

## **An Assessment of the Performance of Sri Lankan Commercial Banks**

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### **Background**

The financial sector in Sri Lanka underwent financial reforms in 1990s to strengthen the financial infrastructure, institutional, legal and supervisory framework for a sustainable economic development. According to theory and empirics, a sound and healthy banking system is a must for sustainable development of any country. The banks are the sole providers of funds and their stability is of paramount importance to the financial system because an efficient and profitable banking sector is better positioned to eliminate harmful shocks and to contribute to the stability of the financial system. Further, legal and macroeconomic environment surrounding the financial system also change over time, while the determinants of profitability of the banking sector also are subject to change.

The standard asset pricing models reveal that riskier assets are remunerated with higher returns. Thus, bank profitability should next reflect bank-specific risk, in addition to risks coupled with the macroeconomic environment, namely systemic risk. As such, both internal and external factors may impact their performance, and an understanding of such determinants on their profitability would be essential for the managers of the banks, and also for numerous stakeholders such as the Central Bank, Bankers Association, Government as well as researchers.

The banking literature reveals the major determinants of bank profitability, which have been empirically well investigated (Poseidon et al., 2005, Naceur, 2003, Vong and Chan, 2009, Sayilson, 2009, Guru et al., 2002, Athanasoglou, et al., 2006, Mamatzakis and Remoundos, 2003). Other studies seek analysing bank profitability in panels of countries (Flamini et al., 2009, Hassan and Bashir 2003, Panayiotis et al., 2006, Abreu and Mendes 2002, Abreu and Mendes, 2001, Staikouras and Wood, 2003, Goddard et al. 2004). However, the results of these studies vary significantly depending on variations in the environment, countries examined and data employed in the analysis.

Yet, there are common factors influencing profitability of commercial banks discovered by several researchers such as expense management, capital ratio, size, activity mix, credit risk and leverage. But, in Sri Lanka, such studies are rare, and the present research study will contribute immensely to fill that gap.

## Objective and Methodology

The objective of the study is to identify the determinants of the profitability of commercial banks. In doing so, this study investigates the determinants of performance of Sri Lanka's domestic commercial banks during 2005-2011. Annual financial data are collected from the financial statements of commercial banks. Banks had to meet two conditions in order to be included into the sample, during the period of investigation: First, they had to be domestic commercial banks among the financial institutions operating in the banking sector. Second, they had to have data throughout the sample period between 2005 and 2011. This yielded a balanced panel data for 9 commercial banks, both in the State and private sectors, consisting of 63 observations.

Based on findings of literature review, the study opted to select eleven internal factors, namely size, credit risk, activity mix, leverage, capital ratio, efficiency, overhead ratio, experience, ownership, postwar activity mix interaction variable, liquidity and two external factors, namely, global financial crisis and postwar to be used in the models (see Table 2). We employ panel data regression approach with the least square method to a fixed effects (FE) model and employ the Breusch-Pagan test to check for residual heteroskedasticity.

## Results

The results of the one way fixed time effect panel data regression, focusing on the performance of domestic commercial banks, are presented in Table 1. It is found that fixed effects regression model statistically outperform the random effects and pooled OLS models. The power of the model in explaining variations of profitability is also reasonably high, and F statistics for overall model and time effect are significant at five percent level.

The study finds that individual bank characteristics could explain a significant portion of variation in profitability. As can be predicted using theory, the overhead cost ratio appeared having a negative significant impact on profitability implying that there was lack of efficiency in overhead management and that profitability would improve whenever banks manage their overhead costs better. Further, the negative coefficient could also indicate a bank's inability to pass its expenses to customers because of

competition. This finding is consistent with those of, Jiang et al. (2003), Hassan & Bashir, Ramadan (2011), and Panayiotis et al. (2005).

On the other hand, credit risk showed a positive significant influence on profitability of banks implying that the higher the rate of transforming deposits into loans, the higher would be the profitability. This suggests that risk-averse investors expect risk adjusted returns and look for better earnings to compensate for high credit risks compatible with the standard asset pricing arguments. This provides support to the earlier studies of Al-Haschimi (2007), Badola (2006) and Flamini et al. (2009) who reported a positive relationship between banks performance and credit risk.

The interaction variable, postwar activity mix ratio was negatively related to banks profitability and statistically significant implying that smaller bank activity diversification, as implied by lower shares of services in the banks activity mix, react negatively on bank performance. The effect is due to the fact that the fees represent a more stable source of income than interest income on loans, banks have realised a greater volume of interest income granting more loans by opening new branches and extension offices all over the Island after the war. This is as a result of rebalancing the business portfolios managed by commercial banks.

The coefficient of the efficiency ratio composed as the net interest income over total assets, had a statistically highly significant positive relationship with the performance of banks meaning that interest earnings being the major source of income, banks manage to increase profits by way of granting more loans through screening of credit risk. Further, this implies that banks have increased exposure to interest bearing activities, which are not much more volatile but essentially more profitable than non-interest-generating activities rather than becoming more diversified.

## Conclusions

This paper investigates the determinants of domestic commercial banks performance for the period from 2005-2011 by employing the panel data regression approach. The empirical findings of this study suggest that four internal factors have a statistically significant impact on the profitability of the banks. During the period under study, the results suggest that credit risk is positively related to the profitability of banks, providing a forward-looking measure of bank exposure to loan default and asset quality deterioration. The efficiency had a positive impact on banks' performance showing a greater interest generating power of banks' assets. The operating management variable, which can be viewed as efficiency in expense management negatively impact profitability implying that higher the expense of the bank, the lesser the bank's profitability would be. The postwar activity mix interaction variable has mostly

negative and significant coefficient on the return on assets indicating that there is less diversification of banking activities during the post war period. Overall, the empirical results reveal that the profitability of commercial banks is determined by individual bank specific factors that are within the controlling purview of bank management.

The findings of this study are both of managerial and policy relevant. The management should pay attention on efficient cost management techniques since reinvestment of banks profits will lead to safer banks, thereby high profits promoting financial stability. Further, increasing loans leads to higher funding requirements and low quality of assets and low level of liquidity can have a negative impact on the banks' profitability, implying that banks should keep a trade-off between profitability and liquidity.

The success of the banking sector depends on its efficiency, profitability, and competitiveness and to increase and maintain the competition, the policy makers and bank managers would be more apt to discover means to best utilise their resources when producing banking products and services. Policy makers should be directed towards enhancing the efficiency and strengthening the financial stability of the financial sector.

## References

- Flamini, V., C. McDonald and L. Schumacher (2009). "The Determinants of Commercial Bank Profitability in Sub-Saharan Africa." IMF Working Paper WP/09/15. Washington, D.C.
- Kosmidou, K., Pasiouras, F. and Tsaklagkanos, A., (2005), "Factors influencing the profits and size of Greek banks operating abroad: a pooled time-series study", *Applied Financial Economics*, 15, 731-738.
- Panayiotis P. Athanasoglou & Matthaios D. Delis & Christos K. Staikouras (2006). Determinants of Bank Profitability in the South Eastern European Region, "Working Papers 47, Bank of Greece.
- Goddard, J., Molyneux, P. and J.O.S. Wilson (2004). "Dynamics of Growth and Profitability in Banking," *Journal of Money, Credit and Banking* 36, 1069-1090.
- Hassan, M. K., & Bashir, A. H. M. (2003). Determinants of Islamic banking profitability. Paper presented at the 10th ERF Annual Conference, Morocco, 16-18 December.

**Table 1: Estimation Results Using Fixed Time Effects**

Variables	Coefficient	Std. Err.	t	p
Credit risk	0.0065	0.0019	3.34	0.002*
Opemgt	-0.3665	0.1649	-2.22	0.031**
Efficiency	81.2563	22.3277	3.64	0.001*
Power activity mix	-0.2010	0.0882	-2.28	0.027**
Constant	0.7582	0.9232	-0.82	0.415

\*, and \*\* indicate significance levels of 1 and 5 percent respectively.

Nb. Observations: 63

R-sq: Within = 0.47  
Between = 0.30  
Overall = 0.28

F test that all  $u_i = 0$ :  $F(6, 52) = 2.98$       Prob > F = 0.01

LM Test: Random vs Pooled

Chi2(1) = 1.05  
Prob > chi2 = 0.30

**Table 2: Definition of Variables**

VARIABLE	DEFINITION	FORMULA
ROA	An indicator of how profitable a company is relative to its total assets	$\text{Net Profit After Tax} / \text{Total Assets} * 100$
Operating Mgt.	The ratio of overheads to total assets can be viewed as efficiency in expense management.	$\text{OH. Expenses} / \text{Total Assets} * 100$
Capital Ratio	Key financial ratio measuring a bank's Capital Adequacy or financial stability.	$\text{T.Equity} / \text{Total Assets} * 100$
Liquidity	The ability to convert an asset to cash quickly.	$\text{Cash \& Cash equivalents} / \text{Total Assets}$
Size	Value of total assets.	Natural logarithm of total assets
Efficiency	Efficiency typically used to analyze how well a company uses its assets and liabilities internally.	$\text{Net Interest Income} / \text{To. Assets}$
Credit Risk	This is a forward-looking measure of bank exposure to default and asset quality deterioration.	$\text{Loans} / \text{Deposits}$
Leverage	The amount of debt used to finance firm's assets.	$\text{Total liabilities} / \text{Total assets}$
Experience	Age of the bank from the inception.	Bank's age in years
Ownership	Whether the bank is state owned or private owned.	Dummy variable
Postwar Activity Mix	Banks activities diversification after the war.	Interaction variable
Global Financial Crisis	Financial crisis of 2007-2009	Dummy Variable
Postwar	Belonging to the period after the war(after 2008)	Dummy Variable
Activity Mix	This indicates that greater bank activity diversification, as implied by higher shares of services in the bank activity mix.	$\text{Net Interest Income} / \text{Other Operating Income}$