum_{i=1}^{p} \Delta x_i^+ = \sum_{i=1}^{p} \max(\Delta x_i, 0) \quad \dots\dots\dots\dots\dots\dots \text{(5)}$$

In this context, the conjugate equations for the positive (+) and negative (-) effects of the tax burden, which is the dependent variable, can be defined in 5 and 6:

$$OECD\_TB_t^- = \sum_{i=1}^{p} \Delta OECD\_TB_i^- = \sum_{i=1}^{p} \min(OECD\_TB_i^0, 0)$$

$$OECD\_TB_t^+ = \sum_{i=1}^{p} \Delta OECD\_TB_i^+ = \sum_{i=1}^{p} \max(OECD\_TB_i^0, 0)$$

$$\dots\dots(6)$$

Moreover, the respective definitions and interpretations of the dependent and independent variables in our model are presented in Table 3 as follows:

Table 3: Expresses of dependent and independent model components in the model

(OECD_TB)	OECD Countries Average Tax Burden (as annually)
(OECD_INF_RT)	OECD Countries Average Inflation Rates (as annually)
(GDP_OECD)	OECD Countries Average Gross Domestic Product (GDP) (as annually)

Our study determined that stationarity was achieved with a probability smaller than the 0.05% value obtained after taking the "first difference" of the time series, primarily in determining the stationarity of the time series. Therefore, analyses were made based on the "primary differences" of the time series. Table 4 below shows the stationarity table of probability values:

Table 4: Unit root test results table for Augmented Dickey-Fuller (ADF)

		OECD_TB	OECD_INF_RT	GDP_OECD
With Constant	t-Statistic	1.9191	2.5432	-4.5199
	Prob.	0.097	1.0000	0.0009
		n0	n0	***
With Constant & Trend	t-Statistic	0.7164	1.7522	-4.4502
	Prob.	0.9995	1.0000	0.0056
		n0	n0	***
Without Constant & Trend	t-Statistic	1.3819	2.3762	0.0997
	Prob.	0.9557	0.9949	0.7082
		n0	n0	n0
At First Difference				
		d(OECD_TB)	d(OECD_INF_RT)	d(GDP_OECD)
With Constant	t-Statistic	-2.5911	-2.1137	-8.1024
	Prob.	0.0043	0.006	0.0000
		n0	n0	***
With Constant & Trend	t-Statistic	-3.4271	-2.4776	-8.0659
	Prob.	0.0037	0.0069	0.0000
		*	n0	***
Without Constant & Trend	t-Statistic	-2.2355	-1.9237	-8.1869
	Prob.	0.0264	0.0529	0.0000
		**	*	***

Notes: a: (*) Significant at 10%; (**) Significant at 5%; (***) Significant at 1% and (no) Not Significant.

In addition to all these and the stationarity determined by the probability values of the augmented Dickey-Fuller test mentioned in Table 4 above, a group summary test, probably including the Phillips-Perron stationery test, is presented in Table 5 below:

Table 5: Group unit root test: Summary*

| Method	Statistic		Prob.**	Sections	Obs	Prob.**
Series**: OECD_TB, OECD_INF_RT, GDP_OECD						
Sample: 1983 2022						
Levin, Lin & Chu t*	6.79836		0.0000	3	100	0.0011
Im, Pesaran and Shin W-stat	-7.81353		0.0000	3	100	0.001
ADF - Fisher Chi-square	62.2753		0.0000	3	100	0.0032
PP - Fisher Chi-square	84.5028		0.0000	3	111	0.0023
Coefficient (ADF)***	-1.493804	-1.493804	-1.493804	-1.493804	-1.493804	0.0000
	(0.190678)	(0.190678)	(0.150758)	(0.138399)	(0.955236)	
Coefficient (Phillips-Perron)***	-0.486842	-0.486842	-0.486842	-0.486842	-0.486842	0.0000
	(-0.936384)t	(-1.586383)t	(-1.538396)t	(-0.638354)t	(-1.339629)t	

* Automatic lag length selection based on SIC: 0 to 1 Unit root (assumes common unit root process)
** All tests assume asymptotic normality
*** Standard deviations in bracketed (t)

In addition, Graph 3 below presents the stagnation we created based on the ADF (Augmented Dickey-Fuller) and Philips-Perron distributions depending on the stagnation values in Table 5 as a summary above, determined for the dependent and independent variables:
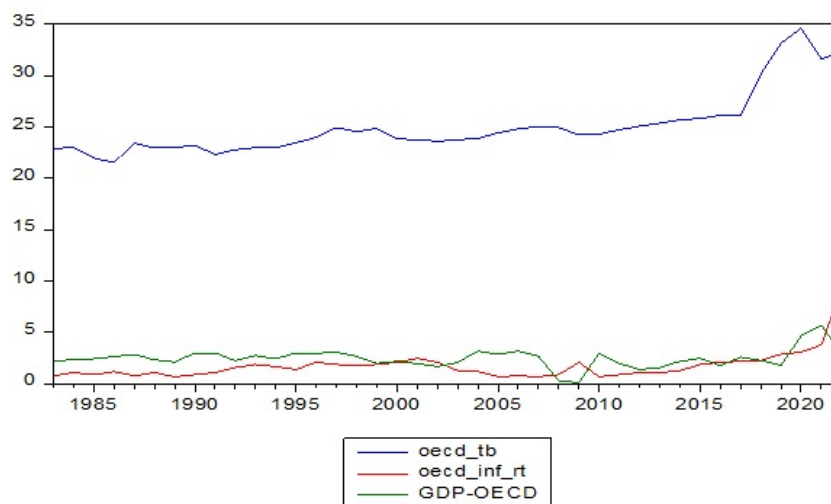
Figure 3: Stagnation distribution view of the series used in the model

The accurate representation of the stationarity positions of the analyzed series in Chart 3 can be expressed via graphical techniques, specifically the deployment of recursive residual distributions. These distributions are reliable indicators of significance for the underlying base series while conforming to the constraints imposed by significant effect considerations. The examination of the significance distribution of the scale effect of the entire series within the model in terms of stationarity reveals the existence of a substantial residual distribution encompassing all-time series, as demonstrated in the recursive graph distribution presented by the model. Graph 4 below visually illustrates the distribution of other residual values associated with stationarity in the expression of the recursive residuals within the model:
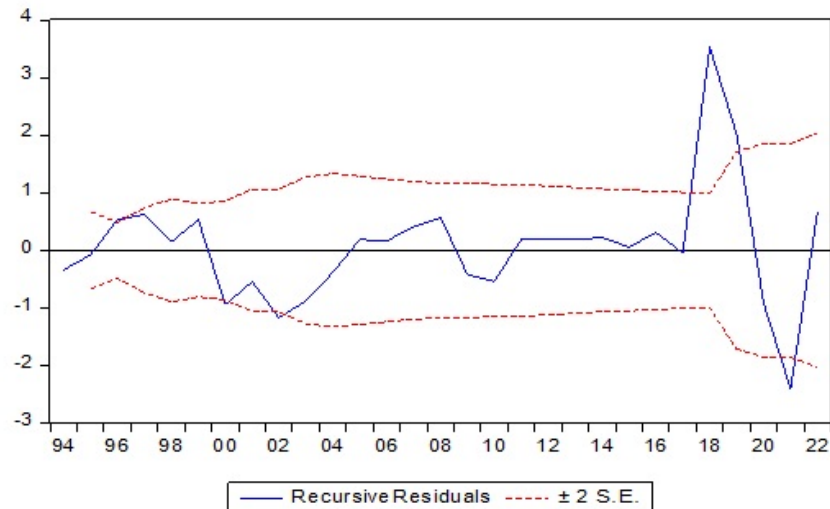
Figure 4: Recursive residual distributions and constraints of components in the NARDL approach

The expression of the cointegration equation of our respective non-rejectable model and its scale values based on the recursive residual distribution observed in Graph 4 above are meaningful based on the scale effect. The results about the position of the estimation equation, which can be elucidated within the Nonlinear Autoregressive Distributed Lag (NARDL) approach, along with the substitution coefficient scale effect concerning its placement in the estimation equation, are as follows:

EMPIRICAL FINDINGS AND RESULTS

Based on these stationary determination findings, the coefficient reflecting the effects on the dependent variable, particularly within the ambit of the condensed equation, is presented below:

Estimation equation

OECD_TB = C(1)*OECD_TB(-1) + C(2)*OECD_TB(-2) + C(3)*OECD_TB(-3) + C(4)*OECD_INF_RT_POS + C(5)*OECD_INF_RT_NEG + C(6)*GDP_OECD_POS + C(7)*GDP_OECD_NEG + C(8)

Forecasting equation

OECD_TB = C(1)*OECD_TB(-1) + C(2)*OECD_TB(-2) + C(3)*OECD_TB(-3) + C(4)*OECD_INF_RT_POS + C(5)*OECD_INF_RT_NEG + C(6)*GDP_OECD_POS + C(7)*GDP_OECD_NEG + C(8)

Substituted coefficients

:

OECD_TB = 1.021701542*OECD_TB(-1) - 0.476690617*OECD_TB(-2) - 0.393163106*OECD_TB(-3) + 0.700898629201*OECD_INF_RT_POS + 0.688291613146*OECD_INF_RT_NEG + 0.300132528988*GDP_OECD_POS - 0.0479548181617*GDP_OECD_NEG + 18.6418286966

Cointegrating equation

D(OECD_TB) = 18.6418286 - 0.8481521825*OECD_TB(-1) + 0.7008986292*OECD_INF_RT_POS** + 0.6882916131*OECD_INF_RT_NEG** + 0.3001325289*GDP_OECD_POS** - 0.047954818162*GDP_OECD_NEG** + 0.869853724868*(OECD_TB - (0.82638310*OECD_INF_RT_POS(-1) + 0.81151900*OECD_INF_RT_NEG(-1) + 0.35386636*GDP_OECD_POS(-1) - 0.05654035*GDP_OECD_NEG(-1) + 21.97934413) + 0.393163106985*D(OECD_TB(-2)))

Furthermore, we employed the Wald test to assess the accuracy of the predictions and evaluate the constraints on the parameters under the null hypothesis. The determined probability derived from this test was utilized to scrutinize and validate the statistical accuracy of the predictions in our

model, considering the underlying unconstrained prediction assumptions. Table 6 below presents the hypothetical and statistically constrained NARDL Wald Test estimation values:

Table 6: Hypothetical and statistically constrained NARDL Wald Test estimation values

Test Statistic	Value	df	Probability
t-statistic	-3.031614	29	0.0051
F-statistic	9.190685	(1, 29)	0.0051
Chi-square	9.190685	1	0.0024
Null Hypothesis: C(2)=C(3)+C(4)+C(5)+C(6)+C(7)+C(8)			
Normalized Restriction (= 0)		Value	Std. Err.
C(2) - C(3) - C(4) - C(5) - C(6) - C(7) - C(8)		-20.36672	6.718112
Restrictions are linear in coefficients.			

The statistical analysis conducted in Table 6 above indicates that the probability derived from the Wald Test is below the significance level of "0.05". This finding validates the accuracy of the null hypothesis values and implies that the model based on the H=0 hypothesis cannot be rejected. Consequently, the T-statistics and F-statistics probability values being lower than 0.05 (as <0.05) suggest that the estimation of our NARDL (Nonlinear Autoregressive Distributed Lag) model holds a meaningful structure constraint according to statistical definitions. Consequently, the hypothesis cannot be refuted depending on the specific circumstances. Table 7 below shows the econometric results, where the impact of the non-linear autoregressive distributed lag (NARDL) model on the dependent variable is observed. This includes considerations of variability and scale effects and incorporating a delay option:

Table 7: Scale Effect and statistical findings in NARDL model approach

Variables	Zero Latency	1. Latency	2. Latency	3. Latency	4. Latency
ΔOECD_TB*		1.021702 (0.194107)	-0.476691 (0.303563)	-0.393163 (0.324392)	-1.372903 (0.427895)
Δ OECD_INF_RT(+)		0.8263839 (0.343988)			
Δ OECD_INF_RT (-)		0.688292 (0.433791)			
Δ GDP OECD (+)	0.300135 (0.287098)	0.353866 (0.287098)			
Δ GDP OECD (-)	- 0.0479587 (0.047955)	-0.056540 (0.047955)			
OECD_INF_RT (+)	0.700898	0.353866			
OECD_INF_RT (-)	0.688291	0.353866			
GDP OECD (+)	0.300132	0.353866			
GDP OECD (-)	-0.0479548	-0.0565403			
Variance Inflation Factors**		0.037678	0.092150	0.105230	2.59465
Scaled Coefficients**		1.021702	-0.476691	-0.393163	-1.16548
Other Decisive Statistical Findings					
R-Squared	0.914301	Adj. R-Squar***	0.893615	Wald Test: Equation, NARDL:	-20.36672 (6.718112)
Ramsey Reset Test	0.370024	*F*-statistic	44.19893	Jarque-Bera	19.66737
CointEq(-1)*	-0.848152 (0.204214)	Probability (*F*-statistic)	0.000000	Median	-0.050088

*Depended Variable
**For Depended Variable
***Adj.R-Squared: Adjusted R-squared

Table 7 above displays the coefficient configuration and direct effect scale values, including lag values, concerning the scale effects of the dependent variable (OECD_TB) and other independent variables (OECD_INF_RT and GDP_OECD). The results presented in this table indicate significant structural deviations in the tax burden variability of the OECD and that the dependent variable is negatively influenced during lagged periods. Additionally, the independent variables, as exemplified by OECD_INF_RT, demonstrate a positive coefficient scale effect of "0.8263839" on the initial variability of the dependent variable.

In OECD_INF_RT, when no lag is applied to the independent variable, it becomes apparent that each unit increase in inflation rates yields a positive scale effect of "+0.700898" on the dependent variable. Consequently, in scenarios where inflation increases by one unit, the scale effect on the tax burden is positive, specifically "+0.353866" during the first lag period. Importantly, even in situations where there is a decrease in inflation rates, in both the absence of a delay and during the first lag, these maintain their positive impact on the tax burden, with values

of "+0.688291" and "+0.353866," respectively. The scale effect values of GDP_OECD on the dependent variable, OECD tax burden, merit particular attention. The effect value arising with each unit increase of GDP_OECD in the no-delay period is +0.300132. In the case of the first lag during this increasing process, the scale effect value remains positive at "+0.353866."

However, in a non-linear process where GDP decreases, the scale effect of GDP_OECD on the dependent variable in the no-lag process generates a negative contraction effect of "-0.0479548" for every unit decrease in GDP. Furthermore, in the first lag period, this contraction effect in GDP manifests a correlation, whereby the tax burden experiences further negative impact through the scale effect of "-0.0565403. These adverse effects have heightened the emphasis on the OECD tax burden, as the decline in GDP leads to an increase in the tax burden compared to the OECD average. In all this context, the dependent variable OECD_TB is exposed to a negative and increasing scale effect value of "-0.476691", -0.393163," and "-1.372903" in each lagged condition except for the first lagged period. Furthermore, determinations were made by incorporating threshold regression analysis to assess the extent to which the antecedent values of the dependent variable in our model exhibited positive and negative influences from the independent variables. Specifically, the significance of our threshold regression analysis is highlighted by the observation that the probability values based on GDP_OECD and OECD_INF_RT, the two independent variables considered in this analysis, are less than 0.05 (<0.05). Table 8 presents the threshold regression values denoting positive and negative effect magnitudes:

Table 8: Positive and negative effect sizes of threshold regression test and constraints

Threshold Variable: OECD_TB. Included Observations: 40				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
Threshold Variables (linear part)				
GDP_OECD	6.278271	1.821236	3.447258	0.0016
OECD_INF_RT	5.526113	3.331566	1.658713	0.0067
Threshold Variables (nonlinear part)				
GDP_OECD	-5.798119	2.318512	-2.500793	0.0175
OECD_INF_RT	-4.906476	3.466769	-1.415288	0.0564
Non-Threshold Variables				
@TREND	0.73066	0.083283	8.773263	0
Slopes				
SLOPE	1.096473	0.504634	2.172806	0.0371
Thresholds				
THRESHOLD	23.78829	0.622927	38.18796	0
R-squared	-0.761492			
Adjusted R-squared	-1.081763			

It is understood that the effect of both independent variables on the dependent variable OECD_TB is negative in a non-linear structure in the NARDL approach within the threshold regression approach in Table 8 above. This agrees with the values in Table 5, which includes previous NARDL analyses. In a nonlinear structure, the dependent variable is interpreted as the tax burden being negatively affected and further increased.

Table 9 displays the long-term F-statistics breakpoint tests and the "Null Hypothesis" approach for the long-term "asymptotic" significance breakpoints and actual sample size values concerning various significance levels concerning the non-level relationship within the framework of the NARDL. Table 9 describes the results obtained based on the long-term observed F-statistics based on the NARDL analysis. This analysis examines the possible repercussions of long-term impact scales, significantly below the 5% significance level. The results show that on an asymptotic basis, it reflects the accumulation of potential consequences in the long term. The existence of an increasingly significant effect scale under the 5% significance level (as < 0.05) is supported by this analysis. The increasing trends

of values such as I(0)=2.56 and I(1)=3.49 at the 5% significance level were considered to determine the long-term and future effect values. These findings provide meaningful evidence supporting the proposed hypothesis. Likewise, the analysis based on Actual Sample Size values was determined as I(0)=2.893 and I(1)=4. These results show that the upper limit of the long-term effect scale of the independent variables may be higher, which can be considered a significant indicator supporting the hypothesis. The results show positive and negative trends, considering the effect of the error term in the model, and this indicates that the hypothesis is compatible with the analysis results. In addition, Actual Sample Size and Finite Sample observations also obtained very close results at the 5% significance level (as < 0.05), confirming that the results obtained were statistically significant.

Table 9: NARDL Long-term F-Bounds Test and null hypothesis effect Scala Values*

F-Bounds Test			Null Hypothesis: No levels relationship	
Test Statistic	Value	Signif.	I(0)	I(1)
			Asymptotic: n=1000	
F-statistic	2.452130	10%	2.2	3.09
k	4	5%	2.56	3.49
		2.5%	2.88	3.87
		1%	3.29	4.37
Actual Sample Size	37		Finite Sample: n=40	
		10%	2.427	3.395
		5%	2.893	4
		1%	3.967	5.455
			Finite Sample: n=35	
		10%	2.46	3.46
		5%	2.947	4.088
		1%	4.093	5.532

* Considering the Error Term Coefficient Effect Values:

$$EC = OECD\_TB - (0.8264*OECD\_INF\_RT\_POS + 0.8115*OECD\_INF\_RT\_NEG + 0.3539*GDP\_OECD\_POS - 0.0565*GDP\_OECD\_NEG + 21.9793)$$

DISCUSSION

The fact that the tax burden in OECD countries has an international dimension brings with it discussions on the impact values of the macro components discussed in this study. However, the effects of the recent global inflation and the deviations in the economic growth values between countries in recent years have shown that the determined macro components have a significant effect on the effect values. It has emerged as a financial phenomenon that this effect value directly affects the tax burden of countries and OECD average. This omission primarily arises from the fact that treating exchange rate changes as a dummy variable generates an indirect effect (Berset et al., 2023). Their potential influence on different national income levels may yield spurious deviations within the analysis (OECD, 2021-b). The scale effect values determined within the scope of the periods covered by the research were quantitatively measured with the scale values assigned to the tax burden based on the periodic fluctuations. Within the scope of the OECD, the effect of significant increases in the tax burden due to the permanent impact of changes in structural fiscal policies that exceed these estimates also reveals. Within this contextual milieu, the proposed tax burden analysis, set to encompass OECD nations, advances an approach that extends beyond the confines of merely incorporating the inflationary component. Instead, it seeks to encompass a spectrum of macroeconomic influences that collectively ascertain the authentic valuation of pivotal economic growth nuclei. Rooted in a paradigm of three-dimensional panel data analysis, this methodological underpinning affords a comprehensive vantage point for dissecting the intricate interplays unfurling across divergent temporal epochs and national contexts. Consequently, this analytical framework stands poised to unravel

the multifaceted implications underscoring the nexus between tax encumbrance and economic advancement, facilitating an expansive assessment that inclusively accommodates variegated national-level policy retorts.

Theoretical implications of the study

This process, at the same time, reflects a structure in which integration problems between countries, which can be expressed with different values, are also on the agenda at the global level, and emerges as an important factor preventing the creation of a standard fiscal policy between countries. Structural criticism made within the theoretical framework of the subject emphasizes that especially the inflation phenomenon and the approaches in Gross Domestic Product (GDP) values are discussed in the theoretical plan, but in practice, countries do not take the necessary measures in this regard and do not participate sufficiently in standard fiscal policies. At this point, it is emphasized that the primary objective of the Organization for Economic Cooperation and Development (OECD) is to establish a framework for the determination of standard global financial values, as well as the creation of standard development policies. The level of financial stress based on the tax burden, which increased significantly in 2020, is in harmony with the global liquidity peak observed in 2023 and beyond. These results highlight the power and effectiveness of the model in understanding future changes. The recent observation of some deviations between countries, especially during the Corona 19 pandemic, shows that significant fiscal policy dilemmas have arisen due to development differences. It is seen that OECD countries, which experienced this stalemate, inflation and economic contraction, especially in terms of tax burden, have different fiscal policy practices and cause global financial conflicts that lead to various effects. The model developed in this study emphasizes the necessity of dealing with fluctuations in variables such as inflation and GDP on a common basis. Periodic increases in these variabilities constitute the main reason for evaluating the impact values of the determined macro components in a common perspective. The focus of our study is to determine the extent of the fluctuation of the average tax burden across the OECD under the influence of the relevant Gross Domestic Product

(GDP) and inflation financial phenomena, which are represented as independent variables. At the same time, it is among the aims of this study to analyse the degree of contribution of financial effect sizes to the creation of coherent fiscal policies and to highlight the inequalities in the trajectories of economic progress between countries. The data obtained points to an unexpected and complex network of relationships, questioning the predicted hypothesis rather than confirming it. In this context, more empirical studies and in-depth data analysis will contribute to a better understanding of these relationships in terms of cause-effect relationships. Previous key findings can provide a solid foundation for further research, emphasizing the need to question aspects previously understood within the OECD framework. This request also aims to provide stability by providing a frame of reference and a scale of contribution at the national level and supports the development of a common fiscal policy that can promote global integration among the various strata among OECD countries.

Practical and contextual implications of the study

These findings deviate from the generally accepted view in the current literature and highlight the complexity of the issue, suggesting that it requires a more comprehensive analysis of possible explanations. These nations are characterized by unique paths of economic progress and effects of scale, and this study makes an important contribution to the study of these strata. Conversely, a process ensues where the effects of this structural phenomenon become inevitable within the framework of diverse measures implemented to address inflation increases based on distinct fiscal policies adopted by countries. It is worth noting that this situation, by giving rise to varying inflation rates, sun veils the potential for forming a tax burden that can be quantified using different values. In OECD countries, economic growth and differing fiscal approaches alter the course of tax burden-weighted practices, leading to a noticeable and effective implementation trend when the weight of tax practices is perceived differently within fiscal policies. It is observed that our current model exhibits a scale effect that is more sensitive to change values for inflation and GDP variability in terms of practical implementation efficiency, especially in the post-2020 period, especially after the impact of the

COVID-19 epidemic. Regarding the scale effect values, the episodic surges observed amid the Corona-19 pandemic are quantified by a scale value that assumes a meaningful proportionality when juxtaposed against values of other years in the application. This transformation constitutes a significant influencing mechanism on actual level tax burden rates, primarily in light of the substantial inflation rates directly experienced by countries to inflation rates. Hence, an empirical approach, it is acknowledged that a scale effect articulated within the purview of each actual variable, renders it more meaningful to determine an average tax burden trend that can be evaluated using distinct values. This approach underscores the significance of the deflator effect of inflation rates in revealing the actual tax burden a direct trend. Furthermore, it accentuates that measuring the effect values independent variables, primarily within a structure lacking trend relationship regarding the process of the independent variables considered at the actual level, imparts greater meaning to the tax burden. The recent decisions of the OECD Financial Affairs Committee stand out as essential steps towards overcoming certain deficiencies in practice. However, in the international arena, it is observed that varying expectations and approaches to different financial problems among countries have resulted in changing results in implementing common fiscal strategies. Based on this foresight, OECD-weighted tax burden-based fiscal paradigms increase the potential for an acceleration that could further strengthen inflationary forces for the continuation of fiscal policies in 2024. Paradoxically, an important point to note amid these dynamics is the controllable constraints of the structural potential impact values from the projected targets outlined in the OECD tax burden estimates. These variations in fiscal policy practices can lead to negative consequences affecting concrete tax practices and adverse changes in fiscal perceptions, especially in developing OECD countries. Especially in the context of emerging economies, considering the concept of Gross Domestic Product (GDP) in a priority position in practice also differentiates the tax burden variability among OECD countries in practice.

Limitations and Future Research Directions

It appears that tax burden variability problems have transformed the perception of being accepted as a priority financial phenomenon in economic periods that should be addressed in line with increasing financing requirements and targeted growth trends. In this context, when we look at the practical applications in setting financial standards across the OECD, it is a difficult statement to claim that the tax burden is a primary target. Undoubtedly, this phenomenon affects the way OECD directs analytical studies on the recent tax burden and tax practices. It also opens the door to academic studies where the components for achieving a development framework that focuses on economic growth are more prominently emphasized. Consequently, a sector-specific approach to economic growth trends emerges to establish a balanced sectorial incentive policy that can coexist with the escalating inflationary process, despite the decrease in tax rates and the need for public financing. Hence, to avert a decline in economic growth and re-establish an upward trajectory, it becomes imperative to adopt a balanced policy and, accompanied by sectorial incentives, even in the face of ongoing global inflation (OECD, 2022-f). Conversely, although the impact of exchange rate fluctuations on inflation rate increases is widely recognized, our empirical analysis does not directly incorporate the variability of exchange rates in the specific subject matter under examination. This reality is essential for expressing concrete and traceable implementation activity in an index-based conceptual framework. This trajectory of change, shaped in line with global inflation patterns, reveals a permanent structural empirical design characterized by significant fluctuations in the coming years. These scale values emphasize that the empirical model results are significantly proportional to the results for future years. The expected valuations corresponding to the tax burden 2023 estimates indicate the meaning of the model's sensitivity, which we base on the quantitative variables of the model often related to temporal structural variability, in the following years, especially in developed economies. Therefore, supporting our analysis with seasonal dummy variables based on inflation and keeping these fiscal paradigms with current forecast values will increase the significance of the model we are considering for the following years. Subsequent scholarly inquiries necessitate a meticulous investigation into

the ramifications stemming from the escalation of global inflation, particularly concerning the intricate frameworks of fiscal stress and fiscal fragility within the global financial system. Within this analytical framework, paramount consideration can be accorded to the efficacy of tax burden as a subject meriting thorough investigative endeavour. It remains imperative to remember that pursuing economic advancement targets, as aligned with the prevailing policy paradigms embraced across OECD nations, is frequently susceptible to interventions grounded in monetary mechanisms. Such a circumstance inherently engenders the potential for divergent tax policy trajectories to be adopted at the sovereign level across disparate countries.

CONCLUSION

The average values of the tax burden within the OECD have been notably affected by the inflation rates and economic growth of the gross domestic product (GDP) within the same context. Particularly when considering lagged periods, it becomes evident that changes in inflation rates and GDP growth within the OECD each year exhibit positive effects on the increase in the tax burden. Notably, our analyses reveal that the annual change effect of average inflation rates, primarily the positive effect of variability on the tax burden with one and two lags, exceeds the impact of a stationary scale. All variables in the model highlight those variations in GDP impact on the tax burden reduction process as scale effects on the OECD average tax burden increase. In contrast, more minor scale effects may be negative. Our findings indicate that increasing negative scale values effectively reduces the tax burden, particularly in an environment with increasing economic growth rates and potential delays. This positive determination for the average taxpayer suggests that the OECD tax burden has a less significant impact in developed countries. However, in emerging economies representing rapidly developing nations, development is linked to a higher tax rate effect due to increasing financing needs and a positive growth effect. Although these differences among OECD countries can be explained by the standard deviation values in the findings, they do not significantly diminish the importance of the determined cumulative values or the meaningfulness

of the effect scales of the independent components on the tax burden within our empirical model. Specifically, the findings within the constraint limits for the variability of the OECD average tax burden allow for evaluating scale values for the significant tax burden. It increases as a long-term effect and considers inflation variants more meaningfully and precisely. Consequently, maintaining an increasing average GDP while establishing a stable average tax burden necessitates a delay period that ensures global control of the inflationary process and establishes an optimal structure for global financial resource allocation.

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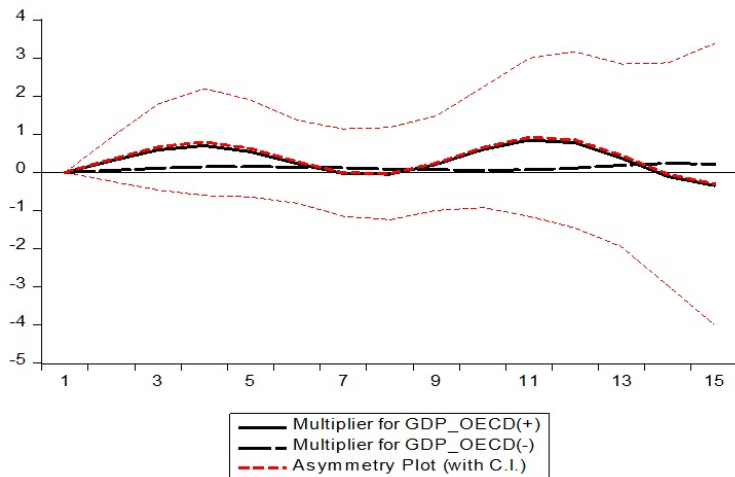
ANNEX 1

NARDL variance decomposition proportions associated eigenvalue scale effects

Variable	1	2	3	4	5	6	7
OECD_TB(-1)	0.118348	0.055135	0.255696	0.318055	0.001504	0.250979	0.000160
OECD_TB(-2)	4.47E-05	0.037645	0.883428	0.051031	0.025320	0.002351	0.000131
OECD_TB(-3)	0.455322	0.139707	0.312857	0.015232	0.015493	0.061022	0.000325
OECD_INF_RT_POS	0.301193	0.410323	0.080494	0.094577	0.092391	0.019608	0.001413
OECD_INF_RT_NEG	0.298052	0.607464	0.000176	0.027474	0.066287	0.000128	0.000418
GDP_OECD_POS	0.253391	0.184280	0.077017	0.444529	0.018255	0.017757	0.004768
GDP_OECD_NEG	0.005506	0.469500	0.200019	0.266789	0.048857	0.004562	0.004766
C	0.999997	5.21E-07	1.06E-07	3.66E-08	2.49E-06	5.18E-08	1.14E-08

ANNEX 2
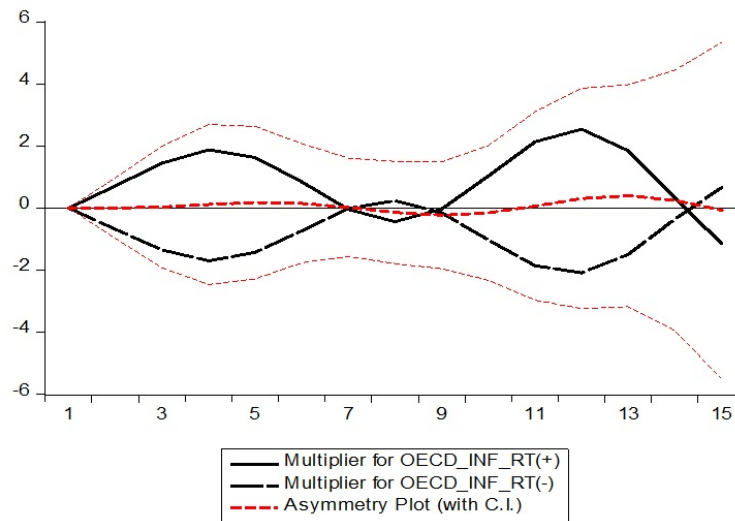
Graphical distribution of inflation variability of positive and negative impact constraints in threshold analysis

Graphical distribution of GDP variability positive and negative impact constraints in threshold analysis

ANNEX 3

Ramsey reset test model reliability verification test values

Specification: D(OECD_TB) C OECD_TB(-1) OECD_INF_RT_POS OECD_INF_RT_NEG GDP_OECD_POS GDP_OECD_NEG D(OECD_TB(-1)) D(OECD_TB(-2))			
	Value	df	Probability
t-statistic	1.421675	28	0.1662
F-statistic	2.021161	(1, 28)	0.1662
Likelihood ratio	2.578825	1	0.1083
F-test summary:			
	Sum of Sq.	df	Mean Squares
Test SSR	1.982398	1	1.982398
Restricted SSR	29.44540	29	1.015359
Unrestricted SSR	27.46300	28	0.980821
LR test summary:			
	Value		
Restricted LogL	-48.27569		
Unrestricted LogL	-46.98628		
Prob(F-statistic)	0.03753		