RECAPITALIZATION AND BANKS PERFORMANCE IN GHANA

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ABSTRACT
This study seeks to examine the profitability performance of local banks during the pre and post recapitalization period. Using the data of domestic banks from 2006 to 2016, and based on descriptive statistics, ratio analysis, and t-test, the study reveals that recapitalization policy has a positive effect on management efficiency for Ghana Commercial Bank. Management efficiency was 67.80 and 68.27 for pre and post recapitalization respectfully. However, CAL bank and HFC performed poorly in management efficiency after the recapitalization exercise. Again, the study reveals that CAL bank and HFC also performed better in Return on Assets after recapitalization. Finally, the study further shows a low rate of returns on shareholders' dividend, Return on Equity, after the recapitalization. From the findings, we conclude that recapitalization had negative effects on the performance of the local banks in Ghana. Therefore, we recommend, among other measures, that banks should endeavour to sustain their management efficiency, which translates into a positive total asset turnover. Also, the management of banks should manage their equity capital raised from shareholders very well to generate enough earnings for these shareholders, as this will entice other investors into the banking industry.

Contribution/ Originality
The novelty of the paper is that it compares the financial ratios of local banks before the recapitalization in 2007 with the financial ratios of the same banks after the recapitalization exercise in 2012. By this, the study determines the effects of the recapitalisation exercise on the local banks.

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1. INTRODUCTION

The banking sector is a central element in national development. The sector serves as a link between deficit spending units and surplus spending units, thereby making resources available to investors to promote investment leading to growth. Due to the deterioration of the Ghanaian economy in the 1970s, the role of the banks in promoting growth was non-existence. To correct the macroeconomic imbalance, the government of Ghana in 1983 adopted the Economic Recovery Programme with one of its key policy objectives as opening the economy, including the financial sector. To reduce the level of risk associated with the liberalization of the financial sector, the Central Bank of Ghana introduced various measures, including bank recapitalization policy in 2007. Many empirical studies have identified the capitalization of banks as critical in development. To achieve this, the central bank required all universal banks operating in Ghana to recapitalize from GH¢ 7 million to GH¢ 60 million by the end of 2012. Also, locally owned banks were required to achieve minimum capitalization of GH¢ 25 million (Adusei, 2011).

Demirguc and Levine (2003) asserted that recapitalization serves as a significant tool for bank consolidation and promote efficiency in their operations. Mukherjee et al. (2004) also indicated that when recapitalization is done through mergers and acquisitions, banks can achieve operational synergy. Verma and Sharma (2018) equally affirmed that recapitalisation helps economies of scale. This is indicating as being attributable to institutions’ ability to reduce their operating costs since branch networks and staff overheads are also reduced.

A study conducted in the Philippines from 1990 to 2005 on the determinants of banks' profitability found a positive impact of capitalisation on bank profitability (ROE). For banks in developing countries, it was strongly recommended that they maintain a strong capital structure since it enables them to withstand financial crises and also provide insulation for depositors in the event any bankruptcy as well as distressed macroeconomic conditions (Sufian and Chong, 2008). Again, recapitalisation of banks and credit risk have a significantly positive impact on the net interest margins of banks, cost efficiency and profitability (Naseer, 2019; Valley et al., 2018; Ametei, 2014; Olalekan and Adeyinka, 2013; and Naceur and Omran, 2011).

However, Asediolen (2004) concluded that, in the short term, recapitalization might raise liquidity, but a sound macroeconomic condition needed for a robust asset and good profitability cannot be achieved. It has been argued that, if regulatory capital is increased, then banks are forced to reduce some of their assets, especially the risky ones. This also tends to reduce the positive impact of capital on their profitability and negative impact on banks' ROE (Saona, 2011).

In developing countries, recapitalization policy has failed mainly due to financial sector reforms, since these economies were undergoing macroeconomic stabilization policy. Therefore, during this period, high nominal lending rates were experienced in the economy, and financial flows were shifted to the government (Killick and Martin, 1990).

A plethora of studies have been undertaken to assess the success of the recapitalization policy within the context of the banking industry. These studies, however, are inclusive. Therefore, this has necessitated more studies into the subject matter to make more contributions to the extant literature by addressing the following questions which have remained unanswered concerning the Ghanaian economy. Firstly, does recapitalization have any effect on the return on total assets? Secondly, what effect does recapitalization have on banks' management efficiency? Finally, the study seeks to determine if recapitalization affects return on equity of the banks. Therefore, the paper seeks to compare the financial performance of traditional banks before and after the recapitalization policy within the banking sector using data from the financial statements of some selected domestic banks. The paper would provide policymakers with information on the extent of success or failure after implementing the recapitalization policy. The remaining sections of the paper are organized as follows: A review of related empirical literature is presented in the next section. The ensuing section
also describes the study design, sample, data, and data analysis technique employed in the study. The interpretation of the results follows the concluding remarks from the study presented in the final section.

2. REVIEW OF LITERATURE

A brief review of some empirical literature on recapitalization and bank performance is presented in this section. Financial sector Liberalization is key in the mobilization as well as raising the needed level of savings, investment, and ultimately economic growth. The performance of the financial sector is said to be positively associated with reforms in that sector (Shaw, 1973). In addition, operational synergy is achieved if recapitalization is undertaken through mergers and acquisitions (Mukherjee et al., 2004). Again, it has been indicated by Sharma (2014); Naseer (2019); Yalley et al., (2018); and Ametei (2014) that, recapitalization generally aids in economies of scale because institutions can reduce branch networks, staff overheads, among others thereby reducing their operating costs.

Moreover, it has been noted that interest rates and exchange rates reflect their relative scarcities when financial liberalization and financial deepening exist. Savings are also stimulated, which efficiently discriminate between alternative investments (Fry, 1988). Related studies have argued that reform of the financial sector could improve the level of financial savings. The likelihood of higher real returns for savings could be created by widening the range of available savings instruments. This will result in deeper financial markets, reduce the risks of holding financial securities, make them more liquid, and lead to higher savings mobilization and investment (Fischer, 1993; and Cho and Khatkhate, 1989).

It has been argued that, though recapitalization may raise liquidity in the short term, this will not necessarily guarantee a conducive macroeconomic environment required ensuring high asset quality and good profitability. Banks are also forced to reduce some of their assets, especially the risky ones when regulatory capital increases. In effect, this reduces the positive impact of capital on their profitability and negative effects on their ROE (Azediolen, 2004; Saona, 2011).

Adegbaju and Olokoyo (2008) studied twenty Nigerian banks. The results revealed that the number of banks which had an appreciable improvement in their performances were few, while others remain the same or worse than before the recapitilisation. Testing the significance of the difference in means of various profitability ratios, by using student t-test, three years before and after the recapitalization policy, the study again concluded that recapitalization had a negative impact on the profitability of the banking industry.

Many developing countries instituted financial sector reforms with recapitalization as a key policy while their economies were undergoing macroeconomic stabilization. It resulted in high nominal lending rates and a shift of financial flows to the government (Killick and Martin, 1990). Boahene et al. (2012) studied six selected commercial banks using a five year (2005–2009) panel data. The data was analysed using the fixed–effect panel model. Their findings corroborated previous empirical studies that capitalization influences the profitability of banks positively and significantly. From the above, it is indicative that recapitalization does not necessarily guarantee positive or negative effects on bank performance. Such effects may depend, to a larger extent, on the macroeconomic environment within which the banks operate.

2.1. Research design, sample, data and data analysis
The study compares the performance of Banks before and after the recapitalization policy. To this end, the study uses statistics extracted from selected local banks during the period under review.

The sample was selected from the local banks in Ghana as of 2016. The study compared the performance of the selected banks three years before the 2009 recapitalization policy and three years
after introducing the policy. Audited financial statements, mainly, balance sheets and income statements, were used in the analysis to avoid the risk of distortion in the data. This approach included the use of simple ratios such as Return on Total Assets, Return on Equity, Management Efficiency, and paired t-test to evaluate banks' performance during the pre and post recapitalization policy.

Table 1: Measurement of financial ratios

<table>
<thead>
<tr>
<th>Financial Ratio</th>
<th>Computation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return on Assets (ROA)</td>
<td>Net income/Total assets</td>
</tr>
<tr>
<td>Capital Adequacy (CA)</td>
<td>Total equity/Total assets</td>
</tr>
<tr>
<td>Return on Equity (ROE)</td>
<td>Net income/Total equity</td>
</tr>
<tr>
<td>Management efficiency (ME)</td>
<td>Interest income/Total assets (as a proxy)</td>
</tr>
</tbody>
</table>

Source: Altman (1968)

Table 1 shows the computation of the financial ratios used in the study as employed by Beaver (1967) and Altman (1968). The financial ratio models were used to determine insolvency at the company level.

3. DISCUSSION OF RESULTS

The results from the data analysis, as well as the discussion, are presented in this section.

3.1. GCB Bank LTD

Table 2 shows the performance of GCB banks before and after the recapitalization policy. The results show that Return on Assets (ROA) on the average, fell from 2.83 to 2.73 after the recapitalization policy. The initial ROA in 2006 was 3.34, which saw a fall of 0.49 in 2007 and later fell to 2.29 in 2008. It implies that there has been an expected hype in cost as all the banks adopted various strategies to meet the set deadline. However, the trend changed significantly in 2012 after recapitalization in which ROA increased to 4.81, this is almost twice the post recapitalization average of 2.73, which is also consistent with 2007 and 2008 as well as with the average ROA before the recapitalization.

Table 2: Performance of GCB Bank- pre and post recapitalization

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>Pre-recapitalization</th>
<th>Average</th>
<th>Post-recapitalization</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>3.34</td>
<td>2.85</td>
<td>2.29</td>
<td>2.83</td>
</tr>
<tr>
<td>ROE</td>
<td>28.30</td>
<td>15.82</td>
<td>15.82</td>
<td>19.98</td>
</tr>
<tr>
<td>ME</td>
<td>68.41</td>
<td>68.05</td>
<td>66.90</td>
<td>67.80</td>
</tr>
</tbody>
</table>

Source: Computed from financial statements of GCB Bank (2006-2012)

ROE measures the return to shareholders. After the recapitalization in 2010, ROE stood at 22.40. It fell sharply to 10.08 in 2011 and 2012. However, there was a significant difference in the average performances, with the pre-recapitalization period average being higher at 19.98. It suggests that shareholders comparably earned higher returns in terms of dividend before the recapitalization policy. This comes as a surprise since most of the banks raised their funds through equity share, which subsequently increased the equity capital. The significant difference between the averages ROE before and after the recapitalization exercise is inconsistent with the findings of Sani and Alani (2013) that bank recapitalization does not have a significant effect on the ROE.

Also, Management Efficiency (ME) dropped after the recapitalization from 66.90 in 2008 to 64.86 in 2010. However, ME witnessed a sharp rise to 87.04 in 2011 and again fell significantly to 52.92. On average, therefore, the bank had a better Management Efficiency as it increased its performance by
It could be inferred that the bank's management was able to convert the bank's assets into net earnings after the recapitalization. A test of difference in means was also done, following the approach in (Adegbaju and Olokoyo, 2008). The student t-test results are presented in Table 3. There is no statistical significance in the results. There is quite an unnoticeable difference in mean of ROA before and after the recapitalization policy. The t-test also shows that the difference between the pre and post means of ROE is statistically significant at -3%. This confirms that shareholders were better off before the recapitalization.

On Management Efficiency, it recorded quite a reverse trend, the mean was lower before recapitalization and the t-test results show that the difference between the two means is significant at 5%. This implies that after the recapitalisation, the bank's assets yielded more returns than before the recapitalisation period.

### Table 3: Results of t-Test of difference in means

<table>
<thead>
<tr>
<th>(Variables)</th>
<th>Paired Differences</th>
<th>T</th>
<th>Df</th>
<th>Sig. (2tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. Deviation</td>
<td>Std. Error Mean</td>
<td>95% Confidence Interval of the Difference</td>
</tr>
<tr>
<td>Pre-Post</td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
</tr>
<tr>
<td>(ROA) Post-Pre</td>
<td>-0.09</td>
<td>2.37498</td>
<td>1.37120</td>
<td>-5.80645</td>
</tr>
<tr>
<td>(ROE) Post-Pre</td>
<td>-5.79</td>
<td>9.77487</td>
<td>5.64352</td>
<td>-24.10545</td>
</tr>
<tr>
<td>(ME) post-Pre</td>
<td>0.49</td>
<td>16.85159</td>
<td>9.72927</td>
<td>42.34835</td>
</tr>
</tbody>
</table>

**Source:** Computed from financial statements of CAL Bank (2006-2012)

### 3.2. CAL bank Ltd

As presented in Table 4, the result from CAL bank shows an increasing profitability trend from 2006 to 2008, with a slight increase in the rate after recapitalization. Return on assets decreased by 0.78% from 2006 to 2007 and after that increased from 2.21 to 2.68 in 2008. ROA fell from an average of 2.63 before recapitalization to 1.86 in 2010 after recapitalization. It then slightly increased to 2.11 in 2011 with a further increase by more than double in 2011 by 2.33. Finally, the ROA rested on a three year after recapitalization average of 2.80 higher than the pre-recapitalization average of 2.63. This implies that the bank's profitability remained fairly favourable during 2006-2008. The higher ratio indicated a better perspective as the high net interest margin was feeding through higher net income, thus boosting ROA and ROE over the following financial year. However, at the onset of the recapitalization, the bank's performance deteriorated slightly, especially 2010-2011.

### Table 4: Performance of CAL Bank Ltd - Pre and post recapitalization

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>Pre-Recapitalization</th>
<th>Post-Recapitalization</th>
<th>Average</th>
<th>Post-Recapitalization</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>2.99</td>
<td>2.21</td>
<td>2.68</td>
<td>2.63</td>
<td>1.86</td>
</tr>
<tr>
<td>ROE</td>
<td>21.92</td>
<td>16.73</td>
<td>24.23</td>
<td>20.96</td>
<td>12.02</td>
</tr>
<tr>
<td>ME</td>
<td>48.57</td>
<td>67.99</td>
<td>65.42</td>
<td>60.66</td>
<td>69.15</td>
</tr>
</tbody>
</table>

**Source:** Computed from financial statements of CAL Bank (2006-2012)

ROA decreased from an average of 2.63 to 1.86 for the year 2010 as a consequence of the global financial crisis and a slowing down in the domestic economy. The downward trend is also reflected in the ROE with a decreased from pre-recapitalization average of 20.96 to 12.02 in 2010 and thereafter, drastically increasing to 19.13 in 2011 to 24.90. The upward trend can be attributed to an increase in loans and advances to customers and decreased credit impairments due to repayment, which has positively impacted profitability.
The trend reflected by both ROA and ROE is also reflected in the Management Efficiency ratio, which improved by 8.49 from an average of 60.66 before the recapitalization in 2009 to 69.15 in 2010 after recapitalization. This shows better efficiency and profitability performance. The ratio went down to 60.75, but it was still slightly higher than the three years before recapitalization average of 60.66. Finally, it showed signs of deterioration; it weakened by 18.48 from 60.74 in 2011 to 42.27 in 2012, ending up with an average of 57.39.

Table 5 clearly shows that the average profitability measures before the recapitalization exercise were higher than those after the exercise except for ROA, where the average was higher after recapitalization exercise. As the ROE and the ME show just a marginal difference (0.13 and 3.27 respectively) from their average values after the recapitalization, the ROA showed a significant increase of 0.17 of its average value after the recapitalization. It shows that the difference in the mean is significant. It implied that there is indeed an appreciable improvement in the performance of the bank's Return on Assets after the 2009 recapitalization exercise. This result is inconsistent with the finding of Sani and Alani (2013).

On the Management Efficiency, from Table 5, it is evident that the test on the ME was significant with a gap value of 3.27. Therefore, the outcome indicates that there is a significant difference between the average values of the pre-recapitalization ME and the post-recapitalization ME. This result is consistent with Adegbaju and Olokoyo (2008) findings on a similar study that was conducted for the Nigerian banking system using profitability variables other than the exact variables used.

### Table 5: Pre and post recapitalization test

<table>
<thead>
<tr>
<th>Variables</th>
<th>Pre-recapitalization</th>
<th>Post-recapitalization</th>
<th>Gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA₂-ROA₁</td>
<td>2.63</td>
<td>2.80</td>
<td>0.17</td>
</tr>
<tr>
<td>ROE₂-ROE₁</td>
<td>20.96</td>
<td>20.83</td>
<td>(0.13)</td>
</tr>
<tr>
<td>ME₂-ME₁</td>
<td>60.66</td>
<td>57.39</td>
<td>(3.27)</td>
</tr>
</tbody>
</table>

*Source: Computed from financial statements of CAL bank (2006-2012)*

3.3. HFC bank Ltd

As shown in Table 6, the result on the HFC bank indicates that the average score of ROE declined from 16.05 before recapitalization to an average of 12.56 after recapitalization.

### Table 6: Performance of HFC bank Ltd- pre and post recapitalization

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>Pre-Recapitalization</th>
<th>Average</th>
<th>Post-Recapitalization</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>1.19</td>
<td>1.30</td>
<td>1.61</td>
<td></td>
</tr>
<tr>
<td>ROE</td>
<td>11.11</td>
<td>15.68</td>
<td>21.37</td>
<td>81.00</td>
</tr>
<tr>
<td>ME</td>
<td>80.84</td>
<td>73.82</td>
<td>21.37</td>
<td>81.00</td>
</tr>
</tbody>
</table>

*Source: Computed from financial statements of HFC bank (2006-2012)*

The average change in mean ROE scores between 2010 and 2012 was 12.56. Average scores of ROA also inclined by 0.42 during the first period of the study, from 1.19 in 2006 to 1.61 in 2008. Between 2010 and 2012, there was a 0.22 improvement in aggregate ROA scores, although the average ROA score was 2.48. This period saw a higher mean ROA score of 2.59 after it increased by 0.12 from the previous figure of 2.37 and finally to 2.59. Over the entire 6-year period, the average percentage change in ROA was 1.11. The negative relationship between recapitalization and ROE was expected since, during the period of study, banks were mandated to meet the regulatory capital of 60 million Cedis before the end of 2012. Banks were, therefore, augmenting their equity capital to that effect. As shown in Table 6 for the first three years of the study, the minimum ME score showed that the year 2007 was 73.82 compared to 80.84 in 2006, about 8.7 decreases. The maximum score...
also increased by 7.18 from 73.82 in 2011 to 81 in 2012. The average score also decreased from 78.30 to 72.96 between 2006 and 2012, a decrease of 5.34.

4. CONCLUDING REMARKS

This is a case study of three Ghanaian banks. The main objective was to determine how the banks performed after the implementation of the recapitalization policy. This was to enable us to determine the success or otherwise of the recapitalization policy in Ghana. The study found that shareholders comparatively received low returns on their shares after the recapitalization. This is so because ROE on the average decreased for the studied banks after recapitalization. Also, the effect of recapitalization on ROA, on average, was good for the banking industry except for GCB, which recorded poor performance in ROA after the recapitalization.

Moreover, for ME, HFC and CAL banks performed poorly after the recapitalisation exercise. GCB, on the other hand, performed better after recapitalisation. This suggests that GCB was the only bank with better efficiency and profitability performance as net earnings were made from the bank's assets. From the above, we conclude that the recapitalization exercise had a negative effect on the performance of the local banks in Ghana. It is, therefore, recommended that Banks should endeavour to sustain their total asset turnover and diversify in such a way that they can generate more income on their assets. In doing so, Banks should adopt the prudent measure in raising funds to meet their recapitalization requirement. Secondly, bank management should manage their equity capital raised from shareholders very well in a manner that will generate enough earnings for these shareholders as this will entice others to also invest in the banking industry.

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