THE IMPACT OF INTEREST RATE SPREAD ON BANK PROFITABILITY IN GHANA

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ABSTRACT

The study examines the effect of interest rate spread on the profitability of commercial banks in Ghana. The study measured interest rate spread using net interest income (IntSp) and net interest margin (NIM) and bank profitability using Return on Assets (ROA) and Return on Equity (ROE). The study is based on a sample of 24 banks over a ten - year period using a panel data. The results of the study show that there is a positive and statistically significant association between interest rate spread and bank profitability in Ghana. The findings could be interpreted within the context of the loanable funds theory to suggest that the demand for loans exceed the supply of same allowing banks to charge higher interest on lending relative to deposits to increase profitability. The results of the study have significant implications on research on interest rate spread and more especially on government policy to reduce interest rate spread in Ghana. With profit as a motivation, banks will only reduce interest rate spread if its reduce their profitability but the current evidence shows that banks charge higher interest margin to maximize profitability.

Keywords: Interest rate spread, commercial banks, profitability, Ghana.

INTRODUCTION

The banking sector in Ghana plays a leading role in the financial sector especially in the area of savings mobilization and providing credit facilities to various sectors of the economy (Owusu-Antwi et al., 2017). Interest rate is one of the key determinants of banks' profitability in many economies (Aboagye et al., 2008; Amidu, 2006). According to Owusu-Antwi et al. (2017), about 45% of banks' profit comes from interest rate spread. Interest rate spread is simply the difference between the lending rate and deposits rate of commercial banks in an economy (Kalsoom & Khurshid, 2016). This means that interest rate risk is a major component of risk that banks in Ghana are confronted with. It has been established in literature that changes in bank interest rates affect banks profitability through increasing its costs of financing and reducing the value of its equity (Bawumia et al., 2005). The efficiency and effectiveness of the financial system of a country affect its interest rates spread but Ghana's interest rates have remained very high over the years despite attempts by the central bank to reduce same by lowering the prime rate. The high interest rate regime in Ghana is a major concern to private sector businesses as they are unable to borrow at this high interest rate for production activities and still remain competitive.

On the other hand, interests paid to depositors have been relatively low in Ghana over the years resulting in large spread between lending rates and deposits rate (Owusu-Antwi et al.

2017). Previous studies have argued that large interest spread in a symptom of undeveloped and uncompetitive financial market (Churchill et al. 2014; CEPA, 2015; Kalsoom & Khurshid, 2016; Mensah & Abor, 2014). Ghana is believed to have one of the highest interest rate spread in Africa (Bawumia et al. 2005; Aboagye at al. 2008; Garr & Coleman, 2013; Mensah & Abor, 2014; Sherif &Amoako, 2014). The high interest rate spread is affecting private sector investment and growth in Ghana and as such there is the need for interest rates to be reduced in order to propel economic activities in Ghana (Amankwa-Mensah & Marbuah, 2015). It was believed that the liberalization of the banking sector will reduce interest rate significantly but the situation now shows otherwise (Owusu-Antwi et al. 2017)

After a long period of financial liberalisation in Ghana, the expected decline in interest rate spreads to ensure banking efficiency has not materialised (Bawumia et al., 2005). Most of the banks argue that there is a higher risk in lending which may result from moral hazards and adverse selection based on information asymmetry resulting in mounting non-performing loans and provision for doubtful debts as well as other conditions like higher cost of capital, higher reserve requirements, higher operational cost and macroeconomic instability. Thus, banks in Ghana still charge higher interest rate on loans despite the favourable macroeconomic conditions like decreasing inflation rates and lower policy rates. The high price of loans in Ghana obviously limits access to capital and inhibits economic growth. These implications of banking sector inefficiency have spurred numerous debates in developing countries about the determinants of banking sector interest rate spreads. In the light of the increasing interest rates charged on loans compared to those offered on deposits, these interest rates vary among commercial banks in the country. In practice, banks have several lending rates and several deposit rates according to the different asset and liability products. So, the obvious question still remains: how does the interest margin of banks affect their profitability?

A number of studies have examined both the determinants of high interest rate spread and the implications on both the economy and bank profitability even though majority of these studies have been in other regions and countries (Sherif & Amoako, 2014). Very few studies have examined the impact of interest rate spread on profitability of commercial banks. The few studies tend to include interest rate spread as one of the key determinants of commercial banks profitability. In the Ghanaian context, studies on interest rate spread have focused mostly on determinants from different perspectives (Bawumia et al. 2005; Sherif & Amoako, 2014; CEPA, 2015; Kwakye, 2010; Churchill et al. 2014; Owusu-Antwi et al. 2017). For instance, Bawumia et al. (2005) examined determinants of interest rate in Ghana from the perspective of market and firm characteristics while Sherif & Amoako (2014) examined determinants of interest rate spread in Ghana based on macroeconomic factors. There appears to be little studies in the area of interest rate spread and profitability of commercial banks in Ghana. The apparent lack of concrete evidence on the impact of interest rate margin on profitability makes this study very relevant. This study tries to fill the lacuna by using current data to try to understand the impact of interest rate spread or interest margin on the profitability of BOG licensed banks in Ghana.

The study makes significant contributions in the area of literature and policy. In the area of literature, the study is among the few studies globally and the only study in Ghana that have sought to link interest rate spread and bank profitability. The results of the study seek to justify why Ghana has the highest interest rate spread in Sub-Saharan Africa despites the proliferation of commercial banks in Ghana. The results also mean that policy makers should focus on providing alternative credit facilities to businesses to reduce their demand for bank credit which will eventually reduce interest rate spread in Ghana.

EMPIRICAL REVIEW

Despite the numerous policy interventions in liberalizing the banking sector in many developing countries such as Ghana, interest rate spread is still very high (Owusu-Antwi et al. 2017). This suggest that banks in these countries are less efficient despite the competition brought about by the liberalization as studies have shown that bank interest rate spread is a measure of bank intermediation efficiency (Aboagye et al. 2008; Sologoub, 2006; Hossain, 2012). What is keeping banks from reducing interest on lending or increasing interest on deposits to reduce the gap have been examined in many studies both in Ghana and outside. Perhaps, the spread is high because it enhances the profitability of these banks hence the reason they still keep lending rate high and deposit rate low. The review below presents the findings on the various studies on interest rate spread and most importantly its association with bank profitability.

Raza et al. (2013) examined the determinants of bank profitability in Pakistan and included interest spread as one of the key determinants of banks profitability based on a sample of 18 banks over a 10-year period. The results showed a negative relationship between interest spread and bank profitability in Pakistan.
Aremeu et al. (2013) studied the determinants of bank profitability in Nigeria and included interest spread as one of its independent variables. The results of the study showed that interest spread is significantly associated with bank profitability in the long run but insignificant in the short run.

Khan and Sattar (2014) examined the effect of interest spread on profitability of four major banks in Pakistan. The results of the correlation analysis revealed a positive and statistically significant relationship between interest spread and profitability. The major limitation of the study was the seemingly small sample size and the fact that the study relied on only pearson correlation analysis to draw its conclusions without complementing it with a regression model.

Owusu-Antwi et al. (2017) investigated interest rates spread and profitability of commercial banks in Ghana. The study used a sample of 28 banks and employed ordinary least square regression. The results show that bank spread affect profitability of commercial banks in Ghana positively but the relationship was statistically insignificant. The outcome shows that there is a relationship between interest margin and banks profitability however, irrespective of the positive relationship that exist, the relationship turns to be insignificant. This implies that in order to improve   profitability, the bank will seek to increase net interest margin by effectively and efficiently increasing interest income and decreasing interest expense. The bank will also raise interest margin to cover increases in operating costs, thus the increase in ROA will encourage banks to raise interest margin.

Obidike et al. (2015) examined the effect of interest rate spread on profitability of commercial banks in Nigeria. The study was based on a sample of 20 banks over 20-year period. The results of the study showed that interest spread had a negative and statistically significant relationship with bank financial performance in Nigeria.

Bawumia et al. (2005) studied the impact of market economic variables and policy variables on interest rate in Ghana. The results showed that inflation, reserves, taxes, cross subsidization between interest and non-interest income were key determinants of commercial bank interest spread in Ghana.

Aboagye et al. (2008) examined the response of interest rates spread to bank specific characteristics as well as macroeconomic factors based on the Ho and Saunders model. The results of the analysis showed that bank size, staff administrative costs, inflation, market power, extent of risk aversion were positively associated with interest rate spread whiles lending rates, excess reserve and management efficiency were negatively associated with interest spread.

Garr & Kyereboah-Coleman (2013) researched into macroeconomic factors, firm specific variables, and industry variables as possible determinants of interest spread in Ghana. The study was based on a sample of 33 banks spanning the years 1990 to 2010. The results of the study showed that Gross Domestic Product per capita, management inefficiency, government securities and bank ownership were positively associated with interest rate spread in Ghana. The results also showed that domestic banks have wider interest rate spread than foreign owned banks suggesting that the foreign banks are more efficient than the local banks.

Sherriff & Amoako (2014) also investigated the macroeconomic determinants of interest rate spread in Ghana based on ARDL cointegration technique and the Vector Error correction model with monthly data series for the period between 1999:1 and 2010:12. The study used macroeconomic variables such as inflation, Treasury bill rates, total banking sector deposits, public sector domestic borrowing. The empirical results showed that high interest rate spread in Ghana is determined by inflation, total deposits and public sector borrowing but negatively related to treasury bills.

Churchill et al. (2014) used Pearson correlation analysis to estimate determinants of interest spread in Ghana and reported similar results to that of the previous studies in Ghana on the subject. On studies on determinants of banks profitability that have included interest margin or interest rate spread, Raharjo et al. (2014) had a positive and strong relationship between profitability and net interest margin using Indonesian banks. Malik et al. (2014) also had a positive relation between NIM and profitability using Pakistan banks.

Kosmidou (2008) researched into the determinants of bank profitability in Greece during the European Union financial integration from 1990 to 2002 with interest rate spread as one of the independent variables. The study did not find any significant association between interest rate spread and bank profitability in Greece.

Nacer (2003) studied determinants of banks profitability in Tunisia through panel data analysis using interest rate margin/spread as one of the key independent variables. The study results showed a significant association between interest rate margin and bank profitability.

HYPOTHESIS DEVELOPMENT

The review has chronicled various reforms and interventions in the Ghanaian banking sector over the years aimed at liberalizing the sector, promote competition and efficiency with the objective that this will eventually reduce the cost of borrowing in Ghana. All the studies on interest rate spread in Ghana agree that interest rate spread is too high in Ghana and one of the highest in Sub-Saharan Africa. The review also shows limited studies on the impact of interest rate spread on bank profitability. Majority of the studies talk about determinants of interest rate spread. The other studies that tried to link interest rate spread and profitability are studies that examined determinants of bank profitability and decided to include interest rate margin/spread. Majority of the studies found statistically insignificant results with few

finding a negative association between interest rate spread and bank profitability. This means there is still a knowledge gap in this area that needs to be comprehensively explored to tell the real impact of interest rate spread on bank profitability. Given the fact that commercial banks in Ghana are the most profitable entities both in Ghana and Sub-Saharan Africa and contrasting that with high interest spread in Ghana, we hypothesize that:

H1: There is a positive association between interest rate spread and bank profitability in Ghana.

METHODOLOGY

The study adopts the quantitative approach to data analysis through panel regression as the study seeks to establish the relationship between interest rate spread and bank profitability in Ghana. The study relied on secondary data collected from annual reports of commercial banks in Ghana. Data was hand collected from the annual report of the selected banks. Banks in Ghana are public entities and are required to make their financial statements available. There are about 34 licensed banks operating in Ghana making it one of the countries in the Sub-region with more banks even though it is not the largest economy. The banking sector has over the years being the most profitable contributing to the service sector being the major contributor to Ghana's Gross Domestic Product in the last few years. In recent times, waves of mergers and acquisitions have occurred in the Ghanaian banking landscape. The setting of new (higher) capital requirement may have contributed in part to this phenomenon. The recent mergers and acquisition include the merger of Access Bank with Intercontinental Bank, the acquisition of Trust Bank by Ecobank Ghana, First Bank of Nigeria's acquisition of International Commercial Bank and the majority acquisition of stake in Merchant Bank Ghana Limited by Ghanaian private Equity firms, Fortiz. These acquisitions are expected to help in capitalizing the banks, enable them handle big transactions, thereby enhancing competition in the banking sector. The year 2017 have also witnessed the collapse of two indigenous banks; UT Bank and Capital Bank which were subsequently absorbed by GCB Bank. Newest licensed commercial bank now is Beige Bank and the central bank has given the strongest indication that it will put a moratorium on licensing of new banks. The increased number of banks was expected to increase competition and efficiency and hence reduce interest spread in Ghana. The liberalization of the banking sector as described above has not impacted positively on interest rate spread as Ghana is believed to have the highest in sub-Saharan Africa.

In all, the study sampled 24 banks whose financial statements were publicly available using unbalanced data covering a period ranging from 2003 to 2016. This resulted in 265 sample observations from 24 individual commercial banks arranged in a panel form.

DESCRIPTION AND EXPLANATION OF VARIABLES
Dependent variables
The study used two dependent variables; Return on Assets (ROA) and Return on Equity (ROE) to represent bank profitability. These variables are the most used variables in previous studies to measure bank profitability (Musah, 2017; Raharjo et al. 2014; Musah & Gakpetor, 2017; Owusu-Antwi et al. 2017; Kosmidou, 2008).

Independent variables
The main independent variable for the study is interest spread measured in two different ways. Bank interest rate spread is the difference between bank lending rate and deposit rate.

However, there is no available data on individual bank level on lending rate and deposit rate except the summary presented by Bank of Ghana in their periodic policy report. In this regard, interest spread is measured as the ratio of net interest income (Owusu-Antwi et al. 2017; Aboagye et al. 2008). This measure reflects banks' interest profitability involving the cost of financial intermediation. The second measure which also uses net interest margin to represent interest spread which according to Aboagye et al. (2008) is the best measure and supported by Amidu & Wolfe (2013).

Control variables
On the control variables, bank size (SIZE), capital adequacy ratio (CAP), credit risk (CREDIT), Customer deposit growth (GROWTH) and Foreign Ownership (OWN) are key determinants of bank profitability in Ghana (Musah, 2017; Musah & Gapketor, 2017; Amidu, 2007; Athanasoglou et al. 2008).

Empirical model
The study based on the variables above estimates the following panel regression models.

$$ROA_{it} = \beta_0 + \beta_1 IntSp_{it} + \beta_2 NIM_{it} + \beta_3 SIZE_{it} + \beta_4 CAP_{it} + \beta_5 CREDIT_{it} + \beta_6 Growth_{it} + \beta_7 OWN_{it} + \varepsilon_{it}$$

$$ROE_{it} = \beta_0 + \beta_1 IntSp_{it} + \beta_2 NIM_{it} + \beta_3 SIZE_{it} + \beta_4 CAP_{it} + \beta_5 CREDIT_{it} + \beta_6 Growth_{it} + \beta_7 OWN_{it} + \varepsilon_{it}$$

Where

Table 1: variable definition and measurement

Variable	Definition	Measurement
ROA	Return on Assets	Net income before tax divided by Total Assets
ROE	Return on Equity	Net income after tax divided by Total Equity
IntSp	Interest spread	interest received/all interest bearing assets)-(paid/ interest earning liabilities
NIM	Net interest Margin	banks' interest income – banks interest expenses) divided by total assets
SIZE	Bank size	Natural logarithm of Total Assets
CAP	Capital adequacy ratio	Equity divided by total assets
CREDIT	Credit Risk	Loan loss provision divided by Total Assets
GROWTH	Customer deposit growth	(Deposit at year 1 – previous year)/ previous year deposit
OWN	Foreign ownership	Dummy; 1 if the bank is foreign owned, and 0 otherwise

ANALYSIS AND DISCUSSION
Table 2: Descriptive statistics

VARIABLE	MEAN	ST. DEVIATION	MIN	MAX
ROA	0.042	0.024	0.004	0.102
ROE	0.154	0.423	-0.452	0.511
IntSp.	0.411	0.052	0.111	0.911
NIM	0.059	0.043	0.001	0.146
SIZE	9.092	0.411	7.800	9.840
CAP	0.135	0.035	0.069	0.217
CREDIT	0.070	0.055	0.001	0.258
GROWTH	1.292	6.173	0.030	40.319
OWN	0.429	0.501	0.000	1.000

The first variable which is the dependent variable that is used to measure the profitability of the firm had a mean on of 4%, a minimum of 0.3% and a maximum of 10%. It suggests that on average the performance of banks listed on the Ghana stock exchange is between 0.3% and 10% in terms of profitability. The second profitability measure ranges from negative 4% to 51% of total equity. The average performance of commercial banks discussed above is however higher than the findings of Naceur (2003) where the minimum return on assets for Tunisian banks was 0.6%. These results are similar to the findings of Raharjo et al. (2014) study using Indonesia banks where it was discovered that the mean profitability is 2.5% while the maximum profitability is 10.34%. However, the minimum profitability of 0.3% is above the findings of Kutsienyo (2011) whose study on determinants of banks profitability in Ghana using all the twenty six commercial banks at the time found a minimum profitability of -15% and a maximum of 17%. The findings of that study seem to suggest that some banks within the sample period made some losses which is contrary to the findings of this study where all the listed banks sampled made some amount of profit within the sample period.

On the independent variables, interest spread had a mean score of 41% and ranges from 0.11 to 0.91. The second variable, net interest margin (NIM) which is the main independent variable of interest, had a mean of 5%, a minimum of 0.06% and a maximum of 14%. This variable simply measures the cost of financial intermediation in Ghana. The results are similar to the findings of Naceur (2003) study on Tunisian banks where it was discovered that mean NIM was 3% and the maximum was 4%. These findings are however contrary to the findings of Raharjo et al. (2014) whose study had an average NIM of 6%, a minimum of 1.35% and a maximum of 18.68%. The marginal increase in net interest margin in Ghana can mainly be driven by the increase in interest income earned from investment securities because it offered favourable yields with very limited risk exposure. According to Duan et al (1995), in spite of the rising importance of fee-based income as a proportion of total income for many banks, net interest margins (NIM) remains one of the principal elements of bank net cash flows and after-tax earnings.

Table 3: Correlation analysis between ROA and other dependent variables

ROA	IntSp	NIM	SIZE	CAP	CREDIT	GROWTH	OWN
1.000							
0.723***	1.000						
0.353**	0.058	1.000					
0.603***	0.176	0.073	1.000				
0.375**	0.142	-0.260	-0.048	1.000			
-0.046	0.016	0.315	0.076	-0.263	1.000		
-0.051	0.032	0.453	-0.246	-0.118	0.297	1.000	
0.198*	0.024	0.003	0.302	0.007	-0.057	-0.145	1.000

*** *Significant at* 1%, **Significant at 5%, * significant at 10%*

Table 4: Correlation analysis between ROE and other dependent variables

	ROE	IntSp	NIM	SIZE	CAP	CREDIT	GROWTH	OWN
ROE	1.000							
IntSp	0.542**	1.000						
NIM	0.849***	0.058	1.000					
SIZE	0.250**	0.176	0.073	1.000				
CAP	0.257**	0.142	-0.260	-0.048	1.000			
CREDIT	-0.123	0.016	0.315	0.076	-0.263	1.000		
GROWTH	0.041	0.032	0.453	-0.246	-0.118	0.297	1.000	
OWN	0.141	0.024	0.003	0.302	0.007	-0.057	-0.145	1.000

*** *Significant at* 1%, **Significant at 5%, * significant at 10%*

The correlation results show that there is a positive relation between profitability (ROA & ROE) and interest spread of commercial banks in Ghana. This suggests that an increase in the interest margin will result in an increase in profitability of banks measured by the return on assets and return on equity. The relationship is statistically significant for both models and both measures of interest spread. This positive relation is similar to findings from previous studies on correlation results. For instance, Raharjo et al. (2014) had a positive and strong relationship between profitability and net interest margin using Indonesian banks. Malik et al. (2014) also had a positive relation between NIM and profitability using Pakistan banks. The correlation results also show little evidence of multicollinearity.

Regression analysis

To establish the impact of interest spread on profitability of commercial banks, a panel corrected regression analysis was conducted. The results for both models are presented in table 5 and 6.

Table 5: Regression results showing the relationship between ROA and independent variables

Variables	Coefficient	St. Deviation
IntSp	0.4435**	0.163
NIM	0.201539***	0.051546
SIZE	0.02163**	0.00714
CAP	0.297763***	0.082792
CREDIT	-0.0543	0.056156
GROWTH	-0.00388	0.00678
OWN	0.007694	0.00487
C	-0.1822*	-1.5182
F-Statistic	59. 0397	
Prob.	0	
Adjusted R^2	0.7399	

*** *Significant at* 1%*, **Significant at 5%, * significant at 10%*

The adjusted R^2 for first model is 73% suggesting that the independent variables can explain 73% of the variations in return on Assets (dependent variable). The probability of the test statistic is also significant suggesting that the model is well fit.
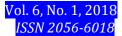
The results from Table 5 shows that both measures of interest rate spread (IntSp and NIM) are positively associated with bank profitability (ROA) and are all statistically significant. On the control variables, bank size (SIZE), capital adequacy (CAP) are also positively associated with banks profitability. Also, foreign owned banks are more profitable compared to locally-owned banks at 10% significance level.

Table 6: Regression results showing the relationship between ROE and independent variables

Variables	Coefficient	St. Deviation
IntSp	0.0619394***	0.02822872
NIM	0.5804042**	0.2749224
SIZE	0.31629**	0.1129
CAP	0.0005436	0.000503
CREDIT	-1.83463**	0.91086
GROWTH	0.105779	0.12054
OWN	0.00779*	0.00163
C	1.0381	1.3986
F-Statistic	14.1437	
Prob.	0	
Adjusted R^2	0.6077	

*** *Significant at* 1%*, **Significant at 5%, * significant at 10%*

The second model has an adjusted R^2 of 61% suggesting that the independent variables can explain 61% of the variations in Return on equity. The probability of the F-statistic is also significant suggesting that the model is well fit. The regression results also show that both measures of interest rate spread are positively associated with bank profitability (ROE) and the association is statistically significant. On the control variables, bank size is positively associated with bank profitability whiles credit risk is negatively associated with bank

profitability. Both associations are statistically significant. There is also a weak association between foreign ownership and bank profitability at 10% significance level.

DISCUSSION OF FINDINGS

The results from the two models confirm the fact that interest rate spread is positively associated with bank profitability in Ghana. The results show that banks in Ghana who charge higher interest in on loans and pay less on deposit increase their profitability. The results confirm the reason for the high interest rate spread in Ghana despite all liberalization reforms in the sector to increase competition and efficiency to reduce interest rates on borrowing in Ghana. The results of the study are consistent with the findings of Raharjo et al. (2014) who found a string positive association between net interest margin and profitability of Indonesian banks. The results also confirm the findings of Malik et al. (2014) study on Pakistan banks. The study results also confirm the findings of Khan & Sattar (2014) study on Pakistan banking sector. The results are however contrary to the findings of Obidike et al. (2015) study of Nigerian banks where they reported a negative association between interest rate spread and bank profitability. The results are consistent with the hypothesis of the study which predicts a positive association between interest rate spread and bank profitability. The results could also be interpreted from the context of the loanable funds theory which suggest that interest rate spread will be high if demand for loanable funds exceed supply of loanable funds. This means there is more demand for loans in Ghana than the supply of loans which is making banks keep the interest rate of lending at a higher rate. The findings suggest that we accept the hypothesis that interest margin is significantly related to the profitability of banks. This indicates that in order to improve profitability, banks will seek to increase net interest margin by increasing interest income. The bank will also raise interest margin to cover increases in operating costs, thus the increase in ROA will encourage banks to raise interest margin.

On the control variables, in line with previous literature larger bank are more profitable than smaller banks (Amidu, 2007; Musah, 2017). This implies that bank size induces economies of scale thereby making larger banks more profitable. Economies of scale will reduce the cost of gathering and processing information. The larger the bank size, the more profitable the bank. It could also mean that bank size is associated with diversification which may impact favourably on risk and product portfolio.

On the capital adequacy ratio which had significant relationship with profitability, the finding is consistent with the findings of Barnor & Odonkor (2013) study where they evaluated the effect of capital adequacy ratio on banks performance in Ghana. The results are also consistent with the findings of Naceur (2003) who found a significant relationship between CAP and banks profitability. Buser et al. (1981) argue in theory that banks generally have an optimal capitalization ratio and need to remain well-capitalized when they have a high franchise value. This outcome is in line with earlier work done by Karkrah & Ameyaw (2010) on profitability determinants of commercial banks in Ghana which indicated that the equity ratio which determines the capital strength of the banks has positive relationship with the ROA of the commercial banks in Ghana. The positive relationship between the commercial banks profitability and their level of capital adequacy exhibited by the result is also in line with the findings of Suffian et al (2008) ; Staikouras & Wood (2003), Goddard et al. (2004), Pasiouras & Kosmidou (2007), and Kosmidou (2008). Moreover, a commercial bank with enough capital is also able to take higher risks which attract high income and also

absorb shocks emanating from liquidity and credits risks hence high profitability. These prove that it is obvious for Ghanaian banks with their high level of capital to make profit.

The variable CREDIT was incorporated into the model to measure asset quality and credit risks. The results indicate that credit risk has negative but statistically insignificant relationship with ROA but significant with ROE implying that the higher the credit risk of banks the lower the profitability. The higher the provision for bad debt to advances ratio, the higher the credit risk and the higher the accumulation of unpaid loan and interest. This finding is consistent with that of Bessis (2002) who asserts that poor asset quality can have adverse impact on bank profitability reducing interest income revenue and increasing the provisions cost. Finally, the results also show that foreign-owned banks are more profitable than locally-owned banks in Ghana. This result is also in consonance with the findings of Musah (2017).

CONCLUSION

The study was conducted in the light of the higher interest rate spread in Ghana despite attempts by policy makers in Ghana over the years to reduce the phenomenon. The study examined the impact of interest rate spread on profitability of commercial banks in Ghana. The study results showed that interest rate spread is positively associated with bank profitability in Ghana contrary to expectations. The results could be interpreted within the context of the loanable funds theory to suggest that the demand for loans far exceed supply of loans compelling banks to maintain higher interest rate for lending. This implies that in order to improve profitability, the bank will seek to increase net interest margin by effectively and efficiently increasing interest income and decreasing interest expense. The bank will also raise interest margin to cover increases in operating costs, thus the increase in ROA will encourage banks to raise interest margin. The results suggest that policies aimed at reducing interest rate spread in Ghana should focus on making credit facilities available at a cheaper rate to compel commercial banks to reduce interest rate. It is only when interest rate spread reduces banks profit that they will head to the general call of reducing interest rate spread.

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