

GDP Per Capita Variability in Emerging Economies and Scale Effect of Inflation-Tax Burden

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Abstract: This paper explores the variability of the Gross Domestic Product (GDP) per capita in emerging economies and the impact of inflation-tax burden. We investigate how inflation influences economic stability and the fiscal mechanisms to manage this variability. Understanding the effects of the volatility that exists primarily in emerging economies and the inflation rates and tax burden variables that are accepted as the causes of instability as macro variables on the national income per capita constitutes an economic research framework based on the fact that they have an essential place in making economic and financial decisions, especially for emerging economies. It is observed that the most critical financial instability issues in emerging economies have emerged for two main reasons. The main reason is the search for financial resources related to increased inflation rates and tax burden variability. This affects economic growth on a GDP basis and changes with the GDP per capita. This impression sometimes contradicts the economic growth targets and creates a mutual handicap by creating different impact values on emerging market economies created by the global economic crisis. The search for financial resources in the emergence of current deficits in the most critical instability problems related to countries representing emerging markets is evolving into a position where direct tax resources can be further increased and thus affect the tax burden. This evolution also occurs in countries representing emerging market economies in a structure where inflation continues. The findings, especially with the impact of emerging market economies on each other at the global level, are observed to be in a remarkable position, especially with the impact values of emerging market economies on each other, which are close to each other. This finding reveals that although GDP per capita is affected by different impact values, for countries representing emerging markets, this triggers a process where the two main reasons are the constant increase in tax burden and price instabilities and, above all, the emergence of a higher scale deviation effect trend.

Keywords: Emerging Markets, GDP, Inflation, Price Instabilities, Tax Burden.

1. Introduction

It appears that GDP per capita for emerging market countries has different scale effects than other countries, which creates an impact value shaped in a position that directly affects the national GDP per capita with the mutual interaction of these countries concerning emerging markets. The findings of our panel data analysis studies based on countries representing emerging market economies reveal that these countries create a global trend that affects each other more than developing countries regarding mutual impact values. This impression is undoubtedly that the effects of inflation on the ongoing economic growth in these countries have become even higher in recent periods and that global inflation has entered a mutual interaction with values, making it an inevitable subject of critical analysis. For this purpose,

within the scope of a panel data analysis of emerging market economies, the relationship between direct inflation and inflation variability and the tax burden increases on national income and GDP per capita, which changes are observed together with the process on the macro context of the recent period significantly indicates the inevitability of the future estimates (Olaluwoye, 2024: 2). The findings, especially regarding the impact of emerging market economies on each other at the global level, are observed to be in a remarkable position, especially considering the proximity of the impact values of emerging market economies. It is undoubtedly necessary to emphasize that the economic structures, financial systems and integration levels of countries with global markets have an essential place in the emergence of this phenomenon in emerging market economies. However, capital flows and direct foreign investments are no longer possible today to be limited to Gross Domestic Product policies, especially regarding markets. This concept can also be shaped by economic relations established in international markets. This structural formation trend can reveal the per capita values of the mutual gross domestic product in these countries, with some regional and global economic effects, primarily on emerging market economies (Christina and David, 2010: 768).

In countries representing emerging markets, especially when looking at the direct effect of inflation on per capita national income, it is observed that high and uncontrolled inflation rates significantly negatively affect the production capacity of the real sector and shrink the markets. Apart from possible crises in the industries, inflation rates have increased remarkably. When the inflation rate rises continuously uncontrolled and the effect of monetary policies decreases, inflation directly creates a welfare effect, which causes deviations in per capita national income with a negative welfare effect. This study has aimed that is based on Poland, Czechia, Brazil, Hungary, Turkey and Mexico as countries representing emerging market economies, two macroeconomic issues, two critical parallel deviations, tax burden and inflation, especially in emerging market economies, which impacts the structure, especially with the increasing inflation rates per capita and the excessively high tax rates per capita, especially revealing a negative process created by the tax revenue infrastructure. In other words, the fact that effective monetary and fiscal policies have not been implemented in a balanced manner to increase per capita income in countries representing emerging market economies also means an external risk of an unmanageable crisis process with a significant crisis effect. With its uncertain and negative impact on investments and consumption, the ongoing inflation process creates a substantial tax burden in terms of financial interest rates, creating a significant mutual negative vicious circle effect that significantly distorts per capita (Koester and Kormendi, 1989: 372-373). When the subject is addressed within the framework of a Keynesian economic theory, it is observed that as a structural change phenomenon, especially the targets of tax revenues to be brought back to the economy through the financing of public expenditures, this cycle does not work frequently in emerging market economies and together with the increasing tax burden, the distorting effect of price stability, supply-side economic theories come to the fore, causing a deviation in savings and investment trends, negatively affecting per capita national income. It is also observed that this effect, especially with the high corporate tax, creates a tax burden and inflation spiral process in emerging market economies with different effect values in a deterrent environment for foreign investments. This financial spiral, which directs central banks to increase interest rates even more, means a negative welfare effect on individuals because of the tax burden effect, which comes to the fore with the increase in credit costs, affecting financial values and as a financial macro finance effect, the tax burden effect. This negative structural effect in GDP per capita is a tax burden spiral effect that negatively affects financial markets with the inconsistency of financial levels, the increase in possible credit and investment costs, and the negative impact values created by the inflation spiral (Benkejjane, et al., 2024: 4).

2. Literature Review

One of the first studies on fiscal policy and growth is the study by Kneller et al, (1999) it discusses evidence from OECD Countries' modelling studies on monetary transmission mechanisms and inflation processes in emerging markets and presents evaluations regarding the initial findings. These studies also comprehensively examine the dynamics between the effect of inflation on uncertainty and monetary policies. Studies conducted by Nas and Perry (2000), Catão and Terrones (2001), and Mohanty and Klau (2001) have an important place among the studies examining the relationship between per capita national income and economic growth. The analytical studies by D. R. Johnson, (2002), and I. Domaç and E. M. Yücel (2005), as related to triggers inflation in Emerging Market Economies, demonstrate their value

by systematically addressing the factors that analyse the empirical data on the essential factors determining inflation dynamics and make meaningful inferences regarding maintaining fiscal stabilities in emerging market economies. In particular, the survey conducted by J. Gottschalk, K. Kalonji and K. Miyajima (2008) is essential fundamental research aimed at determining critical threshold values and limit points in revealing the determinants of inflation. The study by P. R. Agenor and N. Bayraktar (2010) is considered one of the fundamental studies. And then there was meaningful research by C. Capistrán and M. Ramos-Francia (2010) about inflation targeting affecting the dispersion of inflation expectations. The fiscal purpose of the study by D. Nazar, P. Farshid, and K. Z. Mojtaba (2010) on the symmetry effect of inflation-on-inflation uncertainty was to analyse the impact of inflation-on-inflation uncertainty. The study aims to guide decision-makers in ensuring economic growth, GDP per capita, and stability. This study has investigated the empirical estimation of the Phillips curve in terms of inflationary modelling and income distribution and its direct effect on capital formation as GDP per capita in common-income countries. However, the study conducted by A. Baldini and M. Poplawski-Ribeiro (2011) provides a comprehensive framework that addresses the monetary and fiscal determinants of inflation, especially in the context of low-income countries and emerging market economies. The study on inflation and inflation uncertainty in the Euro Area by G. Caporale, L. Onorante and P. Paesani (2012) aims to reveal the relationship between inflation and inflation uncertainty in the Euro Area with tax variability. The study was conducted using panel analytical methods, providing an essential analytical framework for understanding the effects of inflation dynamics and tax burden on the economic structures in question. On the other hand, the study and analyses conducted by O. S. Oladipo, A. Ntoko and W. Forrester (2013) examine the sources of inflation in countries defined as emerging market economies and the monetary change processes that cause inflation, especially in West African countries, within an analytical framework. In addition, the study conducted by P. Deniz, M. Tekçe and A. Yılmaz (2016) reveals important and meaningful findings. It has made significant contributions to the scientific literature in this field by addressing the determinants of inflation using the panel data analysis method. The study by M. Omidí, Q. Min and M. Omidí (2017) presents current analyses that generally express economic growth rate, inflation, unemployment rate, income distribution and tax impact as economic variables. In their studies, C. Richaud, A. G. M. Galego, F. Ayivodji, S. Matta and S. Essl (2019) present analyses that can help reduce financial security vulnerabilities by monitoring public expenditures and GDP, making tax reforms and managing borrowing strategies. GDP per capita determinations represent analyses that reveal the priority of economic growth in both studies. These findings guide the studies we are conducting and have contributed to the formation of our methodological approaches. The study by J. C. Cuestas, L. A. Gil-Alana, and K. Taylor (2016) and the study by N. A. Asab, J. Cuestas, and A. Montagnoli (2020) conducted a similar review based on previous research on inflation targeting and exchange rate targeting used for price stability purposes in emerging market economies, which is evaluated the effects of GDP-inflation analyses, including the price stability-tax burden effect in emerging market economies. In the study about the determinants of inflation and fiscal dynamics in Emerging Markets, published by D. Asfuroğlu (2021), the interactions between inflation and fiscal policy were examined using macroeconomic data and empirical analysis. The results show that GDP per capita in emerging market economies may depend on factors different from those in developed countries. The study by V. Balasundharam, A. Kayastha and M. Poplawski-Ribeiro (2023) presented analyses that express inflation indexing, the adjustment of economic variables (wages, taxes, debts, etc.) against price fluctuations with specific formulas. Whereas the study by D. Garcia-Macia (2023) presented analyses that determine real GDP variability by detailing how inflation changes the actual value of public debt, its effects on tax revenues and expenditures, and the dynamics of budget deficits. F. A. Marioli, A. Fatás, and G. Vasishtha's (2023) study of fiscal policy volatility and growth in Emerging Markets and developing economies is actually-one of the most important recent studies. This study profoundly examines the importance of financial stability and GDP per capita increases in emerging market economies and how they can affect growth. The IMF study (2023), "Fiscal Monitor-April 2023," also supports this study regarding time series. K. Tsaurai (2021) investigates the relationship between tax revenues and economic growth in emerging markets on a GDP per capita basis, while addressing how financial development affects this relationship. The main argument of the study is that monetary development can change the role of tax revenues in supporting economic growth. Another study by D. de Padua, M. H. Kiocho and D. Park (2024), which also supports this basic argument, is a meaningful study that analyses

the effects of excessive tax burden on investment decisions and determines significant current findings by analysing that per capita income growth can decrease.

3. MOBILITIES IN INFLATION AND TAX BURDEN IN EMERGING ECONOMIES AND GDP PER CAPITA

In emerging markets representing developing countries, the correlation between tax burdens and inflation is incredibly effective. This correlation creates a significant scale effect from the GDP per capita in emerging market economies as an average value. It is observed that this scale effect increases with changing values. This impression can also be expressed with different values, except for some economic depression periods, except for the countries in the emerging market economies, with a positive trend, albeit low, and an increasing tendency. However, as the macro values in question, inflation increases. It also brings to the agenda a process in which the rising values per capita are negatively affected within the structure (Arnold, 2008: 14-15). This course reveals that different countries create different values for our panel data analysis, especially in terms of scale effects, and it is essential to emphasize that the approach of the panel data indicators as an analysis is based on this important-meaningful justification in the selection of the method. In emerging market economies, especially where inflation is high or varies and there are different levels of development among them, the depreciation in these emerging markets is understood differently, especially in a precarious position, and the impact on inflation values is included in the process as a scale authority. It should be emphasized that this correlation, as the real values of this correlation, the tax burden inflation, creates a significant scale effect with a meaningful impact value, especially as the exchange rate variability is taken as a basis for understanding the real values. In the following Graph 1, it is possible to monitor the correlation between inflation and tax burden in emerging market economies and the variability of the correlation coefficients until 2021 based on dollar variability until 2021:



Source: S. Danninger, K. Kang and H. PoirsonI (2022). Emerging Economies Must Prepare for Fed Policy Tightening <https://www.imf.org/en/Blogs/Articles/2022/01/10/blog-emerging-economies-must-prepare-for-fed-policy-tightening> (Accessed March, 12.2025).

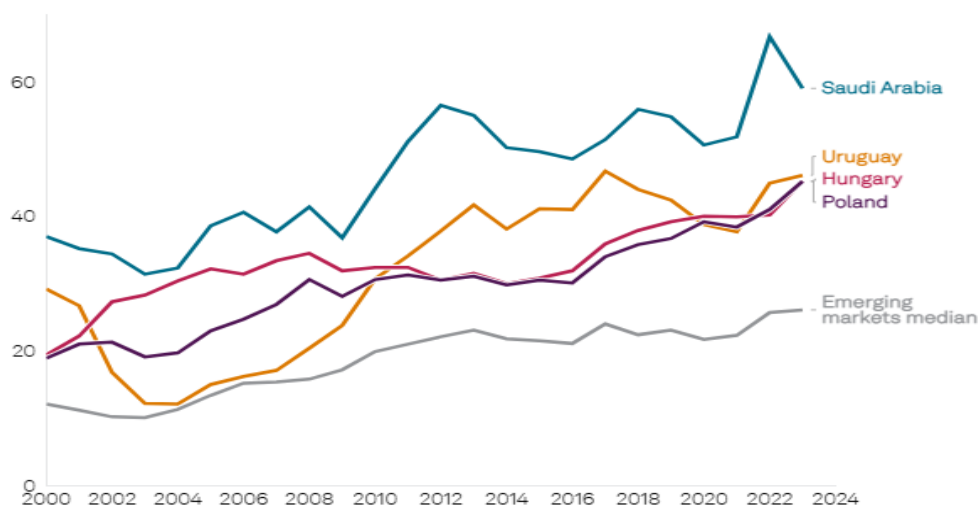
Graph 1. Correlation Between Inflation and Tax Burden in Emerging Markets

As observed in Graph 1 above, the negative correlation between inflation and tax burden in emerging markets is a remarkable value. This correlation effect, primarily based on the variability in the dollar, is "-0.67", which is aimed at determining actual values, and this correlation coefficient is consistent and meaningful with the scale effects in our findings. The correlation value in question reveals a process in which the standard deviation shrinks, especially with deviations in the downward trend, and the coefficient of decrease in this effect of inflation and tax burden based on correlation is different and shows more minor fluctuations when taken on the USD basis. It also reveals that these fluctuations were more stable and controllable during the pandemic period after 2019 and 2020. In particular, the expression of these values means a structural fiscal change cycle in which the relationship values in the correlation turn into a more positive process effect, even though they are negative values, by reducing

the standard deviation coefficients of a controlled inflation process in a structure where the variability in the tax burden does not change much, as observed in Graph 1 above in emerging market economies. It is obvious that the tax burden and macroeconomic indicators that can be considered in providing economic stability, as well as the tax burden that can be considered in terms of exchange rate variability and inflation, together with the process, have a negative relationship with this coefficient and are significant.

In this context, although the variability is evaluated as a positive development in terms of the stability of the economic situation, especially the need to question the scale authority that creates a specific balance element on exchange rate variability on tax policies and inflation arises from this point (Chokri et al., 2018: 158). This value, which is especially fixed in a more stable and controllable correlation structure, especially in developed and developing economies, has been taken under control or tried to be taken in foreign exchange markets thanks to the measures taken by the central banks. In other words, the fact that the change in the tax burden remains limited and expresses a controlled inflation process via standard deviations indicates that these policies indicate a more effective macroeconomic process in revealing economic indicators with each other (Zagler et al., 2003: 402-403). However, despite all these, any value that can be expressed also needs a relationship that can be expressed in different meanings based on GDP per capita. It also describes the necessity of expressing the active variable, the national income per capita, in a meaningful position with a structure supported by correlation coefficients. In this process, the GDP per capita is more closely monitored in the periods which is the subject of our study in Graph 2, making it meaningful to analyse:

GDP per capita of Saudi Arabia, Uruguay, Hungary, Poland above 45% of G7 countries (%)
GDP per capita ratio to G7 in current prices



Source: E. Oliveros-Rosen and T. Fourie (2024). Which Emerging Markets Will Climb The Income Ladder?. <https://www.spglobal.com/en/research-insights/special-reports/look-forward/which-emerging-markets-will-climb-the-income-ladder> (Accessed March, 10.2025).

Graph 2. Changes in GDP per capita in Emerging Economies (%) and Comparisons with G7 Countries (%)

Graph 2 above shows the GDP per capita of Saudi Arabia, Uruguay, Hungary and Poland compared to the GDP per capita of the G7 countries. As observed in Graph 2 above, it is possible to say that the issue is expressed in different values in terms of GDP per capita in countries representing emerging economies in particular and that price stability creates a positive effect, albeit on a small scale, with an increase effect. Graph 2 shows that the average values of emerging markets, which increased from 2000 until 2024, have reached 25% today, with a movement emerging from an average of 15%. It is observed that there are significant fluctuations and structural breaks, although not representative of emerging market economies, in Saudi Arabia, especially in terms of percentage increase values in terms of increases in national income per capita. It is observed that, especially among emerging market economies, the values of Hungary and Poland, which are also the subject of our studies, follow a parallel position with the average emerging market economies for a certain stable period.

It is possible to say that the accession of Hungary and Poland, as emerging market economies, to the European Union in 2004 made significant contributions to the economic growth of these countries and

that EU funds created significant trade advantages by supporting foreign direct investments. This view also gives us an essential idea of comparing with new countries. Even if the national income per capita in emerging market economies is low in this proportional value, it can also be evaluated as a stability potential that can be considered relatively low, especially in terms of emerging market economies that aim for high economic development within developing and economic development trends. This unstable situation of GDP per capita has undoubtedly created an essential mechanism of influence where price fluctuations also create an unstable position and a significant increase in value and need for financial resources reveals that a position where global trade in emerging market economies open to the outside world is not effective at the expected level is subject to different scale effects with varying values of impact in terms of GDP per capita in all emerging market economies.

However, it should be emphasized that the Gross Domestic Product per capita is around 45%, which is a significant course, especially in G7 countries because it is difficult to say that emerging market economies, which are directly affected by the global impact values in economic growth trends within developed G7 countries, are very successful in reaching their economic goals. Social policies often disrupt plans for rapid economic growth, and protection has also found a place in the process by creating a different position that negatively impacts economic growth. However, it is observed that countries such as Saudi Arabia, which have a structural program but are not industrialized, but have high financial impact values, are more effective in the markets. This impression should also be emphasized that emerging market economies are affected by this, and they cannot create a successful impact value within the trend of open market economies, or they are subject to a financial resource loss where they cannot fully comply with the standards of countries with high global impact values such as G7 countries.

This deviation in target economic growth values has made it difficult for emerging market economies to reach the desired high standards at the global level regarding their national income per capita (UN Trade and Development, 2023: 15). In this tight monetary and fiscal policy process, achieving the desired standards is evaluated as an economic deviation trend where developed countries are far outside those standards. As a result of the increasing public resource need and financial need being carried out in an inflationary process together with tax burden and other economic burdens, emerging market economies have been among the important countries that have suffered a loss of monetary national income, which has created a reason for a deviation in GDP per capita values. Therefore, the negative effect of macroeconomic values such as inflation and tax burden, which may have an absolute impact on national income and GDP per capita, is a significant deviation from target economic growth trends. Especially the negative correlation effect of the increases in the dollar exchange rate creates a critical importance in the rate of change of elements such as inflation and tax burden within the standard at a specific time, and the deviations in the hand and the standard selling relationship are also frequently brought to the agenda.

4. Empirical Approach and Methodological Analytical Findings

The Primary reason why we prefer a methodological panel model regression analysis is that it can provide a comprehensive and systematic evaluation to determine the effects of independent variables consisting of five different groups on the dependent variable. The panel regression model approach is structured to include dummy variables and error terms to make sense of the effects of independent variables. The suitability and accuracy of the model and the H0 (null hypothesis) and H1 (alternative hypothesis) structures were evaluated within the scope of hypothesis tests.

$$Y_{it} = \alpha_i + \beta X_{it} + u_{it}$$

$$y_{it} = \beta_0 + \sum_{k=1}^K \beta_k X_{kit} + \alpha_i + \varepsilon_{it}$$

The effects of α_i are eliminated and the change over time is modelled:

$$(y_{it} - \bar{y}_i) = \sum_{k=1}^K \beta_k (X_{kit} - \bar{X}_{ki}) + (\varepsilon_{it} - \bar{\varepsilon}_i)$$

Random Effects (RE) Model:

$$Y_{it} = \alpha + \beta X_{it} + \mu_i + u_{it}$$

As an alternative to the fixed effects model, individual effects are assumed to be random:

$$y_{it} = \beta_0 + \sum_{k=1}^K \beta_k X_{kit} + \alpha_i + \varepsilon_{it}$$

$\alpha_i \sim N(0, \sigma^2_\alpha)$ has a normal distribution and is independent of the error term. Generalized Least Squares (GLS) or Feasible GLS (FGLS) was used for model estimation.

First-Difference Model:

$$\Delta Y_{it} = \beta \Delta X_{it} + \Delta u_{it}$$

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

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

Fixed effects are eliminated by taking the difference between the variables:

$$\Delta Y_{it} = Y_{it} - Y_{i,t-1}$$

The Panel Data Model presents a hypothesis testing process within a specific framework based on the assumption that the fixed effects parameter is accepted:

$$y_i = Z_i \delta + \mu_i 1T + v_i \dots \dots \dots (5)$$

$$y_{it} = \sum_{j=1}^K \beta_j X_{jit} + \alpha_i + \varepsilon_{it} \quad j = 1,2,3,\dots, K, i = 1,2,3,\dots, N \text{ and } t = 1,2,3,\dots, T \dots \dots \dots (6)$$

“ v_{it} ” Stochastic error term is included in the analysis by accepting it as a part of the error term in the determinations made in the fixed effects model (FEM) analysis.

$$E(\varepsilon_{it} \varepsilon_{js}) = 0, \quad \text{if } i \neq j \text{ or } t \neq s$$

$$H_0 : \rho_{ij} = \rho_{ji} = \text{core}(\varepsilon_{it}, \varepsilon_{jt}) \quad i \neq j$$

$$H_1 : \rho_{ij} = \rho_{ji} \neq 0$$

In the Panel Data analysis, the error term (ε_{it}) is emphasized in the significance equation as a variable expressing the uncertain unobservable components in the model:

$$E(\varepsilon_{it} \varepsilon_{js}) = 0, \quad \text{if } i \neq j \text{ or } t \neq s$$

Expected Value is "Zero":

$$E(\varepsilon_{it}) = 0$$

It Has Constant Variance:

$$\text{Var}(\varepsilon_{it}) = \sigma^2$$

In addition, “ μ_i : in the model expresses the fixed effect value that is not dependent on time and cannot be observed:

$$E(\varepsilon_{it} \varepsilon_{js}) = 0, \quad \text{if } i \neq j \text{ or } t \neq s$$

$$H_0 : \rho_{ij} = \rho_{ji} = \text{core}(\varepsilon_{it}, \varepsilon_{jt}) \quad i \neq j$$

$$H_1 : \rho_{ij} = \rho_{ji} \neq 0$$

Table 1. Model Components Expressions in the Panel Data Analysis

GDPPrCp	GDP Per Capita in Emerging Markets Countries Percentage Changes (Annually)
Tax/Brd	Tax Burdens in Emerging Markets (as Percentage Annually)
InfRt	Inflation Rates in Emerging Markets (as Percentage Annually)

In Table 2 below, we used the time series in our panel data model. The stationarity of the time series was investigated, and the unit root test was performed and presented below:

Table 2. Unit Root Test Values and Stationarity of Components

Ho: Panels contain unit roots	Number of panels = 5	
Ha: Panels are stationary	Number of periods = 30	
AR parameter: Common	Asymptotics: N/T → 0 Panel means: Included	
Time trend: Not included	Cross-sectional means removed	
ADF regressions: 7.60 lags average (chosen by AIC)		
LR variance: Bartlett kernel, 9.00 lags average (chosen by LLC)		
Levin-Lin-Chu unit-root test for GDPPrCp		
	Statistic	p-value
Unadjusted t	-9.0561	0.0034
Adjusted t*	-2.3299	0.0099
Levin-Lin-Chu unit-root test for TaxBrd		
	Statistic	p-value
Unadjusted t	-3.8888	0.0071
Adjusted t*	0.9093	0.8184
Levin-Lin-Chu unit-root test for InfRt		
	Statistic	p-value
Unadjusted t	-5.9803	0.0002
Adjusted t*	-1.7899	0.0367

In Table 2 above, stationarity is achieved because the probability values of the time series for the dependent and independent variables are less than 0.05 and are stationary within the framework of the unit root test. In addition, the distribution of correlation values of the time series we use as a basis in the model is shown in Table 3 below:

Table 3. Correlation Distribution Values of Model Components

	GDPPrCp	TaxBrd	InfRt
GDPPrCp	1.0000		
TaxBrd	0.0006	1.0000	
InfRt	0.2150	-0.7880	1.0000

The correlation values in Table 3 above present a correlation distribution that is compatible with the scale values we have determined and a significant effect value. In addition, a summary table of the “Influence Boundary Values”, “Median” and “Standard Deviations” of the Model Components was created and presented in Table 4 below:

Table 4. Effect Limits Values of Model Components, Median and Standard Deviations

Variable	Mean	Std. Dev.	Min	Max	Observations
GDPPrCp overall	4.106667	2.324678	-1.68	11.75	N= 150
between		1.343913	2.445667	5.993667	n= 5
within		1.987347	-1.260333	11.244	T= 30
TaxBrd overall	29.75287	6.093146	16.72	35.98	N= 150
between		6.617765	18.17033	33.65733	n= 5
within		1.362145	26.16353	33.17253	T= 30
InfRt overall	12.10127	12.21783	1.6	63.96	N= 150
between		11.28578	4.41	31.88067	n= 5
within		6.833477	-10.9094	44.1806	T= 30

In the above table 4, it constitutes an important position especially for the significance values expressed in the maximum and minimum lower limits on the dependent variable. Again, it is seen that there is a harmonious effect of the standard deviations on the dependent variable and other variables. The compatibility of the standard deviation values as the average values of the variables strengthens the significance in the series. Afterwards, a cross-sectional dependence test was performed, and the values of the cross-sectional dependency analysis are presented in Table 5:

Table 5. Cross-Section Dependency Analysis Values

Variables series tested: GDPPrCp TaxBrd InfRt				
Group variable: country Number of groups: 5				
Average # of observations: 37.50		Panel is: balanced		
Variable	CD-test	p-value	corr	abs(corr)
GDPPrCp	1.58	0.004	0.091	0.301
TaxBrd	2.09	0.017	0.121	0.336
InfRt	-0.76	0.007	-0.044	0.469

Notes: Under the null hypothesis of cross-section independence $CD \sim N(0,1)$

As seen in Table 5 above, since the probability value to be obtained as a result of the test is less than "0.05", the H_0 hypothesis is rejected at 5% significance level. It was decided that there was a cross-sectional dependence (H_1) between the units forming the panel (Pesaran et al., 2008).

Regression effect value analysis was performed for analytical findings; Since "Prob > F = 0.0000", Fixed-effects Regression Analysis was found to be significant and preferred:

Table 6. Fixed-effects Regression Analysis Scale Effect Values

Fixed-effects (within) regression		Number of obs =		150		
Group variable: country		Number of groups =		5		
R-sq:		Obs per group:				
Within = 0.2065				min = 30		
between = 0.0202				avg = 30.0		
overall = 0.0311				max = 30		
		F(2,143) =		18.60		
corr(u_i, Xb) = -0.5985		Prob > F =		0.0000		
GDPPrCp	Coef.	Std. Err.	t	P> t	[95% Conf.	Interval]
TaxBrd	.3693275	.109829	3.36	0.001	.1522293	.5864256
InfRt	.0996462	.0218927	4.55	0.009	.0563711	.1429213
_cons	-8.087729	3.243567	-2.49	0.014	-14.49926	-1.676195
sigma_u	2.0165491					
sigma_e	1.8071136					
rho	.5546097	(fraction of variance due		to u_i)		
Ftest that all u_i=0: F(4,143)=18.34				Prob>F=0.0000		

As observed in Table 6 above, Fixed-effects regression analysis scale effect values are seen to be low in emerging market economies, especially in terms of balancing the tax burden and the tax burden scale effects "TaxBrd" per capita GDP "GDPPrCp" as "TaxBrd 0.3693275" level as a result of an income substitution effect, resulting in a positive coefficient. On the other hand, this fact supports this significance that despite the high tax burdens in developed countries, the "GDPPrCp" values are quite high. On the other hand, it can be said that the inflation values "InfRt", "InfRt 0.0996462" on "GDPPrCp" are not effective variables and are stable. However, the positive values "TaxBrd 0.109829" and "InfRt 0.0218927" in the standard errors support the approach to the findings. In addition, the probability values for the significance of the findings, as $P < 0.05$, are "TaxBrd 0.001" and "InfRt 0.009",

confirming the significance of the scale effect coefficients. Distribution of impact values and scale effect values relating to years was also analyzed and the scale effects with years are presented in Table 7 below:

Table 7. Distribution of Impact Values and Scale Effect Values Relating to Years

Source	SS	df	MS	Number of obs	=	150
Model	197.339897	31	6.3658031	F(31, 118)	=	1.24
				Prob > F	=	0.002
Residual	607.874836	118	5.1514816			9

GDPPrCp	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
TaxBrd	.158015	.0532648	2.97	0.004	.0525362 .2634938
InfRt	-.1045758	.0271673	3.85	0.000	-.0507771 -.1583745
year					
1996	.0840205	1.435957	0.06	0.053	-2.759565 2.927606
1997	.3903164	1.435574	0.27	0.008	-2.45251 3.233143
1998	.9274543	1.435962	0.65	0.020	-1.916142 3.77105
1999	.945967	1.435629	0.66	0.051	-1.896969 3.788903
2000	.8473933	1.435729	0.59	0.055	-1.995742 3.690528
2001	.8345195	1.435821	0.58	0.052	-2.008797 3.677836
2002	-.4543245	1.435622	-0.32	0.075	-3.297247 2.388598
2003	.2689821	1.436019	0.19	0.082	-2.574726 3.11269
2004	.4135206	1.435804	0.29	0.074	-2.429762 3.256803
2005	.5447651	1.435642	0.38	0.075	-2.298197 3.387728
2006	.5905524	1.438534	0.41	0.062	-2.258136 3.439241
2007	1.106003	1.436463	0.77	0.043	-1.738584 3.950591
2008	1.494012	1.437336	1.04	0.031	-1.352304 4.340329
2009	.5687803	1.438365	0.40	0.063	-2.279575 3.417135
2010	1.763753	1.439005	1.23	0.223	-1.085867 4.613374
2011	1.842384	1.438377	1.28	0.203	-1.005994 4.690763
2012	2.412157	1.441543	1.67	0.097	-.4424903 5.266804
2013	1.551099	1.440031	1.08	0.024	-1.300555 4.402753
2014	1.490583	1.443697	1.03	0.034	-1.368331 4.349496
2015	.2218427	1.441056	0.15	0.087	-2.631841 3.075527
2016	2.159695	1.44466	1.49	0.138	-.7011262 5.020515
2017	1.512329	1.443826	1.05	0.027	-1.34684 4.371497
2018	1.508787	1.439417	1.05	0.029	-1.341652 4.359225
2019	1.949737	1.438107	1.36	0.017	-.898106 4.797581
2020	1.993973	1.435954	1.39	0.018	-.8496055 4.837552
2021	2.266257	1.437046	1.58	0.017	-.5794847 5.111999
2022	2.424275	1.440714	1.68	0.095	-.4287308 5.277282
2023	2.671538	1.446387	1.85	0.067	-.1927027 5.535778
2024	1.503921	1.445315	1.04	0.300	-1.358197 4.366038
_cons	-3.054708	2.146451	-1.42	0.157	-7.305266 1.19585

Table 7 above presents the distribution of impact values and scale effect values relating to years. This regression analysis shows a positive scale effect at the level of "TaxBrd" and "GDPPrCp" as the average of the scale effects of tax burden in emerging market economies, especially "TaxBrd" 0.158015. The negative value of "TaxBrd -0.4543245" for the years we base the "TaxBrd" values is consistent with the 2002 global financial crisis recession process. It is also consistent with the 2009 global financial crisis process as "InfRt 0.5687803". The scale effects of both independent variables are positive and it can be said that the medium-term impact values have very short-term negative effects.

5. Discussion

Economic growth targets in emerging market economies aim to reach high and fast economic reproduction standards beyond the welfare economy and overcome a crucial financial fragility level with these standards, which support the global adaptation process. This approach also makes the expectations of the welfare economy inevitable as a global adaptation process. This inevitability also raises the question of which macro variables and instability level are affected by the gross foreign product per capita. It makes it unmissable that the scale effect of emphasizing the inflation of all kinds of welfare deviations that may arise depending on the tax burden authority in affecting the national income per capita means an approach accepted at the global level as a vital welfare economy effect. This approach is seen to bring to the agenda the inevitability of the emerging market economies in the position of achieving a rapid economic growth target and establishing a socio-economic balance between the welfare economy.

Theoretical Approach Implications: This fiscal and economic phenomenon inevitably means that, as in some developed countries like the G7, foreign trade options are reviewed in addition to their monetary policies to ensure global economic and financial integration and reach common standards through international harmonization. Still, the effects of these standards on emerging market economies are questioned theoretically with significant contradictions. This questioning means an important theoretical integration that aims to protect and increase the contribution of balances such as current and sectoral balances within the economic growth standards and the position of GDP in terms of economic growth standards. This means that the mentioned target economic growth trends should also present the theoretical infrastructure that the financial limits of the emerging market economies, which also express the national growth within the country, are theoretically practical with international standards and are accepted globally. Although there are some crucial contradictions in the realization of this position theoretically, it directly affects some sanctions and decision processes that can be considered meaningful theoretically within this theoretical framework. This direct interaction also brings about the comparison of different impact values with the result output values, and although the continuous validity of the theoretical framework is not in question, the result authorities can be evaluated differently in the relations of emerging market economies. The resulting structure of these contradictions finds a place in the process as GDP per capita, in which the security of the emerging market economies in terms of foreign trade and financial balances at the global level, and especially the market expectations towards foreign trade openings, are negatively affected from time to time. The trend is also observed to cause a significant scale effect and negative deviations with the differentiation in the impact values of emerging market economies and the differences in the economic nest between them directly mutually affecting each other, despite the differentiation in the impact values of emerging market economies and the differentiation of structures that can be supported by theoretical infrastructures such as inflation and perhaps, in all kinds of evaluations that may be in question, especially by differentiating the scale values on the panel data scale. The different values of the future results of the fiscal and economic growth expectations would put a structural handicap within the framework of theoretical expectations. The assessment of the different values of the future results effects appears when the subject becomes a critical handicap that differentiates emerging market economies from developed world countries in terms of developing the theoretical infrastructure, and this handicap leads to different interpretations that may be in question with some important values.

Implications of Evaluations and Current Expectations: In shaping future economic expectations and the direction of practices accordingly, emerging market economies' fiscal strategies and current policies clearly differ from those of developed countries and global normative standards. This divergence is not only a result of national development goals, but also a reflection of integration efforts into global markets and external economic pressures. Emerging market economies prefer certain practices outside the generally accepted standards of the global financial system to protect their national interests and sustain economic growth. While such practices are evaluated as part of attempts to strengthen the place of these economies in the global system, they can also be read as a deviation that increases systemic risks. This differentiation manifests itself not only in the boundaries of fiscal discipline, but also in the content and form of implemented policies. In particular, the current account balance, external borrowing policies and the financing method of public expenditures have become the main parameters determining cooperation and competition in the relations established by these economies with other countries. Indeed, a mutual evaluation and comparison process is being experienced among emerging market

economies in terms of financial values and macroeconomic balances, and this process sometimes constitutes an invisible but structurally important handicap area. It is observed that economic growth plans have come to the forefront more, and this has made it inevitable to proceed with some contradictions, working with the theoretical infrastructure at the global level as a result of a high growth rate, where welfare economy expectations are pushed to the background for emerging economies. Uncertainties in future such as the sustainability and financing of current account deficits becoming more visible, combined with increasing competition among emerging markets, lead to structural problems. These current account deficits, which are directly related to the dynamics of economic growth, evolve into severe fiscal deficits and budget imbalances in the long term, causing public debt to increase and inflationary pressures to intensify. The increase in external borrowing trends observed especially in recent years has taken on a direction that puts pressure on financial structures and deepens economic vulnerabilities rather than supporting the growth targets of these economies. Increasing external debt increases the burden on public finances; it leads to increased tax burdens, chronic cost inflation, and unsustainability in the financing of public services. This structural fact causes a “blocking effect” on economic growth and makes it challenging to achieve macroeconomic targets. As a result, emerging market economies appear to be stuck between their internal dynamics and their expectations for the future of the global financial system. While these economies want to integrate into global markets, they also face the risk of instability due to internal financial and structural fragilities. This situation directly affects their growth performance and their position in the international arena, which builds a sustainable economic structure. It is vital to strengthen fiscal discipline and implement structural reforms with determination, which ensure compliance with international financial norms.

Limitations of Research Directions and Future Objectives: This vicious circle makes closing current account deficits a priority in the development strategies of emerging market economies; in this direction, it increases the need for national fiscal reforms and policies compatible with international standards. However, this orientation often conflicts with short-term interests and causes structural reforms to be delayed in terms of ensuring fiscal sustainability. Efforts to integrate more effectively into global economic cooperation mechanisms also cause these economies to have limited impact due to internal imbalances and to be perceived as “risky” by global actors. Fiscal deficits, current account balance problems and resource deviations between sectors weaken the credibility of these countries in international markets and pave the way for the growth of the informal economy. In particular, the development of production processes outside international financial and technical standards alienates these countries from control and disrupts their economic integration processes. The money supply policies implemented to meet public financing needs and rising inflation rates further deepen existing problems and threaten long-term growth targets. In this context, one of the most important features of emerging market economies is ensuring compliance with international financial institutions and increasing credit limits, for example, aiming to provide integration with global organisations such as the IMF, the World Bank and the OECD in the structural reform process. Primarily, when the issue is evaluated in terms of credit rating agencies, presenting transparent financial statistics and reporting and presenting them typically has a significant meaning. For emerging market economies, this approach undoubtedly reveals that integrating public price controls in a way that will not disrupt the financial balance is inevitable in combating inflation and ensuring price stability. However, it should also be emphasised that deepening their internal financial systems and developing capital markets are among emerging market economies' most critical strategic goals. In this context, in addition to strengthening national bond and debt markets, establishing digital financial infrastructures and providing them with an efficient sectoral basis within the global harmonisation process and increasing the financial system's resilience also bring future expectations to the forefront regarding emerging markets. Between monetary and fiscal policies in countries representing emerging market economies is optimistic. This fact, which is also an essential negative element in GDP per capita, becomes a significant constraint on ensuring fiscal sustainability, fiscal transparency and sustainability of public debt. It is also necessary to draw attention to the fact that these economic targets, which can also provide significant support to price stability in the fight against inflation with public price controls for countries representing emerging markets, are frequently deviated from, and these positions are seen as limits that may prevent increasing international integration. However, the limitations on digitalising tax administration constitute a significant handicap in this process. This handicap also finds a place in the process with different financial-economic blockages and negative impact values within a structural process that comes to the fore with the limits created by specific research orientation problems.

6. Conclusion

This study put forth the effects of inflation and tax burden variability, among the main factors underlying the fluctuations in per capita Gross Domestic Product (GDP) in developing economies findings reveal that financial instabilities in these economies are primarily related to price level volatility and repressive public revenue policy practices. The increase in inflation rates and variability in tax burden, which stand out as the two primary sources of economic instability in developing countries, directly affect not only macroeconomic balances but also the level of welfare on an individual basis. The fluctuation in per capita GDP cannot be evaluated independently of the pressures these two variables create in the search for financial resources. In this context, especially in economic structures where fiscal discipline is weak and the effectiveness of public expenditures is questioned, phenomena such as the narrowing of the tax base and deterioration in income distribution deepen. These deviations also disrupt the integration of public finance policies with international norms; thus, structural limits that constitute an obstacle to creating a more integrated structure with the global economic system emerge. Especially in the context of the tax burden and system, the high dependence on indirect taxes both prevents the fair distribution of the tax burden, which draws attention as a factor that deepens the injustice in income distribution. It is understood that this situation reveals significant deviations from GDP per capita in terms of an inflationary process that threatens the effectiveness of fiscal policy and social sustainability. The study also reveals that although the effects of global economic crises on developing markets are not homogeneous, they also increase the simultaneous effects of these economies on each other. The emerging market economies synchronize their responses to external shocks, which increases the importance of regional and international coordination in designing financial stability policies in terms of GDP per capita. The effects of inflation and tax burden volatility on GDP per capita emerge as dynamics that threaten emerging economies' economic growth targets and social welfare levels. In this context, more predictable tax policies, practical inflation-fighting tools and comprehensive structural reforms should be implemented to ensure financial stability. Otherwise, this fragile balance between growth and stability will make emerging economies more vulnerable to both internal and external shocks in the long run. As a result, implementing a comprehensive, multidimensional and coordinated set of policies is a must for emerging market economies to achieve financial stability and sustainable development goals. In this process, fiscal transparency, income distribution equity, reducing external dependency and implementing structural reforms, both increasing economic resilience at the national level and complying with global financial integrations, are critical for emerging market economies to achieve their financial priorities and achieve global harmony.

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