



Centre for Affordable
Housing Finance
in Africa

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How Basel III and the Latest Changes in Regulation are Likely to Affect Access to Housing Finance in Africa.

Dr Nketcha Nana P.V.

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This Case Study was authored by Dr Pierre-Valère Nketcha-Nana and was reviewed by Kecia Rust and Olivier Vidal (Centre for Affordable Housing Finance in Africa)

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1 INTRODUCTION

There is a broad recognition that access to affordable housing finance is critically important, not least because of the demand for housing and the importance of housing for the well-being of population, and for the economy as a whole. However, while housing loan finance is widely available in high-income economies, it remains largely underdeveloped in all African countries with the exception of a few. For example, the ratio of mortgage debt to GDP is equivalent to 83% in Netherland, whereas it amounts to less than 1% in many African countries (Badev and al., 2014; CAHF, 2016).

As a result, a greater attention is (should) now being given to ensuring access to affordable housing finance for all in Africa. This will require understanding and addressing the critical factors that are impeding the development of effective housing finance systems across the continent.

It is against this background that the Centre for Affordable Housing Finance in Africa (CAHF) has commissioned ***a report to have a better understanding of how Basel III and the latest changes in regulation are affecting access to housing finance across Africa, with a particular focus on WAEMU countries¹ and South Africa.***

Basel III is an internationally agreed comprehensive set of reform measures developed by the Basel Committee on Banking Supervision (BCBS),² to strengthen the regulation, supervision and risk management of the banking sector. These measures raise the bar relative to the supervision framework that was in effect before the 2007 global financial crisis (Basel II), essentially, by introducing more stringent capital and liquidity requirements for commercial banks, with the objective to improve the banking sector's ability to absorb shocks arising from financial and economic stress (BCBS, 2011).

The new requirements aspire to make the banking system safer and more resilient, but there are some concerns about the potential adverse effects on lending. For example, the stronger capital and liquidity requirements may also force banks to increase their capital and funding stocks, and take some risks off their balance sheets, with potential adverse effects on the cost, volume, and maturity of bank loans (BCBS, 2016).

Moreover, Basel III may alter the competitive position of banks vis-à-vis nonbank financial institutions (NBFIs), since

the latter are largely unaffected by the stricter capital and liquidity rules. As a result, some credit activity may move from banks to nonbanks, leading to a substantial benefit for them (FSB, 2011; Elliot and al., 2012; Cizel and al., 2016). The upside is that nonbanks could play an increasingly role in lending, allowing even the low-income earners to have access to credit. The overall adverse effect of the new regulations on total credit would therefore be smaller, given the substitution of nonbank credit for bank credit. On the flip side, however, higher lending from nonbanks could also raise the risks associated with this sector, which could be destabilising for the entire financial system.

In view of these considerations, some African countries have chosen not to move towards full implementation of the new Basel III framework. For example, Nigerian authorities have decided to implement only the aspects that their bank supervisors have determined to be well suited for their country. In contrast, South Africa have committed to the requirements in their entirety, while the Central Bank of West African States (BCEAO) has not only adopted Basel III requirements, but also decided to apply a capital ratio some 3.5 percentage points higher than the level required in Basel III.³

In addition to Basel III, another important regulatory change that is likely to substantially affect financial institutions is the International Financial Reporting Standard 9 (IFRS 9) for financial instruments, which was published on 24 July 2014 and became effective since January 2018.⁴ This new standard fundamentally changes the financial reporting requirements applicable to banks and non-bank deposit taking institutions. It introduces new rules for the 1) classification and measurement of financial assets, 2) computation of impairment provisions on financial assets, 3) hedge accounting, and 4) disclosures. For housing loans,

¹ WAEMU (West African Economic and Monetary Union) covers 8 countries: Benin, Burkina-Faso, Cote d'Ivoire, Guinea Bissau, Mali, Niger, Senegal, and Togo. All these countries are also members of the ECOWAS (Economic Community for the West African States).

² The Basel Committee on Banking Supervision (BCBS) is "the primary global standard setter for the prudential regulation of banks and provides a forum for cooperation on banking supervisory matters. Its 45 members comprise central banks and bank supervisors from 28 countries/jurisdictions. The Committee also has nine observers including central banks, supervisory groups, international organisations and other bodies. No African institution except the South African Reserve Bank is member of the BCBS. The BCBS does not possess any formal supranational authority, and its decisions do not have legal force" (see: <https://www.bis.org/bcbs/membership.htm>, accessed 21 September 2017).

³ In fact, countries may actually choose to implement higher regulatory standards to address risks particular to their national contexts; this has always been an option under Basel I and II, and it remains the case under Basel III (Walter, 2011).

⁴ IFRS 9 was developed and published by the International Accounting Standards Board (IASB) to simplify the accounting for financial instruments and address perceived deficiencies in the previous international accounting standard known as IAS 39. IFRS 9 applies to financial institutions across Europe, the Middle East, Asia, Africa, and Oceania.

the new rules on impairment provisions are the most problematic, especially given the impact they are likely to have on the stock of banks' loan loss provisions from day 1.

This report reviews how the African financial sector is reacting to the Basel III requirements, and examines how Basel III and IFRS9 regulations are affecting, or are likely to affect, the capacity of African financial institutions (including NBFIs) to provide affordable housing finance products. The main focus is twofold: 1) clarify the likely effects of the Basel III and IFRS 9 proposed regulatory changes initiatives on

the supply of affordable housing finance in Africa; and 2) describe implementation of Basel III in WAEMU and South Africa.

The next section summarizes the key aspects of the Basel III framework and surveys existing studies on its consequences for lending, with special emphasis on housing lending. Section 3 describes the additional challenges pose by IFRS 9. Section 4 documents how regulators in target countries (WAEMU and South Africa) are reacting to and implementing the Basel III and IFRS9 standards.

2 BASEL III AND ITS POTENTIAL CONSEQUENCES FOR LENDING

Before delving into the key features of Basel III and its potential consequences for housing loans, it might be useful to have some background on Basel I and Basel II, which are the predecessors of the new Basel III framework.

2.1 BACKGROUND: THE PREVIOUS BASEL ACCORDS

The Basel III framework can be traced back to a document issued in 1988 by the BCBS, which is generally known as Basel I Accord. The document, "International convergence of capital measurement and capital standards," was a set of principles intended to strengthen the soundness and stability of the international banking system, and to ensure a level playing field among international banks (BCBS, 1988). Those principles still form a key building block of the current Basel III framework (Wandhöfer, 2014).

Under the Basel I Capital Accord, internationally active banks were required to hold total capital at least equivalent to 8% of their risk-weighted assets to cover their exposure to credit risk. This capital base serves as an instrument for banks to absorb losses resulting from credit transactions. The Accord also defines the constituents of capital and provides a simple framework for risk-weighting banks' assets to determine the required capital.

For example, the risk weight for mortgage loans was 50%, which means that if a bank issues a mortgage loan of 1000\$, the minimum amount of capital required to cover the risk associated with the operation would be 40\$.⁵ Moreover, at least 50% of the required capital should consist of core capital (equity capital and disclosed cash reserves), also known as Tier 1 capital; the remainder, which is known as Tier 2 capital or "supplementary capital", is allowed to include other types of equity-like funds such as loan loss reserves and long-term subordinated debt (BCBS, 1988).

While the 1988 Accord was designed to apply to internationally active banks of the member countries of the BCBS, it became a worldwide benchmark for banking regulations during the 1990s. Indeed, by 1999, the Accord was applied to both domestic and international institutions in more than 100 countries (PricewaterhouseCoopers, 2004; Balthazar, 2006; Bryan, 2008; Jayadev, 2013).

In 2004, the BCBS released a revised capital regulation framework, which came to be known as Basel II. The revised framework sought to address the deficiencies of the 1988 Accord and to reflect the changes in banking and risk management practices, while preserving the benefits of a framework that can be applied as uniformly as possible at the national and international levels (BCBS, 2004, Balthazar, 2006). The framework's publication followed a period of intensive preparation (almost six years), during which the BCBS consulted extensively with banking sector representatives, supervisory agencies, central banks, and outside observers.⁶

The Basel II framework retains the key elements of the Basel I Accord, including the definition of eligible capital and the general requirement for banks to hold total capital equivalent to at least 8% of their risk-weighted assets. A significant change was in the way bank assets are risk-weighted to determine the capital requirements: The 1988 Accord provides a simple approach that assigns different types of assets to one of five risk-weights (0, 10, 20, 50 and 100%) – for example, 0% for cash (implying no capital charge), 10% for loans to some public entities, 20% for short term-loans to banks outside the OECD, 50% for housing loans, and 100% for

⁵ 1000\$ x 50% (the risk weight for housing loans) x 8% (the capital adequacy ratio) = 40\$

⁶ See the "History of the Base I Committee" on the Bank for International Settlements website: <http://www.bis.org/bcbs/history.htm>.

corporate loans. In contrast, Basel II permits banks a choice between two broad methodologies for determining the risk weights values, and then the required capital. They could measure risk-weights in a standardized manner, supported by the ratings of external credit assessment institutions. For example, claims on sovereigns and their central banks will carry a risk-weight of 0% if it is rated AAA to AA-, and 100% if it is unrated. Alternatively, banks could use their internal rating systems to calculate risk-weighted assets. This method -known as the internal rating-based (IRB) method, was subject to the explicit approval of the bank's supervisors (BCBS, 2004, para 50, 51, and 53). Banks not able to obtain the approval had to instead adopt the standardized approach.

So, what did Basel II changed for the minimum capital requirements for housing loans? The standardized approach requires that "lending fully secured by mortgages on residential property that is or will be occupied by the borrower, or that is rented" should be risk-weighted at 35% (compared with 50% under Basel I). This would imply a smaller capital requirement -compared to Basel I-. However, Basel II allows national supervisors to apply a higher risk weight on housing loans if they evaluate that the 35% is too low based on the default experience for this type of exposure in their jurisdictions (BCBS, 2004, para 72 and 73).

For banks using the IRB approach, the capital requirement must be more risk-sensitive, high-risk loans requiring more capital than low-risk. The overall impact -with this approach- would therefore be dependent on the composition of banks' portfolios.

The Basel II Accord was scheduled to become effective late 2006, with implementation of the more advanced approaches by end 2007. As Basel I, it has been designed to apply to international active banks in the BCBS member countries. However, as the Basel I Accord also, many non-BCBS member countries have decided to implement Basel II.⁷ In Africa, it has been implemented, or is in the process of being implemented, at least partially, in over 15 countries.⁸

2.2 BASEL III

The 2007 global financial crisis demonstrated that the international regulatory framework was inadequate or insufficient to ensure the soundness and stability of banking institutions. The Basel Committee reached the consensus that the crisis was amplified by the fact that banks had built-up excessive leverage and were holding inadequate and low-quality capital. Therefore, their capacity to absorb

losses through their equity was very limited. At the same time, many banks did not have adequate liquidity buffers to meet contingent obligations without incurring unacceptable losses. The crisis was further exacerbated by the procyclicality of capital requirements⁹ and the interconnectedness of systemic financial institutions (BCBS, 2010a; 2011 Davies, 2015).

In response, the Basel Committee issued a number of fundamental reforms to the international regulatory framework, producing what have been referred to as Basel III (BCBS, 2010b; 2011). The new reforms were issued in December 2010, but various additions and revisions have subsequently been undertaken.

A key objective of the Basel III framework is to reduce the probability and severity of future crisis, considering the lessons of the 2007 crisis. Accordingly, Basel III has introduced the following four main innovations: i) a new definition or composition of the regulatory capital base, ii) additional capital requirements ("capital buffers"), iii) a new leverage ratio, and iv) new liquidity requirements.

First, the new definition or composition of the capital base shifted toward more emphasis on higher quality capital (Tier 1 capital and common equity Tier 1 Capital) to ensure that banks are in a better position to absorb losses. Total capital will still consist of the sum of Tier 1 and Tier 2 components and must be still at least 8% of the risk-weighted assets (as in the Basel II Accord). However, the minimum Tier 1 Capital is set at 6% of risk-weighted assets, up from 4% in Basel II. And the minimum common equity Tier 1 Capital is set 4.5% of risk-weighted assets, whereas a bank could manage with only 2% under the previous Accord (Niemeyer, 2016).

Second, Basel III introduces new types of capital requirements called capital buffers: a mandatory "capital conservation buffer" of 2.5% of the risk-weighted assets, and a "discretionary counter-cyclical buffer" that will vary between zero and 2.5% of the risk-weighted assets, at the discretion of national regulators.

The capital conservation buffer is designed to ensure that banks put aside capital that can be drawn down to absorb losses without breaching the minimum capital requirement. It is a tool that will help increase sector resilience in periods of stress and will provide the mechanism for rebuilding capital outside periods of stress.

The countercyclical buffer aims to ensure that banking sector capital requirements reflect the macro-financial

⁷ By 2015, over 70 non-BCBS/non-EU member countries that had at least published a draft regulation related to the implementation of Basel II. See the results of the 2015 Financial Stability Survey of the Implementation of Basel II (FSI, 2015), which covers the responses of 98 non-BCBS/non-EU member countries. The results are available online at: <http://www.bis.org/fsi/fsiop2015.pdf>

⁸ See the results of the 2015 Financial Stability Survey of the Implementation of Basel II (FSI, 2015).

⁹ The procyclicality of capital requirements means higher capital is required during periods of economic stress, when the overall credit quality deteriorates. This further limit banks' lending capacity and could amplify the crisis (Arjani, 2009).

environment in which banks operate. It could be deployed by national jurisdictions when credit growth is judged to be excessive or to be associated with a build-up of system-wide risk, and it could be relaxed in periods of low credit growth. The two capital buffers are added on top of the 8% minimum capital requirements and must consist of common equity only. Thus, the new capital buffers raise the total capital adequacy ratio, which increases to 10.5% and could easily reach 13% (when the maximum countercyclical buffer will have to be put aside).

For globally systemically important banks (GSIBs),¹⁰ there is a third or extra-capital buffer ranging from 1% to 3.5%, depending on the risk that they pose to the financial system. This extra-buffer applies over and above the other capital requirements and must also be met with common equity.

The Basel Committee has developed a related framework whereby domestically systemically important banks (DSIBs) will be imposed an additional capital surcharge set by national regulators (BCBS, 2012). Some national regulators had already moved in this direction without waiting for the development of a formal DSIBs framework (Davies, 2015). DSIBs are defined as banks that are not significant from an international perspective but could nevertheless have an important impact on their domestic financial system and economy compared to non-systemic institutions. National Authorities should establish both the list of DSIBs and the additional requirement to apply to them, which also must also be met with common equity and applies over and above the other Basel III risk-based capital requirements.¹¹

As for the third innovation of the Basel III framework – the new leverage ratio-, it is a non-risk-based measure intended to constrain the build-up of excessive leverage¹² in the banking sector, and to act as a complement to the risk-based capital requirements. Actually, the leverage ratio is another capital ratio, with the difference that assets are not weighted according to their riskiness. The formula is Tier 1 capital divided by the bank's total consolidated assets. This ratio must be at least 3%.

Finally, Basel III introduces two minimum liquidity ratios: the liquidity coverage ratio (LCR) and the net stable funding ratio (NSFR).¹³ The LCR aims at reducing the risk that banks encounter short-term liquidity problems. It will require banks to have sufficient high-quality liquid assets to cover all their cash needs over a period of 30 days under a significantly severe liquidity stress scenario specified by supervisors. The liquid assets must be at least equal to the expected outflow over a 30-day period under the specified stress scenarios. In other words, the liquidity ratio must be no lower than 100%.

The NSFR is a longer-term ratio designed to limit overreliance on short-term wholesale funding to finance illiquid assets; it provides banks with incentives to fund their assets and activities with more stable source of funding on an ongoing basis. The NSFR establishes a minimum acceptable amount of stable funding based on the liquidity characteristics of an institution's assets and activities over a one-year horizon: the available amount of stable funding should be at least equal to the amount of required stable funding.¹⁴ In other words, the NSFR must be no lower than 100%.

¹⁰ The Financial Stability Board (FSB), in consultation with Basel Committee on Banking Supervision (BCBS) and national authorities, maintains a list of GSIBs and determines the extra-capital requirements that will apply to each of them. The 2016 list identifies 30 institutions as GSIBs. See: <http://www.fsb.org/wp-content/uploads/2016-list-of-global-systemically-important-banks-G-SIBs.pdf>

¹¹ If a bank's capital level falls to a point where it fulfils the 8% minimum requirements but not the requirement for any of the buffers, the bank must retain part of its profits to rebuild up the buffers, i.e., the bank cannot use that part of the profit to distribute to shareholders or pay bonuses. The more the bank breaks the buffers requirements, the larger the share of the profit the bank must save and add to the capital (Niemeyer, 2016).

¹² Leverage is a consequence of banks investing beyond the level of their equity capital, by borrowing money from depositors and other banks or by issuing bonds. Naturally, the larger the assets of a bank, the bigger is the potential losses -or gains- that can occur. These losses can be very real, for example, when a loan will not be repaid because the bank's client is in default. Therefore, enough capital should be available to cover all of these losses, so as to avoid financial distress and bankruptcy (Wandhöfer, 2014).

¹³ The two liquidity ratios were introduced in 2010 but were further revised in 2013 (for the LCR) and in 2014 (for the NSFR).

¹⁴ The Basel Committee (BCBS, 2014) provides definitions and methods for calculating the available stable funding and required stable funding.

3 THE POTENTIAL CONSEQUENCES OF BASEL III FOR LENDING: A SYNTHESIS OF THE LITERATURE

Following the changes introduced by Basel III, several studies have focused on examining the consequences for lending (e.g., Cosimano and Hakura, 2011; Elliot and al., 2012; Andrle and al., 2017; and Barnejee and Mio, 2017). The findings of these studies can be summarized into three key propositions.

Proposition 1: Even though the new Basel III regulations are meant to strengthen the stability of the banking system, these regulations **may** actually lead to negative effects on bank credit supply and pricing of loans. Notably:

1. A higher cost of bank credit (lending rates and fees);
2. Lower bank lending volumes;
3. Reallocation of lending from high-risk to low-risk borrowers; and
4. Shortage in long-term bank lending.

These adverse effects may result from the strategies banks will adopt in order to comply with the tougher capital and liquidity requirements (Oxford Economics, 2013; Cohen and Scatigna, 2016; and Barnejee and Mio, 2017). For instance, banks might choose to raise additional capital and liquidity and pass on the associated costs to their borrowers. This would lead to **higher lending rates or fees**, which in turn could reduce loan demand. Banks might also choose to shrink the size of their assets to meet the requirements, especially if they face either difficulty or high costs in raising new capital and liquidity. This would essentially imply a **downward shift in loan supply by banks**.

Finally, bank may opt to meet the new regulations by shifting the composition of portfolios towards less risky or more liquid assets - for instance, by replacing high-risk weighted loans with low risk-weighted ones, by increasing the proportion of government bonds and other liquid assets, or by reducing maturity of loans to less than one year-. These strategies would improve the liquidity and capital ratios with only smaller adverse effects on the overall lending volume. On the flip side, however, they will induce banks to **disproportionately cut back long-term lending and lending to riskier borrowers**. This may especially be so for the supply of housing finance to the poor.

Proposition 2: The adverse effects of the new regulations on bank lending are likely to vary substantially across banks and across countries, reflecting differences in a range of factors including:

- **The pre-reform levels of bank capital and liquidity:** Junge and Kugler (2013) note for example that the impact of higher capital requirements on the Swiss economy is likely to be negligible because the majority of Swiss banks already meet the Basel III minimum capital requirements. Morgan and Pontines (2013) also note

that the Basel III capital adequacy rules appear unlikely to have a major negative impact on Asian economies since capital ratios in the region are already high. Indeed, the adverse effect of overall capital stringency on loan growth can be completely offset if banks hold high levels of capital (Yota and Hasan, 2017).

- **Monetary policy response:** The adverse impact of the new regulations can also be largely offset if monetary policy is able to ease in response to a widening of interest rate spreads by banks. Simulations suggest that if monetary policy is unable to respond, the peak impact could be roughly twice as large as in the scenarios with monetary policy responses (Scott and Vitek, 2012).
- **The length of the transition period:** A longer transition period to the new levels of capital and liquidity not only stretches out the adjustment over time, but it also facilitates bank adjustment strategies based on increasing capital rather than cutting lending (Kashap and al., 2010; Scott and Vitek, 2012). Thus, phasing in the new requirements sufficiently gradually can moderate the potential adverse impact.
- **Banks' strategies for meeting the new requirements:** There are actually some ways banks can adjust to comply with the new requirements without adversely impacting credit prices and availability (BCBS, 2010c; Elliot and al., 2012; Cohen and Scatigna, 2016). For example, banks can achieve higher capital ratio through the accumulation of retained earnings rather than through downward adjustments in lending. Also, banks can absorb any additional costs associated with the new reforms by lowering returns to shareholders, by paying less for deposits and other borrowed funds, or by reducing operating expenses, rather than by increasing lending rates.
- **The characteristics of the economy and its financial system:** These characteristics may determine which strategies banks will use to meet the new requirements and, ultimately, the size of the adverse impacts on lending. For example, the ability of banks to charge more for their loans is conditional on factors such as the degree of banking competition and the elasticity of loan demand (BIS, 2010). Also, the ability of banks to achieve higher capital ratio through retained earnings rather than through downward adjustment in lending is conditional on their profitability (Cohen and Scatigna, 2016; Andrle and al., 2017). And the costs of meeting

the new regulations are likely to be somewhat less important in an environment where banks can easily access large sums of capital and liquidity.

Proposition 3: Assessing the total impact of the new regulations on lending should consider not only the potential adverse impacts, but also the potential positive effects on bank lending and the substitution effects towards non-bank lending.

- **Potential positive effects on bank credit:** Actually, as banks build up capital and liquidity base to comply with the new regulations, they become safer and more resilient and may see a lowering in their average funding due to improved market confidence in their solvency. This could improve credit margins and help lending

growth in the long run, thereby reducing the adverse impacts on bank lending (BCBS, 2010c; Capgemini, 2014).

- **Effects on non-bank credit:** To the extent that non-bank financial companies would remain largely unaffected by the new regulations, they would gain competitive advantage for those activities in which they compete with banks. This would result in substitution from bank credit to nonbank credit, reducing the potential adverse effects of the new regulations on total credit. The substitution effect is likely to be much stronger in countries with broader opportunities for substitution between forms of finance; however, it appears unlikely to fully compensate the decline in bank credit (Oxford Economics, 2013; Cizel and al., 2016).

4 ADDITIONAL CHALLENGES POSED BY IFRS9

IFRS 9 introduces a new impairment model based on expected credit losses (ECL) to replace the incurred losses of the previous international accounting standard (IAS 39).

Under the ECL model, **loan loss allowance or provisions need to be recorded on initial recognition (once a loan goes on the books), and at each subsequent reporting period, even if no actual loss event has taken place.** This means that the recognition of credit losses¹⁵ is required even if the loan is highly likely to be fully collectible. Under the previous IAS 39 incurred loss model, the recognition of credit losses is delayed until there is any objective evidence of impairment such loan arrears. And provision is assessed for impaired assets at the balance sheet reporting period only.

The IAS 39 incurred loss model attracted criticisms because it can result in “too little and too late” recognition of credit losses. For example, it appeared that credit provisioning prior to the 2008 global crisis did not rise enough to reflect the true extent of losses that materialized during the crisis. Arguably, the ECL approach is more prudent as it is designed to result in earlier recognition of credit losses for all credit exposures, that is, prior to the occurrence of a loss event. In other words, provisions are required for future losses.

On the flip side, however, the adoption of the ECL approach is widely expected to result in higher credit loss allowances, with a corresponding reduction in the profits of many banks and similar financial institutions. These **financial**

institutions may therefore respond by curtailing lending, and by reviewing product terms, such as maturity, pricing and loan-to-value ratio, especially for longer duration loans such as mortgages. In addition, financial institutions may also reduce their exposure with higher-risk clients and poor guarantees, which are most likely to be vulnerable to economic changes, and to require higher loan loss allowance in the future.

Another potential challenge pose by the IFRS 9 impairment rules is the complexity of credit risk models that may be involved in estimating future losses. Under the previous approach (IAS 39), only past events and current conditions are considered when determining the amount of impairment (i.e., the effects of future credit loss events cannot be considered, even when they are expected). The new approach requires banks to estimate expected losses at each reporting period, on the basis of not only past events and current conditions, but also reasonable and supportable forecasts of future economic conditions, including how macro-economic factors and borrower quality are likely to change in the future. This will require banks to develop and/or update their credit risk systems. And it is likely that the related costs will be accounted for in lending rates and fees.

¹⁵ Credit loss is defined as the present value of the difference between all the contractual cash flows that are due to an entity and the cash flows that it actually expects to receive ('cash shortfalls'). Credit loss is discounted using the original effective interest rate (or the credit adjusted effective interest rate for purchased or originated-credit impaired financial assets). Expected credit loss (ECLs) is the sum of all possible credit losses, weighted by the probability of the credit losses occurring.

Banks will also need to use large amount of forward-looking data in addition to historical and current data, and to exercise significant judgement about different economic scenarios. For many banks in Africa, this will be a huge operational

challenge, especially given the limited availability of quality data. The challenges will be far greater for small banks with less sophisticated lending methodologies in place.

5 BASEL III IMPLEMENTATION IN WAEMU AND SOUTH AFRICA

Since the impacts of the Basel III rules are likely to vary by country or region, bank's regulatory authorities will understandably follow different approaches regarding the implementation of these rules in their jurisdictions. Actually, the Basel framework recognizes that differences in the structure and development of financial systems may warrant different implementation approaches. Accordingly, it provides for a number of national discretions to allow the standards to be implemented differently in different jurisdictions (BCBS, 2014b).

In South Africa, the only African country member of the Basel Committee, the main Basel III standards have been adopted within the BCBS's agreed upon timeline. The South African banking sector regulator, specifically the South African Reserve Bank (SARB), has implemented domestic requirements via a number of legally enforceable instruments, including the Bank Act, the "regulations relating to banks (the Regulations)", Directives and Circulars, which apply uniformly to all banks and banking groups in the country. The SARB has also applied phase-in arrangements in line with the Basel III framework.¹⁶

- The Regulations that contained the Basel III **minimum risk-based capital** ratios were published on 12 December 2012 and implemented with transitional arrangements from 1 January 2013 to 1 January 2015.
- A 4% **leverage ratio requirement**, while Basel III required a minimum of 3%, is defined in the amended regulations published on 20 May 2016 and implemented with effect from 1 July 2016.
- The Basel III **capital conservation buffer and capital countercyclical buffer** are contained in the Regulations published on 12 December 2012 and implemented with transitional arrangements from 1 January 2016 to 1 January 2019.
- The **capital surcharge for G-SIB** is not applicable since the South African Reserve Bank is not the home supervisor to any G-SIB.⁸
- The **D-SIB capital requirements** are addressed in the regulations that were published on 12 December 2012 and implemented with a transition period between January 2016 and January 2019. The relevant additional minimum requirement imposed on D-SIB is specified by National Authorities from time to time. A subsequent directive published in 2013 specifies the application of the amended capital framework, including the D-SIB

requirements. Any subsequent amendments thereto shall become a minimum standard with effect from 1 January 2019.

- The Basel III **LCR standards** were implemented via Regulations issued in 2012, with effect from 1 January 2013. Revisions to the LCR regulations were made via Directives over 2013 and 2014; and were implemented with effect from January 2015. Those revisions were subsequently incorporated into the amendments to the Regulations, published on 10 April 2015.
- Finally, for the **NSFR**, South Africa adopted the internationally agreed implementation date of January 2018.

Overall, following a regulatory consistency assessment conducted by the BCBS, these South African regulations were found to be compliant with the standards prescribed under the Basel framework.¹⁴

In the WAEMU, the regional Council of Ministers in June 2016 adopted a set of regulatory reforms¹⁷ towards the implementation of the Basel standards in the region, with effect from 1 January 2018. Key components of the new reforms, which apply to all banks in the region, include the following:

- **A minimum capital adequacy ratio of 9%**, comprising **minimum common equity Tier 1 capital of 5%** and **minimum total Tier 1 capital of 6%** of risk-weighted assets.
- **A capital conservation buffer** comprising common equity of 2.5% of risk-weighted assets, and **a capital countercyclical buffer** imposed within a range of 0-2.5% also comprising common equity. Both capital buffers are imposed over and above the regulatory minimum capital adequacy ratio.

¹⁶ For more details, see: "Assessment of Basel III risk-based capital regulations – South Africa" (www.bis.org/bcbs/publ/d322.pdf), and "Assessment of Basel III LCR regulations – South Africa" (www.bis.org/bcbs/publ/d323.pdf). See also the "Regulations relating to banks" on the South African Reserve Bank website.

¹⁷ The reforms can be accessed online on the BCEAO website: <https://www.bceao.int/Decision-no013-24-06-CM-UMOA-relative-au-dispositif-prudentiel-applicable-aux.html>

- **Additional capital requirements for regional systemically important banks (RSIB)**, comprising common equity Tier 1 capital, and imposed over and above the other capital requirements. The BCEAO shall determine the list of RSIB and the additional capital requirements that would apply to them.
- **A minimum Tier 1 leverage ratio of 3%**, which the Banking Commission can increase or decrease for a specific bank to consider idiosyncratic risk.
- A **short-term liquidity ratio (LCR)** of at least 100%, and a **structural long-term liquidity ratio (NSFR)** of at least 100%. The BCEAO is yet to take other measures to clarify operational details on the computation of each of the two liquidity ratios, as well as applicable transitional arrangements for their implementation.

As for the implementation of the risk-based capital requirements, the June 2016 reforms introduced transitional arrangements spanning from January 2018 until 2022. In particular, the regulatory 9% minimum capital adequacy ratio and the 2.5% capital conservation buffer will become fully effective in 2022. However, the 5% minimum common equity Tier 1 capital ratio, the 6% minimum Tier 1 capital ratio, and the 3% minimum Tier 1 leverage ratio are fully applicable from January 2018.

Overall, even though the implementation plan is behind schedule vis-à-vis the BCBS agreed upon timeline, the regulatory standards adopted in the WAEMU are in line with the Basel standards. The minimum capital adequacy ratio (9%) and the minimum common equity Tier 1 capital ratio (5%) set by regional authorities are even higher than the minimums required under the Basel III framework (respectively 8% and 4.5%).

On the treatment of housing loans in particular, we recall that, according to the Basel framework, "lending fully secured by mortgages on residential property that is or will be occupied by the borrower, or that is rented, will be risk-weighted at 35%. In applying the 35% weight, the supervisory authorities should be satisfied, according to their national arrangements for the provision of housing finance, that this concessionary weight is applied restrictively for residential purposes and

in accordance with strict prudential criteria, such as the existence of a substantial margin of additional security over the amount of the loan based on strict valuation rules."¹⁸

In line with these Basel rules, the WAEMU's regulatory authorities, in the set of reforms adopted in June 2016, required that lending secured by mortgages on residential property should be risk-weighted at 35%, provided that: 1) the loan-to-value ratio is below 90%, and 2) the borrower's debt service coverage ratio is below 40%. A higher risk-weight may apply when the ratio of bank's non-performing housing loans to total housing loans exceeds a threshold as established by the BCEAO. When the two conditions aforementioned are not fulfilled, a 75% risk-weight applies.¹⁴

In South Africa, regulations prescribe that loans that are fully secured by mortgages on residential property be given risk-weights depending on the security of the parts of the loans. As a result, the loan is booked as a single loan, but the portions of it are given different risk weights. For example, a loan of ZAR 105 granted on a house with a market value of ZAR 105 is given the following risk weights: ZAR 80 a 35% risk weight, ZAR 19.9 a 75% risk weight and ZAR 5.1 a 100% risk weight.¹⁵

While the Basel framework does not address risk-weight splitting, the SARB believes "that the treatment using two or three risk weight categories on a single loan is consistent with the Basel framework because the amount of lending up to 80% of the value of the collateral is protected by a substantial margin of security from the collateral value. The fact that there is a second part, and potentially a third part, does not, in their view, impair the credit quality of the first part of the loan."¹⁵

Table 1 below summarizes the details, which we have just described, on the adoption of the Basel III standards in the WAEMU countries and South Africa as of end December 2017. The focus is on the Basel III standards related to capital and liquidity requirements. We use the **green** color code to identify the standards which are or have been implemented within the internationally agreed upon timeline.

¹⁸ See "Assessment of Basel III risk-based capital regulations – South Africa" (www.bis.org/bcbs/publ/d322.pdf).

Table 1: Adoption of the Basel III regulatory framework in the WAEMU and South Africa (a)

		BCBS deadlines/ Transition periods (b)	Basel III standards	WAEMU (c)	South Africa
Capital	Minimum common equity Tier 1 capital	Jan 2013- Jan 2015	4.5%	5%	4.5%
	Minimum Tier 1 capital	Jan 2013- Jan 2015	6%	6%	6%
	Minimum Total capital adequacy ratio		8%	9%	8%
	Capital conservation buffer	Jan 2016 – Jan 2019	2.5%	2.5%	0 – 2.5%
	Min. total capital + conservation buffer		10.5%	11.5%	8% - 10.5%
	Capital countercyclical buffer	Jan 2016 – Jan 2019	0% - 2.5%	0% - 2.5%	0 – 2.5%
	Minimum leverage ratio	Jan 2018	3%	3% (d)	4%
	GSIB – Additional min. capital requirement	Jan 2016 – Jan 2019	0% - 3.5%	N/A (e)	N/A (e)
	DSIB- Additional min. capital requirement	Jan 2016 – Jan 2019	(f)	(f)	(f)
Liquidity	Minimum liquidity coverage ratio (LCR)	Jan 2015	100%	100% (g)	100%
	Net stable funding ratio (NSFR)	Jan 2018	100%	100% (g)	100%

Notes:

1. We use the green color in the Table to indicate the standards that have been implemented within the BCBS agreed deadlines.
2. All dates are as of 1 January. The ends of the transition periods in the table are the dates when the standards are due to become fully effective.
3. The WAEMU- West African Economic and Monetary Union – covers 8 member countries: Benin, Burkina-Faso, Cote d'Ivoire, Guinea Bissau, Mali, Niger, Senegal, and Togo. The West African Monetary Union (WAMU) and the WAEMU cover the same 8 countries. The BCEAO - The BCEAO (Banque Centrale des Etats de l'Afrique de l'Ouest) is the central bank of the WAMU and the WAMU Banking Commission is the financial sector supervisor.
4. The Banking Commission can increase or decrease the minimum leverage ratio for a specific bank to take into account idiosyncratic risk.
5. The WAEMU and South Africa are not the home to any G-SIB.
6. In line with the BCBS framework for dealing with D-SIB, the relevant additional minimum requirement imposed on D-SIB is specified by National or regional Authorities from time to time.
7. The BCEAO is yet to take measures to clarify operational details on the computation of each of the two liquidity ratios, as well as applicable transitional arrangements for their implementation.

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Dr Nketcha Nana holds a Ph.D. in Economics from Laval University in Québec, Canada. He has worked and consulted for over 15 years for leading development institutions, including for the International Finance Corporation, the African Development Bank, and the United Nations Economic Commission for Africa



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