

The Impact of Macroeconomic Stability on Commercial Bank Profitability: A Study of Sri Lanka

Rathnasiri R.A

Department of Banking and Finance, Faculty of Business Studies and Finance

Wayamba University of Sri Lanka

rathnasiri@wyb.ac.lk

Abstract

In today's highly globalized and complex financial environment, it is crucial to examine the relationship between macroeconomic factors and the profitability of commercial banks. This paper investigates the impact of macroeconomic stability on the performance of commercial banks in Sri Lanka, arguing that such stability is particularly vital for the banking sector in this small economy. While the existing literature extensively explores both internal and external determinants of bank profitability, it predominantly focuses on developed nations. This study incorporates variables representing internal stability—economic growth, inflation rate, and interest rate—alongside the exchange rate as an external stability factor, all in relation to the profitability of commercial banks in Sri Lanka. The research framework is enriched by including non-performing loans as a mediating variable and bank size as a control variable, with return on equity used as a proxy for measuring profitability. Adopting a deductive approach, the study utilizes data from the annual reports of commercial banks and central bank publications for the period from 2010 to 2021, focusing on six systemically important banks based on asset holdings. The macro time series data is analyzed using a fixed random effects model. The results reveal that GDP growth, inflation rate, money supply, and bank size significantly positively impact bank profitability, while the exchange rate and non-performing loans exert a negative influence. This study concludes that enhancing bank profitability requires maintaining macroeconomic stability and outlines the policy challenges the Sri Lankan government must address to achieve such stability, ensuring the sustainability of the financial system.

Keywords: *Economic Stability, Profitability, Stability Index, Commercial Banks*



1. Introduction

The financial system plays a crucial role in allocating funds between lenders and borrowers, significantly promoting economic growth (Levine, 2003). Within this system, the banking sector is the dominant force, essential for both financial stability and economic development (De Siva *et al.*, 2019). Banks, as financial intermediaries, effectively channel resources from surplus units to deficit units, facilitating financial intermediation and fostering economic growth. Commercial banks, in particular, are key providers of investment funds, as they pool resources from depositors. Consequently, the performance of these banks is vital for maintaining financial system stability and benefiting the broader economy (Rehman *et al.*, 2016).

The role played by banks in developing countries is remarkable in the context of underdeveloped capital market (Zhang *et al.*, 2013; Ayyagari 2011; IMF, 2020). Further, most of these countries are highly monetized (Leykun and Sharma, 2017). Thus, banks require functioning efficiently with a view to promoting economic growth. Banks play a major role by intermediating funds from savers to investors as a profitable business through minimizing transaction cost, information asymmetry and pooling of risks. In addition to the mobilization of savings, banks allocate resources for different productive sectors for the benefit of the whole economy (Diamond *et al.*, 1983; Beck *et al.*, 2018).

Banks play a leading role within the financial system promoting economic growth by allocating resources in essential areas (Ongore, 2013). But, failure of banks due to internal or external economic factors may create severe damages to the financial system and transmit the negative impact to the whole economy as well. Thus, banks as the profit motive organizations need to earn profit in their business. Profit is the main element which ensures initiation, existence, growth and survival of any organization (Menicucci *et al.*, 2016). Sokang and Ratanak, (2018) pointed out when the profit is low and insufficient, the banks face many problems. Further, banks need to earn profits as it promotes innovation, productivity and efficiency (Chen and Liao 2011). The growth of bank profitability is a crucial indicator for bank success. Generating higher profits help the bank to perform well and win in the competition. Thus, it is important to investigate the determinants of profitability of banks.

During the last decades, there was a great deal of attention on evaluation of bank performance, particularly on commercial banks. The existing literature on this nature is quite large and focused on the effect of bank specific, industry specific and macroeconomic factors as determinants of bank profitability based on country specific and cross country analysis. These factors are broadly discussed under factors of internal and external. Internal factors or bank specific factors mostly associated with competition among the banks and those factors may impact on profitability depending on the capacities and capabilities of the banks. Thus, it varies from bank to bank (Olokoyo *et al.*, 2019). However, external factors which explain macroeconomic stability factors are broad base in nature represent financial and macroeconomic condition of the country is common to all banks. Although the negative consequences of economic instability are not confined to banking sector, failure of financial system may have severe impact on both real and monetary sectors in the long run. In this context, weak macroeconomic fundamentals may have significant impact on banking sector than non-financial institutions as those institutions are mainly driven by public trust and confidence. Simply, unstable economic and financial environment might collapse banks due to risk and uncertainty. Thus, it is more important to understand uncontrollable macroeconomic influence on the profitability of banks.

However, empirical literature on profitability of banks on macroeconomic stability factors has been inconclusive and ambiguous as the previous findings were mixed in nature (Amarasekera and Peiris (2021); Phan *et al.*, (2020); kumarasinghe (2017); Sangeeth and Moorarka (2019); Caporale *et al.*, (2017); Saeed (2014); Vong and Chang (2019); Wong *et al.*, (2008); Ekanayake

and Azeez (2015); Athanasoglou *et al.*, (2008). Thus, a country specific analysis is important in this nature.

The past literature on the Sri Lankan context do explain a valuable insight, a large proportion of research circling on profitability of commercial banks investigates the effects of bank specific factors with a limited attention on macroeconomic factors (Hossain 2021; Somathilaka and Udayakumara, 2017; kowsala and Panditharathna, 2017; Swarnapali, 2014; Bandaranayake, and Jayasinghe, 2013). According to the above literature which focused on macroeconomic or economic stability factors on bank profitability in Sri Lankan commercial banking sector are still scanty and limited. Further, any researches related to the macroeconomic stability on the banking sector profitability in Sri Lanka were hard to found. Being a small economy, investigating the association between macroeconomic factors and bank profitability is paramount important in current global and complex economic environment. More studies on banking sector performance are essential under the current economic and health crisis situation as it projected decline growth performance of the country significantly. Economic recession may cause to reduce the credit quality, and increase the default rate thus may reduce the profitability of banks. Thus, unfavorable macroeconomic environment reduce the profitability of the banking sector. Simply, an unstable and uncertain macroeconomic climate can affect the credit creation and market risk of banks which will result in lowering banking performance (Olokoyo *et al.*, 2019). This may lead to create crisis in the economy. Demirgüç-Kunt and Detragiache, (1999) found that bank profitability is an important predictor of financial crisis. In order to fulfill above research gap the study investigates the determinants of the profitability of banks considering economic stability variables for the period 2010-2021. This paper provides a broad based panel data econometrics analysis of possible relationship between internal as well as external stability factors and profitability of commercial banks in Sri Lanka.

Sri Lanka introduced economic liberalization in 1977 onwards with a view to promoting economic growth by allowing market forces to operate and reducing government intervention in the economy. Under the policy package, through the financial liberalization remarkable development in the financial sector is witness in institutional development, market development and financial instruments. Despite these market friendly reforms, banking sector has to face many challenges due to declining tendency of main profitability indicators. For an instance, according to the CBSL (2015), return on equity of commercial banks stood at 20.3 per cent in 2011, but the figure has declined up to 10.9 per cent in 2020 (CBSL, 2020). Also, the return on assets of commercial banks declined to 1 per cent in 2020 from 1.7 per cent in 2011. In terms of GDP contribution, financial services contribution which includes banking, insurance and real estate is just equivalent to 12.5 per cent at the end of 2020 (CBSL, 2020). Turning to the macroeconomic environment, it is not conducive during the last two decades due to various internal and external factors. Accordingly, following research questions are intended to address by this study. Firstly, is there an impact of macroeconomic stability on commercial bank profitability? Secondly, what are the most influential factors determining profitability of commercial banks? And thirdly, is there a mediating impact of macroeconomic uncertainty on profitability of commercial banks via non-performing loans?

Research Objectives

The main objective of this paper is to investigate the impact of macroeconomic stability on commercial bank profitability using deductive approach.

In line with this objective following specific objectives can be identified.

1. To identify the most influential factors of macroeconomic stability affecting the profitability of commercial banks in Sri Lanka.

2. To investigate the mediating effect of non-performing loans on the profitability of commercial banks in Sri Lanka
3. To identify other significant factors influencing the profitability of commercial banks in Sri Lanka.

This paper is structured into five sections. Section 1 provides the introduction, outlining the background information related to the issue, along with the objectives and significance of the study. Section 2 reviews the literature on the relationship between economic stability and the profitability of commercial banks. Section 3 details the data sources, the methodological framework of the study, and the empirical model used to test the hypotheses. Section 4 presents the empirical results of the model, while Section 5 offers a summary and conclusion of the study.

Some Stylized Facts on Commercial Banks in Sri Lanka

The financial market of Sri Lanka before 1977 was highly restricted by enforcing different financial regulations. Accordingly, government intervention took place in administering the financial market. Sri Lanka has officially introduced financial liberalization policies under economic reforms in 1977 in favor of gearing economy for sustainable growth. It is observed that a significant development in the financial sector with the introduction of financial reforms particularly in the areas of market development, institutional development and use of innovative instruments in the financial sector (Rathnasiri 2012). Moreover, share of contribution to GDP from financial sector (includes banking, insurance and real estate) has increased from 3 per cent in 1977 to 12.5 percent in 2020 (CBSL 2020). The total number of domestic and foreign commercial banks operating in the domestic market increased dramatically with the introduction of economic reforms. Moreover, with the introduction of financial reforms, there was a substantial expansion of domestic banking activities in rural and urban areas. The branch network of commercial banks grew rapidly up to 6703 branches by end of 2020 (CBSL, 2020).

According to the CBSL Annual Report (2020), the financial system in Sri Lanka comprises with banking sector, deposits taking institutions, specialized financial institutions and contractual savings institutions. The banking sector in Sri Lanka, comprises with Central bank, licensed commercial banks (LCB) and specialized financial institutions dominates the financial system having 17.1 billion rupees of total assets which is equivalent to 72 per cent of total assets as at end of 2020. Thus, financial system in Sri Lanka is dominated by banking firms. Central bank as an apex institution in the financial system tries to achieve financial system stability as a part of its monetary policy. Sound banking system is the main factor to achieve financial system stability.

2. Literature Review

2.1 Theoretical Framework

Theoretical models provide frameworks that clarify the philosophical foundations of research, linking theoretical concepts to their practical applications. This section will articulate the proposed relationships between variables, establishing a basis for developing a theoretical or conceptual framework. Based on existing literature, numerous models have been utilized to examine the connections between macroeconomic stability factors and bank performance.

Liquidity Theory

Liquidity Theory in banking emphasizes the importance of liquidity—defined as the ability of banks to meet short-term obligations and lend to borrowers. A stable economic environment

enhances banks' liquidity by reducing uncertainty and allowing for better forecasting of cash flows, thereby enabling banks to extend more credit to the private and public sector. Keynes (1936) is the proponent of liquidity theory invented the idea of liquidity preference in his seminal work, the General Theory of Employment, Interest, and Money. Keynes (1936) argued that the demand for money is influenced by liquidity preference, affecting interest rates and overall economic activity. Milton Friedman (1968) in his version monetarism pointed out the importance of stable money growth as a prerequisite to maintain economic stability. Friedman's work on monetarism emphasized the role of money supply in influencing economic activity and inflation. He argued that changes in the money supply have significant effects on output and prices, which can ultimately impact bank profitability. In line with liquidity, Allen and Gale, (2004) asserts how liquidity affects financial intermediaries and markets, providing insights into the relationship between liquidity and profitability. In their analysis, Allen and Gale (2004) emphasize that liquidity is a critical characteristic of financial intermediaries because it allows them to provide services that reduce risks for both savers and borrowers. They argue that banks that manage liquidity effectively can achieve higher profitability by maximizing the spread between the interest earned on loans and the interest paid on deposits.

Credit Risk Theory

The foundation for credit risk analysis laid down by Altman, (1968) by developing Altman Z-score model in the 1960s, Altman's work laid the foundation for credit risk assessment by predicting the likelihood of bankruptcy based on financial ratios and used to assess a company's likelihood of bankruptcy. It combines several financial ratios into a single score that indicates the financial health of a company.

Macroeconomic stability reduces uncertainty, leading to lower credit risk. When borrowers are more confident about the economy, they are less likely to default on loans, resulting in fewer non-performing loans (NPLs) and, consequently, higher profitability for banks. Adrian and Shin, (2010), in their work on the procyclical nature of financial institutions emphasizes how macroeconomic stability can affect credit risk and bank profitability. They explore how banks' risk-taking behavior can amplify economic fluctuations. Their research mainly emphasizes the importance of monitoring banks' liquidity and leverage to ensure financial stability and mitigate risks during economic fluctuations.

Efficiency Theory

The efficiency theory, proposed by Demsetz in 1973, posits that firms can achieve higher profitability by operating more efficiently than their competitors. In the context of banks, this theory suggests that institutions that optimize their resources—such as labor, capital, and technology—will have lower operational costs and can offer better rates or services to customers, thereby attracting more business.

As banks enhance their efficiency, they not only reduce costs but also improve their profitability through increased revenues from loans and other financial services. This theory implies that a bank's market share and profitability are closely tied to its ability to operate efficiently, which can lead to a competitive advantage in the financial sector. In essence, more efficient banks are better positioned to maximize their profits while maintaining a sustainable business model. The efficient structure hypothesis suggests that larger banks have better management and advanced technologies, which help them lower operational costs and achieve higher profits than smaller banks. When there is a strong positive correlation between profitability and market share, it supports this idea. Essentially, larger banks can operate more efficiently and use their size to boost profitability compared to smaller banks (Soana, 2011).

2.2 Empirical Framework

This study intends to research the impact of macroeconomic stability on banks profitability. There are lots of research studies available to identify determinants of bank profitability. The broad literature identified internal (Bank specific factors) and external factors (macroeconomic factors) in many countries as determinants of bank profitability. However most of these literature focused on the developed and emerging countries (Leykun and Sharma, 2017) Investigating the determinants of macroeconomic factors on profitability of banks is essentially required under current global and complex banking system. Further, available literature on this nature is limited in the Sri Lankan context too. Athanasoglou *et al.*, (2008) point out that (cited in Leykun and Sharma, 2017) an improvement in economic condition in general has generated a favorable impact on bank profitability. However findings of available studies on this nature revealed different effects of macroeconomic variables on banking performance (Sangeeth and Moorarka (2019). Internal factors are the bank specific factors which has control over the management of the bank. These micro level factors include asset quality, capital adequacy, liquidity, asset size, management efficiency etc. In contrast external factors are the macroeconomic variables which have no control over the management of its direction. Those factors can be categorized as internal and external stability factors which include economic growth (size of GDP), inflation rate, interest rate, and exchange rate and policy variables such as money supply. These factors may have substantial impact on commercial bank profitability. This study uses variables such as GDP, inflation rate, interest rate, and exchange rate as the stability variables which explain internal stability and external stability.

Macroeconomic factors have an important influenced in determining the profitability of commercial banks. These factors have the capacity to expand or contract lending ability of a bank. In the literature, most of the studies reported that macroeconomic variables have significant impact on bank profitability (Sufian and Chong, 2008;Dietrich and Wanzenries 2011; Francis, 2013; Shaista and Hanimas, 2014; Rehman *et al.*, 2016; Mennawi and Ali Ahme 2020; Phan *et al.*, 2020; Amarasena and Peiris 2022).

2.2.1 Economic Growth and Bank Profitability

Economic growth expands the productive capacity of the economy which caused to expand the banking operations with more bank credit. According to the demand following financial development, growth facilitate for financial sector development. Demand for financial services tends to increase as the economy expands and society become wealthier. Thus bank will be able to generate more interest income, thereby increasing profits. On the other hand growth promotes trading activities and it leads to promote banking business. According to the history of banking system trade and banking sector development go hand to hand. In a good period of time with the expansion of economic activities, the demand for loans and deposits increases and quality of bank credit increased which in turn positively affect profit margins (Sufian and Chong, 2008). Credit to private sector demand substantially increase during the boom period (Athanasoglou, 2008). Thus banks are able to set the wider interest margin. Therefore, higher economic growth positively affects profitability of banks. In contrary during the recession period the demand for credit falls limiting the credit creation of commercial bank which in turn negatively affects profitability of banks. In addition, bad economic situations can worsen the quality of loan portfolio result in high default rates and thus reduce the earnings of commercial banks.

In the previous literature many authors have investigated the link between economic growth and bank profitability. However, the findings of those studies are not in conformity having positive, negative and not significant. Analyzing the impact of economic growth on profitability of banks, many country specific studies confirmed the positive association between economic growth and profitability. Accordingly, in Malaysia (Wasiuzzaman & Tarmizi, 2010), Switzerland (Dietrich and Wanzenried, 2011), Korea (Lee and Kin, 2013), US (Chronopoulos *et al.*, 2015), Kenya (Kiganda, 2014), Jordan (Yousafi, 2016), Sri Lanka (Kumarasinghe,

2017), Vietnam (Phan *et al.*, 2020) confirmed the positive association between GDP growth and Bank performance. This is true as the bank tends to grant more loan and advances during the buoyant economic conditions and on the other hand borrowers feel easy to service their borrowings and banks meet expectations. However, it can be noted that following studies identified negative relationship between economic growth and profitability of commercial banks (Francis, 2013; Caporale *et al.*, 2017). This is confirmed by Demircug-Kunt & Huizinga, (1999) in his study by ascertains that financial development is well supported by fast growing economies. Moreover, Sangeeth and Moorarka 2019 confirmed that GDP growth rate has insignificant impact on profitability of banks in India. Conforming the above literature and different opinion expressed by various authors, present study intends to investigate GDP growth rate on profitability of Commercial banks in Sri Lanka and develops the following hypothesis:

H1: There is a significant positive relationship between GDP growth rate and profitability of Commercial banks in Sri Lanka.

2.2.2 Inflation and Bank Profitability

The term inflation refers to the persistent rise in general price level of the economy. It is an important economic stability variable which causes to create risk and uncertainty in the business environment. It reduces the real value of money making demand for other forms of financial assets instead of money as a source of wealth maximizing. Further, inflation as a policy variable affects to tighten the monetary and fiscal policies, thus reducing growth and profits of the business.

The nexus between inflation and profitability of commercial bank is not unique and it is highly debatable. The empirical literature on the relationship between inflation and profitability of banks is inconclusive since findings confirmed the mixed results. Revell (1980), was amongst the first who argued inflation as the most critical factor in explaining banks' profitability. There is a negative relationship between inflation and profitability since higher prices reduced profitability (Warue 2013; Francis 2013; Saeed, 2014; Sansui & Zulaikha (2019);Jadah *et al.*, 2020). According to Athanasoglou, (2005) the nexus between inflation and profitability can be either positive or negative depends on whether the inflation is anticipated or unanticipated. Being a stability variable in the economy, inflation rate play an important role in determining performance of banks only if the bank can fully anticipated its movements enabling appropriate adjustment in the interest rates to enlarge the profits. For this purpose bank must be able to manage its operating cost by forecasting future trends in prices accurately. This means that positive association is a result of managing cost under inflationary pressure by enlarging revenue above the cost. Mennawi and Ali Ahme (2020) argued that inflation increased the earnings of banks since banks can transfer the rising costs to their customers by reducing the real value of customers' deposits. Moreover, inflation as a positive function of profitability was confirmed by Wasiuzzaman & Tarmizi, (2010);Sangeetha and Chinu, (2019); Phan *et al.*, (2020); Hossin and Mondol (2020) in their country specific studies. Conforming the above literature and different opinion expressed by various authors on inflation and bank profitability, present study intends to investigate inflation rate on profitability of Commercial banks in Sri Lanka and develops the following hypothesis:

H2: There is a significant positive relationship between inflation rate and profitability of Commercial Banks in Sri Lanka.

2.2.3 Interest Rate and Bank Profitability

The interest rate is an important factor which determines the profits of a bank. This factor determines the ability and willingness of banks to demand and channel funds from the market (Leviticus *et al.*, 2020). Thus, high real interest rate can be express as positive a function of bank profitability. Some studies tested the impact of interest rate on profitability of banks using

a proxy variable, interest rate spread which measures the difference between lending and deposit variable. Interest margin helps banks to cover operating expenses and to continue the banking business. Profitability of banks may raise with increases the loan interest rate as a result of increasing spread (Hassan & Bashir, 2003; Rehman *et al.*, 2016). This is true in case of developing countries where imperfect market exists. Thus, banks can quickly raise lending rates. Moreover, high real interest rate may also increase Islamic banks' profitability if large portion of the income comes from direct investment (Wasiuzzaman & Tarmizi, 2010). Moreover, empirical studies from Nadeem (2013), Francis (2013), Vong and Chang (2019) and Hossin and Mondol, (2020) were provided more evidence that interest rates positively influenced bank profitability. However, high real interest rate influences profitability negatively too if higher loan interest rate reduces the demand of the banking loan (Hamid, and Ghosh, 2019). By considering above literature and different opinion expressed by various authors on interest rate and bank profitability, present study intends to investigate impact of interest rate on profitability of Commercial banks in Sri Lanka and develops the following hypothesis:

H3: There is a significant positive relationship between inflation rate and profitability of Commercial Banks in Sri Lanka.

2.2.4 Exchange rate and Bank profitability

Exchange rate refers to the price of one currency in relation to another country's currency (Reid, and Joshua, (2004). Simply it is the external value of the domestic currency. The external value of the currency depends on the demand and supply of foreign exchange in the forex market. Exchange rate movements have an impact on organizational performance because such upswings and downswings have impact on cash flows and ultimately profitability (Abbas and Osman 2019). Further, instability in the exchange rate creates needless uncertainty in the business environment and increase risk of business firms and banking institutions as well. According to Lindgren *et al.*, (1996) identified the effect of exchange rate on banking performance as it primarily impact on bank borrowers. The domestic currency depreciation is more likely to increase the credit risk for bank loans extended to importers. Commercial banks are highly engaged in international banking activities and deals with foreign exchange transactions. It is believed that the success of commercial bank was significantly influenced by exchange rate as it influences on financial intermediation (Chiira, 2009; Chowdhury and Rasid (2017) ; Setiawanta *et al.*, 2021). Further, Farooq, *et al.*, 2021 argued that ambiguous movement of exchange rate posing a risk to the capital and turnover of a bank. Wong *et al.* (2008) examined risk level of foreign exchange exposure on financial performance of Chinese banks and concluded that foreign exchange exposure positively correlates with bank performance. The studies carried out on this context identified exchange rate fluctuations has a potential risk on the profitability of many commercial banks (He *et al.*, 2014; Osundina *et al.*, 2016).

H4: There is a significant negative relationship between exchange rate and profitability of Commercial Banks in Sri Lanka.

2.2.5 Money Supply and Bank Profitability

Money supply serves as a key monetary variable, with broad money supply often used as an indicator of financial sector development. According to Chandana (2000), the M2/GDP ratio should increase at a faster pace as financial sector activities expand. Liquidity Theory suggests that an increase in money supply enhances banks' liquidity, enabling them to lend more, which can lead to higher interest income and profitability.

From a policy perspective, expansionary monetary policy—characterized by an increased money supply—stimulates economic activity and monetization, resulting in higher demand for loans and, consequently, increased bank profitability. Ayanda *et al.* (2013) examined the factors influencing the profitability of Nigerian commercial banks using cointegration and error

correction techniques. Their results indicated that credit risk, capital adequacy ratio, and money supply are significant drivers of bank profitability. Notably, the findings confirmed that money supply has a significant impact on bank profitability in both the short run and long run. Supporting these conclusions, Gul and Sadiq (2020) reaffirmed the positive relationship between money supply and bank profitability.

H5: There is a significant positive relationship between money supply and profitability of Commercial Banks in Sri Lanka.

2. 2. 6 Mediating effect and Control variables of Bank profitability

Non-performing Loan and Profitability of Banks

Non-performing loan (NPL) is identified as the important bank specific factor which caused to profitability of commercial banks. NPL is considered as the one of the main drivers of credit risk and thus profitability. Loan losses significantly increases when there is downturn of economic activities due to macroeconomic uncertainty and it reduces the profitability of banks (Bolt *et al.*, 2012). High loan losses significantly increased the liquidity risk, lower the profitability and increase risk of bankruptcy. Thus it can be identified NPL as the mediating variables in this discussion.

The majority of studies investigated the determinants of non-performing loans in commercial banks identified internal firm specific as well as external economic factors as the major determinants of NPL (Kasavica and Jovic, 2015; Ekanayake and Azeez 2015). Viswanadham *et al.*, (2015) stressed the importance maintaining stable macroeconomic environment to keep NPL ratio at acceptable level for the commercial banks.

Towshid *et al.*, (2019) examined the most influential factors which determine the level of NPL in the commercial banking system of Bangladesh for the period 2011-2016 using panel data. They found negative significant relationship for ROA, loans to deposit ratio and inflation rate in relation to NPL. In a study by Dimitrios *et al.*, (2016) identified macroeconomic variables such as unemployment and economic growth rate exert negative strong impact on NPL in euro zone for the period 1990 to 2015. Similar results found by Louzis *et al.*, (2012) for Greece banking system. Further, they confirmed that lending rates, government debt have strong impact on the level of NPL.

In the Sri Lankan context, Kumarasinghe (2017) examined the effect of macroeconomic factors, Economic growth, unemployment, inflation, interest rate, exchange rate and export growth on gross non-performing loans in commercial banking sector using OLS regression model. He found GDP growth rate and export growth rate are significant in explaining the non-performing loans in the Sri Lankan banking sector. In a similar study, Ekanayake and Azeez (2015) examined the determinants of NPL using a sample of nine commercial banks in Sri Lanka for the period 1999-2012 using panel regressing analysis. They also confirmed NPL is influenced by both macroeconomic and bank specific factors. Among the macroeconomic factors, NPL negatively vary with GDP growth and inflation rate and positively vary with the lending rates.

The literature on the association between profitability and NPL confirmed the negative association between them. Returns on average assets (ROA) revealed the management efficiency and used as proxy variable to measure bank profitability indicate negative association with NPL (Dimitrios *et al.*, (2016).

H6: Macroeconomic uncertainty has a significant negative impact on the profitability of commercial banks in Sri Lanka through the influence of non-performing loans

Bank Size and the Profitability of Banks

There are different proxy variables available to measure the size of the banks. Among them size of the branch network, total assets of the bank and financial assets are important. Bank size is considered to be a crucial factor in the determination of bank's profitability. According to the market power hypothesis banks with high market share could earn higher profitability due to economies of scale and gain ability to provide services at a lower cost (Weerasinghe and perera, 2013; Terraza, 2015; Silva *et al.*, 2019). Further, larger banks can mobilize savings at large scale and run with loan diversifications enabling minimizing risk profile significantly by reducing cost structure. Athanasoglou *et al.* (2008); Masood and Ashraf (2012); Perera *et al.* (2013) found that the effect of bank size on profitability is positive and statistically significant. As an exception on contrary literature precludes that the relationship between bank size and profitability can be negative as large banks face scale inefficiencies (Menicucci *et al.*, 2016). However, based on the literature, assets growth can directly impact on profitability of banks. Hence, present study used total banking assets as a control variable and it can be hypothesized as follows.

H7: There is a significant positive relationship between bank size and profitability of Commercial Banks in Sri Lanka

3. Measuring the Profitability of Banks

In the literature three common variables such as return on assets (ROA), return on equity (ROE) and net interest margin (NIM) used as a proxy variables of profitability of commercial banks. Athanasoglou *et al.*, (2008); Francis (2013); Heffernan and Fu (2008); Weerasinghe and Perera, (2013); Kawshala and Panditharathna (2017) considered ROA. It is a measure of ratio of net profit to average assets as a proxy for profitability. According to Noman *et al.*, (2015), it is a good indicator of measuring bank's financial performance and managerial efficiency. This indicates how efficiently a bank is utilizing its assets and it is a useful indicator for comparative analysis. Further, other studies considered ROE as a proxy measure for profitability of commercial banks (Masood and Ashraf (2012). ROE is expressed ratio of net profit to shareholders average equity. This is also a good indicator of a bank's financial performance and managerial efficiency. It shows how competent the management is in using shareholders' equity for generating net profit. According to Ongore and Kusa (2013), a business running with high return on investment is more likely to be one that capable of generating cash internally. Thus it is more applicable for the banking business.

Net interest income (NIM) is another important variable used in the literature as a proxy variable of bank profitability. This can be highlighted as the main component of bank revenue. Banks as a profitable business engaged in traditional banking activities, accepting deposits and granting loans to the needy sectors in the economy. In the broad literature NIM is recognized as the important measure of profitability of commercial banks since banks business is to enlarge its profits by managing deposits and lending. The above mentioned three indicators are commonly used in the literature as proxy variables to measure profitability of banks. The current study use ROA as the profitability variable as it reflects the ability to earn gains under the turbulent and challenging environment. Simply ROA is mainly influenced by the policy decisions a bank makes and macroeconomic factors which explained economic condition of the country (Lutfullah and Hafizullah, 2018).

Empirics between Economic Stability and Profitability of Banks

The study conducted by Kosmidou (2008) identified macroeconomic factors are crucial explaining the bank performance in their study using unbalance pooled time series data for the period 1990 to 2002 in Greece. Alexiou *et al.*, (2009) examined the factors that affected the profitability of Greek commercial banks using panel data over the period 2000-2007. A set of bank specific variables, capital credit risk, bank size, operating cost and macroeconomic

variables such as Inflation rate, GDP Growth rate, consumption and investment were used as independent variables while ROA, ROE were used as dependent variables in this model. Findings of the study revealed that macroeconomic variables such as inflation rate, private consumption expenditure played a significant role in determining bank performance and among the bank specific factors capital adequacy and measures of cost efficiency play a significant role.

Dietrich and Wanzenried (2009) analyzed internal and external factors that determined the profitability of banks in Switzerland assessing sample of 453 banks with 1919 observations from 1999 to 2006. The authors used a linear regression model and regressed profitability of banks measured by the return on average assets (ROAA) against the explanatory factors which include bank specific determinants and macroeconomic variables. Findings of the study revealed that GDP growth has a positive and significant impact on bank profitability. Further, study provided evidence on ownership of banks, saying that privately-owned banks are more profitable than state-owned banks in Switzerland. Similar result found by Rauf, (2016); Perera and Weerasinghe (2021). In contrast Saeed (2014) showed that GDP growth rate had insignificant negative association with profitability of commercial banks in UK. Moreover, this study confirmed that bank size, capital ratio, loan, deposits, liquidity, and interest rate have positive impact on ROA and ROE while inflation rate have negative impact on bank profitability.

Weerasinghe and Perera (2013) analyzed the impact bank specific and macroeconomics factors on financial performance of commercial bank of Sri Lanka using quarterly data during the period 2001-2011. This study used unbalanced panel data covering all the commercial banks for the period and data analyzed is based on a multiple regression model. The profitability of banks in terms of return on Assets and regressed against the explanatory variables which represent bank specific and macroeconomic determinants. This study used overnight repo rates as a proxy for the interest rate and GDP growth rates as macroeconomic indicators of profitability. They found that bank size, liquidity, operational costs and interest rate have significant impact on bank profitability. High interest rate has negative impact of financial performances as it limits the credit expansion of commercial banks limiting the credit creation ability of commercial banks. Further, findings confirmed that GDP growth has no significant impact on profitability of commercial banks.

Ekanayaka and Azzes (2015) examined the impact of bank specific and macroeconomic factors on NPL in licensed commercial banks in Sri Lanka using fixed effect panel regression model for the period from 1999 to 2012. It finds that the level of NPL can be attributed to both macroeconomic and bank specific factors. The findings of the study endorsed that with regard to macroeconomic factors GDP growth rate and inflation rate negatively associated with the NPL and positive with the lending rate. However, Kumarasinhe (2017) come up with different conclusion contradict with above calming positive association between GDP growth and NPL ratio.

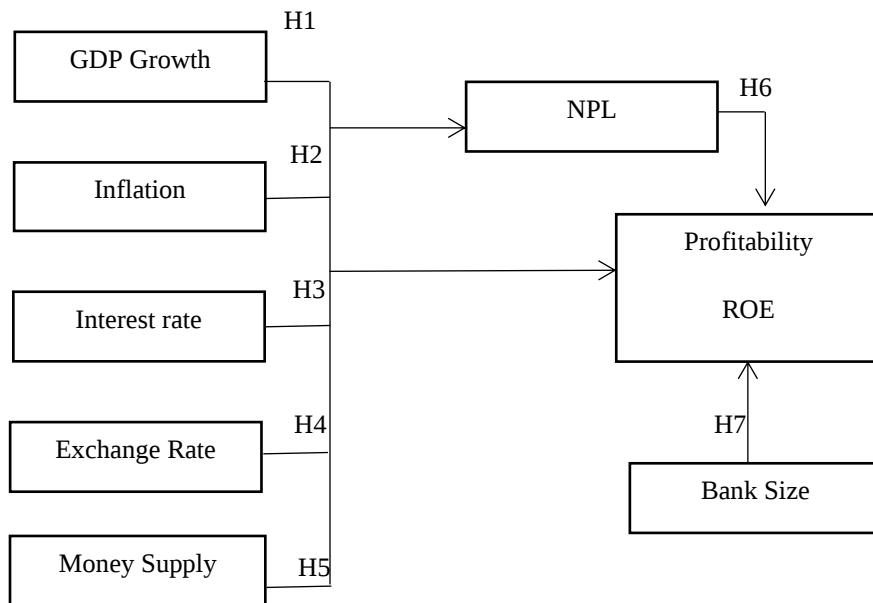
Thevaruban (2017) investigated drivers of commercial banks profitability in Sri Lanka during the period 2012-2016. This study employs multiple regression model to analyze the data. The study used bank internal variables and industry specific variables to examine the profitability of commercial bank in the absence of important macroeconomic variables. This study concluded that credit risk, capital adequacy and liquidity has significant impact on bank profitability. In addition bank size has negative impact but not significant in explaining bank profitability in Sri Lanka. In a similar study by Somathilake and Udayakumara, (2017), investigate the impact of bank specific variables such as capital adequacy, operating efficiency, deposits and assets management ignoring an important macroeconomic factor on profitability of commercial banks. The pooled regression results confirmed that capital and efficiency are important in determining profitability of commercial banks in Sri Lanka.

Ruwanthika *et al.* (2022) explored the influence of bank-specific, industry-specific, and macroeconomic factors on the profitability of commercial banks in Sri Lanka from 2010 to 2019. Key variables examined included bank size, capital adequacy, credit risk, liquidity risk, operating cost efficiency, asset management, diversification, market concentration, inflation, and interest rates. The study utilized secondary data from 11 commercial banks and employed a quantitative research approach, specifically multiple panel regression, to analyze the impact of these determinants on profitability. The findings indicated that bank size, and capital adequacy, asset management, and interest rates positively influenced profitability, while credit risk had a negative effect. This underscores the importance of effective risk management for enhancing financial performance. The study also highlights a gap in existing research, noting that many previous investigations have primarily focused on bank-specific factors related to profitability, often overlooking critical stability factors that can significantly affect profitability. The present study aims to address this gap by examining the impact of macroeconomic stability factors on bank profitability.

4. Methodology

The empirical literature proclaims that macroeconomic environment and internal bank specific factors play an important role in determining performance of commercial banks in Sri Lanka.

Figure I: Conceptual Model



As such, present study identified macroeconomics stability as the main factor which explains the profitability of Commercial Banks in Sri Lanka. This section presents an overview of the conceptual framework, source and the nature of the data used in the study, model specification and econometrics test conducted to active the intended research outcome of the study. Among the other determinants of bank performance, current study proclaimed that macroeconomic factors are paramount important. The present study identified those factors as internal stability factors and external stability factors. The present study used GDP growth rate, Inflation rate and interest rate as internal stability factors and exchange rate as an external stability factor. Following the review of literature, this study identified non-performing loan as a mediating variable and bank size as a control variable in explaining the profitability of commercial banks

in Sri Lanka. Figure II, is explained the conceptual model based on the literature review by recognizing above explanatory factors that affect the profitability of commercial banks.

Nature Of the Variable	Variable	Label	Definition	Sign	Justification
INDEPENDENT VARIABLE	Economic Growth	GDPG	Change in GDP compared with previous year in real terms	(+)	Narusevicius, 2016; Amararathne, & Wanigasuriya, (2022); Alper aad Anber (2011)
	Inflation rate	INFL	Annual average change in GDP Deflator	(+)	Jadah <i>et al.</i> , (2020); Mohammad et al., (2021)
	Interest rate	INTR	Commercial banks' prime lending rate	(+)	Vong & Chan, (2009); Alper aad Anber (2011)
	Money Supply	MS	Broad money supply as a percentage of GDP	(+)	Sangeeth and Moorarka (2019); Chowdhury and Rasid (2017)
	Exchange rate	EXR	Nominal exchange rate	(-)	Emase, M. A. (2017); Chowdhury and Rasid (2017)
	Stability Index	STBin dx	Uncertainty variables use as a proxy to measure the stability Index.	(-)	

			Indicates Standard deviation of gdp, infl, intr and exr			
MEDIATING VARIABLE	Non Performing Loans	NPL	Gross performing loan ratio	non- (-)	Bandara <i>et.al.</i> , (2021)	
CONTROL VARIABLE	Size of the Bank	BSize	Total assets of the commercial banks	(+)	De Silva <i>et al.</i> ,(2019); Weerasinghe & perera (2013); Kawshala and Panditharathna (2017)	
DEPENDENT VARIABLE	Profitability	ROE	Return on Equity: Net profits after tax as a percentage of shareholders' equity capital		Saeed (2014); Alper and Anber (2011); Athanasoglou (2008)	

Table I: Operationalization Table**Sample, Data, Data Source and Operationalization**

The unit of analysis of the study is individual commercial banks in Sri Lanka. The population of the study is 24 commercial banks in Sri Lanka. Three are 13 domestic commercial banks and 11 foreign commercial banks (CBSL Annual Report 2021). The foreign banks excluded from the study due to the non-availability of relevant data for the study period. The sample of the study comprised with six domestic commercial banks which are systematically important as per the central bank classification. In terms of the asset holding and the strength of intermediary and financial services provided, the licensed commercial banks (LCBs) are the significant and most important category of financial institutions within the financial sector. LCBs dominate the financial system with the highest market share of the entire financial system's assets. Therefore, the health of Sri Lankan financial system depends to a large extent on the soundness of the LCBs, primarily on the performance and financial strength of the six largest LCBs, generally

referred to as the Systemically Important Banks (SIBs). There are 6 systemically important banks namely, Bank of Ceylon, Commercial Bank of Ceylon, Hatton National Bank, People's Bank, Sampath Bank, Seylan Bank and they hold 78 percent of the banking assets. The study mainly used secondary data as the study incorporated a macro approach. The annual time series data used for the analysis covered the period 2010 to 2021. The data on macroeconomic stability has been collected from Central Bank Annual Reports and Annual reports of the systematically important banks have been used to collect the data on non-performing loans, commercial banks assets and profitability of banks for the study period. A panel data analysis used to analyze the data as the sample comprised with cross sectional and time series data (Hoffman 2011). This study used balanced panel data of systematic commercial banks in Sri Lanka during the period 2010-2021 based on the availability of data. The variable selected for the study, nature of the variable, measurement and justification for selecting such variable given in the following operationalization table.

Model Specification and Selection

The model framework of the study developed based on the deductive approach. This study intends to analyse the impact of macroeconomic stability on Bank profitability. The total impact on profitability will generate through the direct impact from stability to profitability and indirect impact generates through the NPL of commercial banks. Moreover, in addition to the above direct impact, bank assets considered as an important variable in explaining the profitability of commercial banks. A Random effect /fixed effect model use to find out the impact of macroeconomic stability on profitability of banks and indirect effect via NPL tested using regression models develop to catch-up the mediating effect of NPL on profitability. For this purpose uncertainty index use as an proxy of macroeconomic stability based on the standard deviation of internal and external stability variables. The significance of mediating effect is tested using Sobel test indicator.

In order to test the validity of macroeconomic stability on profitability the present study used panel data model. The ROE is assumed as a function of internal and external stability variables. This expression can be writes as follows.

$$\text{ROE} = f(\text{Internal stability, External stability}) \quad (1)$$

$$\text{ROE} = f(\text{GDPG, INFL, INTR, MS, EXR}) \quad (2)$$

In order to test the validity of the mediating effect, the uncertainty index and NPL ratio regressed against the ROA. It is expressed mathematically as follows.

$$\text{ROE} = f(\text{STBindex}) \quad (3)$$

$$\text{NPL} = f(\text{STBindex}) \quad (4)$$

$$\text{ROE} = f(\text{STBindex, NPL}) \quad (5)$$

The econometrics version of the above models can be written as follows.

$$\text{ROE}_{it} = \beta_0 + \beta_1 \text{GDPG}_{it} + \beta_2 \text{INFL}_{it} + \beta_3 \text{INTR}_{it} + \beta_4 \text{MSt} + \beta_5 \text{EXR}_{it} + \beta_6 \text{BSize}_{it} + \epsilon_{it} \quad (6)$$

$$\text{ROE}_{it} = \beta_0 + \beta_1 \text{STBindex}_{it} + \epsilon_{it} \quad (7)$$

$$\text{NPL}_{it} = \beta_0 + \beta_1 \text{STBindex}_{it} + \epsilon_{it} \quad (8)$$

$$\text{ROE}_{it} = \beta_0 + \beta_1 \text{STBindex}_{it} + \beta_2 \text{NPL}_{it} + \epsilon_{it} \quad (9)$$

Where “i” represents different banks, “t” represents year; ROE_{it} is the dependent on behalf of ROE of bank i in time period t; ε_{it} is the error term; β_0 is the intercept, $\beta_1, \dots, \beta_5$ are the coefficients; the relevant variables are the explanatory variables and specific meaning is shown in Table I.

5. Findings and Discussion

The empirical findings for this study are presented as follows.

5.1 Descriptive Statistics

Table II presents the results of the descriptive statistics of the variables employed for the purpose of this study. Table II shows mean, medium, maximum, minimum, standard deviations, skeweness, kurtosis, Jarque bera stat.

	ROE	INFL	INTR	MS	GDPG	EXR	LBSIZE	NPL
Mean	17.9972	5.2969	15.5091	39.8375	4.1737	147.755	13.557	3.8947
Median	17.1250	4.5525	15.5500	38.6297	4.3225	140.770	13.6512	3.6450
Maximum	33.4000	10.8300	18.0000	57.3426	9.1430	200.430	15.1513	6.60
Minimum	6.4300	0.6568	12.7500	28.2677	-3.6250	110.570	11.9162	1.61
Std. Dev.	5.8549	2.78162	1.2822	9.6208	3.1134	27.962	0.7408	1.4008
Skewness	0.3148	0.3153	-0.1936	0.5908	-0.7908	0.47688	-0.2181	0.080
Kurtosis	2.6079	2.3514	3.3233	2.1624	4.2489	2.05496	2.4628	1.8285
Jarque-Bera	1.6509	2.4549	0.76355	6.2938	12.1844	5.40835	1.4365	4.211
Probability	0.4380	0.2930	0.6826	0.0429	0.0022	0.06692	0.4876	0.0217

Source: Author calculation based on survey data

Table II: Descriptive Statistics for variables

On average, banks in the sample have a return on equity of 17.9 percent over the sample period. The mean of ROE varies across the banks and period, the standard deviation 5.9% and minimum and maximum values are 6% and 33% respectively. The inflation rate (INFR) which is one if the important internal stability variable is 5.3%, minimum value is 0.6% and maximum is 10.8%. The GDP growth rate (GDPG) is amounts to 4.1% on average for the sample period. The exchange rate (EXR) amounts to 147.8 on average while it varies 110.5 to 200.4 for the sample period. And the standard deviation of the relevant variable is 27.9. The money supply (MS) which is monetization variable accounted for 39.8 on average and varies significantly from 28.3% to 57.3 percent. The interest rate (INR) which is another important variable for the banks is amounts to 15.5% on average and non-performing loans (NPL) and size of the banks (BSIZE) amount to 3.9 & and 11.9 % on average for the study period. Among the stability variables money supply and exchange rate have higher standard deviations compared to other stability variables.

5.2 Correlation Analysis

According to the correlation results, GDP growth rate has positive significant impact on return on equity while money supply and exchange rate have negative significant impact on return on equity. As reflects in the table III, there are fairly low correlations (values less than 0.7) among the independent variables indicating that no problem of multicollinearity problem.

	ROE	GDPG	INFR	INTR	MS	ER	Bsi z
ROE	1						
GDP G	.638	1					
INFR	.181	.269	1				
INTR	-.114	-.228	.421	1			
MS	-.601	-.650	-.102	.032	1		
ER	-.616	-.602	-.036	.048	.473	1	.
BSIZ E	-.049	-.461	-.039	.019	.648	.550	1

Source: Author calculation based on survey data

Table III: Correlations

5.3 Empirical Results from Panel data Analysis

Stationary Test

The analysis of data is began with the analysis of statistical properties of the data set. For that study used unit root tests to investigate stationary properties and order of integration of the data. For dependent variable ROE and a control variable, bank size study performed panel unit root tests. For macroeconomic variables study applied the traditional augmented Dickey- Fuller test (ADF). Unit root test are used to determine whether the time series data exhibits mean reverting bahaviour by showing their order of integration. If series are stationary, then cointegration technique can be used to estimates their long run relationship. Among the variables employed, ROE, INFL and GDPG were all stationary at levels and thus their integrated order I(0) stochastic process apart from INTR, MS and Bsize were stationary at their first difference and hence those variables were integrated order of I (1) where Δ means first order difference.

Variable	p-value at levels	p-value at first difference	Decision
ROE	0.004		I(0)
GDPG	0.003		I(0)
INFL	0.000		I(0)
Δ INTR	0.704	0.008	I(1)
Δ MS	0.331	0.055	I(1)
Δ ER	0.979	0.001	I(1)

Δ LBSIZE	0.337	0.000	I(1)
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Source: Author calculations based on Survey Data

Table IV: Stationary Test

Selection of Dynamic General Model

The Breusch and Pagan (BP) Lagrangian multiplier test for random effects were used to decide whether a simple OLS model is better or random effect. The results of the BP test indicates that the test stat 5.658, p-value of 0.0002 which is in favor of random effect model. Then, study proceeds to hausman test to determine fixed or random effect model is appropriate. This test basically examines whether the unique errors are correlated with the repressors'. According to the hausman test, if p-value is less than 0.05 fixed effect model is more appropriate. According to the generated results, p-value is 0.97. Thus, random effect model is more appropriate. The results of the random effect and fixed effect are given below in table V.

Based on the selected random effect panel regression, it is found that profitability of systematically important banks were well explained in the selected model. The study finds that GDP growth, inflation rate, money supply, exchange rate and bank size have significant impact on bank profitability. Among the internal stability variables, GDPG, INFR and MS have positive significant impact on banks profitability while external stability variable, exchange rate has significant negative impact on banks profitability. Bank size has significant positive influence on profitability of banks. However, interest rate is not statistically significant in the model.

Findings of the general model show that GDP growth, the proxy variable for income has a positive and significant relationship with the profitability of commercial banks. Higher growth rates expand the productive capacity of the economy. Banks tend to grant more and more loans to the private sector during the good period of time. This is in line with the previous findings of Kumarasinghe (2017); Phan *et al.*, (2020).

As presented in table V, other internal stability variables, such as inflation and money supply show a significant positive relationship with return on equity. The reason for the positive association between inflation and return on equity is the anticipation of inflation by banks and adjusting their interest rates accordingly. According to the results, the effect of money supply on bank performance is positive and similar results obtained by Ayanda *et al.*, (2013); Gul and Sadiq (2020).

Variables	Random effect* (ROE)	Fixed Effect (ROE)
GDPG	0.830*** (0.0947)	0.854***(0.2162)
INFL	0.236** (0.0994)	0.027 (0.1716)
INTR	0.041 (0.3210)	0.083 (0.3670)
ER	-0.267*** (0.0494)	-0.271*** (0.061)
MS	0.348** (0.1386)	0.350* (0.1850)
Bsize	5.103** (1.5807)	5.366*** (0.6594)

constant	-30.493 (19.2849)	-34.92 ** (10.7959)
	R ² 0.745, F-stat 38.07	R ² 0.725, F-stat 31.78
	Prob. F -stat 0.000	Prob. F -stat 0.000
	SE of regression 2.60	SE of regression 3.08

Note: Standard errors in parentheses, ***p<0.01, **p<0.05, p<0.1

* Results of the random effect model with white test to address heterogeneity issue.

Source: Authors calculations based on E-views 10

Table V: Results of the Dynamic Model Fixed/ Random

Out of the internal stability variables, interest rate has not been statistically significant in explaining the return on equity. However, the relationship is positive in line with the theory. The exchange rate shows a negative significant relationship with the return on equity which is significant at 1 percent level. The result is in line with the hypothesized direction of the variable. Wong *et al.*, (2013) and Farooq *et al.*, (2021) findings are also in line with the inverse association between foreign exchange rate and bank profitability.

The size of the bank is statistically significant at 5 per cent level and bears a positive relationship. The direction of relationship is in line with the previous literature Perera *et al.*, (2013); Athanasoglou *et al.*, (2008); Ruwanthika *et al.*, 2022.

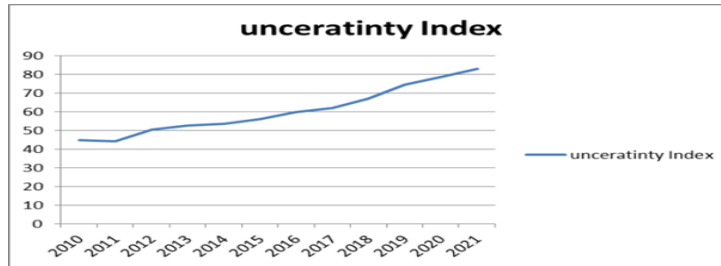
Mediating Analysis –Sobel Test

Once the study identified the nature of the relationship between macroeconomic stability and profitability of banks, next we analyze the mediating effect of macroeconomic uncertainty on the profitability of commercial banks through non performing loans. This study develops uncertainty index based on the standard deviations of the internal and external stability factors. We used sobel test indicator to explain mediating effect.

According to Table VI, the Sobel test indicates a significant mediating effect of the Economic Stability Index (STB Index) on the profitability of commercial banks, as mediated by non-performing loans (NPL). This finding highlights an additional channel through which macroeconomic stability influences bank profitability via non-performing loans. Consequently, banks' profitability may be adversely affected by macroeconomic uncertainty, leading to the creation of non-performing loan portfolios.

	test stat	Std Error	P-value
Sobel Test	-2.4651	0.0121	0.01

Table VI: Sobel Test Results

Figure II: Uncertainty Index

Source: Authors calculation based on survey data

Moreover, as shown in Figure 2, the uncertainty index displays an upward trend throughout the study period, becoming more pronounced after 2017. This suggests that risk and uncertainty in the external macroeconomic environment have significantly increased.

Table VII summarizes the hypothesis testing results, indicating whether the hypotheses developed in the study are accepted or rejected.

Nature of Variable	Variable	Significance	Sign	Decision
Int,Stability	GDP Growth	Significant	(+)	Accept
Int,Stability	Inflation rate	Significant	(+)	Accept
Int,Stability	Interest rate	Not Significant	(+)	Accept
Int,Stability	Money supply	Significant	(+)	Accept
Ext, Stability	Exchange rate	Significant	(-)	Accept
Mediating	Non-Performing Loan	Significant	(-)	Accept
Control	Bank Size	Significant	(+)	Accept

Source: Based on Authors Calculations

Table VII: Summary of Hypotheses Testing Results

6. Conclusion

The main objective of this study was to determine the impact of macroeconomic stability on the profitability of systematically important commercial banks in Sri Lanka for the period 2010 to 2021. This study attempted to discover most influential macroeconomic stability factors in determining profitability of commercial banks in Sri Lanka. This study confirmed that macroeconomic stability factors are playing dramatic role in determining the profitability of

commercial banks in Sri Lanka. Results of the panel data analysis indicated that economic growth rate, inflation rate, money supply, exchange rate and bank size are the factors which make higher influence on the profitability of banks under the study period. Thus, maintaining internal stability and external stability is paramount important in order to maintain conducive environment for the banking business. Thus, policy makers should pay attention on the stability of the macroeconomic environment enabling financial system to function properly and attain the economic sustainability in the longer term

Overall, the findings provide some interesting new insights for a better understanding of the mechanisms that determine the profitability of commercial banks in Sri Lanka. In conclusion, maintaining the balance between internal and external environment is more important in determining the profitability of commercial banks in Sri Lanka. The findings provide valuable insights for policymakers and regulatory bodies to refine existing practices and foster the development of the banking sector, thereby contributing to economic growth.

The study is among the pioneering research efforts focused on profitability determinants specifically within the context of Sri Lanka. It aids commercial banks in understanding critical factors affecting their profitability, enabling them to develop appropriate strategies. Thus, policy makers should pay attention on the stability of the macroeconomic environment enabling financial system to function properly and attain the economic sustainability in the longer term.

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