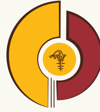

COFEB ABstracts

No. ABC/2022/07/009

BANK LIQUIDITY AND FINANCING OF THE ECONOMY IN WAEMU

OCTOBER 2022

BCEAO
BANQUE CENTRALE DES ETATS DE L'AFRIQUE DE L'OUEST

COFEB
CENTRE OUEST AFRICAIN DE FORMATION ET D'ETUDES BANCAIRES

GENERAL DIRECTORATE OF COFEB
DIRECTORATE OF RESEARCH AND PARTNERSHIPS

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The opinions expressed in this paper are the sole responsibility of the authors and do not represent those of the BCEAO

PREAMBLE

The West African Center for Banking Studies and Training (COFEB) is the Central Bank of West African States (BCEAO) entity in charge of capacity-building activities and economic and financial research. Since November 2019, the highest authorities of the Bank have decided to transform this Regional Center by expanding its mandates with the creation of three Directorates, namely, the Teaching and Training Programs Directorate, the Research and Partnerships Directorate and the Administrative Affairs and Communication Directorate, under the responsibility of a General Manager.

Through this institutional transformation, the vision of the BCEAO authorities is to make COFEB a renowned international center of excellence in training and research. Like all central banks, the BCEAO must play a leading role in the process of generating knowledge and disseminating it to the public and policymakers. This will contribute to the transparency process recommended by international standards. In addition, as an economic and financial advisor to Governments, it has a duty to inform and raise awareness among national authorities about new challenges and solutions to their economic issues.

Within this framework, several technical studies, based on quantitative methods, are published each year on topics of great interest to the economies of WAEMU. To disseminate the main messages and lessons learned from these technical studies, we have deemed it useful to create a new publication series called *"COFEB ABstracts or ABCs"*.

In this series, research findings are summarized and expressed in readily accessible language.

In fact, the *"COFEB ABstracts"* are intended to help highlight the findings of studies and research conducted at BCEAO, with a view to reaching the widest possible audience and enlightening policymakers on specific economic and financial issues.

Ousmane SAMABA MAMADOU,
General Manager of COFEB

ABOUT THE TOPIC OF THE STUDY

This nineth issue of the ***"COFEB Abstracts"*** *series focuses on* ***"Bank liquidity and financing of the economy in WAEMU"****. It derived from a study published in the Bceao Working Paper Series (Document d'Etude et de Recherche, DER) No. COFEB/DER/2021/04 and conducted by Yao Dossa Tadenyo in December 2021.*

The subject of this study is directly related to the BCEAO's monetary policy. Interest in the role of bank liquidity in financing economic activities is a core issue in the WAEMU financial sector, which is dominated by commercial banks. The unique structure of the financial sector gives banks a key role in monetary policy transmission mechanisms. This situation calls for special attention to be paid to their lending behavior. Moreover, the need to ensure sound financing of economic activity requires the continuous refining of our understanding of the relationships between the various factors that determine the growth of bank lending.

Far from being a consensual topic, this issue has given rise to various studies, some of which have found a positive link, while others have concluded that the link is either negative or not significant. Against this backdrop, the present study seeks to shed some light on the relationship between bank liquidity and bank loan growth, based on quarterly data from an unbalanced panel of 94 banks in WAEMU over the 2010-2019 period.

The results show that bank loan growth is determined by specific bank characteristics, such as size, liquidity, bank risk, loan portfolio quality, etc. Capital has a significant influence on bank loan growth through its interaction with bank liquidity. Macroeconomic factors such as growth and inflation also play a significant role in the dynamics of bank credit supply in the Union.

The lessons learned from this study contributes to the reflections and debates in the policy-making bodies of the Central Bank, in particular the Monetary Policy Committee.

Ndèye Amy NGOM SECK,
Director, Research and Partnerships

Introduction

The liquidity held by a bank is a measure of its capacity to "meet both expected an unexpected cash and collateral obligations as they become due", (Valla et al., 2006). This financial capacity lies at the heart of the banks' intermediation role and constitutes a factor in their vulnerability. This is because banks borrow on the short-term resource markets to finance longer-term uses. A shortage of liquidity exposes banks to liquidity risk, i.e., the risk of not being able to meet their commitments according to their deadline. The significance of liquidity risk and the need to prevent it from taking on a systemic dimension has been highlighted by financial crises, including the most recent one in 2007-2008. This justifies the emphasis placed on banking supervision and the particular attention paid to liquidity requirements in the Basel II-III recommendations.

To protect themselves against liquidity risk, banks resort to borrowing on the interbank market or seek refinancing from the Central Bank. In WAEMU, the Central Bank's liquidity injections for bank refinancing have been steadily increasing since 2007. By way of illustration, the amount of requests for advances rose from 77.56 billion CFA francs on December 24, 2007, to 4,610.96 billion on December 30, 2019. In addition, the cumulative annual value of interbank exchanges reached 47,134.84 billion in 2019, compared with 1,489.70 billion in 2007.

The economic literature shows that bank liquidity encourages bank lending. In a situation of low liquidity risk, banks have an incentive to extend more credit (Acharya and Naqvi, 2012; Polizzi et al., 2020; Dang, 2019; Berrospide, 2013; Cornett et al., 2011, etc.). However, this assumption is not unanimously accepted. Other studies report that higher funding liquidity is unfavorable to the growth of bank lending, as a result of idle immobilization of financial resources due to the build-up of liquidity (Rabab'ah, 2015; Dahir et al., 2018; Adzis et al., 2018, etc.).

This study[1] is a contribution to the literature, based on data from WAEMU banks. More specifically, it attempts to answer the following questions : i) does bank liquidity affect bank loan growth in WAEMU?, and ii) do Central Bank liquidity injections have a significant effect on banks' lending behavior?

I. Interest of the study

This study is of interest on two main levels. Firstly, it addresses the relationship between funding liquidity and bank lending in the context of developing countries, particularly those in WAEMU. In this respect, the study stands out for its assessment of the effect of liquidity injections on the financing of the economy, and provides a better understanding of their impact on the lending behaviors of banks. Secondly, the study provides an empirical basis for discussions on how closely the monetary authorities' interventions are aligned with the banking regulatory framework.

1 - Yao Dossa TADENYO, DER No. COFEB/DER/2021/04, December 2021

II. Methodological approach

The methodological framework is derived from empirical research exploring the direct and indirect effects of liquidity on bank loan growth. This research uses Bernanke and Blinder's (1988) analytical framework of the bank credit transmission channel. The derivation for the purpose of analyzing the effects of the characteristic features of banks on their lending behaviors gave rise to the specification used in the pioneering work of Ehrmann et al. (2001).

Several specifications have been implemented in the present study. The first is a linear model, which assumes linear effects between the dependent variable and the explanatory variables. The second specification introduces an interactive effect between bank liquidity indicators and capital, which would mean that the relationship between bank liquidity and bank lending is non-linear. Finally, the third specification uses the endogenous threshold model inspired by Kremer et al. (2013), Baum et al. (2013), and Lay (2020). This specification postulates the existence of a threshold effect for bank liquidity, i.e., a threshold above which liquidity would be favorable to bank loan growth.

III. Study results, lessons learned, and recommendations

Estimates were based on panel data from 94 WAEMU banks whose information is available for the 2010-2019 period.

The results showthat the growth of bank lending is determined by specific bank characteristics, such as (bank) size, liquidity, investments in government securities, bank risk and loan portfolio quality. Capital influences banks' lending activity through its interaction with liquidity. In addition, bank lending behavior also depends on variables in the macroeconomic environment, such as real growth and inflation, as well as the quality of regulation.

The estimation of a model allowing for a threshold effect confirms the results of the linear and interactive effect models between bank capital and liquidity. In addition, the capital effect appears positive and significant at a 1% risk threshold. Thus, higher capitalization strengthens banks' capacity to absorb losses and promotes the development of credit for the private sector. This result supports the hypothesis of a refinancing threshold effect influencing the relationship between loan supply and the level of capitalization. This threshold stood at 2,509.77 billion CFA francs over the 2010-2019 period and varies upwards and downwards, depending on economic trends. Beyond this amount of Central Bank advances, the marginal effect of bank liquidity on the growth of bank loans appears positive and significant.

These new elements of analysis may help to fine-tune the BCEAO's interventions through its various refinancing windows.

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