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Tax Revenue and Economic Performance in Malaysia: A Time Series Analysis

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Abstract

Taxation serves as the primary source of government revenue and holds significant connections with economic performance across many nations. This study aims to explore the long-term relationship between economic performance and tax revenue in Malaysia, a developing country experiencing dynamic economic progress. To achieve this, we employed structural break effects in conjunction with the autoregressive distributed lag cointegration analysis and causality analysis. The empirical findings from our study effectively capture the long-term relationship between economic performance and tax revenue in Malaysia. By utilizing the autoregressive distributed lag cointegration approach, we were able to account for the presence of structural breaks, which can significantly influence the stability and accuracy of long-term relationships in time series data. This method allowed us to robustly estimate the cointegration between the two variables, ensuring that the long-run nexus is not distorted by potential structural changes in the economy. Additionally, our causality analysis revealed a bidirectional causality between economic performance and tax revenue. This means that not only does economic performance influence tax revenue, but tax revenue also impacts economic performance. This bidirectional relationship suggests a mutually reinforcing cycle where improvements in economic performance enhance tax revenue, and increased tax revenue further supports economic growth, ultimately leading to long-term sustainability. Our findings have important implications for policymakers in Malaysia. Understanding the long-term interdependence between tax revenue and economic performance can aid in formulating fiscal policies that optimize revenue collection while fostering economic growth. The bidirectional causality highlights the necessity of a balanced approach that considers both aspects to achieve sustainable economic development. The implications of our research extend beyond Malaysia, offering a framework that can be applied to other developing nations seeking to understand and enhance the interplay between taxation and economic performance. This study contributes to the broader literature by providing robust empirical evidence and practical recommendations for achieving long-term fiscal and economic sustainability.

Keywords: Tax Revenue, Economic Performance, Long Run Causality

JEL Codes: H20, H21, E62

1. INTRODUCTION

Malaysia is one of the emerging economies in Asia that has successfully transformed from an agriculture-based economy in the 1970s into a diversified economy (Ariff, 1998). Today, Malaysia is striving to achieve developed status by 2020 under the Vision 2020 policy announced in 1991 by the country's fourth Prime Minister. This policy envisions Malaysia becoming a fully developed country within 30 years, with 20 years having passed since its announcement. This leaves less than 10 years for Malaysia to meet its ambitious target. To achieve this goal, Malaysia needs to maintain an average economic growth rate of approximately 7% of gross domestic product (GDP) per annum. This target is essential for the country's transition to a developed nation, involving a comprehensive strategy that includes advancements in various sectors such as technology, infrastructure, education, and governance. The Vision 2020 policy outlines several strategic initiatives to enhance economic growth and ensure sustainable development. These initiatives include investing in high-tech industries, improving the quality of education, fostering innovation, enhancing public infrastructure, and promoting good governance. Additionally, efforts to attract foreign direct investment and strengthen international trade relations are crucial components of this strategy (Karim & Said, 2024).

Malaysia's journey towards achieving developed status is marked by significant milestones in economic diversification and industrialization. The country's focus on manufacturing, services, and technology sectors has contributed to its robust economic performance over the past decades c. Furthermore, policies aimed at improving digital infrastructure and increasing broadband penetration are expected to play a vital role in driving economic growth and enhancing productivity. Malaysia's Vision 2020 policy sets an ambitious target for the country to become a fully developed nation. Achieving this goal requires sustained economic growth, strategic investments, and comprehensive reforms across various sectors. As Malaysia continues to progress, the emphasis on technology, innovation, and infrastructure will be key to realizing its vision of becoming a developed economy. However, from 2000 until 2012, Malaysia's GDP per annum showed fluctuations, with the lowest at -1.9% in 2009 and the highest at 7.2% in 2010. This fluctuation resulted from global economic instability due to the financial crisis and slump in activity that affected countries worldwide, regardless of their economic status—advanced, emerging, or underdeveloped economies (IMF, 2009). Surprisingly for Malaysia, the timely

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and well-targeted implementation of the RM67 billion stimulus packages helped the economy rebound and register strong growth in the first half of 2010 (Hill et al., 2013).

These fluctuations highlight the vulnerability of Malaysia's economy to global economic conditions, underscoring the importance of resilient economic policies and effective government intervention. The stimulus packages, which included fiscal measures and investments in infrastructure, played a crucial role in stabilizing the economy during a period of global financial turmoil. This proactive approach not only mitigated the adverse effects of the financial crisis but also positioned Malaysia for a quick recovery. The resilience shown by Malaysia's economy during this period demonstrates the effectiveness of strategic economic planning and the importance of timely policy responses to external economic shocks. As Malaysia continues its journey towards achieving developed nation status, maintaining economic stability and fostering sustainable growth will be essential. The experience from the 2000-2012 period provides valuable lessons for future economic policy, emphasizing the need for flexibility, innovation, and robust economic frameworks to navigate global economic uncertainties (IMF, 2009). The fluctuations in GDP and the subsequent recovery highlight the dynamic nature of Malaysia's economy and its capacity to adapt to changing global economic conditions. The successful implementation of stimulus measures underscores the importance of proactive and well-targeted economic policies in achieving long-term growth and stability. This was the second stimulus package, following the RM7 billion package introduced in 2008. However, the frequent introduction of stimulus packages is believed to potentially increase the deficit of the economy, as such packages form part of government expenditure. Therefore, for sustainable economic growth, it is crucial to take various measures to increase revenue collection. While stimulus packages can provide immediate relief and boost economic activity during downturns, they also add to the government's fiscal burden. Overreliance on such measures can lead to increased public debt and budget deficits, posing long-term challenges for fiscal sustainability. Thus, while stimulus packages are necessary for short-term economic stabilization, they must be complemented with strategies aimed at enhancing revenue generation and reducing fiscal deficits (bin Suhaimi, 2023).

For Malaysia, increasing revenue collection involves broadening the tax base, improving tax compliance, and implementing efficient tax policies. Additionally, diversifying the economy and investing in sectors that can generate substantial revenue streams are critical steps toward achieving fiscal sustainability. By focusing on revenue generation and economic diversification, Malaysia can reduce its dependency on stimulus measures and ensure long-term economic stability. Furthermore, strengthening institutional frameworks and enhancing the efficiency of public expenditure can contribute to better fiscal management. Implementing policies that promote transparency and accountability in government spending will help optimize the use of public funds and improve the overall economic environment. This holistic approach to fiscal policy will not only support immediate economic needs but also pave the way for sustainable growth and development in the long run. While stimulus packages are effective tools for addressing short-term economic challenges, they must be balanced with measures aimed at increasing revenue collection and ensuring fiscal sustainability. For Malaysia, this means implementing comprehensive strategies to enhance tax revenue, diversify the economy, and improve public expenditure efficiency (Ronifard, 2023). By doing so, the country can achieve sustained economic growth and stability without compromising its fiscal health.

As mentioned above, in recent years, the main concerns of the Malaysian government have been directed towards the issue of raising revenues from various sources. Government revenue comes from three different sources: tax revenue, non-tax revenue, and non-revenue receipts. Tax revenues include both direct and indirect taxes. Direct taxes consist of income tax from individuals, companies, other persons, and petroleum, as well as stamp duty, estate duty, and real property gains tax. These taxes are collected by the Inland Revenue Board (IRB), which plays a crucial role as an agent of the Malaysian government. The IRB is responsible for administering, assessing, collecting, and enforcing payment of income tax and other revenues as may be agreed upon between the government and the board. Over the years, the IRB has continually enhanced its activities to promote better tax collection, evolving from the Official Assessment System (OAS) to the establishment of the Self-Assessment System (SAS). The shift from OAS to SAS marked a significant transformation in tax administration, aiming to increase efficiency and taxpayer compliance.

The Official Assessment System required taxpayers to submit their income details, after which the tax authorities would assess the tax payable. This system, however, often led to delays and administrative burdens. Recognizing these challenges, Malaysia introduced the Self-Assessment System, where taxpayers are responsible for assessing their tax liabilities and submitting their tax returns. This shift not only reduced the administrative load on tax authorities but also promoted greater taxpayer responsibility and compliance. The IRB's efforts in implementing and refining the SAS have resulted in improved tax collection over the years. The introduction of advanced technologies and data analytics has further enhanced the IRB's ability to monitor and enforce tax compliance. Through continuous modernization and capacity-building initiatives, the IRB aims to optimize tax collection processes and broaden the tax base. Non-tax revenues, on the other hand, include revenues from licenses, permits, fines, fees for services, and dividends from government-owned entities (Ronifard, 2023). These sources of revenue are essential for the government to finance public services and infrastructure projects. Additionally, non-revenue receipts comprise funds obtained through loans, grants, and sales of government assets. To ensure sustainable revenue growth, the Malaysian government has been focusing on diversifying its revenue streams and improving the efficiency of tax collection. This involves enhancing the capabilities of the IRB, simplifying tax laws, and fostering a culture of compliance among taxpayers.

The Malaysian government's concerted efforts to raise revenues from various sources, particularly through the IRB's enhanced tax collection mechanisms, have been pivotal in supporting the country's economic development and fiscal stability. By continually refining tax administration systems and exploring new revenue avenues, Malaysia aims to secure a robust and sustainable fiscal future. In addition to enhancing revenue collection, the Malaysian government has

consistently sought to ease the public burden by implementing tax rate reductions. For instance, resident individual income tax rates were reduced by 1% effective in the year of assessment 2013 for chargeable income bands ranging from RM2,501 to RM50,000. This reduction aimed to provide relief to taxpayers and stimulate economic activity by increasing disposable income. For companies, the government maintained the corporate tax rate unchanged from 1998 to 2006, when it was reduced to 28% (Ronifard, 2023). Further reductions followed, and from 2009 onwards, the corporate tax rate was set at 25%. These adjustments aimed to create a more competitive business environment, attract investment, and support corporate profitability. The collection of direct tax revenue, particularly from companies and petroleum, has exhibited fluctuations due to global economic imbalances. These sectors are highly sensitive to changes in the international economic landscape, impacting their tax contributions. Conversely, individual income tax collections have shown a steady increase each year, reflecting rising incomes and improved tax compliance.

Despite these fluctuations, direct tax revenue has consistently remained the largest contributor to total government revenue. This category includes income taxes from individuals, companies, and petroleum, as well as other direct taxes such as stamp duty, estate duty, and real property gains tax. The prominence of direct tax revenue underscores its critical role in financing government expenditures and supporting public services. By balancing tax rate reductions with effective revenue collection strategies, the Malaysian government aims to foster economic growth while ensuring fiscal sustainability. The ongoing efforts to optimize tax administration and compliance contribute to a stable and predictable revenue stream, essential for long-term economic planning and development. The responsibility for collecting indirect taxes in Malaysia falls to the Royal Customs and Excise Department. These taxes include import duties, export duties, excise duties, sales tax, and service tax. In the early stages of Malaysia's economic development, particularly in the 1960s, the country, like most developing nations, heavily relied on indirect taxes, which accounted for 76.7% of the total revenue collection (Kasipillai, 2006; Ness, 2021; Suffian, 2021)).

As Malaysia's economy developed and underwent tax reforms, the reliance on indirect taxes decreased. Starting in 1999, direct taxes became the major contributor to government revenue, making up 69% of the total. Despite this shift, excise duty remained the highest revenue contributor among the various types of indirect taxes. To modernize its tax system and enhance revenue collection, Malaysia implemented the Goods and Services Tax (GST) on April 1, 2015, replacing the existing sales and service tax with a standard rate of 6%. The GST was introduced to broaden the tax base, eliminate tax cascading, avoid multiple taxation, and mitigate transfer pricing biases. It was also aimed at enhancing the competitiveness of Malaysia's tax revenue collection system (Ness, 2021; Suffian, 2021). The implementation of GST was anticipated to significantly benefit the government. In the ASEAN region and across Asia, seven and nineteen countries respectively had already implemented GST, with Indonesia being one of the first. The adoption of GST in Malaysia was part of a broader trend of tax modernization in the region, aiming to create a more efficient and equitable tax system that could support sustainable economic growth.

2. LITERATURE REVIEW

Although the investigation of the relationship between government revenue and economic performance may seem straightforward, it continues to attract attention from researchers. Recent studies by Romero-Ávila and Strauch (2008), Colombier (2009), Afonso and Furceri (2010), Bergh and Karlsson (2010), Alesina and Ardagna (2010), and Tobing (2011) exemplify this ongoing interest. To comprehend the nexus between revenue and economic growth, it is essential to revisit the discussion on growth theory. In neoclassical growth theory, economic growth is primarily driven by the accumulation of physical and human capital investments. According to this theory, any additional growth in per capita output arises from an exogenous rate of technical change. This framework posits that government revenue, particularly through taxation and public expenditure, can influence the accumulation of capital and the rate of technological advancement. Physical capital accumulation involves investments in infrastructure, machinery, and technology, which can enhance productivity and economic output. Human capital accumulation, on the other hand, pertains to investments in education, healthcare, and training, which improve the skills and productivity of the workforce. Government revenue, derived from taxes and other sources, plays a crucial role in funding these investments.

However, the relationship between government revenue and economic growth is complex and multifaceted. While adequate government revenue is necessary for funding public investments that support growth, excessive taxation can potentially stifle economic activity by reducing incentives for private investment and consumption. Thus, the challenge for policymakers is to strike a balance between generating sufficient revenue to fund essential public goods and services without imposing overly burdensome taxes that could hinder economic growth. Recent empirical studies have sought to understand this balance and the specific channels through which government revenue impacts economic performance. For instance, Romero-Ávila and Strauch (2008) and Afonso and Furceri (2010) have examined the impact of fiscal policies on economic growth in European countries, highlighting the importance of efficient tax systems and prudent public expenditure management. Similarly, Bergh and Karlsson (2010) and Alesina and Ardagna (2010) have explored the effects of different types of government spending and taxation on growth, emphasizing the role of fiscal policy in shaping economic outcomes.

For the past decade, empirical investigations have continued to struggle to provide conclusive results regarding the existence of a link between taxation and growth. Past studies have yielded mixed results. For instance, Komendi and Meguire (1985) and Engen and Skinner (1992) found a negative correlation between the average level of taxation and output dynamics, suggesting that higher taxes might impede economic growth by reducing incentives for investment and work. Conversely, other studies such as Koester and Komendi (1989), Easterly and Rebelo (1993), Stemrod (1995), and Mendoza et al. (1997) have been unable to detect any significant correlation between taxation and economic growth,

neither in the long run nor in the short run. These studies imply that the tax structure might not have a discernible impact on growth rates, possibly due to the complex interplay of various economic factors and the ability of economies to adapt to tax policies over time. Lee and Gordon (2005) argue that there should be no permanent effects of the tax structure on the growth rate in per capita output, regardless of the size of the misallocations generated by the tax structure. This perspective suggests that while tax policies may influence economic activity in the short term, economies tend to find equilibrium over time, mitigating any long-term growth effects of taxation. The inconclusive nature of these empirical findings highlights the complexity of the relationship between taxation and economic growth. The impact of taxation on growth likely depends on various factors, including the overall tax burden, the efficiency of tax administration, the composition of public spending, and the broader economic context. Moreover, the effectiveness of tax policies may vary across different countries and economic environments, further complicating efforts to establish a definitive link between taxation and growth. In light of these mixed results, it remains crucial for policymakers to carefully consider the design and implementation of tax policies. While taxes are necessary for funding public goods and services, excessive or poorly structured taxation can potentially harm economic performance. Therefore, a balanced approach that considers the broader economic context and aims to minimize distortions while ensuring adequate revenue collection is essential for promoting sustainable economic growth.

However, the negative relationship between tax and economic growth was documented in an early study by Helms (1985). This study examined the nature of different types of tax structures in analyzing economic growth. The results showed that the impact of taxation on economic growth depends on how resources from tax revenue are used to fund state expenditures. Therefore, the impact of taxation on economic growth can be significantly positive, negative, or have no impact at all. This finding was later supported by Canto and Webb (1987), who emphasized the pivotal role of tax in determining the overall economic performance of a state or region in the United States. While analyzing the economic effects of fiscal policy in Spain, Castro and Cos (2008) demonstrated that fiscal policy could encourage economic activity through the expansion of expenditures. However, increasing the tax burden to achieve fiscal consolidation seemed to be a policy failure, as it would likely increase future deficits. This suggests that simply raising taxes to balance budgets without considering the economic context can be counterproductive. For that reason, it is crucial to formulate policies that encourage the future growth of the economy.

Realizing the weaknesses in neoclassical growth theory, economists developed endogenous growth theory, which offers a broader discussion on growth determinants. Recent literature on endogenous growth suggests that positive externalities, which were omitted from traditional neoclassical models, such as taxation, play an important role in explaining long-run economic growth. Numerous studies have contributed valuable insights toward understanding the role of tax revenues in government spending. Studies focusing on the relationship between total tax revenue and government spending determinants include works by Kim (1998), Easterly and Robelo (1993), Koester and Kormendi (1989), and Padavano and Galli (2001). These studies highlight how tax revenues influence the flow and allocation of government expenditures, emphasizing the broader economic impacts beyond simple revenue collection. Bondonio and Greenbaum (2007) exploit the exogenous variation of United States enterprise zone policies to estimate the impact of geographically targeted tax incentives on local economic growth. Their results provide empirical evidence with strong external validity, supporting specific policy formulations. They demonstrate that the effects of these incentives have more complex dynamics than those suggested by null mean impact estimates obtained from analyzing net growth outcomes. This indicates that tax incentives, when targeted effectively, can have significant and nuanced impacts on local economies, highlighting the importance of well-designed tax policies in fostering economic growth.

Furthermore, many empirical studies and calibration exercises find that capital tax reform has only a small effect on the long-run growth rate of an economy. However, it may have a strong effect on investment or more generally on factor allocation, thereby influencing the level of the growth path and overall welfare (Strulik, 2003). Recent micro-econometric studies have found robust support for Modigliani and Miller's (1963) proposition that corporate taxation favors debt finance, while personal taxation favors equity finance. Since the financial decisions of firms are usually neglected in models of economic growth, the question arises whether the consideration of corporate finance modifies the estimated investment, growth, and welfare effects of tax reforms (Levine and Renelt, 1992; Tanzi and Zee, 1997). Moreover, there is considerable evidence that average tax rates are strongly correlated with public spending. Since some government spending, such as on public capital and education, is growth-enhancing, the coefficient on average tax rates may capture both the negative impact of taxation and the positive effect of public spending on growth. This dual influence can lead to statistically insignificant results when analyzing the impact of average tax rates on growth (Barro and Sala-i-Martin, 1995). This highlights the complexity of tax policy impacts, where the negative effects of taxation can be offset by the positive effects of beneficial public spending, thereby necessitating a nuanced approach to tax policy and economic growth analysis.

Meanwhile, Wang (2007) tested for convergence across nations by utilizing time series and cluster analysis to examine the convergence properties of tax burden and per capita gross domestic product among Taiwan, China, and OECD countries. Wang's findings indicated a non-significant relationship between the integration process and fiscal convergence among these countries. Cluster analyses identified that China, Taiwan, and Korea were firmly oriented towards one model during the 1970s, 1980s, and 1990s. However, while tax burden convergence was found within this group, no pairwise convergence was evident. Previous theoretical work predicts an inverse relationship between tax and growth rates, suggesting that lower corporate tax rates should increase economic growth rates, while the effects of high personal tax rates remain unclear. This aligns with the findings of Lee and Gordon (2005), who investigated the influence of tax policies on a country's growth rate using cross-country data from 1970 to 1997. Their results demonstrated that statutory

corporate tax rates are significantly negatively correlated with cross-sectional differences in average economic growth rates. Through fixed-effect regressions, they found that increases in corporate tax rates led to lower future growth rates within countries. Their coefficient estimates suggested that a 10% cut in the corporate tax rate could raise the annual growth rate by 2%. Recently, studies by Afonso and Furceri (2010), Wu et al. (2010), Tobing (2011), and Jian et al. (2014) have highlighted the importance of government revenue and spending in determining government size. Public spending is considered crucial for a country's development, as high government spending necessitates high revenues to achieve a balanced budget. However, the relationship between public spending and economic performance also depends on other factors such as global economic conditions, social factors, and political factors, which cannot be generalized to all countries. The theoretical growth literature argues that increases in distortionary taxation lower the growth rate of output. Distortionary taxes are defined as those that alter the price of an accumulated factor of production, such as physical capital, human capital, and technology (Yamarik, 2000). Empirical examinations by Romero-Ávila and Strauch (2008) and Soli et al. (2008) support the past arguments on the existence of this relationship. Romero-Ávila and Strauch, in addressing the impact of public finances on long-term growth in European countries from 1960 to 2001, provide robust evidence that distortionary taxation affects growth in the medium term. Employing the ARDL approach, their findings indicate that direct taxation negatively affects GDP per capita growth rates, while public investment has a positive impact. This suggests the potential economic gains from shifting welfare expenditure to productive investment.

3. DATA AND METHODOLOGY

This study examines the relationship between total tax revenue and real gross domestic product for Malaysia using an annual dataset, which covers from 1975-2023. Both variables are in Ringgit Malaysia formation and both the data gathered from the Department of Statistics (DOS) and the Central Bank of Malaysia. Following (Ali & Naeem, 2017; Krishna & Singh, 2020; Kallianiotis, 2022; Audi et al., 2023; Abigail, 2023; Ahmad et a., 2024) the basic function used in this study is as follows:

$RGDP_t = f(TAX_t)$

Where

$RDGP$ and TAX refer to real GDP and tax revenue.

For estimations, both data will transform to logarithm formation. The analytical methodology followed in this study starts with identifying the stationarity levels where we employ Zivot-Andrews (ZA) with single structural break effects. Once the stationarity effects are determined, we then proceed with the ARDL bound test approach followed by ARDL-ECM analysis, and ends with the Granger causality test.

4. RESULTS AND DISCUSSIONS

Table 1 provides detailed insights from the ZA Stationary Test, which assesses stationarity for two variables, $RGDP_t$ (Real Gross Domestic Product) and TAX_t (Taxation), using both level and first difference data. For $RGDP_t$, the test reveals a ZA-stat of -1.64 at the level, indicating some evidence against stationarity. However, upon taking the first difference, the ZA-stat improves significantly to -6.89*, suggesting strong evidence of stationarity starting from the year 2000. This change signifies a structural break in the data that affects the stationarity of $RGDP_t$, and it is statistically significant at the 1% level. Similarly, for TAX_t, the ZA-stat at the level is -3.72, indicating evidence against stationarity before the break date in 1999. However, after differencing the data, the ZA-statistic improves to -5.80*, indicating strong evidence of stationarity from 2005 onwards. This break suggests a structural change in the behavior of TAX_t, making it stationary with statistical significance at the 1% level. The asterisks (*) denote the significance levels, with *, **, and *** representing 1%, 5%, and 10% levels, respectively. These results underscore the importance of considering structural breaks when analyzing time series data, as they can significantly impact the stationarity and hence the reliability of economic and financial analyses.

Table 1: ZA Stationary Test

Variables	Level		First difference	
	ZA-stat	Break date (T_B)	ZA-stat	Break date (T_B)
$RGDP_t$	-1.64	1992	-6.89*	2000
TAX_t	-3.72	1999	-5.80*	2005

*, **, *** significant at 1, 5 and 10% significance levels

Table 2 presents the ARDL Cointegration Results for two models: FRGDP (RGDPt | TAXt) and FTAX (TAXt | RGDPt). Each model identifies a break date (TB) where significant changes in the relationships between Real Gross Domestic Product (RGDPt) and Taxation (TAXt) are observed. In the FRGDP model, the break date is noted as 1989, indicating a significant structural change. The F-statistic for this model is 6.371, which is statistically significant at the 1% level. The bounds for integration levels show that the variables are integrated of order 1 (I(1)), with a lower bound of 4.385 and an upper bound of 5.615. For the FTAX model, the break date occurs in 1998, marking another significant shift in the relationship dynamics between TAXt and RGDPt. The F-statistic for this model is 7.749, also significant at the 1% level. Similar to the FRGDP model, the integration bounds suggest I(1) integration, with a lower bound of 3.219 and an upper bound of 4.378. The asterisks (*, **, ***) denote the significance levels at 1%, 5%, and 10%, respectively, highlighting the robustness of the cointegration results. These findings indicate a stable long-run relationship between RGDPt and

TAXt, characterized by structural breaks that influence their dynamics over time. Understanding these relationships is crucial for policymakers and economists in formulating effective economic policies and strategies.

Table 2: ARDL Cointegration Results

Models	Break date (T_B)	F-statistics
$F_{RGDP}(RGDP_t| TAX_t)$	1989	6.371*
$F_{TAX}(TAX_t| RGDP_t)$	1998	7.749*
	Lower bound I(0)	Upper bound I(1)
1%	4.385	5.615
5%	3.219	4.378
10%	2.711	3.800

*, **, *** significant at 1, 5 and 10% significance levels

Table 3 presents the ARDL Outcomes for the dependent variable RDGPt, examining both the long-run and short-run effects of the independent variables. In the long-run model, TAXt shows a coefficient of 0.462, which is significant at the 1% level with a t-statistic of 5.959. This suggests that taxation has a positive and statistically significant impact on RDGPt in the long run. The variable DUM-1999 also exhibits significance with a coefficient of 0.394 and a t-statistic of 2.959 at the 5% significance level, indicating that the dummy variable representing a structural break in 1999 has a positive effect on RDGPt in the long run. In the short-run model, the first-differenced variable ΔTAXt has a coefficient of 0.176, significant at the 1% level with a t-statistic of 3.397. This indicates that changes in taxation have an immediate positive impact on RDGPt in the short term. Similarly, ΔTAXt-1 (lagged ΔTAXt) shows a coefficient of 0.136 and a t-statistic of 2.838, significant at the 5% level, suggesting a lagged effect of taxation changes on RDGPt in the short run. Moreover, the dummy variable DUM (1999) in the short-run model has a coefficient of 0.077 and a t-statistic of 3.214, significant at the 1% level, indicating that the structural break in 1999 continues to influence RDGPt positively in the short term. Additionally, the error correction term (ECt-1) shows a coefficient of -0.197 and a t-statistic of -2.387, significant at the 5% level, suggesting that deviations from the long-run equilibrium in RDGPt are corrected by about 19.7% in the short run. Overall, these results underscore the significant impact of taxation and structural breaks in 1999 on RDGPt, both in the long run and short run, providing insights into the dynamic relationships within the model.

Table 3: ARDL Outcomes
Dependent Variable: $RDGP_t$

Variables	Long-run		Variables	Short-run	
	Coefficient	t-stat		Coefficient	t-stat
TAX_t	0.462*	5.959	ΔTAX_t	0.176*	3.397
DUM-1999	0.394*	2.959	ΔTAX_{t-1}	0.136*	2.838
			DUM (1999)	0.077*	3.214
			EC_{t-1}	-0.197**	-2.387

*, **, *** significant at 1, 5 and 10% significance levels

Table 4: ARDL-ECM Causality Results

Dependent Variables	ARDL Lag order	Weak causality effects			Strong causality effects	
		Short-run		Long-run	$\Delta RDGP_t$ vs.	ΔTAX_t
		$\Delta RGDP_t$	ΔTAX_t	ECT_{t-1}	ECT	vs. ECT
$\Delta RGDP_t$	(1,2,0)	_	16.267* [0.000]	-0.197** (-2.387)	_	16.582* [0.000]
ΔTAX_t	(1,2,1)	10.697* [0.005]	_	-0.229*** (-1.809)	24.578* [0.000]*	_

*, **, *** significant at 1, 5 and 10% significance levels

Table 4 presents the ARDL-ECM Causality Results, focusing on the relationships between ΔRGDPt (changes in real GDP) and ΔTAXt (changes in taxation) using the ARDL lag specifications. For ΔRGDPt, identified by the ARDL lag order (1,2,0), the analysis reveals significant short-term causal effects on ΔTAXt, as indicated by an F-statistic of 16.267, significant at the 1% level. This suggests that changes in real GDP lead to measurable impacts on tax policy adjustments in the short run. However, in the long run, ΔRGDPt does not exhibit direct causal effects on ΔTAXt, implying that any effects are more immediate than sustained over extended periods. Conversely, ΔTAXt, specified with an ARDL lag order of (1,2,1), shows robust causal effects on ΔRGDPt in the short run, with an F-statistic of 10.697, significant at the 5% level. This indicates that changes in taxation policies have a noticeable and rapid impact on real GDP fluctuations. Moreover, ΔTAXt also influences the error correction term (ECTt-1), with an F-statistic of 24.578, significant at the 1% level, indicating its role in correcting deviations from the long-run equilibrium in the economic system. Overall, these findings underscore the dynamic interplay between taxation policies and economic growth, highlighting how changes in taxation can affect both short-term economic performance and long-term equilibrium adjustments in the economy.

5. CONCLUSIONS

The connection between tax revenue and economic performance has been a subject of thorough examination in recent studies, yet scholars have not reached a definitive consensus on whether tax revenue directly contributes to economic performance or if economic growth leads to increased tax revenues. This ongoing debate underscores the complexity of fiscal policy's role in economic dynamics. In contemporary discourse, there is a growing recognition of the critical importance of crafting and implementing effective taxation policies. These policies are seen not only as tools for revenue generation but also as strategic instruments to stimulate economic activities. By fostering an environment conducive to business investment, innovation, and consumer spending, well-designed tax frameworks can play a pivotal role in enhancing overall economic growth and stability. This perspective highlights the evolving understanding of taxation not merely as a financial instrument but as a catalyst for broader economic development strategies. In Malaysia, despite global economic challenges, the government has consistently aimed to alleviate taxpayer burdens through tax reductions. This study investigates the relationship between tax revenue and economic performance. The findings reveal a dual relationship: economic performance leads to increased tax revenue collection, while enhanced revenue collection also contributes positively to Malaysia's economic performance. These insights underscore significant implications for policymakers, particularly in developing countries like Malaysia, emphasizing the interplay between fiscal policy, economic growth, and sustainable development strategies. Based on our findings, policymakers should prioritize the formulation of efficient fiscal policies, particularly in taxation, to enhance overall system efficiency and foster a more investor-friendly environment. This approach is crucial for attracting potential investors and ensuring economic resilience in the face of global economic fluctuations. Given the evidence from our study, Malaysia's economy remains susceptible to economic imbalances. Therefore, the Malaysian government must safeguard the economy by implementing robust tax policies that are resilient to economic downturns. Such measures will help maintain stability and promote sustainable economic growth over the long term. On another note, Malaysia is currently in the process of implementing GST, which is expected to provide economic stability in the coming years. Additionally, the Malaysian government must effectively manage revenue collection, directing funds towards developmental initiatives such as infrastructure and investment facilities. These efforts are crucial for enhancing sustainable economic performance in the future.

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