

# Determinants of Private Commercial Bank Performance

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## Abstract

This study is focused on examining and analyzing the factors that might effect on Sri Lankan commercial banks performance during the period from 2008 to 2013 mainly based on post war performance of commercial banks. Multiple Linear Regression Model is applied to ascertain whether the performance of commercial banks, ROE, dependent variable, is determined by TE/TA and Inflation, independent variables. The analysis revealed that there are significant and positive relationship between ROE and the Total Equity /Total Assets (TE/TA) while insignificant and negative relationship between ROE and Inflation Rate (INF) and the Log Size of the assets of the commercial banks.

**Keywords:** Banks Performance, Return on Equity, Inflation Rate, TE/TA.

## Introduction

Banking industries in developing countries serve as the major driving forces facilitating the transfer of funds from surplus holders or savers to deficit holders or borrowers. This process which includes intermediation and asset transformation is vital for a country's economic development.

Sri Lanka has introduced various regulatory reforms to its financial-services sector since 1977 in order to enhance that industry's operational performance. A major expectation of these reforms has been to maximize the use of financial resources for economic development by improving the private sector's participation. These reforms have therefore had the objective of enhancing the productivity and efficiency of the sector's institutions by creating a competitive environment (1999). This deregulation of the financial-services sector has transformed its operational environment by enabling structural changes to take place and by enhancing private-sector involvement in the industry. These financial reforms, together with other micro economic and macroeconomic factors, have consequently influenced the improvement of Sri Lanka's banks' efficiency (Government as well as private Banks). This study therefore aims to find the Determinants of private commercial bank.s performance in Sri Lanka.

The aim of this study is to determine and analyse the factors that might affect the performance of commercial banks Sri Lankan during from 2008 to 2013. The main objective of this study is to investigate the determinants of commercial banks' performance in Sri Lanka over the period from 2008 to 2013.

Many researchers used two measures for performance in commercial banks. These measures include Return on Assets (ROA) and Return on Equity (ROE). Most studies divided the determinants of commercial banks' performance into two categories, namely internal and external factors. For example, growth policies (as shown by credit expansion and market penetration) and managerial incentives ("gambling for resurrection") determine future loan losses (Davis & Zhu, 2005) and (Coit, Craig, Kaar, & John, 1997). This study was selected given the following reasons. Mainly, this study focuses on that can affect the performance of Commercial Banks, as an external factor, inflation rate of the country, which is out of the control within the banks and internal factors such as Size of the assets and TE/TA of the banks.

## Literature Review

Most of studies have divided the determinants of commercial banks performance into two categories, identified as internal and external determinants. Internal determinants of profitability, which are within the control of the bank management, can be broadly categorized into two types, i.e. financial statement variables and nonfinancial statement variables. While financial statement variables are associated with the decisions which directly involve items in the balance sheet and income statement; non-financial statement variables involve factors that hardly have a direct relationship to the financial statements. The cases of non-financial variables within the this category can be illustrated as number of branches, status of the branch (e.g. limited or full-service branch, unit branch or multiple branches), location and size of the bank. Number of branches. (Haran & Sudin, 2004). External determinants are those that are considered to be out of the control of the management of a bank. Among the widely discussed external determinants are competition, regulation, concentration, market share, ownership, scarcity of capital, money supply, inflation and size (Haran & Sudin, 2004). The researchers who have studied that affects, internal and external determinants that might affect on the bank profitability are (Demargue-Kunt & Huisinga, 1999), (Cavallo, Majnoni, & Giovanni, 2001) , (Naceur & Goaid, 2003), (Bikker & Metzemaker, 2004), (Davis & Zhu, 2005) and Aburime, (Uhomoiobi & Aburime, 2008) , (Samad & Abdus, 2004) examined the study of Bahrain's Commercial Bank Performances During 1994-2001, The main focus of this study was to examine empirically the performance of Bahrain's commercial banks with respect to credit (loan), liquidity and profitability during the period 1994-2001.

Ten financial ratios were selected for measuring credit, liquidity and profitability performances. By applying student's t-test to these financial measures, it was found that commercial banks' liquidity performance is not at par with the banking industry. Commercial banks are relatively less profitable and less liquid and, are exposed. (Davis Z. a., 2005), examined the study of Commercial property prices and bank performance during 1989–2002. This paper sought to fill the gap by undertaking an extensive analysis of a sample of 904 banks worldwide. It was focused to assess the effect of changes in commercial property prices on bank behavior and performance in 15 industrialized economies, the results of this study proposes that commercial property prices tend to be positively associated with bank lending and profitability, and negatively associated with banks' net interest margin and bad loan ratios. Such an impact exists even when conventional independent variables determining bank performance are included as controls. Further extensions show that the magnitude of this impact is related to the size of the bank, the strength of bank capitalization, the direction of commercial property price movements, and regional factors. The results have implications for risk managers, regulators and monetary policy makers. (Athanasoglou, Panayiotis, Delis, Matthaios s,

Staikouras, & Cristos, 2008). Profitability in South Eastern European Region .They were adopting an unbalanced panel dataset of South Eastern European (SEE) credit firms over the period 1998-2002 and they found a positive relationship between banking reform and profitability . (Uhomoiibi & Aburime, 2008) have investigated the Determinants of Bank Profitability: Macroeconomic Evidence from Nigeria .

## Methodology

### Data and sampling

The sample of this study consists of panel data for all Sri Lankan private commercial banks listed in the Colombo Stock Exchange (CSE) for the sample period (2008-2013) and available continuous series of accounting and financial information. The study sample consists of nine banks. must then meet the following filtering conditions:

- The shares of Sri Lankan commercial banks being traded in Colombo Stock Exchange 2008-2013.
- Trading has not been interrupted in those banks' shares which have not been merged or
- Data being available about those banks throughout the period of study.

The study involved the following sources for collecting the data needed:

- Annual reports issued by Sri Lankan commercial banks.
- Annual report issued by Colombo Stock Exchange.

### The variables

Independent and dependent variables of the current study have been based on the results researched by previous studies and how far data have been available for measurement purposes. There is one measurement used to identify the dependant variables. These measures are:

#### Dependent variable:

*Return on Equity ( ROE ):*

Return on equity capital is the ratio of Net Income After Taxes/Total Equity Capital. It represents the rate of return earned on the funds invested in the bank by its stockholders. Nonbank financial firms have stockholders, too who are interested in the return on the funds that they invested, (Rose, Peter, Hudgins, & Sylvia, 2008). It is measured by (Demargue-Kunt & Huisinga, 1999), (Cavallo, Majnoni, & Giovanni, 2001), (Bashir & Abdeel Hamid, 2003). (Laeven & Majnoni, 2003), (Naceur & Goaid, 2003), Davis and Halbin , (Bikker & Metzemaker, 2004), (Davis & Zhu, 2005) and (Uhomoiibi & Aburime, 2008) . ROE, on the other hand, reflects how effectively a bank management is using shareholders' funds. A bank's ROE is affected by its ROA as well as by the bank's degree of financial leverage (equity/ asset). Since returns on assets tend to be lower for financial intermediaries, most banks utilize financial leverage heavily to increase return on equity to a competitive level. This ratio is intended to measure the risks to which the commercial banking are subjected through depending on money borrowed for financing its assets. A lower index in this regard means that the bank depends on borrowed money for financing its assets, thereby exacerbating capital risks. Independent variables: Independent variables of the study on which data were collected include the following.

## **Independent Variables**

### *Bank size:*

It is measured by the natural logarithm of total assets. It is argued by (Demargue-Kunt & Huisinga, 1999), (Haron & sudin, 2004), (Uhomoi T. , 2008), (Athanasoglou, Panayiotis, Delis, Matthaios s, Staikouras, & Cristos, 2008), and (Nauceur, Goaiad, & Mohamed, 2010). They found a significant positive relationship between Return on Asset and Return on Equity and size of the banking. They have been selected the size of the banking as an independent variable because Large size is expected to promote economies of scale and reduce the cost of gathering and processing information. In general, large-sized banks have the advantage of providing a larger menu of financial services to their customers, and hence mobilize more funds (Bashir, 1999).

### **Total Equity/ Total Assets (TE/TA)**

There are many Researchers, (Demargue-Kunt & Huisinga, 1999), (Haran & Sudin, 2004), (Uhomoi T. , 2008), (Bashir & Abdeel Hamid, 2003) , used Total Equity/ total Assets (TE/TA) as Independent variables that affecting on ROE and ROI because the large size of equity is expected to reduce the risk ( capital risk ) and a lower capital ratio may trigger safety and public confidence concerns for the respective bank. In general, the large size of equity have the advantage of providing a larger menu of financial services to their customers, and hence mobilize more funds (Bashir, 1999).It is expected a significant positive relationship between TE/TA and Return on Asset and Return on Equity.

### **Annual inflation rate (AIR):**

This is another important environmental condition which may effect on on ROE and ROA. This factor represents the changes in the general price level or inflationary conditions in the economy. The impact of inflation rates on ROE and ROA depend on its effect on the investor's return. (Nonenberg & Mendonca, 2004) investigated that the on ROE and ROA is correlated to level of economy's degree of openness, risk and variables related to macroeconomic performance like inflation, risk and average rate of economic growth. The results also show that the on ROE and ROA has been closely associated with stock market performance. Lastly, a causality test between on ROE and ROA and GDPGR is performed.

## **Model of the Study**

The study adopts a functional model already employed earlier by Demerguç-Kunt and (Huizinga & Demerguc-Kunt, A, 1999), (Haron & sudin, 2004) , (Uhomoi & Aburime, 2008), (Athanasoglou, Panayiotis, Delis, Matthaios s, Staikouras, & Cristos, 2008), and (Nauceur, Goaiad, & Mohamed, 2010). The study model is checked on time series crosssectional bank level data in the context of Sri Lanka 2013. The empirical requirement focuses on the reported determinants of Sri Lankan commercial banks performance which is assumed to be a function of a set of bank characteristics. To control for the effect of the internal and external factors on Sri Lankan commercial banks performance, the researcher use Pooled Ordinary Least Squares ( OLS ) For the determinants testing purposes, researcher employed one model:

Model :  $ROE = c + a_1 \text{ Size} + a_2 \text{ TE/TA} + a_3 \text{ INF} + e$

Where,

ROE = Return on equity

C = constant term

Size = the Bank size

TE/TA = Total Equity/ total Assets

e= the error term

### Operationalization of the Model

Operationalization of the model is shown as follows

**Table.1** Operationalization of the Model

Variable	Indicator	Measurement Level	Measurement
Size	Size of the Fixed Asssets	Logurithem	Moynetary Value of Fixed Asssets
INF	Annual Inflation Rate	Ratio	Annual Inflation Rate of the Country
TE/TA	Leverage	Ratio	Total Equity/Total Assets

Hypothesis Developed in the model

Based on the above discussion the following hypotheses can be made:

Ho1: There is a positive relationship between ROE and size of the commercial Bank.

Ho2: There is a positive relationship between ROE and INF of the commercial Bank.

Ho3: There is a positive relationship between ROE and TE/TA of the commercial Bank.

## Analysis and the Discussion of Findings

### Analysis for the variables

**Table 2.** Variables Entered/Removeda

Model	Variables Entered	Variables Removed	Method
1	TE_TA, INFR, Sizeb	.	Enter

a. Dependent Variable: RoE

b. All requested variables entered.

Table: 03 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.375a	.141	.089	.07539

a. Predictors: (Constant), TE\_TA, AIR, Size

R in the table 03 shows less model fit and R<sup>2</sup> in the same table shows that 14 % of explanatory power (14%) of the model which is low compared to at least 50%, moderate

level of explanatory power. Thus, the dependent variable is explained by the independent variables (Size, TE/TA, INF) collectively at 14% percent of ROE. Although model shows a less explanatory power the following table depicts its significance.

**Table 4.** ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	.047	3	.016	2.729	.054b
Residual	.284	50	.006		
Total	.331	53			

a. Dependent Variable: RoE

b. Predictors: (Constant), TE\_TA, AIR, Size

Table 04 affirms the overall model fit of the study suggesting a significant P value of 0.054 significant under significance level of 10%. Thus we postulate that our overall model is fitted with the variables identified. The variables of Size, INF and TE/TA hold a significant relationship implying the variables taken determine the ROE of commercial banks. Thus, it can be said that when making investments decisions these factors to be taken in to consideration.

**Table 5.** Coefficient

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.044	.213		.205	.838
Size	.009	.011	.122	.874	.386
INF	-.247	.166	-.196	-1.484	.144
TE_TA	-.471	.257	-.254	-1.835	.072

a. Dependent Variable: RoE

As per the results in Table 05, the only variable to be found significant is TE/TA suggesting significant value of 0.072 (at 10% significant value) whereas Size of the firm and INF does not make a significant impact on ROE suggesting thche significant values 0.386 and 0.144 respectively which are found to be insignificant at 10% significant value. This relationship, significant, imply the annotation of the variable TE/TA causality for ROE. However, both Size and INF has no causality.

**Table 6.** Hypothesis Testing

No	Hypothesis	Result	Tool
H1	There is a significant positive relationship between ROE ratios and size of the commercial banks.	Rejected	Regression
H2	There is a positive relationship ROE ratios and INF of the commercial Bank.	Rejected	Regression
H3	There is a significant positive relationship between ROE ratio and TE/TA of the commercial banks.	Accepted	Regression

As per the results appeared in the table 06, co-efficient table, it clearly highlights according to this model that be it big or small, the size of the firm, the impact it can make on the ROE of the commercial banks is very less and the same thing is applicable to the INF as well while showing the impact that TE/TA can make over the ROE of the banks to be significant. Given the particulars illustrated, it can further be illustrated to be rejected both Size and the INF while TE/TA be accepted.

## Conclusion

In this study the researcher attempted to postulate that size of the bank, Inflation rate of the country, TE/TA to be significant determinants of commercial bank's ROE given the literatures. However, It was found out through this article that both size and the inflation rate of the country hardly imply or not significant enough causality for the ROE of the private commercial banks in Sri Lanka while TE/TA do imply causality for ROE in them. Most importantly, the research would stress the value of the ratio between TE/TA in making investment decisions by the investors in the commercial banks in Sri Lanka.

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