Short and long-term Determinants of the Growth of Commercial Bank Deposits in an Emerging South Asian Economy: Sri Lanka

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Short and long-term Determinants of Commercial Bank Deposit Growth in an Emerging South Asian Economy: Sri Lanka

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ABSTRACT

Purpose: The purpose of this research is to examine the main factors determining the growth of commercial bank deposits in Sri Lanka for the period 1999 - 2017.

Design/Methodology/Approach: The research uses micro and macro level data collected from purposive random basis. The autoregressive distributed lag approach used to determine the significant micro and macro factors of banks deposit growth.

Findings: The results show that bank steadiness, the productivity of the banking sector, the large supply of capital, economic growth and inflation are important long-term determinants of deposit growth. The findings additionally show that for bank deposit mobilization, only branch expansion and large money supply are important in the short term.

Originality / Value: This study divergent from the extant from the scope empirical studies that focus on the determinants of individual savings behavior in Sri Lanka. The research investigates distinctly how bank characteristics affect deposit growth in view of the short- and long-run time dimensions, thus offering a relatively groundbreaking effort arena.

Research Limitations/Future Research Directions – This is based on only for a period of eighteen years and only few determinants have been used for the study due to data availability. However, this study can be extended by using other determents of bank deposits and considering a longer time horizon.

I. Introduction

As at 30th October 2020 there were twenty-four licensed commercial banks in Sri Lanka (CBSL, 2020). This reports a rapid growth in the banking industry during the last two decades. It is important to examine the determinants of the growth of commercial bank deposits as bank deposits are key to any bank irrespective of the country. Sri Lanka, being a developing country, it is important to study the contribution of banking sector for the development of its economy. Hence, this study covers the scope of the main factors determining the growth of commercial bank deposits in Sri Lanka for the period 1999 - 2017

It is widely believed that, being an intermediary service provider, banks play a significant role in developing economy (Al-Khouri, 2007). According to (Saunders,

2011) banks contribute to economic growth by linking surplus and deficit fund sectors. The increasing number of banks has caused efficiency and competition in the financial sector which has resulted in an increment of their profits (Ahmed, 2006). Further it states that banking sector facilitate the innovations, capital mobilization and productive investments. In interestingly banking sector plays a major role in a developing economy.

Deposit mobilization is one of the key activities that contribute to the efficiency of banks (Yakubu, 2020) Being in the sixty-first place in the emerging economics market list out of sixty-six countries, deposits are important for Sri Lankan bank operations. Many businesses rely seriously on bank loans as a source of financing. From the bank's perspective deposits is the major indicator of how much funds are available for lending-

related operations. So, it is imperative to recognize the key factors that affect the efficient mobilization of deposits. Hence this study pursues to examine the determinants of commercial bank deposits of Sri Lanka.

The Sri Lankan banking sector during the last few decades, undergone important structural reforms along with strict policies to shape the financial system. Reduction in the Statutory Rate Requirements (SRR) and relaxed rulings on Non-Performing Loan (NPL) classifications and deadlines to meet the increased minimum capital requirements have positively resulted for the banking sector. Changes in branch networks that have slimmed down and undergo and digital channel functionality that have developed rapidly and at scale are closely supervised by the Central Bank of Sri Lanka. Newly integrated e-commerce suites introduced by banks to bring more small businesses online will operate under strict regulations. These changes have resulted in major developments

and growth in the operations of the banking sector, including the mobilization of deposits.

According to Rajeevan, 2019, changes happened in the Sri Lankan banking sector are more towards the way they deliver the service. Digitalized services like cash deposit machines, withdrawal machines, mobile app facilities, pass book free bank accounts have delighted the customer for a reasonable degree. This has opened customers into an easier and quick ways of dealing with the banks. Less cash society and Emerging partnerships between banks and fin-techs in the country paves the way to an industry revolution (Coomaraswamy, 2019). GDP in Sri Lanka grew from 18.53 billion to 87.42 billion from 1999 to 2017 and GDP growth rates during the period of 1999- 2017 shows fluctuations as in figure 1. In particular, during the period from 1999 to2017, bank deposits in Sri Lanka experienced rapid growth as a proportion of gross domestic product (GDP) as shown in Figure 2.
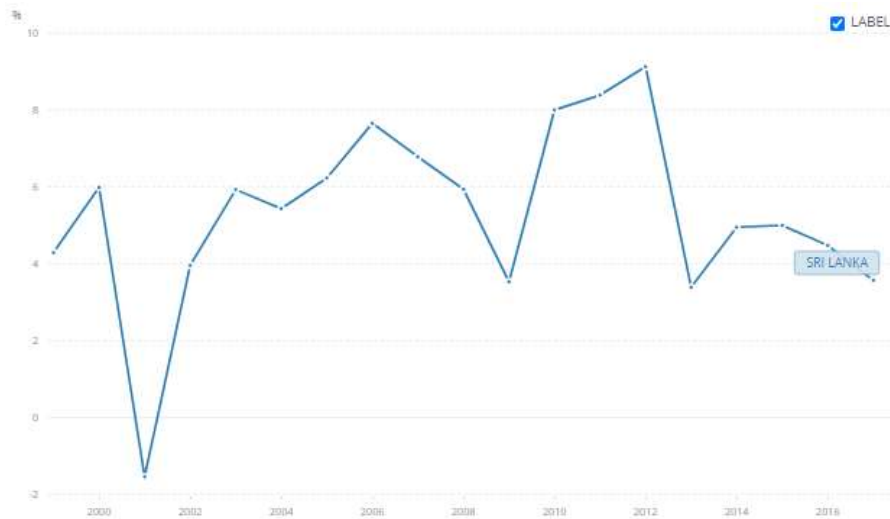

Figure 1. GDP growth in Sri Lanka
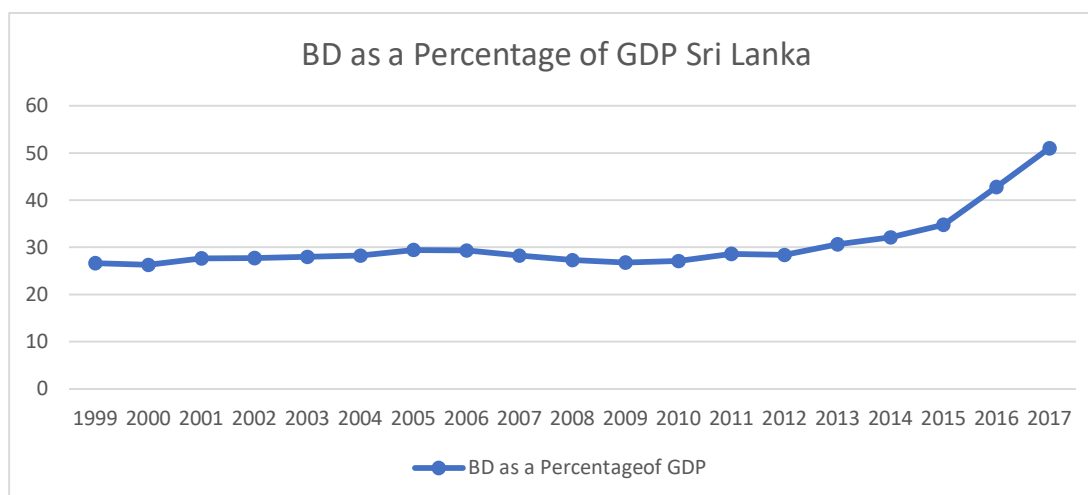
Source: World Bank 2020

Figure 2. BD as a percentage of GDP Sri Lanka

Source: World Bank 2020

Considering the above matter, it is worth investigating the drivers of bank deposits in Sri Lanka and their impact on economic growth. (Harald, 2009); Ojeaga, Odejimi, and Ojeaga (2014) O; (Abduh, Omar, & Duasa, 2011), Setyowati (2019), Khan and Jalil (2020); Mushtaq and Siddiqui (2017) have analyzed the variables with mixed results affecting bank deposits. Research in the Sri Lankan context is limited and therefore needs further studies. No research has explicitly evaluated how bank-specific variables boost deposit growth primarily on the determinants of individual savings behavior. This study, therefore, aims to bridge this void in the literature by analyzing Sri Lanka's short- and long-run determinants of bank deposits. This research contributes in two distinctive ways to literature. First, in Sri Lanka, researchers have done a few empirical studies investigating the effect of bank characteristics on the growth of deposits. Second, using the autoregressive distributed lag (ARDL) approach, this study decomposes the deposit drivers into short-and long-run determinants.

II. Literature Review

There are numerous empirical studies and theories have discussed the determinants of bank deposits. The studies have recognized the factors in to bank-level variables, microeconomic factors and macro factors.

Theoretically, the lifecycle hypothesis by Modigliani (1954), the permanent income hypothesis by Friedman (1998) and the buffer stock theory by Deaton (1989) and Carroll and Kimball (1996) provide sound literature for a logical interpretation of savings actions from the depositors' perspective. The idea of the lifecycle model explains that the estimation of consumption can be primarily accomplished through the income of individuals over a given period. They are net savers while a person is working and they become rebels after retirement. This means that his or her savings pattern is determined by the stage of the individual's life.

The permanent income theory explains that higher potential revenue reduces the existing savings of individuals. Conflictingly, existing investments will not be impacted by variations happened in permanent income as more can be spent regardless of the time. Under the buffer stock principle, it describes that by keeping more cash, individuals shelter

their consumption against unpredictable income fluctuations. It further explains that when faced with income uncertainties, people become uncomfortable and make choices wisely. Borrowings against potential sales to meet existing demand are the reason behind this.

Precautionary motives are another case in which people illustrate their prudence. Individuals prefer to build reserves by minimizing current consumption to avoid the risk of potential income volatility and also to preserve a smooth consumption pattern. To ensure smooth consumption in tough times, literature shows that people prefer to save more when their income level is high.

Interest rate is the main determinant which is considered by most of the investors. Ojeaga et al. (2014) and Tatliyer (2017) have performed their studies on how far the interest rates drive the growth of deposits and they identify a significant positive impact of interest rate on bank deposit level. As per Kasri (2009) traditional interest rates are critical in understanding the actions of deposits and highlights that lower interest rates and higher rates of returns correlate favorably with deposit mobilization. However, Ghana's bank deposits discover an inverse relationship between the inflation rate and the supply of money in the report (Obeng & Sakyi, 2017).

Similarly, Ojeaga et al. (2014), have found that bank deposits have a major and positive effect on interest rates in Nigeria and as per Makoto (2020) being an emerging economy, interest rates and bank deposits in Zimbabwe have shown a positive relationship. They further note that the deposit interest rate and Gross Domestic Output have a major positive impact on bank deposits. However, their findings have adversely influenced the inflation rate and the interest rate margin as a result of deposit mobilization.

Eriksson and Hermansson (2014) have explored that income of the individuals, lending policies and broad money supply of the country determine the savings behavior of

the individuals other than interest rate. Real income, real rate of return, Bank Z-Score and number of Islamic bank branches have identified as driving reserves using data found from Islamic banks functioning in Indonesia for the period 2000-2007 applying the autoregressive vector and the impulse response function were empirically investigated (Kasri, 2009).

During a financial crisis the importance of having a strong banking system is discussed in the literature. As per Tektas, Nur Ozkan-Gunay, and Gunay (2005) the effect of the financial crisis on bank deposits has been analyzed as leverage for macroeconomic factors. Data has collected from 2000-2010 and the vector error correction model has used and interest rates have seen and growth in output level (GDP) and expansion of banks does not drive deposits significantly. However, authors have found that there is a positive link between deposits and the financial crisis and that inflation has a negative influence on deposits.

Studying both micro and macro determinants which may affect bank deposit level are equally important. Ngula (2012) Studied the determinants of deposit mobilization in developing nation Ghana over the 1980-2010 period. To understand bank deposits, the value of money supply, exchange rate, and inflation rate are discussed. They found that the impact of the interest rate on deposit mobilization is small. Setyowati (2019) analyzes the impact of macroeconomic factors on deposits in his analysis using the vector error-correction model on time series data from 1980-2010. It shows a major impact on the long-term growth rate of deposit interest on bank investment, price level, branch networks, and bank deposits.

In Ghana, monetary policy showed a direct short-term effect on deposits (Obeng & Sakyi, 2017). Besides, the long-term availability of money explicitly explains the level of deposits, and inflation and interest rates adversely impact the level of deposits. Islamic and non- Islamic banks are well established in both developed and developing

countries. Mushtaq and Siddiqui (2017) analyzed 46 countries comprising of Islamic and non-Islamic economies using the ARDL technique on bank-level results. It is noticed that interest rates have no major impact on the mobilization of bank deposits in Islamic economies, although they influence in non-Islamic countries.

For the period 2008-2017 in Ghana, Yakubu Ibrahim and Abokor Aziza (2020) analyzes the drivers of bank deposits using a random-effects technique to analyze the drivers of bank deposits. They find that the mobilization of bank deposits is substantially negatively influenced by the size of banks, the profit level of banks, and liquidity.

Importance of having a stable economy driven by strong financial system is highlighted in literature. Financial system stability has a significant impact on the bank deposit level in the developed countries (Sarwar, Khan, Sarwar, & Khan, 2020). As per Guru and Yadav (2019) in developed countries including Brazil, Russia, India, China and South (BRICS) expansion of the banks and financial performance of the banks shows a statistically significant impact on the bank deposits. Structural reforms made by the USA government in monetary policy shows a statistically significant important in the level of deposit levels of the banks (Hultman, 1993). In UK, interest rate has a positive impact on the bank deposit levels when it comes to Islamic banking.

In the sense of Turkey, Ozcan, Gunay, and Ertac (2003) conducted a study to analyze the factors influencing savings behavior for the period 1968-1994 using World Savings Database data. It notes that inflation and financial depth and life expectancy affect private savings, and government savings have a negative effect on savings. Tatliyer (2017) also have studied the factors influencing private savings using OLS and the vector error-correction model for the period 1988-2010 were also analyzed. They notice that the amount of private savings would increase with lower security levels and inflation rates. It further explains that savings

levels are positively influence by the balance of trade and current account terms, while credit limits appear to have an adverse effect on savings. In his study of Turkey and Özen (2018) found a major direct effect of interest rates on the actions of depositors. In Sri Lankan context, Vogel and Burkett (1986) and Kumari and Gunasekara (2018) have done on the deposit mobilization but have only considered the only the micro-level determinants.

Hence it concludes that most of the studies examine the macroeconomic factors and only a few studies have conducted on the key factors amplifying bank deposit growth. Also, it is clear that the findings are different in developing, developed and non-developing countries. Thus, there is dearth of studies that have attempted in Sri Lankan context, as empirical studies emphasize the determinants of individual savings actions. This research aims to fill this void in the literature by modeling in a single equation both bank-level and macroeconomic factors to analyze the short- and long-run factors driving Sri Lanka's growth in bank deposits.

III. Methodology

Data Description and Variables

This study uses annual data spanning 1999-2017 from World Bank's Global Financial Development Database and World Development Indicators. Both databases are extensive dataset of financial system characteristics for 214 economies which contains annual data, starting from 1960. This World Bank recognized data bases have been last updated in September 2019 and contains data through 2017 for 109 indicators, capturing various aspects of financial institutions and markets. The period was chosen based on data availability. The dependent variable was chosen as bank deposits (BD), which is the cumulative value of demand, time, and saving deposits (percent of GDP). To determine their effect on bank deposits, bank stability (BS), branch expansion (BRA), large money (BM), bank

efficiency (BEF), economic growth (RGDP), and inflation (INF) are studied. For all the variables included in the analysis, Table 1 provides a summary of the variables.

Model Specification

Investigating the study Yakubu Ibrahim and Abokor Aziza (2020), the empirical model for the bank deposit and the selected variables is expressed as:

$$BD_t = \alpha_0 + \beta_1 BS_t + \beta_2 BEF_t + \beta_3 BRA_t + \beta_4 BM_t + \beta_5 RGDP_t + \beta_6 INF_t + \varepsilon_t \dots\dots\dots\dots\dots\dots (1)$$

where the proxies are as per the definition above, except ε, which is the error term. t represents the sample period and α_0 refers to the intercept. b 1 to b 6 is the coefficients of the explanatory factors.

Co-integration

The study seeks to analyze the effect of selected independent variables on bank deposits in the short- and long-run applying ARDL model (M. H. a. S. Pesaran, Y., 1998) and (M. H. Pesaran, Shin, Y. and Smith, R.J., 2001). The ARDL approach has benefits over the other co-integration strategies. For example, if the fundamental variables are stationary at level I(0), the first difference I(1), or both, the ARDL technique is applicable. For limited sample size studies, ARDL is a great model and different numbers of lags can be taken for variables under this method. Unbiased long-term estimates are given by ARDL, according to (Odhiambo, 2008). The ARDL model, therefore, expresses the long-run interaction and short-run dynamics of variables as follows.

In examining the long-run relationship and short-run dynamics of the variables, the ARDL model is showed as follows:

$$BD = \sum_{i-t}^{n} \alpha_{1i\,\Delta BD_{t-1}} + \sum_{i-t}^{n} \alpha_{2i} \Delta BS_{t-1} + \sum_{i-t}^{n} \alpha_{3i} \Delta BEF_{t-1} + \sum_{i-t}^{n} \alpha_{4i} \Delta BRA_{t-1} + \sum_{i-t}^{n} \alpha_{5i} \Delta BM_{t-1} + \sum_{i-t}^{n} \alpha_{6i} \Delta RGDP_{t-1} + \sum_{i=t}^{n} \alpha_{7i} \Delta INF_{t-1} + \delta_5 BM_{t-1} + \delta_6 RGDP_{t-1} + \delta_7 INF_{t-1} + \rho\,ECM_{t-1} + \varepsilon_t \dots\dots\dots\dots (2)$$

Where Δ stands for difference operator; α_0 is the intercept; $\alpha_1 - \alpha_7$ and $\delta_1 - \delta_7$ are short- and long-run coefficients, respectively; ε stands for the error term; n is the lag length; ρ stands for the coefficient of ECM; and ECMt-1 stands for the error-correction term lagged by one period.

To examine the long-run relationship among the variables, and abound test is conducted using the F-test. To achieve this, the null hypothesis specifying that there is no long-run relationship among the variable is tested against the alternative hypothesis as follows:

Table 1. Dependent and Independent Variables and Indicators

	Variable	Proxy
Dependent	Bank Deposits (BD)	The total value of demand time and saving deposit (% of GDP)
Independent	Bank Stability (BS)	Proxied by bank z-score
	Bank Efficiency (BEF)	BEF Proxied by bank net interest margin
	Branch Expansion (BRA)	Number of commercial bank branches per 100,000 adults
	Broad Money (BM)	Broad money supply (% of GDP)
	Economic Growth (RGDP)	Annual percentage change of real GDP
	Inflation (INF)	Consumer prices (annual %)

H0: δ1 = δ2 = δ3 = δ4 = δ5 = δ6 = 0 (3)

H1: δ1 ≠ δ2 ≠ δ3 ≠ δ4 ≠ δ5 ≠δ6 ≠ 0 (4)

To evaluate for the presence of co-integration, the two critical bounds: upper bound I(1) and lower bound I(0) are used. With this, reaching the upper critical bound of F-statistics, I(1) implies that long-run relationships and F-statistics exist less than the lower bound critical value I(0), but shows no co-integration.

IV. Empirical Results

Descriptive Statistics

Table 2 displays the descriptive statistics for all of the variables included in the study. The mean value of the bank deposit (percent of GDP) is 39.57 percent with 51.02 and 26.31 percent, accordingly, maximum and minimum values. Compared to average values, the standard deviation values of all factors are low, suggesting relatively lower volatility. All the other variables have a negatively skewed distribution, except for bank productivity, branch expansion, and inflation, which indicate positive skewness. Bank stability, bank productivity, economic growth, and inflation also are observed to have a leptokurtic distribution, as their kurtosis value is larger than 3. Also, the probability values of Jarque-Bera imply that not all variables are usually distributed at 5%.

Table 2. Descriptive Statistics

	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis	JB	P
BD	26.31	51.02	30.5970	6.24709	2.554	6.505	54.15	0.03
BRA	6.88	19.26	13.3912	4.79574	-.192	-1.733	2.49	.000
BS	5.34	14.80	10.9636	2.58900	-.915	0.323	2.73	.001
BEF	2.23	5.37	4.2005	.98731	-1.072	0.188	3.66	.000
BM	32.61	58.82	42.4813	6.81128	1.163	1.012	5.09	.002
INF	34.36	147.09	85.5948	37.66611	.113	-1.489	1.79	.011
RGDP	-1.55	9.14	5.3313	2.38110	-1.043	2.857	9.90	.000

Unit Root Tests

The augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests have been applied in this study for the unit root test. As shown in Table3, the unit root testing is conducted out at both levels I (0) and the first difference I (1). With the exception of economic growth and inflation, which are stationary at the stage of the ADF test, all other variables are stationary at the first discrepancy. Referring the PP test, only the degree of economic growth is stationary. The ARDL method can be applied provided that the variables are stationary at both the stage and the first difference.

Table 3. Unit Root Test Results

	ADF			PP		
Variables	**t-Statistics**		**Order**	**t-Statistics**		**Order**
BD	-12.856	***	I(1)	-8.965	***	I(1)
BRA	-10.323	***	I(1)	-8.652	***	I(1)
BS	-8.005	***	I(1)	-8.223	***	I(1)
BEF	-6.265	***	I(1)	-8.112	***	I(1)
BM	-8.236	***	I(1)	-8.365	***	I(1)
INF	-4.263	**	I(0)	2.999	**	I(0)
RGDP	-3.256	**	I(0)	7.999	***	I(1)

** and *** denote stationary at the 5% and 1% significant level, respectively

Boundary Co-Integration Checking

The boundary test study explores the long-run relationship between bank deposits and their determinants. As shown in Table 4, the results of the boundary test indicate that the approximate F-statistics (3,875) surpass the upper critical bound value of 3.82 at a 5

percent significance level. This demonstrates the presence of co-integration among the variables selected. The long-term relationship between bank deposits and the independent

variables is therefore calculated. An ARDL (4, 2, 4, 1, 2, 3, and 4) is chosen based on the Akaike information criteria (AIC).

Table 4. Bounds Test for the Co-Integration Relationship

Test Statistic	Value	Level	Critical Values	
			I(0)	I(1)
F Statistics	3.569	10%	1.89	2.45
K	8	5%	2.99	3.45
		1%	2.98	3.99

Note: K denotes the number of the explanatory variables

Long-Run Estimation

On the long-run determinants of bank deposits, Table 5 shows the empirical findings. The stability of the banking sector is expected to have a strong and significant impact on bank deposits. Similarly, Kasri (2009) have found that there is a positive impact of the stability of the banking sector in the country for the bank deposits. This outcome is in line with the proposition that a strong and secure banking system increases bank trust and guarantees bank customers that their deposits are protected and used wisely. This will theoretically draw client deposits. The positive relationship can also be due to the stringent steps taken in recent years by the Central Bank of Sri Lanka in its search to create trust in the Sri Lankan financial system, which has led to changes in the activities of the banking sector.

Bank performance, which reflects the success of investment decisions made by banks, has a major negative impact on deposit growth. Similarly, Yakubu Ibrahim and Abokor Aziza

(2020) showed a negative impact from bank performance on deposit levels. This implies that, in the long run, banks in Sri Lanka do not effectively invest customer funds to yield returns that they can pass on to consumers in the form of higher interest rates on deposits. As a result, a lower deposit interest rate will impede the ability of customers to invest their funds in the form of bank deposits.

The statistically significant importance of bank productivity, however, indicates its vitality in the mobilization of bank deposits. In the long run, the relationship between the expansion of branches and bank deposit is adverse and negligible. Similar results have shown in the studies of Yakubu Ibrahim and Abokor Aziza (2020) and Tektas et al. (2005) This implies that deposit growth in Sri Lanka doesn't need to create more branches to boost accessibility to banking services. This Study may link this finding to the growing usage by bank customers in Sri Lanka of mobile and internet banking, which decreases the need for branch visits.

Table 5. Long-Run Estimates

Variable	Coefficient	SE	t-Statistics	Probability value
BRA	-.008	0.362	-0.029	0.896
BS	1.362	0.223	5.011	0.000 ***
BEF	-0.998	0.635	-3.996	0.000 ***
BM	0.678	0.326	9.698	0.000 ***
INF	0.196	0.389	2.056	0.023 **
RGDP	-0.536	0.563	-2.695	0.001 ***
Constant	3.265	6.015	0.436	0.701

Note: ARDL (4, 2, 4, 1, 2, 3, 4) selected based on AIC dependent variable = BD, *** and ** denote significance at the 1% and 5% levels, respectively

This finding contradicted with the findings by Kumari and Gunasekara (2018), they found that it is necessary for deposit mobilization to expand branch networks. However, it is, consistent with the finding of (Ngula, 2012), they have found a significant positive impact on deposit growth from the large supply of capital. This indicates that growth in bank deposits is caused by a percentage increase in the supply of capital.

The outcome reflects the hypothesis that money supply measures monetary conditions and that growth in money supply is manifested by bank deposit growth. Similar results have shown Kasri (2009) in their study. The coefficient of economic growth is negative, although statistically important, meaning that, in the long run, economic activity decreases bank deposits. In addition, inflation has a strong and important effect on the growth of bank deposits. Similarly, results were shown Tektas et al. (2005) and Setyowati (2019) in their studies. This supports the precautionary motivation for savings. The result suggests that, due to the high prices of goods and services, people prefer to decrease spending in times of high inflation. Individuals invest to hedge against price rises with the hope that costs will decline in the future. The outcome is in line with the results of Ozcan et al. (2003).

Short-Run Estimation

The lagged error-correction term (ECM t-1) coefficient is negative and very important in view of the short-run estimates in Table 6. The coefficient of-0.479 shows that the model disruption is decreased against the balance by 47.9 percent quarterly. Bank stability shows an inverse relationship with bank deposits in the short term, and the influence is negligible. The outcome is in line with the results of Yakubu Ibrahim and Abokor Aziza (2020).

This implies that, as in the case of Sri Lanka, banks may struggle in the short term to achieve stability resulting from a fluctuating economy. Customers consider banks as dangerous zones for their money in such cases, which certainly reduces bank deposits. Bank performance has a positive but negligible effect on the growth of deposits in the short term.

Table 6. Short Run Dynamic Model

Variable	Coefficient	SE	t-statistic	Probability Value
BDt-3	-0.126	0.325	-2.986	0.021
BRA t	0.501	0.370	4.012	0.001***
BSt-1	-0.231	0.003	-1.701	0.021
BEFt-3	0.139	0.036	1.598	0.012
BMt-1	-.0129	0.017	-1.802	0.091
INFt-3	0.001	0.136	0.111	0.859
RGDPt-2	0.005	0.368	1.555	0.112
ECMt-1	-0.501	0.062	-6.132	0.000***
R2		0.926		
Adjusted R2		0.869		
Durbin-Watson stat		1.689		
F-Statistic		389.65		
Probability (F-Statistic)		0.000		

*** and ** denote significance at the 1% and 5% levels, respectively

Table 7. Diagnostic Test

Specification	F-statistic	Probability Value
Breusch–Godfrey (serial correlation LM test)	1.797	0.125
Breusch–Pagan (heteroscedasticity)	1.468	0.152
Jarque–Bera (normality)	1.798	0.427
Ramsey RESET	3.645	0.056

This finding suggests that banks in Sri Lanka will earn higher returns on their investments in the short term and consequently benefit depositors in the form of an increase in the deposit interest rate. Contrary to the long-term negative bank efficiency coefficient, banks can only be inferred to be effective in investing customer deposits in the short term. Nevertheless, in the short term, the negligible impact of bank efficiency indicates that deposit attraction does not matter. Branch expansion has a major positive impact on deposit growth, contrary to the long-run results. The outcome is in line with the results of Setyowati (2019).

This can be due to the fact that banks can turn to bank branches as the primary mechanism of reaching clients in the short term. Also, banks can take opportunity to raise awareness of the use of electronic transaction platforms, making branch banking the most secure means by which customers, including deposits, meet their banking needs.

In the short term, the impact of the large supply of money on deposits is negative and important, supporting the findings of (Yakubu Ibrahim & Abokor Aziza, 2020). The outcome means that the supply of money contributes to lower borrowing rates in the short term, which raises the demand for credit and consumption. A rise in consumption decreases the enthusiasm for saving and thereby lowers bank deposits.

In the short term, economic growth boosts deposit growth, although the impact is negligible. Inflation also has a positive, but negligible, short-term impact on bank deposits. 4.6 Outcomes of Diagnostic Tests Eventually, many diagnostic tests are carried out to ensure the validity of the findings. As shown in Table7, the model is free from serial correlation, heteroscedasticity, and misspecification of functional type at the 5 percent significance level. Also, the Jarque-Bera value indicates that the model is generally distributed.

V. Conclusion and Recommendations

In all economies, bank deposits are an integral component of bank operations. This study assesses the short- and long-term banking and macroeconomic drivers of Sri Lanka rise in bank deposits. The findings show that all the variables in the model are essential determinants of bank deposits in the long run, except for branch expansion.

In micro level, for banks to formulate workable policies and strategies to mobilize deposits, it is important to recognize the main factors affecting deposits. The findings additionally document branch expansion and large money supply as the only relevant short-term determinants of deposit growth.

Based on the results, this study gives some suggestions. First, given that bank stability significantly predicts long-term deposit growth, banks need to devise external shock absorption measures that are likely to discredit their operations. In parallel the banks should take necessary measures to increase the profitability of the bank in order to maintain a good reputation as a bank which can provide a high level of security for the customer's deposits.

Also, since the expansion of the branch does not matter in the long run, banks should restrict the expansion of the branch and turn their attention to advancing more advanced electronic platforms to allow customers to easily transact. Since it is clear that the world is heading to a paperless and fastest service providing era banks have to take necessary to actions as soon as possible to achieve long term stability.

In addition, at the macro level, policymakers, mainly the government need to implement policies aimed at improving the overall macroeconomic climate, especially policies aimed at improving economic growth. The backbone of the economy of a country is the financial system stability and to maintain that having a strong banking system is key. The government should be sensitive enough to the

external environment in order to guide the central bank on money supply, inflation rates and through that increasing the GDP. Because standard setting process is pertinent to safeguard the future balance of competitive forces in the national market as well as global market.

Further this study also guides the customers on investing their money in banking system. The financial reports of the banks are believed as a disclosure of their financial status but not the sole mode of deciding the stability of the bank. This study shows that the other factors that the investors should pay when making an investment decision. The focus of the research is on a single country. In order to understand panel studies and analyze other bank-specific factors that effect on bank deposits, this study suggests further investigation on the determinants on different institutional settings.

References

Abduh, M., Omar, A., & Duasa, J. (2011). The Impact of Crisis and Macroeconomic Variables Towards Islamic Banking Deposits. American Journal of Applied Sciences, 8.

Al-Khouri, R. S. (2007). Financial Sector Development and Sustainable Economic Growth in Regionally Co-Integrated Emerging Markets. In M. Hirschey, K. John & A. K. Makhija (Eds.), Issues in Corporate Governance and Finance (Vol. 12, pp. 345-360): Emerald Group Publishing Limited.

Carroll, C. D., & Kimball, M. S. (1996). On the Concavity of the Consumption Function. Econometrica, 64(4), 981-992. doi: 10.2307/2171853

Deaton, A. (1989). "Saving and liquidity constraints". National Bureau of Economic Research, Cambridge., 59.

Eriksson, K., & Hermansson, C. (2014). Searching for new saving behavior theories. International Journal of Bank Marketing, 32(4), 279-299. doi: 10.1108/IJBM-03-2014-0040

Friedman, M. (1998). Theory of the Consumption Function [Press release]

Guru, B. K., & Yadav, I. S. (2019). Financial development and economic growth: panel evidence from BRICS. Journal of Economics, Finance and Administrative Science, 24(47), 113-126. doi: 10.1108/JEFAS-12-2017-0125

Harald, F. (2009). Lebanon—Determinants of Commercial Bank Deposits in a Regional Financial Center. 9, 195.

Hultman, C. W. (1993). US Regulation of Foreign Banks and the Financial Services Sector. International Journal of Bank Marketing, 11(1), 34-38. doi: 10.1108/EUM0000000001470

Kasri, R. a. K., S.H (2009). "Empirical determinants of saving in the Islamic banks: evidence from Indonesia". Journal of King Abdulaziz University-Islamic Economics, 22, 181-201.

Khan, M., & Jalil, A. (2020). Determinants of Interest Margin in Pakistan: A Panel Data Analysis. Economies, 8(2). doi: 10.3390/economies8020025

Kumari, P., & Gunasekara, H. (2018). Factors Affecting for Deposit Mobilization in Sri Lanka. International Review of Management and Marketing, 8.

Makoto, R. (2020). Financial integration and macroeconomic volatility in Zimbabwe. Journal of Economics and Development, 22(2), 229-248. doi: 10.1108/JED-11-2019-0063

Mushtaq, S., & Siddiqui, D. A. (2017). Effect of interest rate on bank deposits: Evidences from Islamic and non-Islamic economies. Future Business Journal, 3(1), 1-8. doi: https://doi.org/10.1016/j.fbj.2017.01.002

Ngula, I. B. (2012). "Determinants of deposit mobilization and its role in economic growth in Ghana". Kwame Nkrumah University of Science and Technology, Ghana

Obeng, S. K., & Sakyi, D. (2017). Macroeconomic determinants of interest rate spreads in Ghana. African Journal of Economic and Management Studies, 8(1), 76-88. doi: 10.1108/AJEMS-12-2015-0143

Odhiambo, N. M. (2008). "Financial depth, savings and economic growth in Kenya: a dynamic causal linkage". Economic Modelling, 25, 704-713.

Ojeaga, P., Odejimi, D., & Ojeaga, D. (2014). The Impact of Interest Rates on Bank Deposits Evidence from the Nigerian Banking Sector and a Regional Overview.

Ozcan, K. M., Gunay, A., & Ertac, S. (2003). Determinants of private savings behaviour in Turkey. Applied Economics, 35(12), 1405-1416. doi: 10.1080/0003684032000100373

Özen, E., Vurur, N.S. and Grima, S. (2018). "Investigation of causality between interest rate and deposit investor's behaviour",. BRAIN Broad Research in Artificial Intelligence and Neuroscience, 9, 177-185.

Pesaran, M. H., Shin, Y. and Smith, R.J. (2001). "Bounds testing approaches to the analysis of level relationships". Journal of Applied Econometrics, 16, 289-326.

Pesaran, M. H. a. S., Y. (1998). "An autoregressive distributed-lag modelling approach to cointegration analysis". Econometric Society Monographs, 31, 371-413.

Sarwar, A., Khan, M. A., Sarwar, Z., & Khan, W. (2020). Financial development, human capital and its impact on economic growth of emerging countries. Asian Journal of Economics and Banking, ahead-of-print(ahead-of-print). doi: 10.1108/AJEB-06-2020-0015

Saunders, A. (2011). Financial Markets and Institutions (5th ed.): McGraw-Hill Education, New York, NY.

Setyowati. (2019). Macroeconomic Determinants of Islamic Banking Products in Indonesia. Economies, 7, 53. doi: 10.3390/economies7020053

Tatliyer, M. (2017). "Determinants of Private Saving Level: Evidence from Turkey". Sosyoekonomi, 25(32), 149-167.

Tektas, A., Nur Ozkan-Gunay, E., & Gunay, G. (2005). Asset and liability management in financial crisis. The Journal of Risk Finance, 6(2), 135-149. doi: 10.1108/15265940510585806

Vogel, R. C., & Burkett, P. (1986). Deposit Mobilization in Developing Countries: The Importance of Reciprocity in Lending. The Journal of Developing Areas, 20(4), 425-438.

Yakubu, A. (2020). Factors determining bank deposit growth in Turkey: an empirical analysis. Rajagiri Management Journal, 14(2), 121-132. doi: 10.1108/RAMJ-05-2020-0017.