

Harnessing Taxation for Economic Growth: An ARDL Analysis of Sri Lanka

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Abstract

Taxation plays a crucial role in mobilizing government revenue and influencing economic growth, yet its growth effects remain inconclusive, particularly in developing economies. This study investigates how taxation can be harnessed to support economic growth in Sri Lanka over the period 1991–2024, while incorporating key macroeconomic determinants including inflation, money supply, and trade openness. The analysis also accounts for the effects of the COVID-19 pandemic and the 2022 economic crisis. The study employs the Autoregressive Distributed Lag bounds testing approach and the Error Correction Model to investigate both long-run and short-run dynamics. The results confirm the existence of a stable long-run relationship among the variables. Tax revenue has a positive but statistically insignificant effect on economic growth in the long run, suggesting that taxation alone is insufficient to promote sustained growth without efficient revenue utilization. Trade openness exerts a positive and significant impact on growth, while money supply negatively affects economic performance. Inflation is found to be statistically insignificant. The findings further reveal that both the COVID-19 pandemic and the 2022 economic crisis have detrimental effects on economic growth, highlighting the vulnerability of Sri Lanka's economy to major shocks. In the short run, taxation positively and significantly influences growth. The Error Correction Model coefficient of -0.635 indicates that approximately 63.5 percent of short-run disequilibrium is corrected within one period. The study recommends strengthening tax administration, improving the productive use of public revenue, maintaining macroeconomic stability, promoting trade openness, and enhancing economic resilience to future shocks. The findings suggest that taxation can contribute to economic growth when supported by effective fiscal management and a stable macroeconomic environment.

Keywords: Economic growth; Inflation, Money Supply, Taxation, Trade Openness

JEL Codes: C22, E62, F43, H20, H21, O40

Introduction

Economic growth remains a central objective of economic policy, particularly in developing economies striving to achieve macroeconomic stability, generate employment, reduce poverty, and improve living standards. Achieving sustained growth requires governments to mobilize adequate domestic resources to finance productive investments and public services that enhance economic productivity. Among the available fiscal instruments, taxation represents one of the most important mechanisms through which governments can mobilize resources, influence economic incentives, and support long-term economic performance. Harnessing taxation effectively is therefore essential not only for generating public revenue but also for promoting investment, improving resource allocation, and creating an enabling environment for economic growth (Musgrave & Musgrave, 1989; Stiglitz & Rosengard, 2015).

The relationship between taxation and economic growth has received considerable attention in both theoretical and empirical literature, yet it remains complex and subject to ongoing debate. Traditional neoclassical growth theory argues that excessive taxation may distort economic incentives by discouraging investment, savings, and labour supply, thereby reducing economic growth (Solow, 1956). In contrast, endogenous growth theory suggests that taxation can foster economic growth when tax revenues are efficiently allocated toward productive public investments such as infrastructure development, education, health, and technological innovation, which enhance productivity and long-run growth potential (Romer, 1986; Barro, 1990). Consequently, the impact of taxation depends not only on the level of tax revenue but also on the efficiency of tax administration, the structure of the tax system, institutional quality, and the effectiveness of public expenditure. As a result, empirical studies on the taxation–growth nexus have produced mixed findings across countries and regions.

For developing economies, strengthening domestic revenue mobilization through an efficient tax system has become increasingly important in reducing dependence on external borrowing while creating fiscal space for development expenditure. In this context, taxation can serve as a strategic instrument for supporting macroeconomic stability and facilitating economic growth. Effective tax policies contribute to fiscal sustainability, enhance investor confidence, and provide governments with the financial capacity to invest in infrastructure and human capital, thereby creating conditions conducive to long-term economic expansion.

Sri Lanka provides a particularly important case for examining how taxation can be harnessed to support economic growth. As a small open economy that has undergone significant fiscal consolidation and structural reforms, especially following the economic crisis of 2022, the country faces the challenge of increasing government revenue without undermining economic activity and competitiveness. Recent tax reforms have sought to strengthen domestic resource mobilization and restore fiscal stability, making it essential to understand whether higher tax revenues contribute to economic growth and how this relationship is influenced by macroeconomic factors such as inflation, money supply, and trade openness.

Although a substantial body of international literature has investigated the taxation–growth nexus, empirical evidence for Sri Lanka remains relatively limited and fragmented. Existing studies have largely focused on specific dimensions of fiscal policy, including tax revenue performance, fiscal deficits, public expenditure, or the contribution of taxation to the Sustainable Development Goals (SDGs). For example, Jayaweera et al. (2023) examined the contribution of taxation to economic growth and Sri Lanka's SDG trajectory, emphasizing the importance of strengthening domestic resource mobilization and fiscal reforms for long-term development. However, relatively little empirical research has examined the dynamic long-run and short-run relationship between taxation and economic growth while simultaneously incorporating key macroeconomic determinants such as inflation, money supply, and trade openness within a unified econometric framework.

Moreover, previous studies have generally devoted limited attention to distinguishing between short-run adjustments and long-run equilibrium relationships despite the importance of understanding how fiscal policy affects economic performance over different time horizons. This issue has become increasingly relevant in the aftermath of Sri Lanka's unprecedented economic crisis in 2022, which fundamentally reshaped the country's fiscal policy framework and reinforced the need for evidence-based tax reforms. Consequently, an important research gap remains regarding the effectiveness of taxation as an instrument for promoting economic growth during periods of fiscal consolidation and macroeconomic restructuring.

Against this background, the present study investigates how taxation can be harnessed to promote economic growth in Sri Lanka over the period 1991–2024. Specifically, it examines both the long-run and short-run relationships between economic growth and key macroeconomic variables, including tax revenue, inflation, money supply, and trade openness. To achieve this objective, the study employs the Autoregressive Distributed Lag (ARDL) bounds testing approach developed by Pesaran et al. (2001), which is particularly appropriate for analysing relationships among variables with mixed orders of integration and relatively small sample sizes. The Error Correction

Model (ECM) is subsequently utilized to estimate the speed at which short-run disequilibria adjust toward long-run equilibrium.

This study contributes to the existing literature in several important ways. First, it provides updated empirical evidence on the role of taxation in promoting economic growth in Sri Lanka using annual data spanning 1991–2024, thereby capturing the effects of recent fiscal reforms implemented following the 2022 economic crisis. Second, it simultaneously estimates the short-run and long-run effects of taxation alongside major macroeconomic determinants within an integrated ARDL–ECM framework, addressing an important gap in the Sri Lankan literature. Third, the findings provide policy-relevant insights into how taxation can be effectively harnessed to strengthen domestic resource mobilization and support sustained economic growth while maintaining macroeconomic stability.

The remainder of the paper is organized as follows. Section 2 reviews the theoretical and empirical literature on the relationship between taxation and economic growth, with particular emphasis on developing economies. Section 3 describes the data, model specification, and econometric methodology, including the ARDL bounds testing approach and the Error Correction Model. Section 4 presents and discusses the empirical findings, highlighting both short-run and long-run effects of taxation on economic growth in Sri Lanka. Finally, Section 5 concludes the study by summarizing the key findings and offering policy recommendations for harnessing taxation to support economic growth and fiscal resilience.

Literature Review

Theoretical Literature

The relationship between taxation and economic growth has been extensively examined within economic theory, with different schools of thought offering contrasting perspectives on the role of taxation in promoting or constraining economic growth. While some theories emphasize the distortionary effects of taxation on private investment and productivity, others argue that tax revenues can stimulate long-run economic growth when used to finance productive public expenditure. Collectively, these theoretical perspectives provide the conceptual foundation for understanding how taxation influences economic growth through multiple transmission mechanisms.

The neoclassical growth model provides one of the earliest explanations of the relationship between taxation and economic growth. According to Solow (1956), long-run economic growth is primarily determined by capital accumulation, labour growth, and technological progress, while fiscal policies influence growth indirectly through their effects on savings and investment. Excessive taxation reduces the after-

tax returns to capital and labour, discouraging investment, entrepreneurship, and labour supply. Consequently, higher tax rates may reduce capital formation and lower long-run economic growth. Earlier classical economists reached similar conclusions. Smith (1776) argued that taxation should satisfy the principles of equity, certainty, convenience, and economy while minimizing distortions to productive activities. Ricardo (1817) further maintained that taxes imposed on capital and productive resources reduce savings and capital accumulation, thereby constraining economic expansion. From the neoclassical perspective, sustainable economic growth requires a tax system that generates sufficient government revenue without imposing excessive efficiency costs on private economic activity. The neoclassical framework therefore predicts that the growth effects of taxation depend largely on the extent to which tax-induced distortions outweigh the benefits generated by government expenditure.

The Keynesian approach views taxation as an important fiscal policy instrument for stabilizing aggregate demand and promoting macroeconomic stability. Keynes (1936) argued that taxation affects household disposable income, consumption expenditure, business investment, and aggregate demand, thereby influencing output and employment. Tax reductions during economic recessions increase disposable income and stimulate consumption and private investment, generating multiplier effects that support economic recovery. Conversely, higher taxation during inflationary periods may moderate aggregate demand and contribute to macroeconomic stabilization. The effectiveness of taxation under the Keynesian framework therefore depends on prevailing economic conditions and the productivity of government expenditure financed through tax revenues. This demand-side transmission mechanism suggests that taxation affects economic growth indirectly through changes in aggregate demand and fiscal multipliers. Efficient allocation of tax revenue towards infrastructure, education, healthcare, and social protection can amplify these multiplier effects and promote sustainable economic growth, whereas inefficient public expenditure may reduce the growth benefits of taxation.

Endogenous growth theory provides a more comprehensive explanation of how taxation can contribute to long-run economic growth. Unlike neoclassical theory, endogenous growth models emphasize that technological progress, human capital accumulation, innovation, and knowledge creation are determined within the economic system and can be influenced by public policy. Romer (1986) argued that government policies supporting research, innovation, and technological development generate knowledge spillovers that permanently increase productivity and economic growth. Similarly, Lucas (1988) emphasized human capital accumulation as a fundamental driver of sustained growth, highlighting the importance of education and skills development financed through public investment. Barro (1990) integrated

productive government expenditure into endogenous growth theory and demonstrated that tax-financed investment in infrastructure, education, public health, and institutional development can increase the productivity of private capital and stimulate long-run economic growth. Under this framework, taxation contributes positively to sustainable economic growth when revenue is efficiently allocated toward productive investments that enhance the economy's productive capacity. This theoretical perspective is particularly relevant for developing economies such as Sri Lanka, where strengthening infrastructure, human capital, and institutional quality remains essential for achieving long-term economic resilience and structural transformation.

Optimal taxation theory focuses on designing tax systems that maximize social welfare while minimizing economic distortions. Ramsey (1927) proposed that governments should impose taxes in ways that minimize efficiency losses, while Mirrlees (1971) extended this framework by incorporating equity considerations into optimal tax design. The theory advocates broad tax bases, moderate tax rates, administrative simplicity, and efficient tax compliance systems that reduce distortions while ensuring adequate revenue mobilization. For developing economies characterized by narrow tax bases and large informal sectors, effective tax administration and institutional quality become essential determinants of fiscal performance. Sri Lanka's recent tax reforms aimed at broadening the tax base, improving compliance, and strengthening revenue administration reflect many of the principles advocated by optimal taxation theory, highlighting the importance of balancing efficiency and equity in fiscal policy.

Empirical Literature

The empirical relationship between taxation and economic growth has attracted considerable attention in both developed and developing economies. Despite an extensive body of research, there is no universal consensus regarding the direction or magnitude of the taxation–growth nexus. Empirical findings suggest that the impact of taxation on economic performance depends not only on the level of taxation but also on tax structure, institutional quality, government expenditure efficiency, and broader macroeconomic conditions. Consequently, recent studies have increasingly emphasized the importance of examining taxation within a comprehensive fiscal and institutional framework rather than considering tax revenue in isolation.

A substantial strand of empirical literature argues that taxation can promote economic growth when tax revenues are efficiently utilized to finance productive public investment. One of the earliest and most influential studies, Easterly and Rebelo (1993), using a large cross-country sample, found that the growth effects of taxation depend critically on the quality of public expenditure, with investments in

infrastructure and public services generating significant long-run growth benefits. Similarly, Kneller, Bleaney, and Gemmell (1999), analysing OECD countries, demonstrated that productive government expenditure financed through non-distortionary taxation supports economic growth, whereas distortionary taxes reduce economic performance. These findings provide empirical support for endogenous growth theory, which argues that tax-financed public investment enhances productivity and long-run economic development. More recent studies continue to emphasize that the effectiveness of taxation depends jointly on tax design and expenditure efficiency, implying that revenue mobilization contributes to sustainable growth only when accompanied by efficient allocation of public resources.

An important dimension of the taxation–growth literature concerns the composition of the tax system and the differential effects of direct and indirect taxes. Several studies suggest that tax structure has a greater influence on economic growth than the overall tax burden. Engen and Skinner (1996) found that reductions in tax rates generate positive, although relatively modest, improvements in economic growth by encouraging investment and labour supply. Lee and Gordon (2005) report a significant negative relationship between corporate income tax rates and economic growth across countries, indicating that higher taxes on investment and entrepreneurship discourage capital accumulation and productivity improvements. In contrast, Tosun and Abizadeh (2005) conclude that shifting the tax burden from income-based taxes toward consumption-based taxes is generally more conducive to economic growth because indirect taxes create fewer distortions in savings and investment decisions. Collectively, these studies suggest that broad-based consumption taxes combined with moderate direct taxation may improve economic efficiency while maintaining adequate government revenue.

Evidence from developing countries presents a more nuanced picture of the taxation–growth relationship due to structural challenges such as narrow tax bases, weak administrative capacity, large informal sectors, and limited fiscal space. Marsden (1983) argues that excessive taxation discourages private-sector investment and entrepreneurship, thereby constraining economic expansion. However, subsequent research, Francis and Amirthalingam (2019) has demonstrated that the effectiveness of taxation depends not only on tax rates but also on governance quality and expenditure management. Besley and Persson (2013) emphasize that stronger fiscal capacity enables governments to finance productive investments, strengthen institutions, and enhance resilience against economic shocks, thereby contributing positively to long-term economic development. Similarly, Narayan and Narayan (2006), examining several Asian economies, found evidence of bidirectional relationships between government revenue and expenditure, suggesting that fiscal sustainability and economic growth depend on the interaction between revenue

mobilization and public spending decisions. Studies focusing on open economies further highlight the importance of trade integration and macroeconomic stability in shaping the effectiveness of taxation policies. Atukorala and Rajapatirana (2000) argue that external sector dynamics, including capital flows and exchange rate movements, significantly influence fiscal performance and economic growth in developing Asian economies.

In the Sri Lankan context, empirical evidence remains relatively limited compared with the broader international literature. Existing studies have generally concentrated on tax reforms, fiscal performance, and revenue mobilization rather than comprehensively examining the dynamic relationship between taxation and economic growth. Herath (2010) reports that reforms aimed at broadening the tax base and strengthening tax administration improved revenue productivity and fiscal efficiency. Dissanayake et al. (2021); Francis and Amirthalingam (2020) similarly found that tax revenue exerts a statistically significant positive effect on economic growth, suggesting that improved domestic revenue mobilization can support economic development when accompanied by efficient public expenditure management.

Recent evidence by Jayaweera et al. (2023) extends this discussion by examining the impact of taxation on economic growth and Sri Lanka's Sustainable Development Goal (SDG) trajectory. Their study argues that strengthening domestic revenue mobilization is essential for enhancing fiscal sustainability, financing development priorities, and supporting long-term economic resilience. The authors further emphasize that tax reforms should focus not only on increasing revenue collection but also on improving tax efficiency, equity, institutional quality, and governance to maximize their contribution to sustainable development. These findings reinforce the view that taxation should be considered as a strategic instrument for promoting sustainable economic growth through improved fiscal capacity and productive public investment.

Despite these important contributions, several gaps remain in the existing literature. First, much of the empirical evidence is derived from cross-country analyses that may not adequately capture country-specific institutional and macroeconomic conditions. Second, while previous studies have examined tax reforms and fiscal sustainability, relatively few distinguish between the short-run and long-run effects of taxation on economic growth, despite the possibility that fiscal policy may exert different impacts across time horizons. Third, limited empirical attention has been given to the interaction between taxation and key macroeconomic variables such as inflation, money supply, and trade openness within a unified analytical framework. Finally, although Jayaweera et al. (2023) provide valuable insights into taxation and

sustainable development in Sri Lanka, their analysis does not explicitly investigate the dynamic equilibrium relationship between taxation and economic growth using a multivariate time-series approach.

Accordingly, the present study seeks to address these gaps by employing the Autoregressive Distributed Lag bounds testing approach to examine both the short-run and long-run effects of taxation on sustainable economic growth in Sri Lanka over the period 1991–2024. By integrating tax revenue with inflation, money supply, and trade openness within a single econometric framework, the study provides a more comprehensive assessment of the transmission mechanisms through which taxation influences economic growth and offers updated policy evidence to support ongoing fiscal reforms and long-term economic resilience.

Research Hypothesis

The theoretical and empirical literature suggests that taxation and macroeconomic conditions play an important role in influencing economic growth. While taxation facilitates domestic resource mobilization and public investment, inflation, money supply, and trade openness also affect economic performance through their influence on investment, consumption, and external competitiveness. Based on these theoretical arguments and empirical findings, this study tests whether a stable long-run relationship exists between economic growth and its key macroeconomic determinants in Sri Lanka.

Accordingly, the following hypothesis is formulated:

H₀: There is no significant long-run relationship between economic growth and taxation, inflation, money supply, and trade openness in Sri Lanka.

H₁: There is a significant long-run relationship between economic growth and taxation, inflation, money supply, and trade openness in Sri Lanka.

The formulation of this hypothesis provides the conceptual basis for the empirical analysis and is examined using the Autoregressive Distributed Lag (ARDL) bounds testing approach, which is specifically designed to identify the existence of long-run equilibrium relationships among variables with mixed orders of integration.

Methodology

This study examines how taxation can be harnessed to support sustainable economic growth in Sri Lanka by analyzing the dynamic relationship between tax revenue and economic performance over the period 1991–2024. Drawing on endogenous growth theory and the fiscal capacity framework, the study recognizes taxation not merely as a source of government revenue but as a critical policy instrument for financing

productive public investment, strengthening macroeconomic stability, and promoting long-term development. To empirically assess these relationships, the study employs the Autoregressive Distributed Lag (ARDL) bounds testing approach developed by Pesaran et al. (2001).

The ARDL methodology is particularly appropriate because it enables the simultaneous estimation of short-run dynamics and long-run equilibrium relationships among variables integrated of order $I(0)$ and $I(1)$. Compared with conventional cointegration techniques such as the Engle–Granger and Johansen approaches, ARDL performs efficiently in small samples and permits the inclusion of variables with different lag structures (Pesaran et al., 2001). These advantages make it especially suitable for examining the role of taxation in fostering sustainable economic growth in Sri Lanka, where fiscal reforms, macroeconomic instability, and structural transformations have shaped economic outcomes over recent decades. In addition, to capture the impact of major macroeconomic disruptions, the model explicitly incorporates two structural break dummy variables representing the COVID-19 pandemic (2020–2021) and the 2022 Sri Lankan economic crisis. This allows the study to assess both direct shock effects and potential changes in economic relationships during crisis periods.

Data Sources and Variable

This study utilizes annual time-series data covering the period 1991–2024 to examine how taxation can be harnessed to support sustainable economic growth in Sri Lanka. The data are obtained from authoritative sources, including the Central Bank of Sri Lanka (CBSL), and the World Development Indicators (WDI) database published by the World Bank.

Economic growth is proxied by the annual growth rate of real Gross Domestic Product (GDPG), which serves as the principal indicator of economic performance and development. Tax revenue as a percentage of GDP (TAX) is employed as the core explanatory variable representing fiscal capacity and domestic resource mobilization. To account for other macroeconomic factors influencing economic performance, three control variables are incorporated into the model: trade openness (OPEN), broad money supply (M2), and inflation rate (INF). These variables are widely used in growth literature and influence economic performance through investment, productivity, and macroeconomic stability channels. To reduce heteroskedasticity and improve interpretability of elasticities, tax and broad money supply variables are transformed into natural logarithmic form prior to estimation.

To account for structural disruptions in the Sri Lankan economy, the study introduces two dummy variables representing the COVID-19 pandemic period (2020–2021) and the 2022 economic crisis (2022–2024). In addition, to examine whether fiscal effects vary across different economic conditions, the model includes interaction terms between tax revenue and the respective crisis dummies. This specification enables the analysis to distinguish the direct impact of these shocks on output growth from potential changes in the taxation–growth relationship during periods of economic stability and crisis.

To empirically examine the relationship between taxation and economic growth in Sri Lanka, the study specifies a multivariate growth function within the Autoregressive Distributed Lag framework. The ARDL approach is employed to examine the dynamic relationship between taxation and sustainable economic growth in Sri Lanka because of its several methodological advantages. The ARDL model is suitable when variables are integrated of mixed orders, $I(0)$ and $I(1)$, provided that none is integrated of order $I(2)$. It simultaneously estimates both the short-run dynamics and long-run equilibrium relationships within a single framework, making it particularly appropriate for analysing the effects of taxation and macroeconomic variables on economic growth. In addition, the ARDL technique performs efficiently with relatively small sample sizes and allows different optimal lag lengths for each variable, thereby improving model flexibility and estimation accuracy. The framework can also be extended to incorporate structural break dummy variables and interaction terms, enabling the assessment of the effects of major macroeconomic disruptions, such as the COVID-19 pandemic and the 2022 economic crisis, on the taxation–growth relationship.

Although the ARDL methodology offers several advantages, it also has certain limitations that should be acknowledged. The ARDL bounds testing approach is applicable only when the variables are integrated of order $I(0)$ or $I(1)$; the presence of $I(2)$ variables renders the results invalid. In addition, the estimated coefficients are sensitive to the selection of lag lengths, and an inappropriate lag structure may lead to model misspecification or biased estimates. While the inclusion of dummy variables helps account for known structural breaks, unobserved structural changes may still affect parameter stability. Furthermore, the standard ARDL framework assumes linear relationships and may not adequately capture nonlinear or asymmetric effects. Although lagged variables help reduce endogeneity concerns, the possibility of simultaneity cannot be entirely eliminated. Finally, the interpretation of long-run coefficients depends on the existence of cointegration. Nevertheless, the ARDL approach remains a robust and suitable technique for analysing taxation and economic growth in Sri Lanka.

Based on the theoretical and empirical literature, the relationship between taxation and economic growth is specified as a multivariate growth function in which economic growth is assumed to depend on tax revenue and selected macroeconomic determinants. Accordingly, the general functional form of the model is expressed as follows:

$$GDPG_t = f(TAX_t, INF_t, MS_t, TOP_t) \dots \dots \dots (1)$$

To capture both the short-run dynamics and the long-run equilibrium relationship between taxation and economic growth, the study employs the unrestricted Autoregressive Distributed Lag model. The ARDL framework simultaneously estimates short-run adjustments and long-run effects, providing a comprehensive approach for examining the dynamic interactions among the selected variables. To reduce heteroskedasticity and improve interpretability of elasticities, Tax and variables are transformed into natural logarithmic form prior to estimation. To reduce heteroskedasticity and improve interpretability of elasticities, except inflation all other variables are transformed into natural logarithmic form prior to estimation. The corresponding ARDL representation is formulated as follows:

$$\begin{aligned} \Delta GDPG_t = & \alpha_0 + \sum_{i=1}^p \alpha_{1i} \Delta GDPG_{t-i} + \sum_{i=0}^{q_1} \alpha_{2i} \Delta \ln TAX_{t-i} + \sum_{i=0}^{q_2} \alpha_{3i} \Delta INF_{t-i} \\ & + \sum_{i=0}^{q_3} \alpha_{4i} \Delta \ln MS + \sum_{i=0}^{q_4} \alpha_{5i} \Delta TOP_{t-i} + \lambda_1 GDPG_{t-1} \\ & + \lambda_2 \ln TAX_{t-1} + \lambda_3 INF_{t-1} + \lambda_4 \ln MS_{t-1} + \lambda_5 TOP_{t-1} \\ & + \varepsilon_t \dots \dots \dots (2) \end{aligned}$$

where:

- $GDPG_t$ represents the annual real GDP growth rate, which is used as a proxy for sustainable economic growth.
- $\ln TAX_t$ denotes the natural logarithm of tax revenue as a percentage of GDP, representing fiscal capacity and domestic resource mobilization.
- INF_t is the annual inflation rate measured by the Consumer Price Index (CPI).
- $\ln MS_t$ represents the natural logarithm of broad money supply, reflecting monetary conditions and financial liquidity.
- TOP_t denotes trade openness, measured as the ratio of exports plus imports to GDP.
- Δ is the first-difference operator, which captures short-run changes in each variable.
- α_0 is the intercept term.
- $\alpha_{1i}, \alpha_{2i}, \alpha_{3i}, \alpha_{4i}, \alpha_{5i}$ are the short-run dynamic coefficients.

- $\lambda_1, \lambda_2, \lambda_3, \lambda_4$, and λ_5 are the coefficients associated with the lagged level variables and represent the long-run equilibrium relationship among the variables.
- ε_t is the stochastic error term, assumed to be independently and identically distributed.

To capture both short-run dynamics and the speed of adjustment toward long-run equilibrium, the ARDL model is re-parameterized into the following Error Correction Model:

$$\begin{aligned} \Delta GDPG_t = & \alpha_0 + \sum_{i=1}^p \alpha_{1i} \Delta GDPG_{t-i} + \sum_{i=0}^{q_1} \alpha_{2i} \Delta \ln TAX_{t-i} + \sum_{i=0}^{q_2} \alpha_{3i} \Delta INF_{t-i} \\ & + \sum_{i=0}^{q_3} \alpha_{4i} \Delta \ln MS_{t-i} + \sum_{i=0}^{q_4} \alpha_{5i} \Delta TOP_{t-i} + \phi ECM_{t-1} \\ & + \varepsilon_t \dots \dots \dots (3) \end{aligned}$$

where:

$$ECM_{t-1} = GDPG_{t-1} - \beta_0 - \beta_1 \ln TAX_{t-1} - \beta_2 INF_{t-1} - \beta_3 \ln MS_{t-1} - \beta_4 TOP_{t-1}$$

Where:

- ECM_{t-1} is the lagged error correction term representing the long-run equilibrium relationship;
- ϕ is the speed of adjustment coefficient, which is expected to be negative and statistically significant;
- ε_t is the white-noise error term.

To further investigate the role of taxation under different economic conditions, the ARDL model is extended by incorporating both the crisis dummy variables and their interaction terms with tax revenue. Specifically, the long-run specification includes the dummy variables ($+\lambda_6 D_{COVID,t} + \lambda_7 D_{CRISIS,t}$), which capture the direct effects of the COVID-19 pandemic and the 2022 economic crisis on economic growth.

In addition, the interaction terms ($+\delta_1 (TAX_{t-1} \cdot D_{COVID,t}) + \delta_2 (TAX_{t-1} \cdot D_{CRISIS,t})$) are introduced to examine whether the contribution of tax revenue to economic growth changes during these crisis periods. The inclusion of these interaction effects enables the model to test for structural shifts in the taxation–growth relationship by comparing the marginal effect of taxation during normal periods with that observed under adverse macroeconomic conditions. Consequently, the extended ARDL–ECM framework provides a more comprehensive assessment by estimating both the direct

effects of crisis episodes and the potential moderating influence of economic shocks on the effectiveness of taxation in promoting sustainable economic growth. Based on this extended specification, the study estimates the corresponding long-run equilibrium equation and the short-run Error Correction Model to analyse the dynamic adjustment process.

The extended long-run ARDL model incorporating the structural dummy variables and their interaction terms is specified as follows:

$$\begin{aligned}\Delta GDPG_t = & \alpha_0 + \sum_{i=1}^p \alpha_{1i} \Delta GDPG_{t-i} + \sum_{i=0}^{q_1} \alpha_{2i} \Delta \ln TAX_{t-i} + \sum_{i=0}^{q_2} \alpha_{3i} \Delta INF_{t-i} \\ & + \sum_{i=0}^{q_3} \alpha_{4i} \Delta \ln MS_{t-i} + \sum_{i=0}^{q_4} \alpha_{5i} \Delta TOP_{t-i} + \lambda_1 GDPG_{t-1} \\ & + \lambda_2 \ln TAX_{t-1} + \lambda_3 INF_{t-1} + \lambda_4 \ln MS_{t-1} + \lambda_5 TOP_{t-1} \\ & + \lambda_6 D_{COVID,t} + \lambda_7 D_{CRISIS,t} + \delta_1 (TAX_{t-1} \cdot D_{COVID,t}) \\ & + \delta_2 (TAX_{t-1} \cdot D_{CRISIS,t}) \\ & + \varepsilon_t \dots \dots \dots (4)\end{aligned}$$

The short-run ARDL model, augmented with structural dummy variables and interaction terms to capture crisis effects, is specified as follows:

$$\begin{aligned}\Delta GDPG_t = & \alpha_0 + \sum_{i=1}^p \alpha_{1i} \Delta GDPG_{t-i} + \sum_{i=0}^{q_1} \alpha_{2i} \Delta \ln TAX_{t-i} + \sum_{i=0}^{q_2} \alpha_{3i} \Delta INF_{t-i} \\ & + \sum_{i=0}^{q_3} \alpha_{4i} \Delta \ln MS_{t-i} + \sum_{i=0}^{q_4} \alpha_{5i} \Delta TOP_{t-i} + \gamma_1 D_{COVID,t} + \gamma_2 D_{CRISIS,t} \\ & + \phi ECM_{t-1} + \varepsilon_t \dots \dots \dots (5)\end{aligned}$$

where:

$$\begin{aligned}ECM_{t-1} = & GDPG_{t-1} - \beta_1 \ln TAX_{t-1} - \beta_2 INF_{t-1} - \beta_3 \ln MS_{t-1} - \beta_4 TOP_{t-1} \\ & - \beta_5 D_{COVID,t-1} - \beta_6 D_{CRISIS,t-1} - \delta_1 (TAX_{t-1} \cdot D_{COVID,t-1}) - \delta_2 (TAX_{t-1} \\ & \cdot D_{CRISIS,t-1})\end{aligned}$$

The empirical analysis begins with unit root testing using the Augmented Dickey–Fuller (ADF) test to examine the stationarity properties of the variables included in the model. This preliminary step determines whether the variables are integrated of order I(0) or I(1), which is a prerequisite for the application of the Autoregressive Distributed Lag (ARDL) bounds testing approach. Establishing the order of

integration helps prevent spurious regression results and ensures the validity of the subsequent econometric analysis.

Following the stationarity analysis, the study employs the ARDL bounds testing approach to investigate the existence of a long-run equilibrium relationship between economic growth and its key determinants, namely taxation, inflation, money supply, and trade openness. The ARDL methodology, developed by Pesaran et al. (2001), is particularly appropriate because it can accommodate variables with mixed orders of integration, provided that none is integrated of order $I(2)$. The optimal lag structure is selected using standard information criteria, including the Akaike Information Criterion (AIC) and the Schwarz Bayesian Criterion (SBC), to ensure an appropriately specified model.

The ARDL bounds testing procedure also serves as the empirical framework for evaluating the research hypothesis developed from the theoretical and empirical literature. Specifically, the calculated F-statistic is compared with the corresponding lower and upper critical bounds to determine whether a statistically significant long-run relationship exists among the variables. The rejection of the null hypothesis of no cointegration provides evidence of a stable long-run equilibrium relationship between economic growth and its macroeconomic determinants.

Once cointegration is established, the ARDL model is re-parameterized into an Error Correction Model (ECM) to estimate both the long-run coefficients and the short-run dynamic adjustments. The error correction term captures the speed at which deviations from the long-run equilibrium are corrected following short-run shocks, thereby providing insight into the adjustment process of the economy.

Finally, a series of diagnostic and stability tests are performed to assess the adequacy and robustness of the estimated model. These include tests for serial correlation, heteroskedasticity, normality of residuals, and parameter stability, ensuring that the estimated results satisfy the underlying assumptions of the econometric model and provide reliable evidence for policy analysis.

Empirical Results

This section presents and discusses the empirical results of the study, focusing on the dynamic relationship between taxation and economic growth in Sri Lanka over the period 1991–2024. The analysis is based on the Autoregressive Distributed Lag bounds testing approach and its corresponding Error Correction Model. The results include unit root test outcomes, lag selection criteria, bounds test for cointegration, and both long-run and short-run estimates. In addition, the section reports diagnostic and stability test results to ensure the robustness and reliability of the estimated model.

The Unit root test results presented in Table 1 indicate a mixed order of integration among the variables. The results show that GDP growth (GDPG) and inflation (INF) are stationary at level, as their p-values are less than 0.05, confirming rejection of the null hypothesis of unit root. This implies that these variables are I(0), meaning they are stable over time without requiring differencing.

In contrast, tax revenue (LnTAX), money supply (LnMS), and trade openness (TOP) are non-stationary at level but become stationary after first differencing, indicating that they are integrated of order one I(1). This confirms that these variables exhibit stochastic trends in their level form but achieve stability after differencing.

Table 1: Augmented Dickey-Fuller test

Variables	In level		In first difference		Conclusion
	t - statistics	p - value	t - statistics	p - value	
GDPG	-3.774	0.007	-	-	I(0)
LnTAX	-1.417	0.561	-4.473	0.001	I(1)
INF	-4.873	0.000	--	--	I(0)
LnMS	-1.316	0.610	-7.602	0.000	I(1)
TOP	-0.480	0.883	-5.354	0.000	I(1)

Source: Central Bank of Sri Lanka. (2024) and World Bank (2024).

Overall, the findings confirm that the variables are a combination of I(0) and I(1), with no evidence of I(2) variables. This validates the suitability of the ARDL bounds testing approach for examining the long-run and short-run relationship between taxation and economic growth in Sri Lanka over the study period.

This ARDL Bound test is a key step in the ARDL framework as it determines whether a stable long-run equilibrium relationship exists among the variables before estimating long-run and short-run dynamics. The null hypothesis of the bounds test states that there is no long-run relationship among the variables.

Table 2: ARDL Bound Test Results

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic	9.584	10%	1.99	2.94
k	8	5%	2.27	3.28
		1%	2.88	3.99

Source: Central Bank of Sri Lanka. (2024) and World Bank (2024).

The results presented in Table 2 show that the calculated F-statistic is 9.584, which is substantially higher than the upper bound critical values at all conventional significance levels. Specifically, the F-statistic exceeds the upper bound value of 3.99 at 1 percent significance levels. Since the computed F-statistic is greater than the upper bound in all cases, the null hypothesis of no long-run relationship is strongly rejected.

This finding provides clear empirical evidence of a long-run cointegrating relationship among taxation, economic growth, inflation, money supply, and trade openness in Sri Lanka over the study period. In other words, the variables move together over time and tend to converge towards a stable equilibrium in the long run. This result justifies the estimation of both long-run coefficients and the corresponding error correction model to capture short-run dynamics and adjustment processes toward equilibrium.

The ARDL bounds testing results provide the basis for evaluating the research hypothesis formulated in Section 2. The null hypothesis states that there is no significant long-run relationship between economic growth and taxation, inflation, money supply, and trade openness in Sri Lanka. The calculated F-statistic exceeds the upper critical bound value at the 5% significance level, indicating the existence of a long-run cointegrating relationship among the variables. Consequently, the null hypothesis is rejected in favour of the alternative hypothesis.

The rejection of the null hypothesis confirms that taxation and the selected macroeconomic variables are jointly associated with economic growth in the long run. This finding provides empirical support for the theoretical and empirical literature, which argues that fiscal policy and macroeconomic conditions play a significant role in influencing economic performance. The existence of cointegration further justifies the estimation of the long-run ARDL model and the corresponding Error Correction Model (ECM) to examine the magnitude and dynamics of these relationships.

This section presents the estimated long-run relationships between taxation, macroeconomic variables, and economic growth in Sri Lanka using the ARDL model. The coefficients reported in Table 3 capture the long-term equilibrium effects of each explanatory variable on real GDP growth, while controlling for structural shocks and short-run adjustments. Statistical significance is assessed using p-values at conventional levels.

Table 3: Long-Run ARDL Estimates Results

Variable	Coefficient	Std. Error	t-Statistic	Probability
C	16.492	5.836	2.825	0.009
RGDPG(-1)	-0.635	0.179	-3.543	0.001
LnTAX	0.249	0.236	1.055	0.302
TOP(-1)	0.263	0.111	2.377	0.027
LnMS	-0.169	0.067	-2.525	0.018
INF	-0.085	0.091	-0.931	0.361
DCOVID(-1)	-1.018	0.455	-2.238	0.036
DCRISIS(-1)	-0.995	0.398	-2.496	0.020
D(TOP)	0.175	0.091	1.914	0.068
D(DCOVID)	-0.629	0.329	-1.912	0.068
D(DCRISI)	-2.073	0.732	-2.830	0.009

Source: Central Bank of Sri Lanka. (2024) and World Bank (2024).

The results indicate that the lagged dependent variable RGDPG(-1) is negative and statistically significant, implying a strong adjustment mechanism within the model. Specifically, when economic growth deviates from its long-run equilibrium path, around 63.5 percent of the disequilibrium is corrected in the subsequent period. This relatively high speed of adjustment suggests that the economy responds quickly to shocks and gradually returns to its equilibrium level. Overall, the finding confirms that Sri Lanka's macroeconomic system is mean-reverting, meaning that short-term disturbances do not permanently shift the long-run growth trajectory but are instead absorbed and corrected over time.

Among the explanatory variables, tax revenue (LnTAX) has a positive but statistically insignificant coefficient. This suggests that although taxation is expected to contribute to public investment and growth-enhancing expenditure, its long-run impact on economic growth in Sri Lanka is not statistically strong. This implies that the effectiveness of taxation in promoting growth may depend more on tax structure and efficiency rather than revenue size alone. Trade openness (TOP(-1)) has a positive and statistically significant effect, indicating that greater integration with international markets supports long-run economic growth. This relationship is economically important because it suggests that external sector performance - through exports, imports, and global market access - plays a key role in enhancing productivity and resource allocation efficiency in Sri Lanka.

Money supply (LnMS) is negative and statistically significant, highlighting that excessive monetary expansion may undermine long-run growth. This reflects the importance of monetary stability, as inflationary pressures and financial imbalances can reduce investment efficiency and long-term productivity. Inflation (INF) shows a

negative but insignificant effect, implying that its long-run influence on growth is weak in this model specification. Similarly, COVID-19 and crisis-related variables show that economic shocks have significant negative long-run impacts, especially the crisis dummy, which reflects structural vulnerabilities in the economy.

The Error Correction Model captures the short-run dynamics among taxation, macroeconomic variables, and economic growth while incorporating the speed at which deviations from the long-run equilibrium are corrected. The ECM is an essential component of the ARDL framework because it distinguishes between short-run adjustments and long-run equilibrium relationships. A statistically significant and negative error correction term confirms the existence of cointegration and indicates the rate at which the economy returns to its long-run equilibrium following a short-run shock.

The results presented in Table 4 indicate that changes in tax revenue (D(LnTAX)) have a positive and statistically significant effect on economic growth in the short run. The finding implies that increased government revenue may support productive public expenditure and economic activity over the short term.

Trade openness (D(TOP)) has a positive and statistically significant coefficient, demonstrating that increased international trade contributes positively to short-run economic growth. Greater trade integration may enhance productivity, promote competition, and facilitate access to larger markets, thereby stimulating economic activity.

Table 4: ARDL Error Correction Estimates Results

Variable	Coefficient	Std. Error	t-Statistic	Probability
D(LnTAX)	0.243	0.081	2.999	0.007
D(TOP)	0.175	0.071	2.446	0.022
D(LnMS)	-0.157	0.046	-3.416	0.002
D(INF)	-0.119	0.062	-1.925	0.074
D(DCOVID)	-0.629	0.258	-2.432	0.023
D(DCRISI)	-2.073	0.320	-6.470	0.000
ECM(-1)	-0.635	0.063	-10.000	0.000
R ²	0.803			
Adjusted R ²	0.784			
Durbin-Watson stat	1.985			

Source: Central Bank of Sri Lanka. (2024) and World Bank (2024).

The coefficient of changes in money supply (D(LnMS)) is negative and statistically significant, indicating that short-run monetary expansion adversely affects economic growth. This may reflect inflationary pressures or macroeconomic imbalances arising

from excessive liquidity, which can discourage investment and reduce economic efficiency. Inflation ($D(INF)$) exhibits a negative coefficient and is marginally significant at the 10% level. This suggests that rising inflation tends to reduce economic growth in the short run, although the effect is relatively weak. The result highlights the importance of maintaining price stability to support sustainable economic performance.

The COVID-19 dummy variable ($D(DCOVID)$) has a negative and statistically significant coefficient, confirming that the pandemic exerted a substantial adverse effect on Sri Lanka's economic growth in the short run. Likewise, the economic crisis dummy ($D(DCRISI)$) records a large negative and highly significant coefficient, indicating that the domestic economic crisis had an even stronger contractionary effect on output.

As discussed in the previous section, the negative and statistically significant error correction term confirms the existence of a stable long-run equilibrium relationship among the variables. Therefore, in the context of the ECM, the emphasis is placed on the speed of adjustment. The estimated coefficient of $ECM(-1)$ is -0.635, indicating that approximately 63.5 percent of any short-run disequilibrium is corrected within one period. This relatively high adjustment speed suggests that the Sri Lankan economy responds efficiently to short-term shocks and converges rapidly towards its long-run equilibrium path.

The overall model demonstrates strong explanatory power, with an R^2 of 0.803 and an adjusted R^2 of 0.784, indicating that approximately 80.3 percent of the variation in economic growth is explained by the included explanatory variables. Furthermore, the Durbin-Watson statistic of 1.985 is close to the benchmark value of 2, suggesting the absence of serious autocorrelation in the residuals and supporting the reliability of the estimated model.

Overall, the ECM results reveal that taxation and trade openness positively influence economic growth in the short run, while excessive monetary expansion, inflationary pressures, the COVID-19 pandemic, and the economic crisis exert negative effects. The significant and negative error correction term further confirms that the Sri Lankan economy possesses a strong mechanism for restoring long-run equilibrium after short-run disturbances, thereby supporting the robustness of the ARDL estimation.

To evaluate the adequacy and reliability of the estimated ARDL-ECM model, a series of diagnostic tests were performed. These tests assess whether the model satisfies the classical regression assumptions, including the absence of serial correlation, homoskedasticity of residuals, and normality of the error terms. Satisfying these

assumptions enhances the reliability of the estimated coefficients and ensures the validity of statistical inference.

The Breusch-Godfrey Serial Correlation LM test was employed to examine whether the residuals are serially correlated. The null hypothesis states that there is no serial correlation in the residuals.

Table 5: Serial Correlation LM Test Results

F-statistic	0.093	Prob. F(2,21)	0.910
Obs*R-squared	0.300	Prob. Chi-Square(2)	0.860

Source: Central Bank of Sri Lanka. (2024) and World Bank (2024).

As reported in Table 5, the F-statistic is 0.093 with a probability value of 0.910, while the Obs*R-squared statistic is 0.300 with a probability value of 0.860. Since both probability values exceed the 5 percent significance level, the null hypothesis cannot be rejected. This indicates that the residuals are free from serial correlation. The absence of serial correlation implies that the model adequately captures the dynamic structure of the data and that the estimated standard errors and hypothesis tests are reliable. Consequently, the estimated coefficients can be interpreted with confidence.

The heteroskedasticity test was conducted to examine whether the variance of the residuals remains constant across observations. The null hypothesis assumes homoskedasticity, meaning that the error variance is constant.

Table 6: Heteroskedasticity Test Results

F-statistic	1.016	Prob. F(10,23)	0.459
Obs*R-squared	10.421	Prob. Chi-Square(10)	0.404
Scaled explained SS	4.866	Prob. Chi-Square(10)	0.899

Source: Central Bank of Sri Lanka. (2024) and World Bank (2024).

The results presented in Table 6 show an F-statistic of 1.016 ($p = 0.459$), an Obs*R-squared statistic of 10.421 ($p = 0.404$), and a Scaled Explained Sum of Squares statistic of 4.866 ($p = 0.899$). Since all probability values are greater than the 5 percent significance level, the null hypothesis cannot be rejected. These findings indicate that the estimated model does not suffer from heteroskedasticity, suggesting that the variance of the error term remains constant over the sample period. As a result, the estimated coefficients are efficient, and the associated standard errors and statistical tests are reliable.

The normality of the residuals was assessed using the Jarque–Bera (JB) test, which examines whether the residuals are normally distributed based on their skewness and kurtosis. The results show a Jarque–Bera statistic of 1.012 with a corresponding

probability value of 0.603. Since the probability value is greater than the 5 percent significance level, the null hypothesis of normality cannot be rejected, indicating that the residuals are normally distributed.

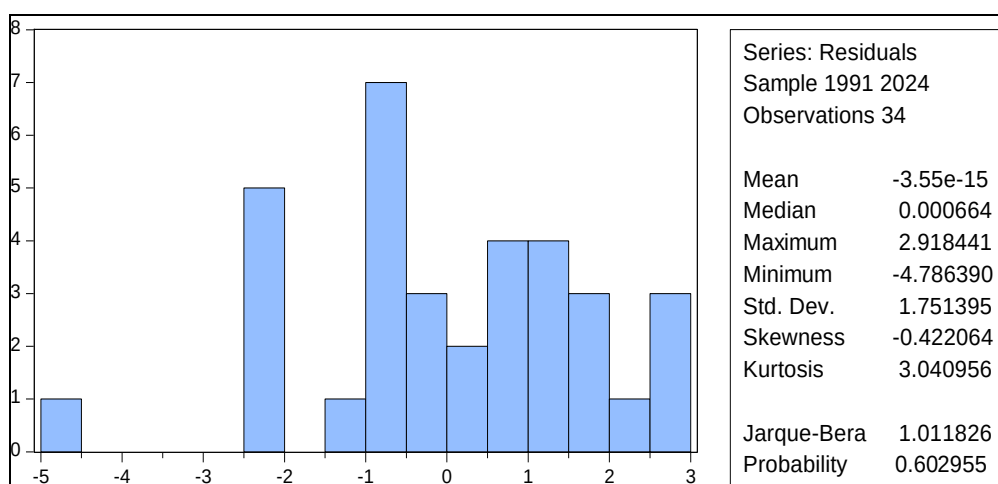


Figure 1: Normality Test Results

Furthermore, the residuals exhibit a skewness value of -0.422 , suggesting a slight left-skewed distribution, while the kurtosis value of 3.041 is very close to the benchmark value of 3 , indicating that the distribution closely resembles a normal distribution. Overall, these findings confirm that the residuals satisfy the normality assumption, supporting the validity of the estimated model and ensuring that the statistical inferences and hypothesis tests based on the ARDL-ECM estimates are reliable.

To evaluate the structural stability of the estimated ARDL model, the Cumulative Sum of Recursive Residuals (CUSUM) and the Cumulative Sum of Squares of Recursive Residuals (CUSUMSQ) tests developed by Brown, Durbin, and Evans (1975) were employed.

These tests assess whether the estimated coefficients remain stable throughout the sample period and whether any structural breaks exist that could undermine the reliability of the model. The results presented in Figures 2 and 3 demonstrate that the CUSUM and CUSUMSQ statistics remain within the 5 percent critical bounds throughout the sample period. As a result, the null hypothesis of parameter stability cannot be rejected.

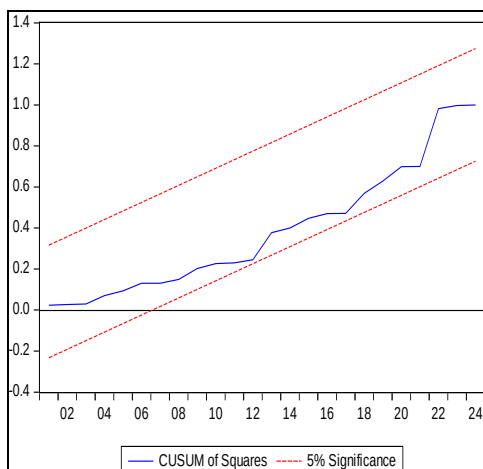


Figure 2: CUSUM test results

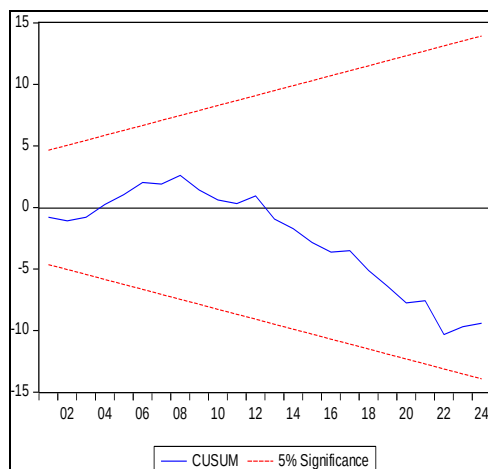


Figure 3: CUSUMSQ test results

The absence of structural instability indicates that the estimated coefficients remain consistent over time and that the underlying relationships among the variables are stable despite the various economic, fiscal, and external shocks experienced by Sri Lanka during the study period.

Conclusion and Policy Recommendations

This study examines how taxation can be harnessed as a fiscal instrument to support economic growth in Sri Lanka over the period 1991–2024. It incorporates key macroeconomic variables, including money supply, inflation, and trade openness, within an Autoregressive Distributed Lag framework and an Error Correction Model, enabling the estimation of both long-run equilibrium relationships and short-run dynamics. Importantly, the analysis also accounts for major structural shocks, including the COVID-19 pandemic and the 2022 economic crisis, which significantly influenced Sri Lanka’s macroeconomic performance during the study period.

The empirical results confirm a stable long-run relationship among the variables. In the long run, tax revenue has a positive but statistically insignificant effect on economic growth, suggesting that taxation alone does not significantly drive long-term growth unless supported by efficient revenue utilisation and productive public expenditure. Trade openness has a positive and statistically significant impact on growth, consistent with trade-led growth literature. In contrast, money supply shows a significant negative effect, indicating that excessive monetary expansion may undermine growth through macroeconomic instability, while inflation remains statistically insignificant.

A key finding of the study is the strong and significant impact of structural shocks. Both the COVID-19 pandemic and the 2022 economic crisis exert substantial negative effects on economic growth, confirming that Sri Lanka's economy is highly vulnerable to external and internal disruptions. However, the dynamic adjustment mechanism captured by the ECM indicates that these shocks are not permanent, as the economy gradually converges back to its long-run equilibrium.

In the short run, taxation has a positive and statistically significant impact on economic growth, implying that fiscal mobilisation can stimulate economic activity through government expenditure and demand-side channels. The Error Correction Model reveals a strong adjustment coefficient of -0.635 , indicating that approximately 63.5 percent of short-run deviations from long-run equilibrium are corrected within one period. Diagnostic tests further confirm model robustness, with no evidence of serial correlation or heteroskedasticity and normally distributed residuals.

The findings of this study are broadly consistent with, and extend, both theoretical and empirical literature on the taxation–growth nexus and macroeconomic growth determinants. The insignificant long-run effect of taxation on economic growth aligns with the theoretical arguments of neoclassical and endogenous growth frameworks, which suggest that taxation influences growth primarily through its impact on incentives and the efficiency of public expenditure rather than its level. Empirically, this result is consistent with Kneller, Bleaney, and Gemmell (1999) and Myles (2009), who demonstrate that the growth effects of taxation depend largely on the composition of fiscal policy and the productivity of government spending rather than tax revenue itself. The positive and significant role of trade openness supports both classical trade theory and endogenous growth models, which emphasize the role of international trade in enhancing efficiency, fostering competition, and facilitating technology transfer. This finding is in line with Sachs and Warner (1995) and Dollar and Kraay (2004), who provide strong empirical evidence that trade liberalisation contributes positively to long-run economic growth, particularly in developing economies. The negative effect of money supply on growth is consistent with monetarist and macroeconomic stability theories, which argue that excessive monetary expansion can generate inflationary pressures and macroeconomic distortions that hinder long-term growth. This result aligns with Barro (2013), who highlights the adverse effects of macroeconomic instability on economic performance across countries.

Importantly, this study extends the Sri Lankan empirical literature by incorporating a broader macroeconomic specification and explicitly accounting for major structural shocks, including the COVID-19 pandemic and the 2022 economic crisis. Unlike earlier studies such as Jayaweera et al. (2023), which primarily focus on fiscal indicators in isolation, this research captures both policy variables and crisis-driven structural breaks within a unified ARDL-ECM framework. The results reveal that these shocks are statistically and economically significant, underscoring their role as critical turning points in Sri Lanka's growth trajectory. This contribution is particularly important, as it highlights the vulnerability of Sri Lanka's growth process to external disruptions and the necessity of incorporating shock dynamics into fiscal-growth analysis.

The findings provide important policy implications for harnessing taxation for economic growth in Sri Lanka. First, policymakers should prioritize improving tax administration, compliance efficiency, and broadening the tax base rather than increasing tax rates. Second, the insignificant long-run effect of taxation suggests that greater emphasis must be placed on the efficient and productive allocation of tax revenue, particularly toward infrastructure development, human capital formation, and investment-enhancing public services. Third, trade openness should be further strengthened through export diversification, reduction of trade barriers, and deeper integration into global value chains. Fourth, the significant negative effect of money supply highlights the importance of coordinated fiscal and monetary policy to maintain macroeconomic stability. Finally, the strong impact of COVID-19 and the 2022 economic crisis underscore the need for building macroeconomic resilience. Policymakers should strengthen fiscal buffers, improve crisis preparedness, and enhance institutional capacity to manage future shocks. While these shocks significantly disrupt economic performance, the ECM results confirm that the economy has a self-correcting mechanism, making structural reforms essential to ensure faster and more stable recovery paths.

Overall, the study concludes that taxation can only support economic growth in Sri Lanka when it is embedded within a broader framework of macroeconomic stability, trade openness, and strong shock-resilient institutions.

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