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An Analysis and Comparison of Banking Sector Development in the CMA

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Outline

1. Introduction

In recent years, there has been a considerable throughput of empirical research work that investigates the many facets of financial sector development. Most of the studies examine the nexus between financial sector development and economic growth to conclude that deep and efficient financial systems have the potential to robustly contribute to sustained economic growth and subsequently lead to lower levels of poverty within the domestic economy. Interestingly, the same studies observe that in cases of developing and transitional economies, the role of deposit taking banks in the financial intermediation process is very crucial, with commercial bank based financing comprising about 85 per cent of the financial sector's assets, relative to very little or no capital market development (in particular; corporate bonds and stock market segments). A major disadvantage of this dispensation is that developing or transition economies will fail to realise economic gains that are likely to emanate from lower transaction costs borne from the exploitation of economies of scale. Consequently, it is often advanced that the ability of the financial sector to adapt and evolve in response to financial innovations and changes in the macroeconomic and institutional environment can help usher in sectoral advancement from low to higher levels of development.

While there are numerous studies that compare commercial bank development across countries, little attention, if at all, has been given to the investigation of banking sector development within countries that operate under a quasi-currency board and whose financial sectors are dominated by commercial banks. Therefore, the purpose of this article is to analyse and compare the levels of commercial banking sector development in the Common Monetary Area (CMA) over a ten-year period from 2007 to 2017 using analytical descriptive techniques that draw from four dimensions of banking sector development, namely: size, efficiency, depth and reach. A significant contribution of this article to economic literature lies in its comparative nature that seeks to identify distinct disparities in banking sector development within the CMA countries. Findings of the study will help formulate well informed policy recommendations that are geared towards promoting development within the banking sectors of the respective CMA member states. The remainder of this paper is divided into four sections as follows: Section 2 discusses indicators of banking sector development. Section 3 presents the analytical framework used in the paper. Section 4 presents and discusses the results. Finally, Section 5 offers conclusions and policy recommendations.

2. Indicators of Banking Sector Development

Banking sector development is defined as a discernible improvement in the quality, quantity, efficiency and accessibility of banking services in the economy. Indicators of such forms of development have to cover broad dimensions such as size, efficiency, depth, reach as well as aspects of cost and quality of financial services. For purposes of this article, we confine ourselves to an analysis and comparison of a handful of indicators that assess bank development in relation to four specific dimensions, namely: size, efficiency, depth and reach, as presented and explained in Table 1.

1 See for example: Beck et al. (2000); Beck et al. (2005); Beck (2005); Honohan (2004) and Levine (2005).

2 A developing economy is one with a less developed industrial base and a low Human Development Index (HDI) when compared to other countries.

3 A transitional economy is an economy that is moving from a centrally planned economy to one that is market based.

4 The Common Monetary Area (CMA) comprises of four member states, namely; Eswatini (ESW), Lesotho (LES), Namibia (NAM) and South Africa (SA).

5 It should be noted that size and depth dimensions are often used interchangeably in the financial sector development literature.

Table 1: Banking Sector Indicators of Development

Dimension	Type of Indicator	Description	Analytical Implication
Size	Commercial Banks' Loans to GDP ratio	The ratio is an indicator of the extent to which economic activity is financed by commercial banks.	The higher the ratio, the greater the role of commercial banks in financing economic activity in the domestic economy.
	Commercial Banks' Deposits to GDP ratio	The ratio is an indicator of the extent to which deposits are mobilized by commercial banks.	The higher the ratio, the greater the role of commercial banks in financial intermediation in the domestic economy.
Efficiency	Interest rate spread	The interest rate spread is measured as the lending rate minus deposit rate.	The greater the interest rate spread, the less efficient the economy's banking sector.
Depth	Broad Money (M2) to GDP ratio	The ratio is an indicator of financial deepening	The higher the ratio, the greater the level of financial deepening in the domestic economy.
Reach	Access to Commercial Banking Services*	The ratio is an indicator of the geographical outreach of banking services to people in a country.	The higher the ratio, the greater is the outreach of commercial bank services to people in the domestic economy.

** The ratio of commercial bank branches per 100,000 adults is a typical measure of access to commercial banking services.*

3. Analytical Framework

The objective of the study is to analyse and compare specific banking sector development indicators across CMA member states over the period 2007 to 2017 using analytical descriptive techniques. Table 2 presents the five indicators of bank development used in the study and their sources. Averages and growth rates of the five indicators will be used to rank and compare CMA countries with one another, thus arriving at a scientific conclusion given the objective of the study.

6 The country with the best level of each indicator is ranked one followed up to rank four with a unit interval.

Table 2: Data

Name of Indicator	Variable Acronym	Source
Commercial Banks' Loans to GDP (%)	CBL_GDP	IMF FAS
Commercial Banks' Deposits to GDP (%)	CBD_GDP	IMF FAS
Commercial Bank Branches per 100,000 adults	-	IMF FAS
Interest Rate Spread	R_Spread	WBDI
Broad Money to GDP ratio	BM_GDP	WBDI

Note: IMF – International Monetary Fund; FAS – Financial Access Survey and WBDI – World Bank Development Indicators.

4. Results and Discussion

The discussion of the results is divided into five parts with respect to the four dimensions of banking sector development indicators as discussed in Section 2 as well as their combinations.

i. Size

Figures 1 and 2 represent the size of the banking sector in CMA countries as measured by commercial bank loans and commercial bank deposits as percentages of GDP, respectively.

Figure 1: Commercial Bank Loans to GDP (%)

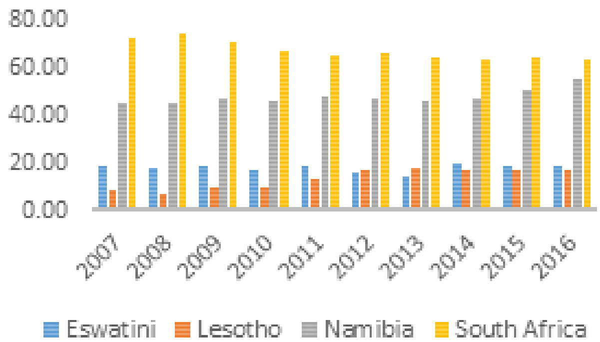
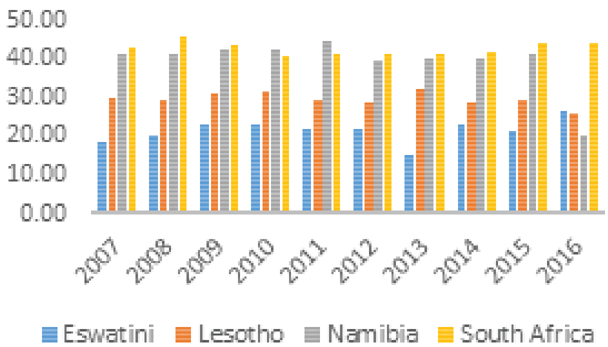


Figure 2: Commercial Bank Deposits to GDP (%)



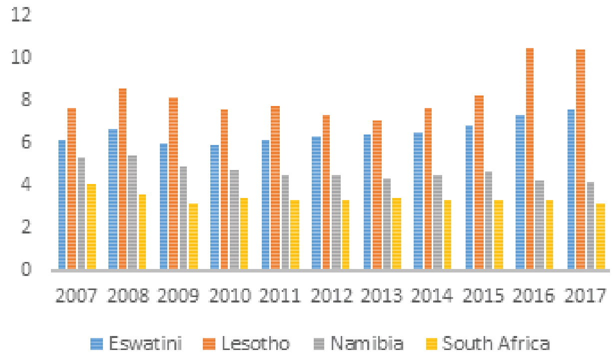
Source: Authors Own Calculations based on data from IMF-FAS

From Figure 1, between 2007 and 2016, the size of the South African banking sector averaged 67.02 per cent of GDP. It was followed by Namibia with an average of 47.55 per cent of GDP, then Eswatini with an average size of 17.83 per cent of GDP and last, Lesotho whose average banking sector size in terms of commercial bank loans was 13.26 per cent of GDP. In a similar fashion, Figure 2 shows that South Africa and Namibia rank first and second respectively when the size of the banking sector among CMA countries is judged by average commercial bank deposits as a per cent of GDP. However, Lesotho and Eswatini trade places under this metric. That is, Lesotho's commercial bank deposits averaged 29.67 per cent of GDP over 2007 to 2016 while Eswatini's averaged 21.36 per cent of GDP. When the size indicators from Figures 1 and 2 are jointly considered, South Africa and Namibia are clearly ranked first and second among CMA countries, respectively while Eswatini and Lesotho occupy the lower half of the rankings. Furthermore, evidence suggests that Eswatini's banking sector is able to extend relatively higher levels of credit (on average) than Lesotho's despite Lesotho's banking sector having a comparatively greater funding base.

ii. Efficiency

The efficiency of the banking sector in CMA countries as measured by the interest rate spread is depicted in Figure 3.

Figure 3: Interest Rate Spread



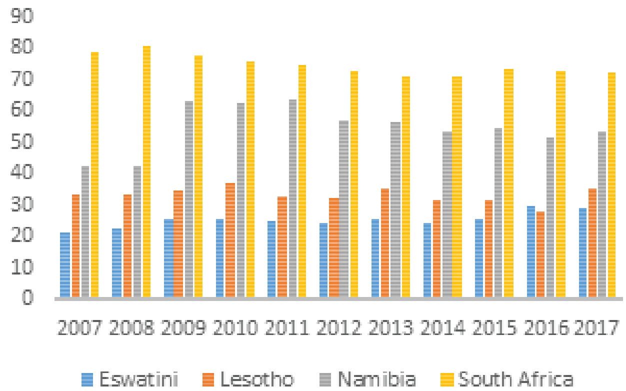
Source: Authors Own Calculations based on data from IMF-FAS

Between 2007 and 2017 the interest rate spread in South Africa averaged 3.36 percent followed by Namibia with an average of 4.63 per cent then Eswatini with a 6.51 per cent average and last, Lesotho with an average interest rate spread of 8.24 per cent. When the growth rates in individual country interest rate spreads are considered, the South African and Namibian interest rate spreads experienced a 22.03 per cent and 22.39 per cent decline between 2007 and 2017, respectively. Conversely, Eswatini and Lesotho exhibited positive growth rates in their interest rate spreads at a rate of 23.52 per cent and 35.06 per cent, respectively. The findings reveal that Lesotho's banking sector is the least efficient out of the four CMA countries while South Africa's is the most efficient.

iii.Depth

The banking sector depth in CMA countries as measured by the percentage ratio of broad money to GDP is depicted in Figure 4.

Figure 4: Ratio of M2 to GDP (%)



Source: Authors Own Calculations based on data from IMF-FAS

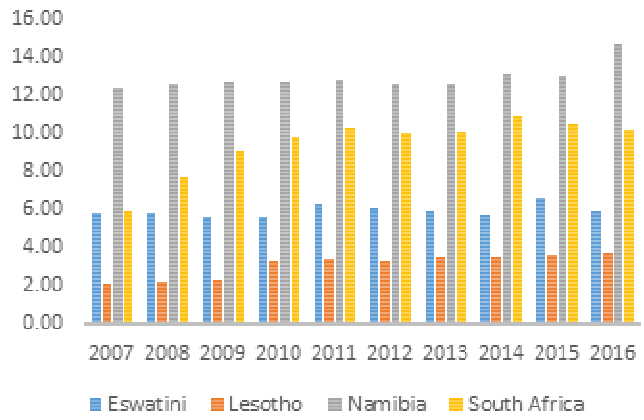
[7] Growth rates in the interest rate spread are calculated in 2017 with 2007 as a base year.

South Africa had the deepest banking sector out of the CMA countries between 2007 and 2017 as signified by an average percentage ratio of broad money to GDP of 74.64 per cent. It was followed by Namibia with an average percentage ratio of 54.76 per cent, then Lesotho with an average percentage ratio of 33.40 per cent and last, Eswatini with an average percentage ratio of 25.38 per cent. Over the same period, the South African banking sector experienced a negative growth rate in its percentage ratio of broad money to GDP of 8.7 per cent. On the other hand, Namibia, Lesotho and Eswatini's banking sectors showed positive growth of 24.92 per cent, 4.33 per cent and 36.02 per cent, respectively in their banking depth metrics. From these findings, we can conclude that although Eswatini is ranked last out of the four countries in terms of banking sector depth, it can improve its ranking if it maintains its relatively higher positive growth rate in the banking sector depth metric.Africa and Namibia are clearly ranked first and second among CMA countries, respectively while Eswatini and Lesotho occupy the lower half of the rankings. Furthermore, evidence suggests that Eswatini's banking sector is able to extend relatively higher levels of credit (on average) than Lesotho's despite Lesotho's banking sector having a comparatively greater funding base.

iii. Depth

The reach of the banking sector in CMA countries as measured by the number of commercial bank branches per 100,000 adults is depicted in Figure 5.

Figure 5: Commercial Bank Branches per 100,000 Adults



Source: Authors Own Calculations based on data from IMF-FAS

Namibia had the greatest average number of commercial bank branches per 100, 000 adults on at 12.90 over the period from 2007 to 2016. It was followed by South Africa with an average of 9.42 branches, then Eswatini with an average of 5.94 branches and last, Lesotho with an average of 3.12 branches per 100,000 adults. The results show that Namibia's banking sector has the most reach out of the four CMA countries while Lesotho has the least. It is also important to note that the growth rate in number of bank branches in Namibia between 2007 and 2016 was 18.28 per cent while that of Lesotho was 75.06 per cent. Therefore, it can be argued that if Lesotho maintains its bank branch growth rate, it can improve its ranking among CMA countries.

v. Indicator Combinations

In this section we consider combinations of banking sector development indicators within CMA countries. Figure 6 represents combinations of the size and reach indicators in the form of a bubble graph in 2016 and 2017. In this case, the y and x axis represent the banking sector size indicators CBL_GDP and CBD_GDP, respectively while the banking sector reach indicator is represented by the bubble size. Figure 7 is a combination of the efficiency and depth indicators in the form of a scatter plot throughout the 2007 – 2017 period.

Figure 6: Size and Reach 2016 and 2017

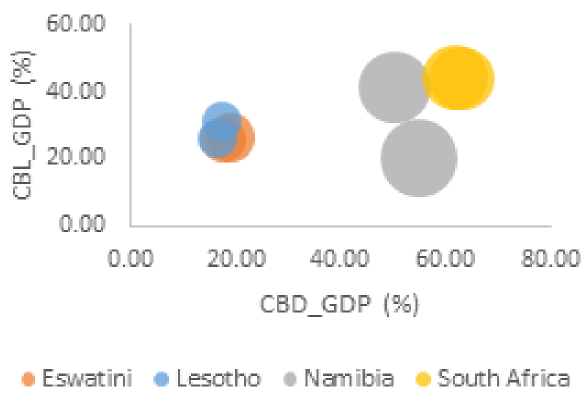
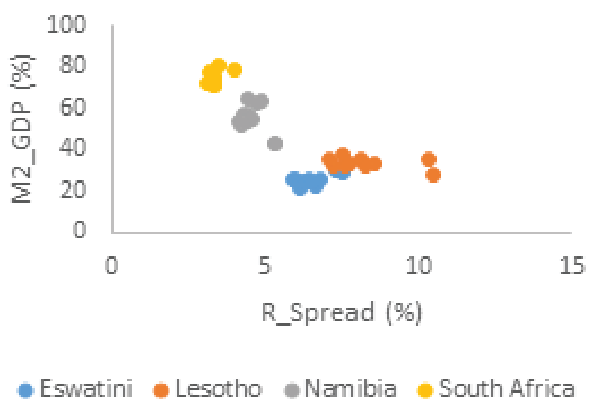


Figure 7: Efficiency and Depth 2007- 2017



Source: Authors Own Calculation based on data from IMF-FAS

From Figure 6, there is a positive relationship between banking sector size and reach. This is exemplified by the size and location of the Namibian and South African bubbles (larger diameter bubbles occupying the far right of the graph). That is to say, the greater the size of the banking sector, the more significant will be its reach. Conversely, Figure 7 shows a negative relationship between the interest rate spread and the ratio of broad money to GDP. This shows that the more efficient the banking sector (the less the interest rate spread), the greater the level of banking sector depth (the higher the ratio of broad money to GDP).

5. Conclusion and Recommendations

The objective of the study was to analyse and compare indicators of banking sector development within the four member states of the CMA over a ten-year period spanning from 2007 to 2017. Table 3 provides a summary of the results of our study with respect to the five banking development indicators used in our study.

Table 3: Summary of Results

Dimension	Type of Indicator	Country Ranking	
Size	Commercial Banks' Loans to GDP ratio	1st 2nd 3rd 4th	South Africa Namibia Eswatini Lesotho
	Commercial Banks' Deposits to GDP ratio	1st 2nd 3rd 4th	South Africa Namibia Lesotho Eswatini
Efficiency	Interest rate spread	1st 2nd 3rd 4th	South Africa Namibia Eswatini Lesotho
Depth	Broad Money (M2) to GDP ratio	1st 2nd 3rd 4th	South Africa Namibia Lesotho Eswatini
Reach	Access to Commercial Banking Services	1st 2nd 3rd 4th	Namibia South Africa Eswatini Lesotho

On average, our study reveals that:

- The South African banking sector ranks number 1 in terms of size, efficiency and depth. It is followed by Namibia although Namibia's banking sector trumps that of South Africa in terms of its reach (access to commercial banking services).
- Eswatini and Lesotho are ranked in the lower half in terms of banking sector development although Eswatini's banking sector outdoes that of Lesotho in terms of efficiency and reach while Lesotho's banking sector out performs Eswatini's it in terms of depth.

In light of these findings, it is recommended that Lesotho and Eswatini promote greater banking sector efficiency, depth and reach by implementing policies that incentivise depositors while also unlocking bottlenecks in the access to finance, especially by small and medium-sized enterprises.

References:

Beck, Thorsten, Ross Levine and Norman Loayza (2000). Finance and the Sources of Growth. Journal of Financial Economics 58 , 261-300.

Beck, Thorsten and Augusto de la Torre (2005): The Analytics of Access To Finance: Introducing the Access Possibilities Frontier. World Bank mimeo.

Beck, T. (2005). Reaching Out: Access to and Use of Banking Services Across Countries (Vol. 3754). World Bank Publications.

Čihák, Martin, Asli Demirgüç-Kunt, Erik Feyen, and Ross Levine. (2012). "Benchmarking Financial Development Around the World." Policy Research Working Paper 6175, World Bank, Washington, DC.

Fries, S., & Taci, A. (2001, June). Banking Reform and Development in Transition Economies. In Intl Conference on Transition Economics, Portoroz Slovenia (pp. 23-26).

Honohan, Patrick (2004). Financial Development, Growth and Poverty: How Close Are the Links? In Charles Goodhart, ed. Financial Development and Economic Growth: Explaining the Links. London: Palgrave.

IMF (International Monetary Fund). (2005). Financial Sector Assessment: A Handbook. Available Online: https://www.imf.org/external/pubs/ft/fsa/eng/index.htm (Accessed 18th March 2019)

Levine, Ross (2005). Finance and Growth: Theory and Evidence. Forthcoming in Philippe Aghion and Steven Durlauf, eds. Handbook of Economic Growth. The Netherlands: Elsevier Science.

Molapo, S., & Damane, M. (2015). Determinants of private investment in Lesotho. European Scientific Journal, ESJ, 11(34).

Molapo, S., & Damane, M. (2017). An Econometric Approach to Private Sector Credit in Lesotho. The Journal of Business in Developing Nations, 15.

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