

# Performance Analysis of Ghanaian Banks with Mergers and acquisitions noise

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## Abstract

**M**ergers and Acquisitions have been identified as an important strategy for corporate inorganic growth in the banking industry. SG-SSB Ltd has recorded impressive operating performance since 2003. It has therefore become a reference entity in the Ghanaian banking industry. Banks with merger and acquisition noise are also performing well with the Agricultural Development Bank, one of the banks with the most recent M&A noise recording impressive sustainable growth rate. Alberts (Decomposed) return on equity model was used to study the operating performance of Cal Bank, ADB and SG-SSB Ltd from risk return perspective to indicate whether the attractiveness of these banks as M&A candidates is due to poor performance. The study indicates that the banks with M&A noise in Ghana are attractive to potential acquirers because of impressive performance and high possibility of improved performance.

**Keywords:** Mergers and Acquisitions Noise, Mirror Bank and Alberts Return on Equity Model.

## Introduction

Corporate entities can grow through organic or inorganic means. Mergers and Acquisitions (M&As) are important inorganic growth strategies being deployed in banking and non-banking corporate entities in recent times. Inorganic growth strategy because, the bank does not grow through the normal business operations such as increase in bank products and efficient services which may lead to increase in number of branches and complexity of

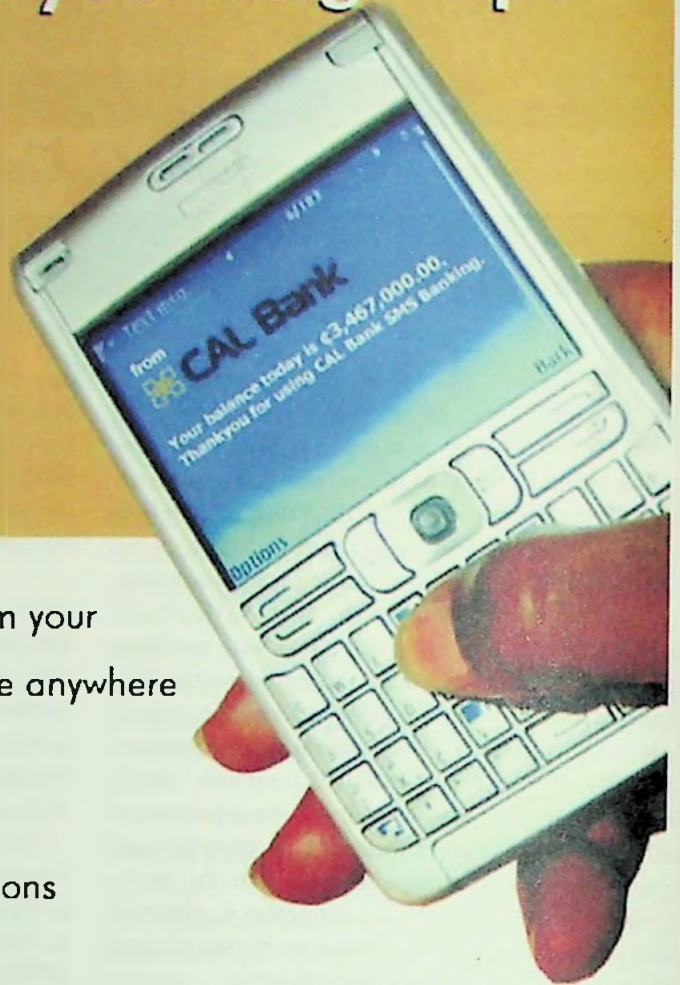
operations. According to Casu et al. (2006), a merger as it relates to banking is a business transaction that combines two distinct legal entities usually with similar size to form a new operating single bank to derive mutual economic and strategic benefits. In mergers there are equal ownership stake.

Acquisition or takeover- is a business combination in which one entity called the acquirer owns more than fifty percent stake in the target or acquired firm. Grinblatt and Titman (2001) explain that in acquisition, one firm acquires the other but the terms merger and acquisition are used interchangeably in many instances.

Economies of scale, economies of scope, deregulation and competition have been identified as the main reasons for banking M&As (Molyneux, 2003). The role of the central bank in reviewing the minimum capital base of banks in Ghana upward may further increase competition that may lead to some M&As if individual banks can not raise the required capital alone. This creates a fertile operating environment for some foreign banks with good capital base and strategy to operate in the banking industry by merging with or acquiring existing banks that do not have the capacity to raise the required new minimum capital. The interesting issue is that mergers and acquisitions are intended to generate better performance hence there is the need to be satisfied that the banks with M&As noise can deliver the expected returns. Even though finance literature is replete with research findings on M&A

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performance, the performance analysis of Ghanaian banks with M&A noise from the perspective of risk - return relationship has , however, not been studied to the best of my knowledge and this paper provides the research findings to inform the relevant stakeholders.

### **Mergers and Acquisitions Noise**

Any time an important entity (with promising performance or underperformance) is to engage in M&A deal, it normally generates public discussions. The public discussions concentrate on the motives of the deal, the effects on shareholders and other important stakeholders on one hand and the general economy and the specific industry on the other hand. In Ghana these discussions receive inputs from politicians (especially when the target is state owned), academics, professionals, journalists and the public. Discussions about M&As motives and effects on stakeholders and the macro economy is herein referred to as M&As noise. When the possible M&A is hostile the noise concentrates on social motives normally initiated with the hidden hands of management to allow the public to speak against the deal. M&As noise involving state- owned firms becomes very difficult to decide on the benefit to the state because economic arguments are sacrificed for social and political reasons.

### **Bank M&As in Ghana**

M&As have taken place in almost all industries globally. In recent times some M&A activities have been recorded in Ghana. Notable among them are Guinness Ghana Ltd and KBL, Societele Generale and SSB Ltd, MTN and Areeba, Intercontinental Bank and City Savings and Loans Company Ltd. Possible M&As are Stanbic Bank and Agricultural Development Bank (ADB). Cal Bank and ADB Ltd are examples of important Ghanaian owned banks with M&A noise.

Berger et al. (2004) and Buch and Delong (2002) explain that the surge in M&As over the past two decades was due to globalization, deregulation, improvement in technology and competition in the banking industry. Ghana has gone through reforms in the financial services sectors which removed the administrative inefficiencies in the banking sector

and introduced competition as a consequence. Lindblom and Koch (2002) indicates that geographical diversification to take advantage of improved financial markets in emerging economies is one of the motives for cross border M&A. This has been the main strategic motive of Societal generale at the time SSB Ltd was being taken over. Improved macroeconomic environment which demands that sector specific capital investment should be increased, can lead to M&As when individual local banks can not raise enough capital to meet new required minimum capital.

There is inconsistent statement on the outcome of M&As in the banking industry. Mueller (1999), Schenk (2000) and Ulrich et al. (2005) argued that M&As normally end up in failures irrespective of the industry. However, Cornett et al. (2006) argued that M&As can produce successful results if they focus on revenue enhancing activities and adopt cost saving measures as replicated in SG-SSB Ltd ( Gatsi , 2006).

### **Performance Measurement of Mergers and Acquisitions**

Mergers and Acquisitions are seen as investment that must produce returns. M&As are normally measured using event studies or operating performance of the new entity. It is normally difficult to use event studies since the researcher must monitor and collect stock price performance of the bank from the date of announcement of the deal on daily basis until the time of the research (Cornett et al., 2006). The operating performance approach is handy and more comfortable because it uses accounting data of the banks over the period covered by the study and they are often available in the annual reports (Saunders and Cornett, 2004). In using the operating performance related ratios such as return on equity (ROE), return on assets (ROA) and equity multipliers are computed for the analysis. The operating performance approach is hereby favoured for this paper.

### **Decomposed Return on Equity Model**

In using the operating performance approach to analyse the performance of Ghanaian banks with M&As noise, the decomposed return on equity (ROE) model is used because it incorporates all the

relevant measures of operating performance such as return on asset (ROA), asset utilisation (AU), profit margin (PM) and equity multiplier (EM). The model was first published by Alberts (1989) and has since been utilised by many researchers. Over the past few years many M&As noise was heard in Ghana about some banks. Cal Bank Limited and Agricultural Development Bank were prominent. The study therefore focused on these two banks with SG-SSB Limited as a mirror bank in which the performance of the selected banks were seen. The reason is that SG-SSB Ltd is the first cross-border example of M&A in the Ghanaian banking industry ever since the restructuring of the industry in the late 1980s and has improved its products and services with modern payments systems within the past five years. It has also maintained consistent improvement in ROE since 2002 (Ghana Banking Survey, 2006).

#### Derivation of the Model

The ROE is the rate of investment return to shareholders which is deduced by the ratio of operating income (OI) and equity capital (E). The operating income is made up of interest income and other income less non interest and interest expenses (Saunders and Cornett, 2004). According to Casu et al. (2006) the ROE is the most important measure of bank profitability and growth potential. The ROE is therefore the difference between the ratio of operating income and equity and the ratio of interest expense (IE) and equity. Also the extent of OI is dependent on the size and quality of the bank's assets (A) and the interest expenses are related directly to the total debts (D). The object of the decomposed ROE is to show that it relates to return on invested fund and return on financial leverage. The ROE model is not time bound; it is the researcher who chooses the time period within which to measure performance. For this study the period from 2002 to 2006 is considered. The relation deduced from the above is presented below:

$$ROE = OI/E - IE/E = OI/E * A/A - IE/E * D/D$$

$$ROE = OI/A * (E+D)/E - IE/D * D/E = OI/A + (OI/A - IE/D) * D/E$$

We can state the ROE as  $OI/A + (OI/A - IE/D) * D/E$  while  $OI/A$  is the operating income on assets, the average interest expense is  $IE/D$  ( $K_d$ ) and  $D/E$  is the debt equity ratio. Again  $OI/A$  is the return on invested fund (ROIF). This implies we can rewrite the ROE as  $ROIF + (ROIF - K_d) * D/E$ . But  $(ROIF - K_d)$  is the leverage spread while the product of the leverage spread and the debt-equity ratio is the return on financial leverage (ROFL).

## ALBERTS ( DECOMPOSED) ROE MODEL

$$ROE = ROIF + ROFL$$

$$ROE = ROIF + \left[ ROIF - k_d \right] \cdot \frac{D}{E}$$

Liquidity risk
Credit risk
Interest rate risk
Capital risk

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Source : Adapted from Lindblom ( 2001)

The model does not only talk about the ROE but also liquidity risk as well as credit, interest rate and capital risks. This is relevant because we are informed about different kinds of risks to help stakeholders in making important decisions.

#### Results

The performance of SG-SSB Ltd from 2003 when it was acquired by Societe Generale of France has improved steadily. On average the three banks have performed beyond the industry average in terms of ROE but the associated risk was higher than the industry from 2002 to 2006. Considering ROIF, Cal Bank performed slightly better than ADB but below



SG-SSB Ltd. However, in terms of risk Cal Bank took the lowest risk while SG-SSB Ltd was associated with the highest risk. ADB recorded the lowest leverage (equity multiplier which is total bank asset per equity capital) and SG-SSB Ltd recorded the highest. The leverage spread of Cal Bank was associated with the highest risk (capital risk) with SG-SSB Ltd recording the lowest. Cal Bank has the lowest ROFL but the highest risk while SG-SSB Ltd recorded the highest ROFL but the lowest risk. Cal Bank recorded the lowest risk in terms of leverage spread implying the lowest interest rate risk while ADB recorded the highest risk and thus the highest interest rate risk.

The performance of ADB and Cal Bank from 2002 to 2006 has been impressive using the decomposed ROE Model. ADB and Cal Bank are more exposed to risk than SG-SSB Ltd. The sustainable growth rate of ADB is the most impressive due to continuous high retention rate to finance increasing investment opportunities in the agricultural sector.

#### Dataset and Analysis

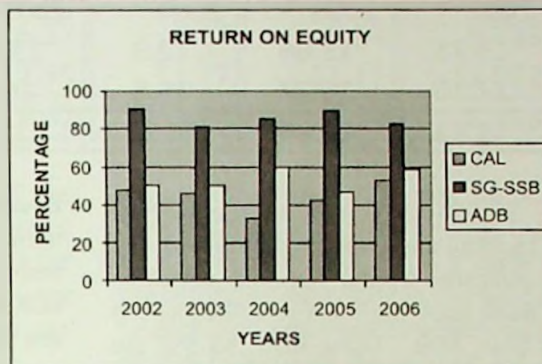
The data for the analysis was collected from the annual reports of the banks and the Ghana Banking Survey (2006). Such a high standard deviation implies high risk and low standard deviation indicates low risk.

**Table 1**

ROE AND STANDARD DEVIATION (%) 2002- 2006							
BANK	2002	2003	2004	2005	2006	Average	S.d
CAL	48.09	45.91	33.22	41.91	53.11	44.448	7.465609
SG-SSB	90.1	80.95	85.21	89.51	82.53	85.66	4.084103
ADB	49.7	49.94	58.87	46.75	58.4	52.732	5.535654
**INDUSTRY	32.6	30.8	31.9	26.9		30.55	2.543619

\*\*\* Adapted from Ghana Banking Survey (2006)

## RETURN ON EQUITY



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In terms of ROE, SG-SSB Ltd performed better than Cal bank and ADB and was above the industry average. At the same time the risk measured by the standard deviation shows that SG-SSB Ltd took the least risk. Both ADB and Cal bank performed above the industry average but took higher risk than the industry average. The ROE of the banks are presented in the bar chart above:

From the principle of risk and return, it is expected that higher returns correspond with higher risk but the standard deviation which is a measure of risk is lower for SG-SSB Ltd than ADB. This implies some level of management efficiency and risk management by SG-SSB Ltd. The shareholder value creation of the banks is a trade off between banks' return and their risk taking. As a result, the main components of the ROE are further analyzed with respect to risk.

Table 2.

	ROIF AND STANDARD DEVIATION (%) 2002 - 2006						
BANK	2002	2003	2004	2005	2006	Average	S.d
CAL	13.71	13.08	12.3	13.23	11.6	12.784	0.833685
SG-SSB	17.16	16.77	15.8	14.9	13.77	15.68	1.382877
ADB	13.83	10.94	13.98	11.54	12.59	12.576	1.350344

From table 2, SG-SSB Ltd recorded the highest average ROIF (15.68%) and was associated with the highest risk as indicated by the standard deviation (1.38%). Cal Bank took the least risk (0.83%) but higher returns than ADB. Using ROIF, SG-SSB Ltd performed better than Cal Bank and ADB. It is, however, difficult to associate this performance to the acquisition since the pre-acquisition performance of SG-SSB Ltd was equally better than Cal Bank and ADB. From table 2, the highest standard deviation associated with SG-SSB Ltd implies its customers were exposed to the highest liquidity and credit risks. From the table, it implies the customers of Cal Bank were exposed to the least liquidity and credit risks over the same period.

deviation. SG-SSB Ltd seem to be cautious in taking in more debt as seen in the reduction in its leverage from 2005 to 2006 which recorded the lowest standard deviation. On average, SG-SSB Ltd recorded the highest leverage of 5.83 which is possibly responsible for the improved ROE. The lowest standard deviation of SG-SSB Ltd implies, the bank was associated with the lowest capital risk even though the average debt to equity ratio was the highest.

From table 3, SG-SSB Ltd recorded the highest average ROFL (69.97%) while Cal Bank registered the lowest (31.66%) from 2002 to 2006. Cal Bank recorded the highest risk associated with the ROFL

	D/E AND STANDARD DEVIATION 2002 - 2006						
BANK	2002	2003	2004	2005	2006	Average	S.d
CAL	6.29	6.94	3.97	4.3	6.32	5.564	1.335152
SG-SSB	5.61	5.4	5.62	6.34	6.19	5.832	0.408375
ADB	3.74	5.45	5.53	4.53	4.9	4.83	0.734405

The debt to equity ratio of ADB is the lowest on average but second in terms of risk. The debt to equity ratio of Cal Bank kept increasing from 2004 to 2006 with the associated highest standard deviation. ADB, however, consistently reduced its debt to equity ratio over the same time period from 5.53 to 4.9 and was ranked second by the standard

And SG-SSB Ltd the lowest. This implies over the period, Cal Bank was most exposed to leverage risk and interest rate risk (7.58%) while SG-SSB Ltd was least exposed to same risks (4.04%).

Table 3.

	ROFL AND STANDARD DEVIATION (%) 2002 - 2006						
BANK	2002	2003	2004	2005	2006	Average	S.d
CAL	34.38	32.82	20.92	28.67	41.51	31.66	7.583769
SG-SSB	72.9	64.18	69.41	74.61	68.76	69.972	4.044017
ADB	35.87	38.99	44.9	35.21	45.81	40.156	4.966526



**Table 4.**

LEVERAGE SPREAD AND STANDARD DEVIATION (%) 2002 - 2006							
BANK	2002	2003	2004	2005	2006	Average	S.d
CAL	5.46	4.73	5.27	6.67	6.56	5.738	0.845086
SG-SSB	13	11.88	12.35	11.77	11.11	12.022	0.70347
ADB	9.6	7.15	9.92	7.78	9.34	8.758	1.218614

The leverage spread reinforces the analysis of the ROFL because the product of the leverage spread and the debt to equity ratio is the ROFL. SG-SSB Ltd recorded the highest leverage spread and the lowest risk implying that it recorded the lowest interest rate risk when compared with Cal Bank and ADB.

sustainable growth rate may be far above that of ADB. ADB is compelled to retain more than 80% of its earnings because it has a cycle of investments opportunities especially in the agricultural sector to finance. This argument is reinforced by the mandate of ADB to focus on the agricultural sector at a time when other banks invest less of the funds in agriculture.

** DIVIDEND PAYOUT % ( 2002 - 2005)				
BANK	2002	2003	2004	2005
CAL	50.5	16.9	25.1	30.8
SG-SSB	45	56.7	60.4	69.1
ADB	6.1	6.3	13.1	20

** RETENTION RATE ( 2002 - 2005)				
BANK	2002	2003	2004	2005
CAL	49.5	83.1	74.9	69.2
SG-SSB	55	43.3	39.6	30.1
ADB	93.9	93.7	86.9	80

**Conclusion**

The performance of Ghanaian banks with M&A noise has been studied by decomposing ROE into ROIF and ROFL to indicate the trade off between the return and risk taking of these banks. The performance of Cal Bank and ADB has been measured with that of SG-SSB Ltd because this is the only

The high retention rate of ADB and Cal Bank indicate their forward looking investment to expand their activities. Thus SG-SSB Ltd has engaged in less expansion over the period.

example of M&A in the banking sector with operation beyond five years. SG-SSB Ltd is therefore referred to as the mirror bank.

SUSTAINABLE GROWTH RATE (%) 2002- 2005)					
[ ROE *RETENTION RATE]					
BANK	2002	2003	2004	2005	Average
CAL	23.80	38.15	24.88	29.00	28.96
SG-SSB	49.56	35.05	33.74	26.94	36.32
ADB	46.67	46.79	51.01	37.4	45.47

The performance of SG-SSB Ltd, Cal Bank and ADB in terms of ROE is better than the industry performance from 2002 to 2006. The sustainable growth rate of ADB is higher than Cal Bank and SG-SSB Ltd due to the high retention rate of ADB consistently in excess of 80% over the period. Both

In terms of sustainable growth rate ADB performed better than SG-SSB Ltd and Cal bank. Sustainable growth rate indicates the level of growth that existing shareholders can finance. However, if SG-SSB Ltd retains the same level of net income, its

Cal Bank and ADB took more liquidity, credit, interest rate and capital risks than SG-SSB Ltd.

The attractiveness of ADB and Cal Bank to potential acquirers is mainly due to their impressive and potential performance over the period.

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