An Assessment of Macroeconomic Stability in Sri Lanka: Evidence from the Macroeconomic Stability Pentagon Model

Colombo Economic Journal (CEJ)
Volume 4 Issue 1, June 2026: PP 159-177
ISSN 2950-7480 (Print)
ISSN 2961-5437 (Online)

Published by Department of Economics, University of Colombo, Sri Lanka
Website: https://arts.cmb.ac.lk/econ/colombo-economic-journal-cej/

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Received: 17 February 2026, **Revised**: 27 May 2026, **Accepted**: 10 June 2026

Abstract

Sri Lanka experienced an unprecedented macroeconomic crisis 2022. To overcome this crisis International Monetary Fund approved Extended Fund Facility (EFF) in March 2023. The primary objective of the IMF-supported EFF programme was to restore macroeconomic stability through comprehensive fiscal, monetary, and structural reforms. As Sri Lanka approaches the final stage of the EFF programme, it is important to evaluate the extent to which macroeconomic stability has been restored. Accordingly, this study assesses Sri Lanka's macroeconomic stability using the Macroeconomic Stability Pentagon (MSP) model developed by Grzegorz W. Kołodko. The analysis was based on secondary data obtained from the Central Bank of Sri Lanka. The findings revealed that Sri Lanka experienced relatively stable macroeconomic conditions during the early 2000s, with the highest MSP value recorded in 2005. However, macroeconomic stability deteriorated significantly after 2019 due to fiscal imbalances, monetary expansion, external sector vulnerabilities, and adverse policy decisions, which were further intensified by the COVID-19 pandemic and global economic shocks. The lowest level of macroeconomic stability was observed during 2020–2022, reflecting severe internal and external imbalances. The results further indicate a substantial recovery in macroeconomic stability after 2022, largely supported by the International Monetary Fund (IMF)-backed stabilization and structural reform program. Improvements in inflation control, fiscal consolidation, exchange rate flexibility, and external sector performance contributed to the increase in the MSP index by 2025. The study concludes that although Sri Lanka has achieved significant improvements in external stability, internal stability remains comparatively weak due to moderate economic growth and persistent unemployment challenges.

Keywords: *Macroeconomy, Stability, MSP model, Crisis periods*

JEL codes: B22, F62, O11

Introduction

Macroeconomic stability is widely recognized as a fundamental prerequisite for achieving sustainable economic growth. It refers to a country in which an economy operates close to its potential output while maintaining low and stable inflation, sustainable fiscal and external balances, and a stable financial system. According to the International Monetary Fund (IMF), macroeconomic stability provides the foundation for sustained economic growth by reducing uncertainty, encouraging investment, and enhancing economic resilience. The Organization for Economic Co-operation and Development (OECD) emphasizes that macroeconomic stability is characterized by the avoidance of excessive fluctuations in economic activity, particularly in output, inflation, employment, and public finances. In the macroeconomic literature, stability is generally viewed from two complementary dimensions: internal stability, which encompasses stable economic growth, low inflation, low unemployment, and sound fiscal management, and external stability, which focuses on sustainable external balances, exchange rate stability, and resilience to external shocks. Since these dimensions are highly interconnected, achieving macroeconomic stability requires a comprehensive policy framework rather than isolated policy interventions.

Measuring macroeconomic stability remains challenging because macroeconomic variables are inherently interdependent and often move in different directions during periods of economic adjustment. Traditional approaches typically evaluate macroeconomic performance using individual indicators such as inflation, economic growth, fiscal deficits, or unemployment. Although these indicators provide valuable information, they fail to capture the multidimensional nature of macroeconomic stability and the interactions among key macroeconomic variables. Consequently, relying on isolated indicators may lead to incomplete or even misleading conclusions regarding the overall health of an economy, particularly during periods of severe economic crisis.

To overcome these limitations, Kołodko (1993) introduced the Macroeconomic Stability Pentagon (MSP) model, a composite framework that simultaneously evaluates five key dimensions of macroeconomic performance: economic growth, unemployment, inflation, fiscal balance, and the current account balance. Unlike conventional approaches, the MSP model integrates both internal and external stability into a single analytical framework while providing both quantitative measures and intuitive graphical representation of macroeconomic performance. This multidimensional perspective enables researchers and policymakers to identify trade-offs among policy objectives, monitor changes in macroeconomic conditions over time, and assess the overall effectiveness of stabilization policies. Consequently, the MSP model offers a more comprehensive and policy-relevant assessment of

macroeconomic stability than analyses based solely on individual macroeconomic indicators.

Sri Lanka provides an important case for examining macroeconomic stability because the country has experienced a series of significant internal and external shocks over the past two decades. Following periods of civil conflict, global financial uncertainty, the Easter Sunday attacks, the COVID-19 pandemic, and adverse domestic policy decisions, the economy entered an unprecedented macroeconomic crisis in 2022. The crisis was characterized by exceptionally high inflation, severe shortages of foreign exchange, debt default, fiscal imbalances, exchange rate depreciation, and a deep economic contraction. The resulting economic and social instability culminated in major political changes and prompted the implementation of comprehensive stabilization measures under the International Monetary Fund's Extended Fund Facility (EFF) programme approved in March 2023. Supported by fiscal consolidation, monetary tightening, exchange rate reforms, and structural policy adjustments, the programme aims to restore macroeconomic stability and establish the foundations for sustainable long-term growth.

Recent studies (Mohamed Riyath, Dayaratne & Jahfer, 2024; Rathnasiri, 2024; Somathilaka & Hewamana, 2025) have examined macroeconomic issues in Sri Lanka; their analyses primarily focus on the effects of selected macroeconomic variables on sector-specific outcomes such as banking performance, stock market behavior, or economic growth. Most existing studies evaluate macroeconomic stability using individual indicators rather than employing an integrated framework capable of capturing both internal and external dimensions simultaneously. Consequently, there remains limited empirical evidence on Sri Lanka's overall macroeconomic stability using a comprehensive composite index, particularly covering the periods before, during, and after the 2022 economic crisis.

This study addresses this gap by applying the Macroeconomic Stability Pentagon (MSP) model to evaluate Sri Lanka's macroeconomic stability over the period 2000–2025. By analyzing the evolution of macroeconomic stability across the pre-crisis, crisis, and recovery periods, the study provides a comprehensive assessment of the country's macroeconomic performance and evaluates the effectiveness of recent stabilization policies implemented under the IMF-supported reform programme.

The study makes three important contributions to the literature. First, it is among the first studies to apply the Macroeconomic Stability Pentagon model to evaluate Sri Lanka's macroeconomic stability over a long time horizon encompassing the pre-crisis, crisis, and post-crisis recovery periods. Second, by integrating five key macroeconomic indicators into a single composite framework, the study provides a

more comprehensive assessment of macroeconomic performance than conventional analyses based on individual indicators. Third, the study generates policy-relevant evidence regarding the effectiveness of Sri Lanka's recent stabilization and structural reform programme, identifying both achievements in restoring external stability and remaining challenges related to internal stability.

The findings offer valuable insights for policymakers. The MSP framework enables policymakers to monitor macroeconomic performance using a multidimensional perspective, identify sources of internal and external imbalances, and evaluate the effectiveness of stabilization policies over time. Furthermore, the results help determine whether improvements in one policy objective are accompanied by deterioration in others, thereby supporting the design of more balanced and sustainable macroeconomic policies. The evidence presented in this study is expected to contribute to ongoing policy discussions concerning Sri Lanka's post-crisis economic recovery and long-term macroeconomic resilience.

The paper begins with an Introduction outlining the research problem, objectives, and contributions. The Literature Review synthesizes existing evidence on macroeconomic stability. The data and methodology section details the data, variables, and empirical approaches. The results present findings of MSP while discussion interprets these findings in relation to theory and literature, followed by Policy Implications highlighting actionable insights. The paper concludes with summarizing key findings, while highlighting contributions, limitations, and future research directions.

Literature Review

As the concept of macroeconomic stability is multidimensional, there is no single theory to explain relationship between macroeconomic variables. The relationship between inflation and unemployment is explained by the Phillips Curve, which suggested a short-run trade-off between inflation and employment (Phillips, 1958). Although the long-run Phillips Curve implies no permanent trade-off between, inflation and unemployment remain main indicators of internal macroeconomic stability. The relationship between fiscal balance and economic growth is explained by competing theoretical perspectives. Keynesian economics argues that temporary fiscal deficits can stimulate aggregate demand and stimulate economic growth during recessions. The neoclassical approach is different from Keynesian approach, it emphasizes that persistent fiscal deficits increase interest rates as results crowd out private investment and undermine long-term economic growth (Robert, 1974). These competing views imply that fiscal policy should balance short-term stabilization objectives with long-term fiscal sustainability.

External stability is closely related to the Twin Deficit Hypothesis (Abell, 1990), which shows the relationship between government budget deficits and current account deficits. Government budget deficits are often associated with current account deficits through their effects on national savings and investment (Abell, 1990). Large external imbalances increase vulnerability to exchange rate instability, capital outflows, and external debt crises. Together, these theoretical perspectives demonstrate that macroeconomic stability depends on maintaining an appropriate balance among economic growth, inflation, unemployment, fiscal discipline, and external equilibrium rather than maximizing individual policy objectives independently.

The macroeconomic stability is traditionally measured based on individual indicators such as GPD growth rate, inflation, unemployment, fiscal deficits, and balance of payments conditions (Calin, 2013). Failure to capture the complex interrelationship among macroeconomic variables is a limitation of the assessment of macroeconomic stability based on individual indicators. Further, as these macroeconomic variables are competitive rather than complementary it may be difficult to achieve success of each indicator simultaneously (Martínez & Sanchez-Robles, 2012). Hence these macroeconomic indicators are called "magic pentagon" (Santos, Ribeiro, Castela, & Silv, 2017). To overcome these limitations, Kołodko (1993) developed the Macroeconomic Stability Pentagon (MSP) model. The MSP integrates five key macroeconomic indicators economic growth, unemployment, inflation, fiscal balance, and the current account balance into a single composite framework. These indicators are represented graphically as a pentagon, where both size and symmetry of the pentagon reflect the degree of macroeconomic stability. Unlike conventional approaches, the MSP simultaneously captures internal and external dimensions of stability while allowing comparisons across countries and over time. The model therefore provides policymakers with a comprehensive tool for monitoring macroeconomic performance and evaluating the effectiveness of stabilization policies.

As MSP model was a comprehensive framework, most researchers have applied it to identify the macroeconomic stability in economy particularly in transition and emerging economies (Kotliński, 2020). Early applications focused on post-socialist economies in Central and Eastern Europe where the model was used to evaluate the effectiveness of economic reforms and stabilization policies. Janecki (2017) applied MSP model to demonstrate that macroeconomic stability in Poland after introducing structural reforms and integration into the European Union. The MSP framework revealed that improvements in growth, inflation control and fiscal discipline which are key drivers of economic stability. Similar methodology applied research on

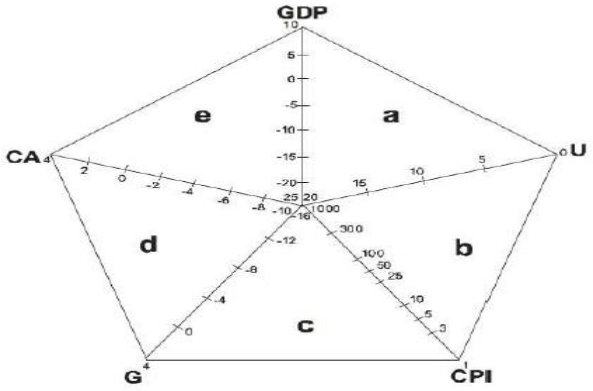
Central and Eastern European countries highlights that internal factors such as inflation and unemployment often play a more dominant role than external factors in determining overall stability (Babiarz, Misztal, & Kowalska, 2021). Lyulyov (2017) has applied the MSP model to assess macroeconomic performance over the period 1997–2016 in Ukraine. The study found that macroeconomic stability significantly fluctuated due to political and economic shocks, but improved during periods of effective policy coordination.

Lyulyov and Shvindina (2017) further extended MSP model to demonstrate its relevance not only at the macroeconomic level but also as a strategic management tool. Their findings showed that the MSP model can be used to evaluate policy effectiveness and guide decision making in both public and private sectors. Diler (2024) has applied MSP model to Turkey to analyze macroeconomic stability over the period 2002–2023. The findings highlighted that the dynamic interaction between inflation, unemployment, and economic growth. The study concluded that the MSP model is particularly effective in capturing the trade-offs between different macroeconomic objectives, especially during periods of economic adjustment. Flemming and Hosein (2025) have used the MSP model to make a cross country comparisons of Latin American and Caribbean countries using panel data. Their findings indicate that countries with more balanced MSP structures tend to exhibit greater economic resilience and stability over time.

Though the MSP model is extensively applied for European and transition economies its application in the South Asian contexts remains limited. In year 2022, the economic crisis in Sri Lanka exposed significant macroeconomic imbalances, including high inflation, large fiscal deficits, and severe external sector vulnerabilities. A recent report of the Central Bank of Sri Lanka indicates that IMF-supported reforms have contributed to improvements in key macroeconomic indicators, particularly inflation control, fiscal consolidation, and reserve accumulation. Existing studies on Sri Lanka primarily focus on individual macroeconomic variables rather than adopting a comprehensive analytical framework. Therefore, there is a clear gap in the literature for a multidimensional assessment of macroeconomic stability using the MSP model.

Methodology

This study adopts a quantitative research design to evaluate macroeconomic stability in Sri Lanka during 2000–2025 using the Macroeconomic Stability Pentagon (MSP) model developed by Kołodko (1993). The study is based on



Annual macroeconomic data covering the period 2000–2025, obtained from the Central Bank of Sri Lanka.

In 1993 Director of Finance Institute in Warsaw, Professor of Economics Kolodko has introduced macroeconomic stabilization pentagon (MSP) to evaluate macrocosmic stability in a country based on five main macroeconomics variables. Internal stability is measured based on GDP growth rate, unemployment rate, government budget balance and External stability is measured based on current account balance. Based on above five indices Kolodko (1993) developed the above macroeconomic stabilization pentagon (MSP). In this pentagon GPD stands for economic growth, U stands for unemployment rate, CPI stands for inflation, G stands for government budget balance and CA stands current account balance.

The MSP index is calculated based on the geometric area of the pentagon formed by the five indicators. The total macroeconomic stability index is obtained as the sum of five triangular areas (a to e) formed between adjacent indicators.

$$MSP = [(GDP * U) + (U * CPI) + (CPI * G) + (G * CA) + (CA * GDP)]*k$$

Where k = 1/2 sin 72° =.04755

The theoretical maximum value of the MSP index is 1 (or 100 percent), which represents an optimal level of macroeconomic stability. The surface area of **a** is depended on GDP growth rate and unemployment rate. it is a real sphere triangle index. Area **b** is a function of unemployment rate and inflation and it consider as index of shortageflation[1] or slumpflation triangle. Triangle **c** is characterized by the

[1] Simultaneous occurrence of high inflation and persistent, widespread shortages of goods and services

value of inflation and budget balance to GDP. The financial balance triangle is calculated based on budget balance and current account balance to GPD. The value of external sector triangle is depending on current account balance to GPD and GDP growth. The surface value of triangle further categorized into two indicators to identified internal and external stability. MSP1 is an indicator of internal macroeconomic stability and MSP 2 is an indicator external macroeconomic stability.

$$MSP = a + b + c + d + e$$

$$MSP1 = a + b + c$$

$$MSP2 = d + e$$

$$MSP = MSP1 + MSP2$$

Most of researchers often normalize macroeconomic variables before calculate MSP, but the original model itself does not strictly require a single universal normalization rule. Babiarz, Misztal, & Kowalska, (2021) modified the MSP method in order to get common scale (usually 0 to 1) and to make the pentagon graph interpretable. Out of different normalization methods, this study used Min –Max normalization method which is presented below.

$$MSP_i = \sum_{j=1}^{n} A_j = \sum_{j=1}^{n} \frac{(x_j - x_{j.min})}{(x_{j.max} - x_{\,j.min})}$$

where $A_j$is normalized value j-component of the MSP ; x_j real value of j-component of the MSP indicator ; $x_{j.max} - x_{\,j.min}$ are maximum and minimum values of the MSP indicator. When the real value is equal to maximum value the value of MSP_i is equal to one on the other hand when real value is equal to minimum the value of $MSP_i$is equal to zero. As variable of GDP growth rate, government budget balance and current account balance higher values shows better performance above formula can be used to normalize the variable which shows higher value higher performance. Inflation and unemployment minimum values show higher performance, hence the above normalization formula should be changed accordingly as presented below for inflation and unemployment.

$$MSP_i = \sum_{j=1}^{n} A_j = \sum_{j=1}^{n} \frac{(x_{j.max-}\, x_j)}{(x_{j.max} - x_{\,j.min})}$$

This transformation ensures that higher normalized values consistently indicate better macroeconomic performance across all indicators.

Researchers (Lyulyov, et al., 2020) categorized the level of macroeconomic stabilization based on the value of MSP indicator.

Thresholds	Level
MSP = (.4 to 1)	The high level of economic stability
MSP = 0.3 to 0.4	Stable economy
MSP = 0.2 to 0.3	Semi stable economy
MSP = 0.1to 0.2	The low level of economic stability
MSP = <0.1	Volatile economy

Findings and discussion

The descriptive statistics of macroeconomic variables which are used to calculate MSP index is presented in table 01.

Table 01: Descriptive statistics of variables in MSP model

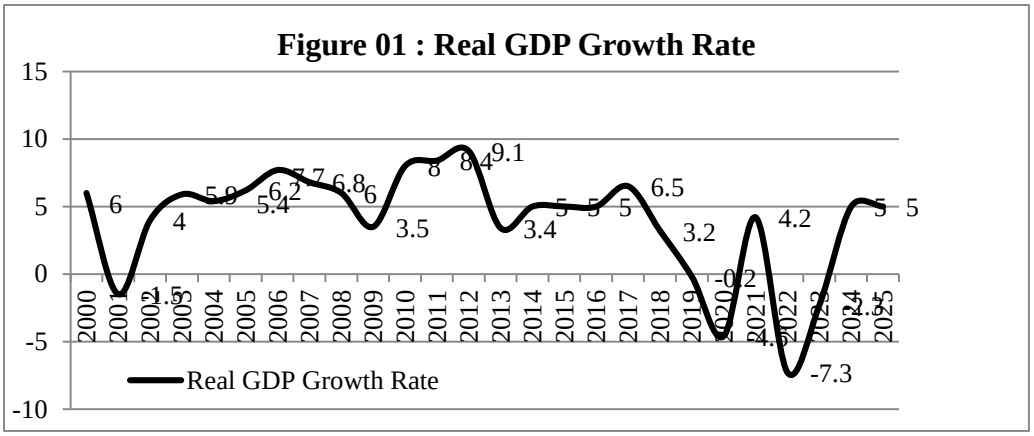
	Average	SD	MIN	MAX
GDP growth rate	3.94	4.03	-7.30	9.10
Inflation	9.22	9.76	0.90	49.70
Unemployment rate	5.66	1.56	4.00	8.80
Budget balance as percentage of GDP	-7.45	1.82	-11.70	-4.50
Current account balance as percentage of GDP	-3.01	2.77	-9.50	2.90

Source : Central Bank reports 2022 and 2024

Table 1 presents the descriptive statistics of the five macroeconomic indicators which are used to construct the Macroeconomic Stability Pentagon (MSP) index for Sri Lanka over the period 2000–2025.The maximum and minimum values of each indicator were subsequently used in the Min–Max normalization procedure to transform the variables into a common scale ranging from 0 to 1 prior to constructing the MSP index.

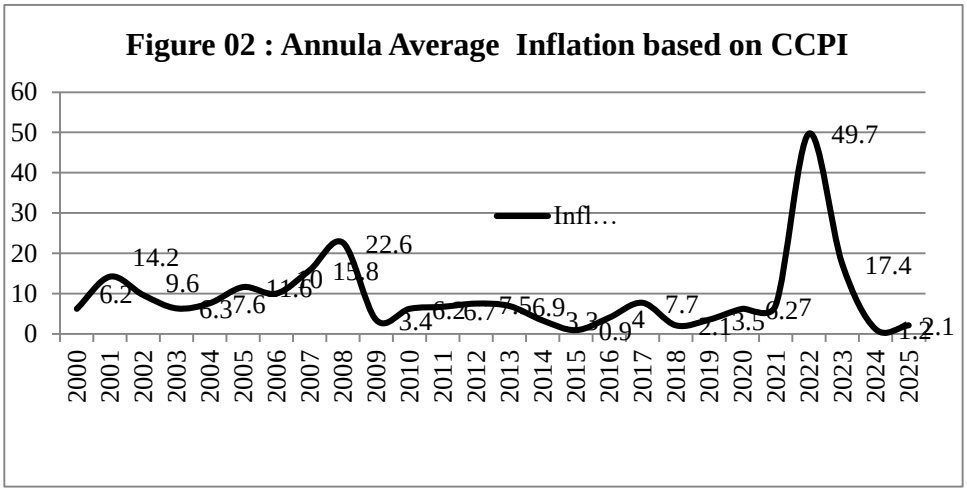
The average real GDP growth rate during the study period was 3.94%, with the lowest growth rate recorded in 2022 and the highest in 2012. The standard deviation of 4.03 percentage points indicates considerable fluctuations in economic growth over the sample period, reflecting periods of both rapid expansion and severe economic contraction. The given below figure 01 shows how GDP growth rate varied from 2000 to 2025.

The maximum and minimum values of each indicator were subsequently used in the Min–Max normalization procedure to transform the variables into a common scale ranging from 0 to 1 prior to constructing the MSP index.



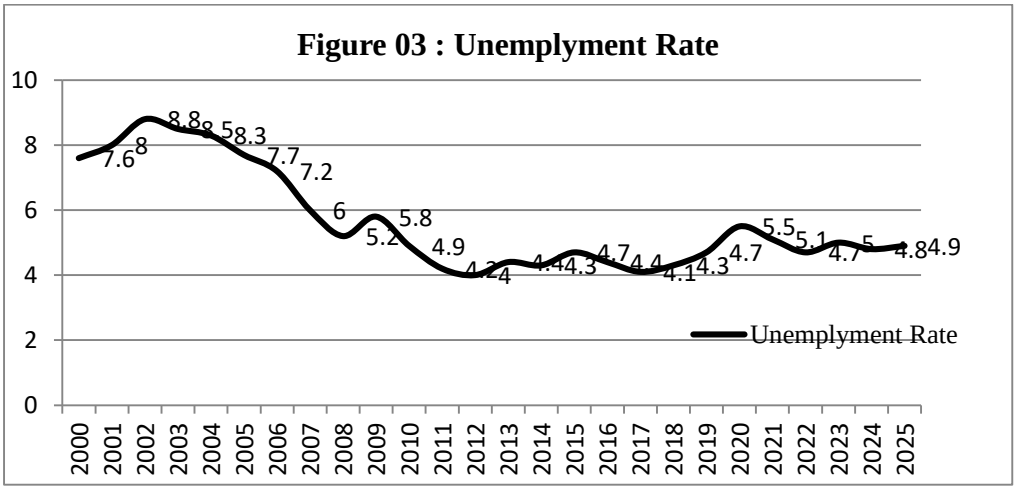
Source: Center Bank reports 2022 and 2024

The average inflation rate during this period was (2000 to 2025) 9.22%, ranging from a minimum of 0.9% in 2015 to a peak of 49.7% in 2022. As oil prices and food prices severely decreased in year 2015 inflation rate dropped to 0.9. The standard deviation of inflation was 9.76 which indicate that there was a significant variation of inflation rate during this period. Figure 02 shows how inflation rate varied from 2000 to 2025.



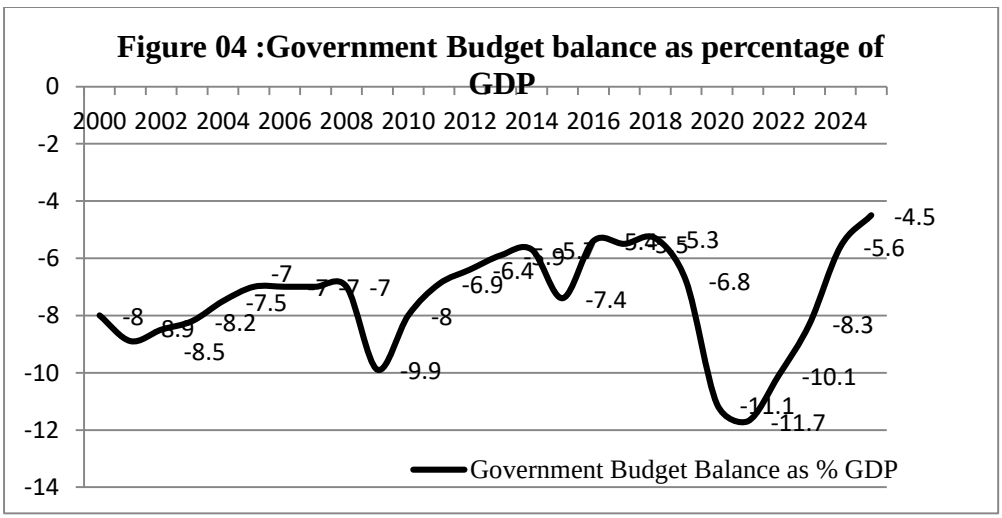
Source: Center Bank reports 2022 and 2024

The average unemployment rate was 5.66%, with the lowest rate of 4.0% observed in 2012 and the highest rate of 8.8% in 2002. Compared with the other macroeconomic indicators, unemployment exhibited relatively moderate variation throughout the study period. Given below figure 03 shows how unemployment rate varied from 2000 to 2025.



Source: Center Bank reports 2022 and 2024

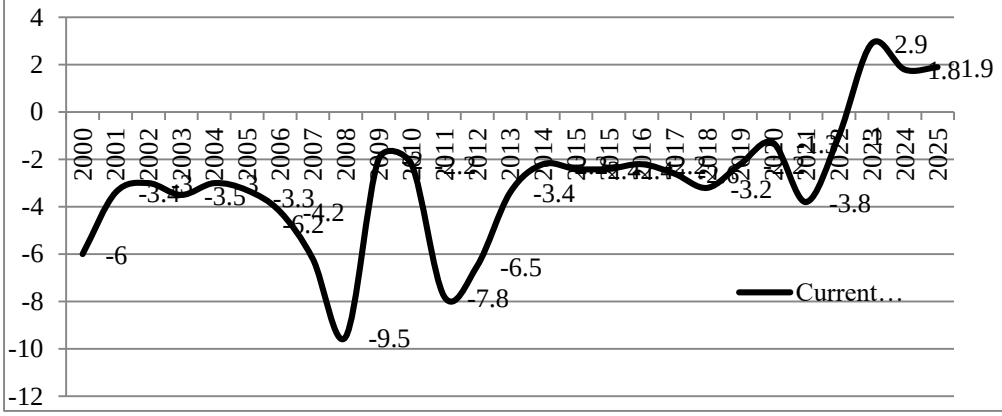
The average government budget balance as a percentage of GDP during this period was -7.45% with minimum value in 2021 and maximum value in 2025. During this period government budget balance as a percentage of GDP is negative which indicates that government expenditure is greater than the government revenue. In year 2025 government budget balance as a percentage of GDP is -4.5 %, indicates that the government has reduced the budget deficit by increasing government revenue and reducing government expenditure. The highest budget deficit was recorded in year 2021. Figure 04 shows how government budget balance varies from 2000 to 2025.



Source: Center Bank reports 2022 and 2024

As a percentage of GDP, the average current account balance during this period was -3.01% with minimum value in 2008 and maximum value in 2023. From year 2000 to 2022 Sri Lanka, the current account balance was negative, which indicates that import expenditure is greater than to export income. However, in year 2023 the current account balance were 2.9, reflecting the improvement in the external sector following the implementation of macroeconomic stabilization policies.

Figure 05: Current Account Balnce as percentage of GDP



Source: Center Bank reports 2022 and 2024

The above descriptive analysis shows that all macroeconomic variables fluctuated during this period. When some indicators reported favorable value other indicators reported unfavorable values. Hence based on this analysis it is not possible to make a firm conclusion related to macroeconomic stability in Sri Lanka. Hence the MSP analysis provides a comprehensive analysis of macroeconomic stability of Sri Lanka.

MSP Analysis

In this section analysis of the macroeconomic stability in Sri Lanka during 2000–2025 considering structure of internal (sum of surfaces of triangles a, b and c) and external factors' (sum of surfaces of triangles d and e) using MSP framework. The MSP framework provides a comprehensive perspective on how internal and external imbalances evolved and interacted each other over pre-crisis and post crisis in Sri Lanka. The Macroeconomic Stability Pentagon is a radar chart with normalized value of GDP growth, Inflation, Unemployment, Government budget balance and Current account balance. Macroeconomic stability can be identified using three important characteristics of the MSP chart; size of pentagon area, symmetry of pentagon and position of individual indicators. Since higher normalized values of macroeconomic indicators reflect high performance a larger pentagon area indicates higher macroeconomic stability. The smaller pentagon area indicates macroeconomic

instability. The symmetrical pentagon reflects balanced macroeconomic performance. An irregular or distorted shape indicates macroeconomic imbalance. The position of individual indicators reflects the performance of that indicator.

Figure 06

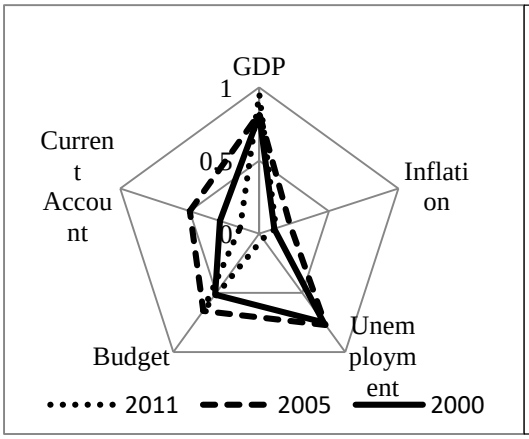
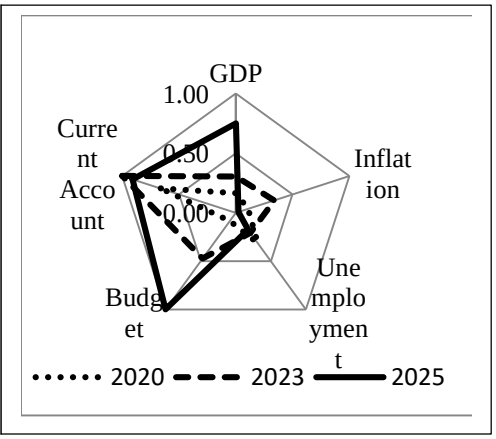


Figure 07

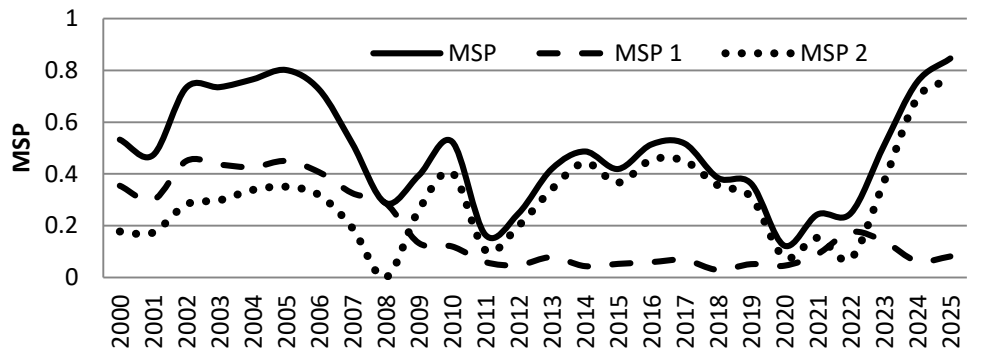


The above figures show macroeconomic stability in selected years. The figure 06 presented MSP of year 2000, 2005 and 2011. In year 2000 individual indicators related to GDP and unemployment has reported higher values compared to the other three indicators. It shows that in year 2000 the economy was not able to achieve a balanced macroeconomic performance. The area of MSP of 2000 is higher than to the area of MSP of 2011 and less than to the MSP of 2005. This indicates that macroeconomic stability in year 2000 is better than situation in 2011 and lower than situation in 2005. In year 2011 GDP performance remains strong but all other indicators show weaker performance. The shape of MSP related to 2011 is not symmetrical and area is low which indicates poor and imbalanced macroeconomic performance. Compared to the year 2000 and 2011 in year 2005 had relatively improved macroeconomic environment. The area of MSP in year 2005 is large compared to other two years.

The figure 07 shows macroeconomic stability of recent years. The MSP analysis indicates that a gradual improvement of macroeconomic stability in Sri Lanka since 2020. The MSP related to 2020 is small compared to other two years; it shows that macroeconomic stability in 2020 is weak compared to 2023 and 2025. It is observed weak performance of all macroeconomic variables in 2020 due to external shocks and post pandemic challenges. In 2023 there is a slight improvement of inflation and government budget balance. The area of MSP has widened in 2023. In 2025 there was a substantial improvement of GDP growth rate, budget balance and current

account. But still inflation and unemployment rate are below the target levels. The MSP of 2025 is large compared to other years which indicate that there was a significant improvement of macroeconomic stability in Sri Lanka.

Figure 08 :The impact of internal and external factors on the macroeconomic stability in Sri Lanka 2000–2025



Source: Central Bank reports 2022 and 2024

From 2000 to around 2006, the MSP index indicated a relative improvement of macroeconomic stability, with average value about above 0.68. In year 2001 the lowest value 0.47 recorded and the highest values 0.80 were recorded in year 2005. In year 2001 all internal and external indicators showed a highly volatile macroeconomic environment in Sri Lanka. This situation was reflected by the lower value of MSP 1 (0.30) and MSP 2 (0.17). The negative annual GDP growth rate (-1.5%) and the two-digit inflation rate (14.2 %) with higher unemployment rate (8 %) contributed to the internal macroeconomics instability in year 2001. The external sector also became instable with the negative government budget balance and current account balance in year 2001. The MSP value in year 2005 was 0.80 which indicated that most of the five key indicators were relatively balanced and favorable at that time. With the GDP growth rate increasing to 6.2 MSP 1 increased to 0.45, indicating relatively favorable internal stability. As external indicators improved, value of MSP 2 also increased to 0.35 in year 2005.

During 2008 to 2020, Sri Lanka's macroeconomic environment was week. After 2019 macroeconomic stability in Sri Lanka worsened due some domestic policy decisions taken by the government a substantial tax reduction introduced in the late 2019 led to a sharp decline in government revenue. Hence it exacerbated the government fiscal deficit. To finance the government expenditure, the government relied on monetary financing contributing to excess liquidity in the economy. In turn, fueled inflationary

pressures and placed downward pressure on the exchange rate. Due to these policies internal macroeconomic stability deteriorated and lower value of MSP I (0.04) indicated this situation. At the sometimes external macroeconomic stability also deteriorated, the value of MSP II was 0.08. In year 2020 the value of MPS indicator was 0.12 which showed a lower level of macroeconomic stability.

In year 2021, 2022 there was a slight improvement of MSP index. The value of MSP index had increased from 0.12 in year 2019 to 0.25 in year 2021. In year 2022 the inflation was 49 % which can be considered the highest inflation ever had. The inflation pressures were further intensified by the supply side disruptions due to sudden ban on chemical fertilizer imports in 2021. The policy targeted promotion of organic agriculture. However, the result was a significant decline in agricultural productivity. In the second quarter of 2021 agricultural activities have declined by 8.4 percent when compared to the 11.2 percent of positive growth recorded in the same quarter in 2020. This situation further led to food shortages and rising food prices. With the sharp contraction in agriculture, industrial and service sectors also recorded significant contraction. An ultimate result was recording the highest negative GDP growth rate in year 2021. Due to these factors there was a rapid erosion of internal macroeconomic stability in year 2021. The value of MPS I was 0.09 which shows instability in internal macroeconomic condition in Sri Lanka.

At the same time external stability also deteriorated sharply in year 2021. The value of MSP 2 was 0.15. During this period, as foreign reserves were used to maintain an overvalued exchange rate and to service external debt obligations the foreign reserves depleted. The failure to implement timely debt restructuring measures further aggravated the situation, ultimately leading to a sovereign default in 2022. The MSP results capture this external vulnerability through the weakening performance of the current account balance, particularly during the crisis years.

While the crisis emerged due to internal shocks, the external shocks significantly amplified its severity. The COVID -19 pandemic had a significant impact on Sri Lanka's external sector. With the collapse of tourism industry in Sri Lanka, there was a sustainable decline in foreign earnings. In addition, disruptions to global trade and reductions in worker remittances further constrained foreign currency inflows in Sri Lanka. Due to sharp declined foreign reserves Sri Lanka was unable to finance essential imports, including fuel, and medicine. The global economic environment became even more challenging in 2022 with the escalation of the Russia–Ukraine conflict. Due to Russia-Ukraine war global commodity prices, particularly for energy and food increased, and it significantly increased Sri Lanka's import bill widening the external imbalance. On the other hand, inflation was exacerbated with the increase of import prices. Furthermore, the tightening of global monetary conditions, driven

by rising interest rates in advanced economies, reduced access to international capital markets and increased the cost of external borrowing. These external pressures compounded existing domestic vulnerabilities and Sri Lanka faced an economic crisis.

In 2025, Sri Lanka recorded the highest level of macroeconomic stability, with overall Macroeconomic Stability Pentagon (MSP) index increasing to approximately 0.85. This remarkable improvement reflects the continued success of the post-crisis stabilization programme implemented under the IMF-supported Extended Fund Facility (EFF). The significant rise in the external stability component (MSP2), which reached nearly 0.80, indicates substantial improvements in the current account balance, foreign exchange reserves, exchange rate stability, and overall external sector performance. In contrast, the internal stability component (MSP1) remained comparatively low at around 0.07, suggesting that although inflation had been successfully contained and fiscal discipline had improved, challenges associated with moderate economic growth and labour market conditions continued to constrain domestic macroeconomic performance. Nevertheless, a sharp increase in the overall MSP index demonstrates that the gains in external stability more than offset the relatively weaker internal performance, positioning Sri Lanka on a stronger path toward macroeconomic recovery. The findings suggest that while the stabilization programme has been effective in restoring macroeconomic balance, sustaining this progress will require continued structural reforms aimed at accelerating economic growth, improving employment opportunities, and strengthening fiscal and institutional resilience.

Conclusion and Policy Implications

Before 2019 the value of MSP index fluctuated due to some isolated factors. But after 2019 both the MSP internal (MSP1) and external (MSP2) declined simultaneously, highlighting the systemic nature of the economic crisis.

After 2022 period the value of MSP index showed clear signs of recovery. The MSP index increases significantly from 2023 onwards, indicating an improvement in overall macroeconomic stability. In year 2022 the value of MSP index was 0.25 and there was a sharp increase in year 2023. The value of index in year 2023 was 0.51 and gradually it increased to 0.85 in year 2025.

The main contributory factor for the quick recovery was the implementation of stabilization policies under the International Monetary Fund (IMF)-supported reform program. Key policy measures included fiscal consolidation, monetary tightening, exchange rate flexibility, and structural reforms aimed at restoring confidence in the economy. With these policy measures most macroeconomic variables changed favorably. Inflation, which peaked in 2022, declined sharply in subsequent years,

reflecting the effectiveness of monetary policy measures. Similarly, the fiscal balance improved due to revenue-enhancing measures and expenditure rationalization. The current account balance also showed signs of recovery, supported by import control, exchange rate adjustments, and a gradual rebound in tourism and remittances. These improvements are reflected in the highest value (0.77) of MSP2. The MSP analysis shows quick recovery of external sector but internal sector recovery process is very show. In particular, economic growth remains at five percent, and unemployment levels also reached high compared to pre-crisis levels. The value of MSP 1 was 0.08 in year 2025 and value of total MSP is 0.85, which is the highest value reported in history.

These findings show that Sri Lanka has achieved high level of macroeconomic stability in year 2025 with the support of International Monetary Fund (IMF) reform program. However, the MSP analysis shows that there was a trade-offs between internal and external stability. Sri Lanka has achieved sustainable external stability with low internal stability. The findings emphasize the importance of a balanced policy approach to achieve sustainable macroeconomic stability.

The findings are consistent with existing empirical literature on the MSP framework, which highlights the importance of balanced macroeconomic performance for achieving stability. As in previous studies, improvements in one dimension—such as inflation control—may come at the expense of others, such as growth or employment. In the case of Sri Lanka, the post-crisis stabilization strategy appears to have prioritized price stability and external balance, potentially at the cost of short-term economic growth.

Overall, the application of the MSP model provides valuable insights into the dynamics of macroeconomic stability in Sri Lanka. It highlights the critical role of policy coordination in managing trade-offs among key macroeconomic variables and emphasizes the importance of addressing both internal and external imbalances. The analysis demonstrates that macroeconomic stability is not merely the result of favorable economic conditions but requires consistent and credible policy frameworks capable of responding effectively to both internal and external shocks.

Declaration

The authors listed below declare that they have no affiliations with or involvement in any organisation or entity with any financial or non-financial interest in the subject focus or materials discussed in this manuscript.

Acknowledgements: Author expresses their gratitude to the editorial board of Colombo Economic Journal and the Department of Economics at the University of Colombo.

References

Abell, J. D. (1990). Twin deficits and the dollar: A multivariate analysis. *Journal of Macroeconomics,* 12(3), 355–372.

Bleaney, M. (1996). Macroeconomic stability, investment and growth in developing countries. *Journal of Development Economics,* 48(2), 461–477.

Calin, A. C. (2013). Analysis of Romanian economic stability in terms of evolution of the budgetary deficit and other macroeconomic indicators in the period 2005–2012. Annals of the University of Oradea, *Economic Science Series*, 22(2), 287–295.

Diler, H. (2024). Stability pentagon model: Application to the Turkish economy. *International Journal of Management Economics and Business*. 20(Special Issue), 1–15.

Fischer, S. (1993). The role of macroeconomic factors in growth. *Journal of Monetary Economics,* 32(3), 485–512.

Flemming, A., & Hosein, R. (2025). Measuring macroeconomic stability in Latin America and the Caribbean using the MSP framework. *Journal of Economic Studies.* [Volume, issue and pages to verify]

Janecki, J. (2017). Measurement and evaluation of macroeconomic stability in Poland using the MSP model. *Folia Oeconomica*, 5(331), 45–60.

Kołodko, G. W. (1993). Stabilization, recession and growth in a post-socialist economy. MOST: *Economic Journal on Eastern Europe and the Soviet Union*, 3(1), 3–38.

Kołodko, G. W. (2000). From shock to therapy: The political economy of post-socialist transformation. Oxford University Press.

Kotliński, K. (2020). Macroeconomic stability in transition economies as an effect of EU membership in light of a comparative analysis. Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu, 64(6), 31-42

Lyulyov, O. (2017). Assessment of the Ukrainian economy based on the macroeconomic stabilization pentagon model. *Geopolitics under Globalization*, 1(2), 34–41. [Verify]

Lyulyov, O., & Shvindina, H. (2017). Stabilization pentagon model: Application in management at macro and micro levels. *Problems and Perspectives in Management*, 15(3), 42–50.

Lyulyov, O., Pimonenko, T., Kwilinski, A., Us, Y., Arefieva, O., Akimov, O., et al. (2020). Government policy on macroeconomic stability: Case for low- and middle-income economies. In Proceedings of the 36th International Business Information Management Association (IBIMA)

Martínez, V., & Sánchez-Robles, B. (2012). Macroeconomic stability and growth in Eastern Europe. In Macroeconomics and Beyond: Essays in Honour of Wim Meeusen 139-158 Garant Publishers.

Mohamed Riyath, M., & Dayaratne, D. (2024). Macroeconomic variables and initial public offerings in Sri Lanka: A principal component analysis approach. LBS *Journal of Management and Research*, 23(1), 1-26.

Phillips, A. W. (1958). The relation between unemployment and the rate of change of money wage rates in the United Kingdom, 1861–1957. Economica, 25(100), 283–299.

Pieloch-Babiarz, A., Misztal, A., & Kowalska, M. (2021). An impact of macroeconomic stabilization on the sustainable development of manufacturing enterprises: The case of Central and Eastern European countries. Environment, Development and Sustainability, 23, 18811–18835.

Popov, V. (2000). Review of From Shock to Therapy: The Political Economy of Post-Socialist Transformation. *Comparative Economic Studies*, 42(4), 121–125.

Rathnasiri, R. (2024). The impact of macroeconomic stability on commercial bank profitability: A study of Sri Lanka. *International Journal of Accountancy*, 4(1), 1-27

Barro, R. J. (1974). Are government bonds net wealth? *Journal of Political Economy*, 82(6), 1095–1117.

Roszko-Wójtowicz, E., & Białowolski, P. (2020). Macroeconomic stability and the level of competitiveness in the European Union: A comparative dynamic approach. *Oeconomia Copernicana*, 11(4), 657–688.

Somathilaka, H., & Hewamana, H. (2025). The long-term impact of macroeconomic stability variables on stock price volatility. *Sri Lankan Journal of Banking and Finance*, 8(1), 84-102.