POLICY BRIEF

Recapitalization and Competition of Commercial Banks: Evidence from Selected sub-Saharan African Countries

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Abstract

In the last two decades, central banks in sub-Saharan African countries have witnessed a trend of the recapitalization policy, and many more are bracing up to undertake the same reform. Theoretically, increased capital should improve capacity to invest, take risks and manage loans, as well as minimize the probability of failure as the banks become 'too big to fall'. As important as this subject is, the empirical evidence, especially for countries in sub-Saharan Africa (SSA), is sparse and inconclusive. It is on this premise that this study investigated the effect of recapitalization on bank competition in six selected countries in

the region. The study used bank level and macroeconomic indicators between 2000 and 2015 with the aid of the Panzar–Rosse model to examine the level of competition before and after bank recapitalization. The results show that bank competition is higher for the period after recapitalization than the period before recapitalization. The study therefore recommends that bank recapitalization could be necessary, especially for countries with low minimum paid-up capital.

Introduction and background to the study

Bank recapitalization refers to raising the operating capital of banks to a tolerable threshold, as required by the regulatory authority. Central banks increase commercial banks operating capital periodically to ensure sanity in the banking industry. It is part of financial sector reforms, and several central banks across the globe have used this as a veritable monetary policy tool. This study examined the impact of recapitalization on competition between banks in six countries in sub-Saharan Africa (SSA) that have used this financial toolbox. The countries are: Ghana, Kenya, Nigeria, Sierra Leone, South Africa and Uganda. The global financial crisis of 2007–2009 triggered intense debate on the need to review the regulatory framework of banking operations across the continent. These crises gave birth to a new paradigm of reform to address the identified regulatory gap. It necessitated the call for urgent regulatory framework review in the Basel Committee on Banking Supervision (BCBS). Consequently, undercapitalization topped the holes identified in the economic lacklustre. Based on this regulatory shortcoming, there was an urgent need for recapitalization in the banking industry as proposed in the Global Banking Regulatory Framework (GBRF) in December 2010 (Basel III).

Central banks set different capital requirements for their operating commercial banks. Operating capital requirements for commercial banks are based on the country's financial development and emerging global issues. The threshold review is always upwards and seldom downwards, as evidenced in most countries. In June 2019 in Nigeria the Central Bank issued a five-year roadmap to stabilize the economy tagged, “2019 to 2024 Road Map”. Incidentally, recapitalization topped the issues raised as communicated by the Central Bank Governor. Several arguments for recapitalization are: stable capital adequacy ratio, strengthening the health of the capitalized banks, accelerating consolidation, economies of scale, ability to finance large-scale projects, international competitiveness, global integration, prevention of bank failures and overall financial sector development. These narratives are alluded to in the works of several authors (Soludo, 2004; Adegbaju & Olokoye, 2008; Soludo, 2008; Nwosu et al., 2012). Arguing strongly on the need/benefits for commercial banks to recapitalize in Nigeria, Soludo (2004) stated that the Amalgamated Banks of South Africa (ABSA) —the fourth largest bank in South Africa—was bigger than that of all of Nigeria’s commercial banks.

Recapitalization has taken place in some sub-Saharan African countries. The countries include Nigeria, Ghana, Kenya, South Africa, Sierra Leone, Uganda, Sudan, Zambia, and Zimbabwe (Soludo, 2005). Assessing the effects of recapitalization on the banks' competitive conduct behaviour will enhance understanding of banking operations, product choices, innovation, information symmetry and overall system tranquillity. It will also equip the regulators with information to manage monetary downturns in the economy.

Objective of the study

Recapitalization affects the competitive behaviours of commercial banks in several ways. The increase in the minimum capital requirement that aims at making banks "too big to fail", however, tends to reduce the number of operating banks. This is attributed to the inability of some banks to meet the recapitalization deadline; increased capital requirements constrain new entrants; unhealthy rivalry among banks; and the likelihood of recklessness in risk-taking amongst others (Claessens et al., 2010; Sanusi 2012). Therefore, despite the recapitalization recommendation in the GBRF, its consequences on competition may not be pre-determined, hence the motivation for this study. The role of competition on commercial banks behaviours in the financial ecosystem is critical because it results in reallocation and redistribution of market shares of the products, and disequilibrium of market power. Hence, the concept of bank competition is of great importance, since the study of market competition can help understand the social welfare implications of changes in the banking sector (Shaffer, 2004; Mirzaeia and Moore, 2014). Moreover, ascertaining the degree of competition in the financial industry can improve the production efficiency of financial services, the quality of financial products and leapfrogging innovation in the sector (Burlamaqui and Kregel, 2005; Claessens, 2009; Moyo, 2018). A competitive environment therefore gives room for new businesses to evolve due to pressure to retain and gain more market shares and allows consumers to continuously enjoy the best possible services at a minimum cost sometimes.

Several studies have been done on commercial banks behaviours in sub-Saharan Africa concerning competition, efficiency, risk-taking behaviours, performance, interest rate and strategy (see, e.g., Biekpe, 2011; Mlambo and Ncube, 2011; Mwenda and Mutoti, 2011; Simpasa, 2011; Kamau and Were, 2013; Akande et al., 2018). The empirical works studied commercial banks competitive behaviours with profitability, performance, efficiency, economic crises of 2007/2009, interest and loan management and product strategy amongst others.

However, studies on recapitalization and commercial banks behaviours are rare in the literature. There is an absence of empirical studies assessing the impact of recapitalization on commercial banks competitive responses in sub-Saharan

Africa. Previous studies had concentrated on the gains of consolidation to bank performance, without considering counterfactual ex ante and ex post events. It is imperative to ascertain the state of competitiveness before and after recapitalization because lack of competition in the banking sector increases concentration and decreases intermediation efficiency (Biekpe, 2011). More so, most studies on competitive behaviours are single-country analyses (see, e.g., Buchs and Mathisen, 2005; Hauner and Peiris, 2005; Balogun, 2007; Zhao and Murinde, 2011; Mwenda and Mutoti, 2011; Biekpe, 2011; Simpasa, 2011; Mlambo and Ncube, 2011; Mwega, 2011; Alex and Alan, 2018). This study, therefore, contributes to existing knowledge by investigating the impact of recapitalization on bank competition for a panel of countries in SSA.

The objective of this study was to examine the impacts of recapitalization on the competitive behaviours of commercial banks in the selected SSA countries. The outcomes will guide the decisions of these countries' central banks, bank management and other regulators, especially those considering recapitalization exercises. This study used data from different relevant financial institutions spanning 16 years, from 2000 to 2015. The bank level data were obtained from Bank Focus (formerly Bank Scope), and from the International Financial Statistics (IFS) and World Development Indicators (WDI) databases.

Stylized facts on selected sub-Saharan African countries financial system structures

Ghana

In 1896 Standard Chartered Bank of the United Kingdom, which later became British Bank for West Africa, commenced business operations. Subsequently, Barclays Bank of the United Kingdom kicked off in 1917. The Commercial Bank of Ghana that gave birth to the Central Bank of Ghana in 1957 was established in 1953. The 1970 Banking Act imposed a minimum paid-up capital requirement for foreign and locally owned banks of GH₵2 million (US$329,000) and GH₵0.5 million (US$82,000). And in August 1989 banks were required to maintain a minimum capital base equivalent to 6% of their net assets. In 1989 GH₵62 billion (US$10.2 billion) worth of non-performing loans were bought by the Bank of Ghana in bonds, totalling GH₵47 billion (US$7.7 billion) (Kukurah et al., 2014).

Consequently, this reduced the stock exchange market capitalization by US$92.5 million in 1990. The Bank of Ghana Act 2002 (Act 612) was replaced with the Banking Act 2004 (Act 673), to strengthen the regulatory and supervisory roles. In February 2003 the Bank of Ghana, to enable competition in the industry, introduced the Universal Banking Business Licence (UBBL).

In 2007 the Bank of Ghana recapitalized to GH₵ 25 million (US$4.1 million) for locally owned banks that were meant to take effect on or before 31 December 2010 (Akomea and Adusei 2013). In addition, foreign-owned banks were required to recapitalize on or before 31 December 2009. Akomea and Adusei (2013) also observed that Ghanaian banks were required to recapitalize from GH₵7 million (US$ 1.1 million) to GH₵60 (US$9.8 million) million by the end of 2012. Meanwhile, new entrants were required to adhere to the new recapitalization rule. The Ghanaian banking sector reforms are divided into three categories: Pre-Financial Sector Adjustment Programme (FINSAP) Era (1957–1987); FINSAP Era (1985–1999); and Post-FINSAP Era (2000 to date). The minimum capital requirement was further raised in 2017, from 120 million Ghana cedis (US$27.05 million) to GH₵400 million (US$90.19 million) with a recapitalization deadline of 31 December 2018. According to the Bank of Ghana (2017), the deposit money banks (DMBs), the number of staff employed, deployment of automated teller machines (ATMs), the number of point of sale (POS) terminals, loan and advances, deposits and total assets increased significantly in 2017, relative to 2016.

Kenya

The banking industry in Kenya has evolved tremendously in the last two decades, despite several economic quagmires experienced in the period. The industry-led the revolution in electronic money in SSA, with the lunch of M-Pesa in 2007. Pesa is the Kiswahili word for money. Historically, banking business kicked off in the 19th century with the emergence of the Standard Bank of South Africa in 1910. The Kenya banking sector currently has 40 commercial banks of which 25 are locally owned and 15 are foreign owned. In 2017 bank branches decreased by 23 compared to 2016 (from 1,541 to 1,518); Nairobi County had the highest decrease of 14, Central Bank of Kenya (CBK) (2017). Meanwhile, a total of 13 of the 47 counties also recorded declines in the number of branches, due to alternative services delivery channels. Kenya market shares are divided into three peer groups using a weighted composite index. Banks in the large peer group increased their market share from 65.32% in December 2016 to 65.98% in December 2017, due to increased customer deposits CBK (2017). As part of its regulatory requirement in ensuring stability in the system, in 2007 CBK raised the minimum core capital for banks to Ksh1 billion (US$10 million), from Ksh250 million (US$2.5 million), setting 31 December 2012 as the deadline. Another three-phase proposal was made for Kenya’s commercial banks to increase their core capital to Ksh2 billion (US$20 million) by December 2017, Ksh3.5 billion (US$35 million) by December 2018, and finally Ksh5 billion (US$50 million) by December 2019. Kenya listed banks first-quarter reports state that some players in the banking sector were either acquired or merged with others, leading to the creation of relatively bigger, highly-capitalized and possibly more stable entities by 2020 (Cytonn, 2020).

Nigeria

Commercial banking business started in Nigeria in 1891 with the emergence of African Banking Corporation whose operations were taken over by the Bank of British West Africa (BBWA). The Bank of Nigeria was established in 1899 and was later absorbed by the BBWA in 1912. In 1925 Barclays Bank started operations in Nigeria, after the merger between Anglo-Egyptian Bank and National Bank of South Africa. National Bank was the first indigenous bank; it commenced business operation in 1933. The preponderance of bank failures in West African British colonies resulted in the invitation of G.D. Paton of Bank of England in 1948. This aim was to examine Nigerian banks critically in terms of performance sustainability; and to recommend to the authorities on the ways forward. This led to the Banking Ordinance of 1952 and the establishment of the Central Bank of Nigeria (CBN) in 1958. After the first banking ordinance in 1952, the capital requirement for foreign commercial banks was raised from £200 thousand (US$273,000) to £400 thousand (US$547,000). It was subsequently increased in 1969 to ₦1.5 million (US$3,645) for international banks and ₦600 thousand (US$1,458)for indigenous commercial banks.

The capital base was further tightened in 1988 and was increased to ₦5 million (US$12,150). That is, ₦20 million (US$49,000) in 1989, ₦50 million (US$122,000) in 1990 and ₦500 million (1.2 million) in 1997 with a deadline to recapitalize by December 1998. To further strengthen the system, and to avoid the proliferation of family banking systems, CBN tightened the entry requirement by raising the bar to ₦2 billion (US$4.9 million) in 2001 for the new entrants. In 2004 all the banks were required to increase their minimum capital base to ₦25 billion (US$ 61 million) from ₦2 billion (US$4.9 million) on or before 31 December 2005. In 2009 banks were allowed to operate as regional, national, and international banks with a minimum capital base of ₦15 billion (US$36 million), ₦25 billion (US$61 million) and ₦100 billion (US$ 243 million) respectively. Demand deposits grew from ₦448 billion (US$1.1 billion) in 2001 to ₦1.49 trillion (US$3.6 billion) in 2016. However, this also reduced the number of operating banks from 89 in 2004 before recapitalization to 25 in 2005 after recapitalization. More so, bank branches dropped to 3,233 from 3,492 in 2005, because some banks failed to recapitalize. However, bank branches rose to 4,952 in 2006 and have been on the increase ever since. Recapitalization also leapfrogged total market capitalization of the stock exchange from ₦662.5 billion (US$1.6 billion) in 2001 to ₦5.12 trillion (US$12.4 billion) in 2006 and ₦16.18 trillion (US$39.3 billion) in 2016. Total assets, total loans disbursed, and financial deepening have also increased tremendously. The volume and value of cheques cleared has been declining due to the implemented cashless economy (electronic payment penetration in the system).

Sierra Leone

The Bank of British West Africa Ltd (Standard Chartered Bank Sierra Leone Ltd), and Barclays Bank Sierra Leone Ltd (Rokel Commercial Bank), were the two banks that opened banking business before the country's independence in 1961. Bank of Sierra Leone started operation in August 1964. It led to the emergence of indigenous financial institutions such as the National Development Bank (NDB) in 1968, National Cooperative Development Bank (NCDB) in 1971 and Sierra Leone Commercial Bank (SLCB) in 1973. The SLCB is the first indigenous commercial bank. Commercial banks in this country have undergone turbulent periods like in other African countries, especially in the 1980s due to the harsh operating environment.

Moreover, minimum paid-up capital for banks has been reviewed periodically to reflect the current economic trend. Evidently, and according to Bank of Sierra Leone (2016), the reviews were, Leone (Le) 9 billion (US$ 861,000) in 2007, Le18 billion (US$ 1.7 million) in 2010, Le24 billion (US$2.3 million) in 2012 and Le30 billion (US$2.9 million) in 2014. During the period, assets of the commercial banks increased from Le3.62 trillion (US$344 million) December 2012 to Le4.33 trillion (US$411 million) as at the end of December 2013. This represented 19.61% growth (Le710.70 billion) [US$1.1 million]. Similarly, a 21.67% increase was recorded in deposits, from Le2.83 trillion (US$268 million) as at the end of December 2012 to Le3.44 trillion (US$325 million) as at the end of December 2013. The fundamental building blocks such as demand, savings and time deposits, shareholders' funds also rose significantly by 2013. The growth resulted from the Le27 billion (US$2.6 million) minimum paid-up capital required as at the end of December 2013. Bank branches rose to 101 in 2015 from 86 in 2011. Non-performing loans were high at end December 2015 compared to 2014 due to the Ebola outbreak, which affected significant economic activities.

South Africa

Lombard Bank was the first bank to establish a business in South Africa, and this was in Cape Town on 23 April 1793. The proposal to create a Central Bank in South Africa was made in 1879; it was finally established on 31 March 1920 and named South Africa Reserve Bank (SARB). In 2019 a total of four (4) banks controlled over 80% of the total assets of the industry market. These banks are Standard Bank Group, ABSA Group, First Rand Bank and Ned Bank. These four banks were the largest in Africa by 2018 and control the banking industry in the continent. Capitalization and capital adequacy based on Basel requirements have dominated the industry regulatory mantra since the 2007–2009 financial meltdown.

The Basel I Accord was implemented in South Africa in 1988, Basel II in 2008, and Basel III in 2013. In line with the Basel III framework, SARB increased the minimum capital requirement to ZAR250 million (US$17 million). According to SARB (2018), there were 19 registered banks, three (3) mutual banks and three (3) corporative banks with assets totalling ZAR5295 billion (US$358 billion) and Return on Assets (ROA) of 1.35% as at June 2018. Standard Bank Group has branches in 17 countries in Africa and 13 countries outside Africa and is rated globally as the 202nd largest bank by asset on Forbes List. Ned Bank is the fifth-largest Africa by assets but ranked second, in terms of several employment generations. Electronic channels for financial settlements are widely embraced in South Africa. The use of credit cards has grown over a period. Also, the value and volume of electronic transactions increased from 2011 to 2016. However, the value and volume of cheques transactions have been on the decline since 2011, showing low appetite for cheques and cash-based transactions.

Uganda

Commercial banking operations started in the 1960s with the emergence of the Bank of Uganda and the Uganda Commercial Bank. After that, Bank of Baroda, Barclays Bank, Bank of India, Grindlays Bank, Standard Chartered Bank and Uganda Cooperative Bank commenced business operations. The Uganda banking industry experienced turbulence in the late 1990s, leading to the failure of some banks. This resulted in the restructuring of the industry in 2008 and 2009 through mergers and acquisitions. As at the end of December 2011, commercial bank assets in Uganda stood at UGX12.982 trillion (US$6 billion). In October 2011 the industry had 22 licensed commercial banks, 455 bank branches and a total of 637 ATMs. These figures jumped in 2017 to 24 banks, 544 branches and 821 ATMs. In 2017 total assets were UGX26.5 trillion (US$11.8 billion) showing enormous growth. In 2010 Bank of Uganda directed all commercial banks to raise their minimum capital to UGX10 billion (approximately US$4.34 million) on or before March 2011, and UGX25 billion (about US$11 million) by March 2013. Besides this, effective November 2010, new entrants had to have a minimum capital of UGX25 billion (US$11 million). Interestingly, all the banks scaled this hurdle: they met the regulatory capital requirements. In a similar development, in 2014 Bank of Uganda redirected all the banks to recapitalize from UGX25 billion (US$11 million) to UGX27 billion (US$11.8 million) before the end of June 2015.

Table 1: Comparable financial development indicators

Country	Domestic credit to private sector (% of GDP) (A)	Exchange rate (USD) (B)	GDP growth rates (%) (C)	Int. rate spread (%) (D)	Inflation rate (%) (E)	No of bank branch/ 100,000 adults (2018) (F)	Bank concen-tion (%) (2017) (G)	No of banks (2015) (H)	Fin devt Index (2017) (I)
Ghana	16.79	1.08	6.257	9.239	16.1	8.646	36.3	25	0.13
Kenya	34.46	79.68	4.359	9.743	9.728	5.025	36.6	40	0.20
Nigeria	14.61	138.48	7.54	7.568	11.54	4.300	42.0	21	0.24
Sierra Leon	4.83	3,311.8	7.386	12.84	6.11	2.640	100.0	14	0.09
South Africa	151.55	8.317	3.288	3.989	5.788	10.116	76.7	27	0.63
Uganda	14.38	2,105.7	5.508	11.008	7.25	2.608	54.2	24	0.12

Source: World Bank database, IMF database

Notes: Columns **A** to **E** show the average of the 16 years (2000–2015) of the financial development indicators (authors' computations from the referenced data sources); Columns F to I are given, in the sourced databases
A = domestic credit to private sector as a percentage of gross domestic products (%)
B = exchange rate—USD/domestic currency (%)
C = annual gross domestic growth rate (%)
D = interest rate spread—lending rate less deposit rate (%)
E = annual inflation rate (%)
F = number of bank branches per 100,000 adults
G = bank concentration (%)— (share of assets of three top banks)
H = numbers of operating banks—total no. of the operating banks in the country
I = financial development index—depth (size and liquidity) access to financial services, efficiency (low cost of intermediation), range of activities in the stock market

From Table 1, South Africa ranked first in terms of the number of bank branches per 100,000 adults in 2018, with 10.1 branches per 100,000 adults. The number for Ghana was 8.646 and for Nigeria was 4.300; Uganda had the lowest number with 2.608 per 100,000 adults. This indicates that South Africans have the highest access to bank branches, compared to the other selected countries. The financial development index also indicates that South Africa is performing better than the other five countries with an index of 0.63. In terms of the gross domestic product (GDP) growth rate, Sierra Leone (7.38 %), Nigeria (7.54 %), Uganda (5.5 %), Ghana (6.2 %) and Kenya (4.3 %), were doing better than South Africa (3.2 %). Kenya had the highest number of operating banks in 2015. In terms of intermediation efficiency, measured with interest spread rate, South Africa was the most efficient with a margin of 3.9%. Sierra Leone was the least efficient, with a 12.84 % spread (Table 1).

Data

The study adopted the Panzar–Rosse model to ascertain the objective, which investigates the impact of recapitalization on bank competition in selected sub-Saharan African countries. The t-test of significance was further used to establish whether there exists a significant difference between the scores before and after recapitalization.

Data sources and description

The study utilizes panel data for six countries that have recapitalized banks and have at least three years before and after recapitalization between 2000 and 2015 (time scope of the study). The bank level data were obtained from Bank Focus (formerly Bank Scope) while other data were obtained from the databases of International Financial Statistics (IFS) and World Development Indicators (WDI). The bank level data were limited to the countries of SSA that recapitalized and to the data available in the Bank Scope database. However, we are quite convinced that the range of the data obtained was good enough to establish and test the impacts of recapitalization on the competitive behaviours of commercial banks in SSA. The data used include both bank indicators such as return on asset, assets, deposits, equity, number of non-performing loans, total loans, credit risk, loan quality, revenue, cost, profitability, operating cost, interest expenditure, non-interest expenditure, price of labour, price of capital and macroeconomic indicators such as GDP growth rate, inflation rate and lending rate.

Conclusion and recommendation

Competition and performance of banks remain critical to the survival and sustenance of the banking industry, in addition to the growth and development of the economy. It is the prime objective of the monetary authorities to formulate and implement monetary policies and reforms that will improve and strengthen the financial sector of the economy. Bank recapitalization is one of those reforms that have been used for decades and maybe centuries ago in other climes. Given this, several African countries have in the last two decades recapitalized banks to varying degrees, once, twice, thrice, and many other countries are still planning to. With the emergence of recapitalization in the financial literature, our study therefore examined competition of the banking industry before and after recapitalization. With the aid of the P–R model, the study shows that competition after bank recapitalization was much better than in the period before it. Therefore, banks competitive behavioural conducts improve after recapitalization.

The study shows that there exists a high correlation between bank recapitalization and the improvement in the competition of selected African countries. So, the scepticism that recapitalization reduces market share is empirically faulted by the findings of this study. However, bank recapitalization often leads to mergers and acquisitions through forcing some banks to merge or be bought which may lead to loss of jobs and a reduction in the concentration of banks. Nevertheless, the fundamental idea for perfect competition is that price should equal marginal cost, and the Panzar–Rosse model examines the transmission of prices. Therefore, the study infers that bank recapitalization increases the rate at which banks adjust prices towards the marginal cost.

The study therefore recommends that bank recapitalization may be necessary, especially for countries with a low minimum paid-up capital in its banking system. This is also to the extent of the proportion of public funds in the banks' balance sheet. Recapitalization will act as a built-in stabilizer and shock absorber which will make banks self-reliant on government funds and higher capacity to invest. These will translate into a menu of service options for bank customers which underscores the improved competition in the financial ecosystem. Furthermore, bank recapitalization should be treated with caution to avoid the band-wagon effect but should reflect a country's economy of scale and calculated appropriate statistics that improves bank capacity.

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Mission

To strengthen local capacity for conducting independent, rigorous inquiry into the problems facing the management of economies in sub-Saharan Africa.

The mission rests on two basic premises: that development is more likely to occur where there is sustained sound management of the economy, and that such management is more likely to happen where there is an active, well-informed group of locally based professional economists to conduct policy-relevant research.

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