

# GLOBAL JOURNAL

OF MANAGEMENT AND BUSINESS RESEARCH: B

## Economics and Commerce



A Business Risk Approach

Marginal Diminishing Returns

Highlights

Weapon to Fight Corruption

Economic and Monetary Union

Discovering Thoughts, Inventing Future

VOLUME 20    ISSUE 1    VERSION 1.0



GLOBAL JOURNAL OF MANAGEMENT AND BUSINESS RESEARCH: B  
ECONOMICS AND COMMERCE

---



GLOBAL JOURNAL OF MANAGEMENT AND BUSINESS RESEARCH: B  
ECONOMICS AND COMMERCE

---

VOLUME 20 ISSUE 1 (VER. 1.0)

© Global Journal of  
Management and Business  
Research. 2020.

All rights reserved.

This is a special issue published in version 1.0  
of "Global Journal of Science Frontier  
Research." By Global Journals Inc.

All articles are open access articles distributed  
under "Global Journal of Science Frontier  
Research"

Reading License, which permits restricted use.  
Entire contents are copyright by of "Global  
Journal of Science Frontier Research" unless  
otherwise noted on specific articles.

No part of this publication may be reproduced  
or transmitted in any form or by any means,  
electronic or mechanical, including  
photocopy, recording, or any information  
storage and retrieval system, without written  
permission.

The opinions and statements made in this  
book are those of the authors concerned.  
Ultrapublishing has not verified and neither  
confirms nor denies any of the foregoing and  
no warranty or fitness is implied.

Engage with the contents herein at your own  
risk.

The use of this journal, and the terms and  
conditions for our providing information, is  
governed by our Disclaimer, Terms and  
Conditions and Privacy Policy given on our  
website [http://globaljournals.us/terms-and-condition/  
menu-id-1463/](http://globaljournals.us/terms-and-condition/menu-id-1463/)

By referring / using / reading / any type of  
association / referencing this journal, this  
signifies and you acknowledge that you have  
read them and that you accept and will be  
bound by the terms thereof.

All information, journals, this journal,  
activities undertaken, materials, services and  
our website, terms and conditions, privacy  
policy, and this journal is subject to change  
anytime without any prior notice.

Incorporation No.: 0423089  
License No.: 42125/022010/1186  
Registration No.: 430374  
Import-Export Code: 1109007027  
Employer Identification Number (EIN):  
USA Tax ID: 98-0673427

## Global Journals Inc.

(A Delaware USA Incorporation with "Good Standing"; Reg. Number: 0423089)

Sponsors: *Open Association of Research Society*  
*Open Scientific Standards*

### *Publisher's Headquarters office*

Global Journals® Headquarters  
945th Concord Streets,  
Framingham Massachusetts Pin: 01701,  
United States of America

USA Toll Free: +001-888-839-7392  
USA Toll Free Fax: +001-888-839-7392

### *Offset Typesetting*

Global Journals Incorporated  
2nd, Lansdowne, Lansdowne Rd., Croydon-Surrey,  
Pin: CR9 2ER, United Kingdom

### *Packaging & Continental Dispatching*

Global Journals Pvt Ltd  
E-3130 Sudama Nagar, Near Gopur Square,  
Indore, M.P., Pin:452009, India

### *Find a correspondence nodal officer near you*

To find nodal officer of your country, please  
email us at [local@globaljournals.org](mailto:local@globaljournals.org)

### *eContacts*

Press Inquiries: [press@globaljournals.org](mailto:press@globaljournals.org)  
Investor Inquiries: [investors@globaljournals.org](mailto:investors@globaljournals.org)  
Technical Support: [technology@globaljournals.org](mailto:technology@globaljournals.org)  
Media & Releases: [media@globaljournals.org](mailto:media@globaljournals.org)

### *Pricing (Excluding Air Parcel Charges):*

Yearly Subscription (Personal & Institutional)  
250 USD (B/W) & 350 USD (Color)

# EDITORIAL BOARD

GLOBAL JOURNAL OF MANAGEMENT AND BUSINESS RESEARCH

## *Dr. John D. Theodore*

American Military University  
JDT Management Consultants, President.  
D.B.A., Business Economy  
University of South Africa  
Ph.D. Aristotelian University  
Business Administration  
Ph.D. Administration, University of Kansas  
USA

## *Dr. R. Allen Shoaf*

B.A., M.A., Ph.D. Cornell University  
Cornell University, Teaching Assistant in the English  
Department,  
University of Florida, US

## *Dr. Mehdi Taghian*

Senior Lecturer  
Faculty of Business and Law  
BL Deakin Business School  
Melbourne Burwood Campus  
Australia

## *Dr. Agni Aliu*

Ph.D. in Public Administration,  
South East European University, Tetovo, RM  
Asociater profesor South East European University,  
Tetovo, Macedonia

## *Dr. Wing-Keung Won*

Ph.D., University of Wisconsin-Madison,  
Department of Finance and  
Big Data Research Center  
Asia University,  
Taiwan

## *Prof. Moji Moatamedi*

Honorary Vice Chair  
Ph.D., at The University of Sheffield,  
MBA, Manchester Business School  
University of Manchester  
UK

## *Professor Maura Sheehan*

Professor, International Management  
Director, International Centre  
for Management & Governance Research (ICMGR)  
Ph.D. in Economics  
UK

## *Dr. Carl Freedman*

B.A., M.A., Ph.D. in English, Yale University  
Professor of English, Louisiana State University, US

## *Dr. Tsutomu Harada*

Professor of Industrial Economics  
Ph.D., Stanford University, Doctor of Business  
Administration, Kobe University

## *Dr. Xiaohong He*

Professor of International Business  
University of Quinipiac  
BS, Jilin Institute of Technology; MA, MS, Ph.D.,  
(University of Texas-Dallas)

*Dr. Carlos García Pont*

Associate Professor of Marketing  
IESE Business School, University of Navarra  
Doctor of Philosophy (Management),  
Massachusetts Institute of Technology (MIT)  
Master in Business Administration, IESE, University of  
Navarra  
Degree in Industrial Engineering,  
Universitat Politècnica de Catalunya  
Web: [iese.edu/aplicaciones/faculty/facultyDetail.asp](http://iese.edu/aplicaciones/faculty/facultyDetail.asp)

*Dr. Bassej Benjamin Esu*

B.Sc. Marketing; MBA Marketing; Ph.D Marketing  
Lecturer, Department of Marketing, University of Calabar  
Tourism Consultant, Cross River State Tourism  
Development Department  
Co-ordinator, Sustainable Tourism Initiative, Calabar,  
Nigeria

*Dr. Ivona Vrdoljak Raguz*

University of Dubrovnik,  
Head, Department of Economics and Business  
Economics,  
Croatia

*Dr. Charles A. Rarick*

Ph.D.  
Professor of International Business  
College of Business  
Purdue University Northwest  
Hammond, Indiana US

*Dr. Albrecht Classen*

M.A. (Staatsexamen), Ph.D. University of Virginia,  
German  
Director, Summer Abroad Program, Medieval Europe  
Travel Course

*Dr. Söhnke M. Bartram*

Department of Accounting and Finance  
Lancaster University Management School  
Ph.D. (WHU Koblenz)  
MBA/BBA (University of Saarbrücken)  
Web: [lancs.ac.uk/staff/bartras1/](http://lancs.ac.uk/staff/bartras1/)

*Dr. Dodi Irawanto*

Ph.D., M.Com, B.Econ Hons.  
Department of Management  
Faculty of Economics and Business  
Brawijaya University  
Malang, Indonesia

*Dr. Yongbing Jiao*

Ph.D. of Marketing  
School of Economics & Management  
Ningbo University of Technology  
Zhejiang Province, P. R. China

*Yue-Jun Zhang*

Business School,  
Center for Resource and  
Environmental Management  
Hunan University, China

*Dr. Brandon S. Shaw*

B.A., M.S., Ph.D., Biokinetics, University of Johannesburg,  
South Africa  
Professor Department of Sport and Movement Studies  
University of Johannesburg, South Africa

## CONTENTS OF THE ISSUE

---

- i. Copyright Notice
  - ii. Editorial Board Members
  - iii. Chief Author and Dean
  - iv. Contents of the Issue
- 
1. Geopolitical Risks (GPRs) and Foreign Direct Investments: A Business Risk Approach. *1-8*
  2. The Marginal Diminishing Returns/Marginal Increasing Returns in the Pursuit of Happiness. *9-12*
  3. The Effect of Pay as you Earn on Social and Economic Development in Nigeria. *13-21*
  4. Institutional Quality and Financial Development in West Africa Economic and Monetary Union. *23-36*
  5. Constructive Trust: The only True Potent Weapon to Fight Corruption among Public Officers in Nigeria. *37-46*
  6. Influence De La Concurrence Sur L'efficience Bancaire Dans Les Pays En Développement. *47-65*
- 
- v. Fellows
  - vi. Auxiliary Memberships
  - vii. Preferred Author Guidelines
  - viii. Index



GLOBAL JOURNAL OF MANAGEMENT AND BUSINESS RESEARCH: B  
ECONOMICS AND COMMERCE

Volume 20 Issue 1 Version 1.0 Year 2020

Type: Double Blind Peer Reviewed International Research Journal

Publisher: Global Journals

Online ISSN: 2249-4588 & Print ISSN: 0975-5853

# Geopolitical Risks (GPRs) and Foreign Direct Investments: A Business Risk Approach

By Nyande Fania, Chen Yan, Joseph Bikanyi Kuyon & Sow Djeri

*Dongbei University of Finance and Economics*

**Abstract-** This research seeks to investigate the effect of Geopolitical Risks on Foreign Direct Investment. Data are from all sixteen countries in West Africa. This research uses the Generalized linear model to examine the effect of geopolitical risk on Foreign Direct Investment. The findings reveal that although geopolitical risk(s) have an impact on Foreign Direct Investment, however, not all the components of Geopolitical risk(s) have the same relationship with Foreign Direct investments. The implication for this is that investors need to have sufficient information on Geopolitical Risk(s) to do a risk assessment and see whether the Geopolitical Risk(s) is within their risk appetite and risk culture. This research adds to the literature of decision theory, which states that the client must have sufficient knowledge about issues and topics of interest before making a decision.

**Keywords:** *geopolitical risk. foreign direct investment. politics. geography. macroeconomics. risk management.*

**GJMBR-B Classification:** *JEL Code: E22*



*Strictly as per the compliance and regulations of:*



© 2020. Nyande Fania, Chen Yan, Joseph Bikanyi Kuyon & Sow Djeri. This is a research/review paper, distributed under the terms of the Creative Commons Attribution-Noncommercial 3.0 Unported License (<http://creativecommons.org/licenses/by-nc/3.0/>), permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.



# Geopolitical Risks (GPRs) and Foreign Direct Investments: A Business Risk Approach

Nyande Fania <sup>α</sup>, Chen Yan <sup>σ</sup>, Joseph Bikanyi Kuyon <sup>ρ</sup> & Sow Djeri <sup>ω</sup>

**Abstract-** This research seeks to investigate the effect of Geopolitical Risks on Foreign Direct Investment. Data are from all sixteen countries in West Africa. This research uses the Generalized linear model to examine the effect of geopolitical risk on Foreign Direct Investment. The findings reveal that although geopolitical risk(s) have an impact on Foreign Direct Investment, however, not all the components of Geopolitical risk(s) have the same relationship with Foreign Direct investments. The implication for this is that investors need to have sufficient information on Geopolitical Risk(s) to do a risk assessment and see whether the Geopolitical Risk(s) is within their risk appetite and risk culture. This research adds to the literature of decision theory, which states that the client must have sufficient knowledge about issues and topics of interest before making a decision.

**Keywords:** *geopolitical risk. foreign direct investment. politics. geography. macroeconomics. risk management.*

## I. INTRODUCTION

Geopolitical Risk (GPR) poses a serious concern for investors all over the world. In Nigeria, religious and political instability caused a massive loss in oil and gas industry (Inyang 2018). Investments in Africa and much of the Middle East were affected by the Arab spring for a long time<sup>1</sup>. "Brexit"<sup>2</sup> In June 2016 are few examples of geopolitical repercussions on investment. These incidents are indicators that maximum consideration should be given to GPR when making investment decisions. The causes of GPR are, political instability, terrorism, conflict between countries or state that can disrupt business activities and international relation (Malmgren 2015,

Caldara and Iacoviello 2018), these risks are becoming significant as most important researches have identified them as essential determinants of investment decision (Carney 2016, Balcilar, Bonato et al. 2018, Caldara and Iacoviello 2018). Risks, especially political risks, are among the important determinant of FDI identified by previous writers (Barthel, Busse, et al. 2010, Baek and Qian 2011). GPR includes political risks, this fact makes it very important to ensure an assessment of all risks including the ones that are geopolitical are analyzed before making an investment decision.

Foreign direct investment (FDI) is an investment in a business by an investor from another country for which the foreign investor has control (10% or more voting stock) over the company purchased (OECD, 1998). FDI is the inflow of investment by an investor into a specific country with a view of having a controlling interest in the firm. (Jeffrey & Spaulding, 2005). Generally, FDI improves employment, productivity, and economic growth. It plays a role in development, foreign exchange, investment, and tax revenue gaps in developing countries (Smith, 1997; Quazi, 2007). The inflows of FDI can contribute to Africa's development efforts of employment generation and growth, having a stake in the global economy, the transfer of modern technologies, improving efficiency, and increasing the skills of local labor (Dupasquier & Osakwe, 2003; Anyanwu, 2003). Because of these advantages, African countries are striving to avoid any risk that might discourage foreign direct investment.

Countries in West Africa have experienced numerous of political instabilities over the years, some countries in this region are the most corrupt in the world, their economy is not booming, natural hazard affects some of these countries, and FDI inflows to West Africa are not stable. The above mentioned are the motivations for researching on West Africa.

Generally, this paper investigates whether geopolitical risks (GPRs) have an impact on FDI taking the following research objectives into cognizance: to ascertain risks associated with geopolitics; to assess if all the components of GPR(s) affect FDI the same level. In trying to fulfill these objectives, it is necessary to look at geopolitics from a business risk approach. Business risk involves looking at a business or investment as a whole and identifying events and circumstances that may affect such business from achieving its

*Author <sup>α</sup> ρ:* Ph. D. Student Dongbei University of Finance and Economics School of Accounting. e-mails: [sianyande@outlook.com](mailto:sianyande@outlook.com), [jkuyon@yahoo.com](mailto:jkuyon@yahoo.com)

*Author <sup>σ</sup>:* Professor; China Internal Control Research Center and School of Accounting, Dongbei University of Finance and Economics. e-mail: [Chenyan2001@126.com](mailto:Chenyan2001@126.com)

*Author <sup>ω</sup>:* Ph. D. Student Dongbei University of Finance and Economics School of Economics. e-mail: [Djerisow88@yahoo.fr](mailto:Djerisow88@yahoo.fr)

<sup>1</sup> The Arab Spring was about series of anti-government protests and rebellions that occurred in the Middle East in 2010. The cause of it was the result of the oppressive governance system and a low standard of living. See Noueihed, L. (2011). "Peddler's martyrdom launched Tunisia's revolution." Reuters.

<sup>2</sup> The withdrawal of the United Kingdom (UK) from the European Union (EU) led to the genesis of the term Brexit. See Clarke, H. D., et al. (2017). Brexit, Cambridge University Press.

objectives (IIA 2009). Knowing GPR is not just about forecasting market and price instability events, but it is more helpful at scanning the business environment to help strengthen investing strategy when faced with geopolitical events. (Malmgren 2015). For this research, three risk-associated variables (geography, politics, and macroeconomics) determine GPR.

This paper contributes to the literature on the rational model of decision theory, which states that the client firstly must be aware of the problem before deciding an investment decision. This paper is among the few that measures GPR with three variables (Geography, macroeconomics, and politics), and finally, this research treats GPR as a business risk.

The organization of this paper is as follows; Section two talks of the literature review. Section three is for data and methodology. The result and discussion are in four. Finally, five talks of the conclusion and implications of the research.

## II. LITERATURE REVIEW

### a) *Theoretical Framework*

Risk management relies on the concept rooted from decision theory (Vaughan 1997), which means that, the theory of decision with specific emphasis on normative and rationalistic models for decision making, connect risk management and investment. Steele and Stefánsson (2015) stated that decision theory focuses on the proof (reasoning) of an agent's choice. The normative and rationalistic model explained the ideas and logic of how decisions are made, taking into cognizance the decision maker's awareness of the issue or problem, putting forward expected outcomes, carefully creating strategies to weigh alternative means, and deciding what alternative is reasonably accepted (Simon 1960). Risks and uncertainties are the fundamental challenges facing decision-makers. Therefore, risk management attempts to tackle the unpredictability that hinders the achievement of objectives. (Commission 2004).

### b) *Conceptualization*

#### i. *Understanding Risk Appetite and Risk culture, and the Nature of Risk Management*

Collier and Agyei-Ampomah (2006), Stated to understand the nature of risk management, it is useful to know the risk appetite and risk culture of the organization. Risk appetite is the volume or amount of risk an organization is willing to take in pursuit of value. While the shared attitudes, values, and practices that define how an organization view risk in its daily activities is what is called the risk culture.

Wu, Roebuck et al. (2002), explained that the conditions and forces within an organization's internal environment, industry forces, and macro-environmental forces are the factors that give rise to business risk. Millichamp (2002), explained that external factors stem

from outside the entity and include: change in legislation; interest rates change; change in the exchange rate; perception or attitude of the public; untested technology; natural threats (such as floods); bad-debt; judicial matters; environmental issues. He continued that any of these factors could adversely affect an organization, which in turn have an impact on its financial statement.

Moeller (2007), explained that risk management is a process that starts from the identification of risks to how to respond to these risks. According to Curtis and Carey (2012), risk management involves the following stages: having an in-depth knowledge on the universe of risks that constitute to the organization's risk profile; attaching values to them (risks) using a define set of criteria including both qualitative and quantitative techniques; assessing and managing their interactions by viewing risk as a holistic approach; determining risk management priorities by comparing the level of risk against the organization's target risk levels and tolerance thresholds; and deciding on how to respond to risks.

#### ii. *Geopolitics, Geopolitical Risk and Investment*

In her book-, Geopolitics for Investor Malmgren (2015), explained that geopolitics is more than just foreign policy but an inclusive subject also dealing with vulnerability to events that are not in the scope of a country's control.

Earliest definition of geopolitics was about the interactions of geography with power and the role in international affairs of state (Kjellén 1911), since then the concept had included subject like international economics, and political integration (Agnew and Corbridge 1989), modern approach of the topic geopolitics concentrate on political discourse among international players stemming from all factors that determine the political and economic importance of a country's geographic location. (Victor, Jaffe, et al. 2006)

Geopolitics is a non-quantifiable risk, but dismissing it because of its non-quantifiable nature can cause a lot of damages for investors (Malmgren 2015). As a result of this, identifying GPR is becoming an important issue for investors. When uncertainty is too high, it can cause depression in investment, i.e., firms may prefer to wait for the uncertainty to resolve. (List and Haigh 2010, Julio and Yook 2012, Gulen and Ion 2015, Kim and Kung 2016).

#### iii. *Components of Geopolitics: Geography, Politics, and Macroeconomic*

Generally, geography is the study of the World and its features. Dictionary (2006) says, "Geopolitics is the study of how geography and economics have an influence on politics and the relations between nations and a study of the influence of such factors as geography, economics, and demography on the politics and especially the foreign policy of a state." Malmgren

(2015), explained that geopolitics include the effort of countries to project power beyond their territories to fulfill or achieve their national interest-,and because of this pursuit, geopolitics ties geography and politics. In a nutshell, geopolitics had always been closely tied to the act of mapping the world. Flint (2006), stated that geopolitics is part of human geography. Human geography involves understanding what makes places unique and how such places connect and interact (Knox and Marston 2001). Furthermore geographers not only study places but the features of such places, e.g., weather patterns, physical settings, etc.(Flint 2006)

The causes of GPR are political instability, terrorism, a conflict between countries or states that can disrupt business activities and international relations(Malmgren 2015, Caldara and Iacoviello 2018).Political instability and violence can damage investment, reduce the productiveness of the overall market, which in turn can affect profitability or survival of investment. Therefore, foreign investors tend to worry about political risk when deciding as to what foreign markets to expand into (Baek and Qian 2011). MIGA, 2011 identified three types of political risks that discourage foreign investment: first, nationalization or expropriation of foreign assets; second, irregularities in policies and regulations in FDI-related policies; and third, war and political violence, including terrorist activities.

Geopolitics is complex subject that also includes macroeconomic variables, e.g., interest rates, inflation levels, and trade barriers all affect investment decisions. For instance, any sign of price destabilizations in the global economy usually leads to a geopolitical event (Malmgren 2015).Furthermore, improving growth rates and consistent macroeconomic policies can enhance the attraction of a particular market. (Busse and Hefeker 2007)

#### c) *Foreign Direct Investment*

A well-known conceptualization and theoretical framework for FDI determinants is called the "OLI" framework. The framework" involves grouping micro- and macro-level factors that ascertain why and where multinational companies (MNCs) invest abroad. It outlines that firms invest abroad to seek for three types of advantages: Ownership (O), Location (L), and Internalization (I) advantages. the ownership aspect allows a firm to compete with other firms in the markets they operate regardless of the disadvantages of being foreign. Location advantages are those that makes the chosen foreign country a more suitable business environment for FDI. These advantages can be in the form of labor advantages, natural resources, government regulations, transport costs, macroeconomic stability, and cultural factors. Exploiting an imperfection in external markets can be referred to as Internalization advantages. A typical scenario is the

reduction of risk and transaction costs to accumulate knowledge efficiently as well as the reduction of state-generated imperfections.(Dunning 1977, 1993)

#### d) *Empirical Literature Review*

Aysan, Demir et al.(2019), analyzed the predictive power of the global (GPR) index on daily returns and the price volatility of Bit coin, ranging from the year 2010 to 2018. They found that changes in the global GPR index have predictive power on the price volatility and the returns of Bit coin.

Balcilar, Bonato et al. (2018) studied the topic of geopolitical risks and stock market dynamics of the BRICS using a hybrid approach based on the frameworks of Nishiyama, Hitomi et al. (2011), and Jeong, Härdle et al. (2012). By gathering monthly geopolitical risk data from the work of Caldara and Iacoviello (2018), they found that geopolitical risks affect the stock markets in a consistent pattern.

Caldara and Iacoviello (2018), constructed the geopolitics risk (GPR) index by counting the number of times leading newspapers publish articles that discuss the geopolitical events and risks They created a monthly index starting from 1985 by doing automated text-searches of the electronic archives of eleven (11) newspapers. They concluded that Geopolitical risks cause a decrease in real activity and stock returns.

*Kyereboah-Coleman* and *Agyire-Tettey* (2008) used Ghana as a case study on the volatility of the real exchange rate. The result shows that the volatility of the real exchange rate has a negative influence on FDI inflow.

Hailu (2010) did an empirical analysis of the demand-side determinants of the inflow of FDI to African nations-. The result shows that natural resources, labor quality, trade openness, market accession, and infrastructure condition positively and significantly affect FDI inflows.

Soumyananda (2010) investigated the factors that determine FDI in Nigeria. By using the co-integration technique, the result concludes that natural resources, trade intensity, macroeconomic risk factors like inflation, and exchange rates are significant determinants of FDI flow to Nigeria.

Obida & Abu (2010) investigated the determinants of FDI in Nigeria by employing the error correction technique to analyze the relationship between market size, deregulation, political instability, exchange rate depreciation and foreign direct investment. The results reveal that the market size of the host country, deregulation, political instability, and exchange rate depreciation are the main determinants of foreign direct investment in Nigeria.

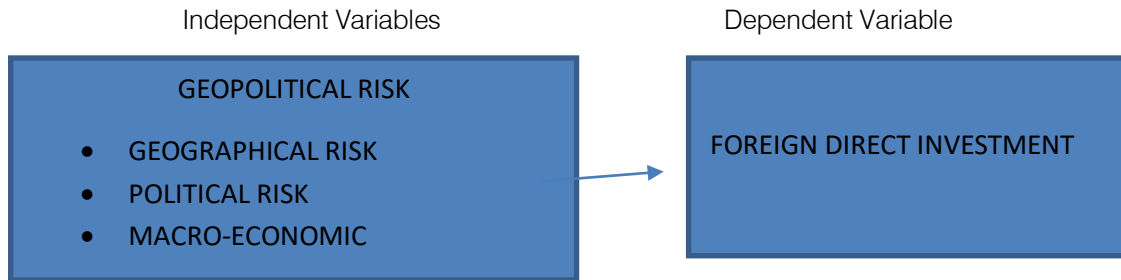
### III. DATA AND METHODOLOGY

#### a) Sample and Variables

This study used a total of sixteen countries spanning from the year 2011 to 2017 to show the link between GPR and FDI. The data focuses on countries in West Africa. West African countries use in this research are Benin, Burkina Faso, Cape Verde, The Gambia,

Ghana, Guinea, Guinea-Bissau, Ivory Coast, Liberia, Mali, Mauritania, the Niger, Nigeria, Senegal, Sierra Leone, and Togo.

This study uses four variables. One dependent variable is Foreign Direct Investment (FDI), and the other three independent variables are Geographical Risk (GR), Political risk (PR), and Macroeconomic Risk (MR).



#### b) Research Model

This research uses the General least square model to effectively overcome the weaknesses of ordinary least squares to guarantee that there is an efficiency of the model parameters, unbiased standard errors, valid t statistics, and p-values, and to account for the presence of autocorrelation. Generalized Least Squares (GLS) omits the problem of heteroskedastic or auto-correlation observation. The simple form of the model is;

$$Y = X\beta + \epsilon$$

#### c) Data

The Institute for Environment and Human Security, United Nations University<sup>3</sup>, provides Information on geographical risks. Every year (since 2011), the institution has provided a world risk index in its publication titled World Risk Report. The World Risk Index indicates the probability that a country or region

will be affected by a disaster. The five components of the world risk index are exposure to natural hazards such as earthquakes, storms, floods, droughts, and sea-level rise; vulnerability of people and society to natural disaster; susceptibility, i.e., the extent societies able to cope with severe and immediate disasters; coping capacities as a function of governance disaster preparedness and early warning, medical services, social and economic security; and adaptive capacities to future natural events and climate change.

Information on political risks are from the world governance indicator provided by World Bank.<sup>4</sup> The Worldwide Governance Indicators consist of six broad dimensions of governance: Voice and Accountability, Political Stability and Absence of Violence/Terrorism, Government Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption.

Information on Macroeconomics risks is from the World Bank and the international monetary fund (IMF). Information from the work bank includes; Foreign direct investment inflows, inflation, Merchandised trade, and employment. Exchange rate data is from the International Monetary Fund exchange rate archives. See table 1 for the definition of variables and measurement.

### IV. RESULT AND DISCUSSION

#### a) General least Square Regression result

The Ordinary least square (OLS) was first used as the research model, however, the observations show Heteroskedasticity and Correlation. Therefore, the

<sup>3</sup> For this research, geographical risk is limited to a natural disaster. The World Risk index has five components of risk with the following scale; Susceptibility: 9.61-16.55 very low risk, 16.56-22.06 low risk, 22.07-31.87 medium risk, 31.98-48.06 high risk, 48.07-67.63 very high risk. Lack of adaptive capacities risk: 27.45-36.39 very low risk, 36.40-44.70 low risk, 44.71-49.40 medium risk, 49.41-57.27 high risk, 57.28-74.26 very high. Lack of coping capacities risk: 35.75-55.45 very low, 55.46-68.89 low risk, 68.90-77.85 medium risk, 77.86-84.86 high risk, 84.87-92.07 very high risk. Exposure risk: 0.10 -3.65, very low risk, 3.66-5.72 low risk, 5.73-7.44 medium risk, 7.45-10.58 high risk, 10.59-36.31 very high risk. Vulnerability Risk: 26.87-36.81 Very low risk, 36.82-46.50 low risk, 46.51-53.35 medium risk, 53.36-64.43 high risk, 64.44-75.35 very high risk

<sup>4</sup> For world Governance indicator, this study uses the percentile rank. The Percentile rank among all countries (ranges from 0 (lowest) to 100 (highest) rank). This means, the lower the percentile ranks, the higher the risk and the higher the percentile rank the lower the risk.

research model had to change from that of the ordinary least square to the General least square (GLS). The Generalized Least Squares (GLS) is a technique for estimating the unknown parameters in a linear regression model when there is some amount of correlation (Alexander Aitken 1934)

By using the GLS model, all variables of Geopolitics have a significant impact on Foreign Direct investment.

Exposures to natural hazards and Susceptibility risk have a significant impact of 0.039 and 0.008 on FDI, respectively. Exposure index has a negative relationship with FDI, which means: when the risk of exposure to the natural hazards is high, then the foreign direct investment will decrease. However, this is not the case of susceptibility risk: which is the likelihood of suffering harm in the event of a natural hazard process. The result shows that susceptibility risk has a positive effect on FDI, meaning when susceptibility risk increases, FDI also increases. An interpretation of this can be that in the case where a natural disaster causes suffering, investor sees it as a business opportunity.

Macro-economic variables; Merchandised trade, employment, exchange rate, inflation have a significant impact on FDI, respectively. Merchandised trade (trade) has an effect of 0.021 on FDI, and also a positive relationship with FDI. This means when trade openness for good increases, FDI also increases.

Employment (emp) has a significant impact of 0.001 on FDI, but with a negative relationship. Meaning, when a country's employment-population increases, then FDI decreases. Exchange Rate (exl) has a significant impact of 0.025 on FDI with a negative relationship on FDI. Finally, Inflation-GDP deflator (inf) has an impact of 0.065 on FDI with a positive relationship. Take a scenario where higher inflations mean the value of a local currency is deflating, this will lead to more investment in the foreign currency (US dollars) as it is considered stronger.

Political indicators like Voice and Accountability (VAA), Political Stability and Absence of Violence (PSNV), Government Effectiveness (GoE), Regulation Quality (Reg Q), and Control of Corruption (COC) respectively have a significant effect on FDI. VAA has a significant impact of 0.019, with a negative relationship with FDI. Both PSNV and GoE have a significant effect of 0.024 and 0.033 respectively. Also, both have a positive relationship with FDI. Meaning when there are political stability and non-violence, then FDI will increase, and where there is Government Effectiveness, FDI will also increase. COC also has a significant effect of 0.084 on FDI with a positive relationship; means in the case of less corruption, FDI will increase. Finally, strict regulations tend to cause a decline in FDI. It (Reg Q) has a significant impact on FDI.

Coefficient: Generalized least squares Panel: Homoskedastic Correlation: No auto-correlation						
Estimated covariance = 1			Number of obs = 112			
Estimated Autocorrelation = 0			Number of groups = 16			
Estimated Coefficient = 17			Time period = 7			
			Wald chi 2(16) = 121.21			
			Prob > chi = 0.0000			
fdigdp	coef	Std.Err	Z	p> z	(95% conf interval)	
exp	-1.278676	.6182243	-2.07	0.039 **	-2.490373	-.0669787
vul	-1.202087	1.937611	-0.62	0.535	-4.999735	2.59556
sus	1.966978	.7434138	2.65	0.008 ***	.5099136	3.424042
icc	.0906522	.4300737	0.21	0.833	-.7522767	.9335811
iac	.0020794	.6855016	0.00	0.998	-1.3144479	1.345638
trade	.168977	.0733236	2.30	0.021 **	.0252653	.3126887
emp	-.5072512	.1478906	-3.43	0.001 ***	-.7971114	-.2173909
exl	-.0013045	.0005824	-2.24	0.025 **	-.0024459	-.000163
icp	.0335847	.2776874	0.12	0.904	-.5106727	.577824
inf	.221492	.1198644	1.85	0.065 *	-.0134378	.4564219
vaa	-.2942941	.1252778	-2.35	0.019 **	-.5398342	-.048754
psnv	.2367074	.1052032	2.25	0.024 **	.0305129	.4429018
goe	.4868939	.2277155	2.14	0.033 **	.0405798	.933208
regg	-.8694653	.204261	-4.26	0.000 ***	-1.269809	-.4691212
rol	.2153904	.2464974	0.87	0.382	-.2677357	.6985165
coc	.3030627	.1756519	1.73	0.084 *	-.0412087	.6473341
cons	22.09875	39.53032	0.56	0.576	-55.37926	99.57676

## V. CONCLUSION AND IMPLICATIONS

GPR(s) in West Africa are an important determinant for foreign investment since it has a significant impact on the flow of foreign direct investment in West Africa. However, not all components of GPR affect the inflows of foreign direct investment in the same way.

*The implications of these findings are in two folds*

Firstly foreign investors must-have information on GPR before making an investment decisions because such risks have the potential to affect business operation. Foreign investors also need to know how GPRs affect different regions by so doing they can assess whether GPR(s) fits within their risk appetite and risk-culture. This also means, foreign firms need to have a department or consultant for the identification and assessment of GPR(s)

Secondly, government or country governance system needs to take into cognizance the GPR(s) that can cause a reduction in the flow of FDI. Components such as natural disasters, exchange rate regulation quality have a negative relationship with FDI, therefore the government needs to adjust or improve such issues or create policies that can address them

### REFERENCES RÉFÉRENCES REFERENCIAS

- Agnew, J. and S. Corbridge (1989). "The new geopolitics: the dynamics of geopolitical disorder." *A world in crisis*: 266-288.
- Aysan, A. F., et al. (2019). "Effects of the geopolitical risks on Bitcoin returns and volatility." *Research in International Business and Finance* 47: 511-518.
- Baek, K. and X. Qian (2011). "An analysis on political risks and the flow of foreign direct investment in developing and industrialized economies." *Economics, Management and Financial Markets* 6 (4): 60.
- Balcilar, M., et al. (2018). "Geopolitical risks and stock market dynamics of the BRICS." *Economic Systems* 42 (2): 295-306.
- Barthel, F., et al. (2010). "The impact of double taxation treaties on foreign direct investment: evidence from large dyadic panel data." *Contemporary Economic Policy* 28 (3): 366-377.
- Busse, M. and C. Hefeker (2007). "Political risk, institutions and foreign direct investment." *European journal of political economy* 23 (2): 397-415.
- Caldara, D. and M. Iacoviello (2018). "Measuring Geopolitical Risk. Board of Governors of the Federal Reserve System." *International Finance Discussion Paper* (1222).
- Carney, M. (2016). "Uncertainty, the economy and policy. [pdf] London: Bank of England." Available at: [Accessed 24 February 2018].
- Clarke, H. D., et al. (2017). *Brexit*, Cambridge University Press.
- Collier, P. M. and S. Agyei-Ampomah (2006). *CIMA Learning System 2007 Management Accounting-Risk and Control Strategy*, Elsevier.
- Commission, C. o. S. O. o. t. T. (2004). *Enterprise risk management-integrated framework: executive summary & framework*, American Institute of Certified Public Accountants (AICPA).
- Curtis, P. and M. Carey (2012). "COSO: Risk assessment in practice." *Deloitte & Touche LLP*. [Web blog post]. Retrieved from.
- Dictionary, M.-W. (2006). *The Merriam-Webster Dictionary*, Merriam-Webster, Incorporated.
- Flint, C. (2006). *Introduction to geopolitics*, Routledge.
- Gulen, H. and M. Ion (2015). "Policy uncertainty and corporate investment." *The Review of Financial Studies* 29 (3): 523-564.
- IIA (2009). *The role of internal auditing in enterprise-wide risk management*, The Institute of Internal Auditors Altamonte Springs, FL.
- Inyang, B. (2018). "Militancy and youth restiveness in the Niger Delta Region of Nigeria." *African Research Review* 12 (4): 65-76.
- Jeong, K., et al. (2012). "A consistent nonparametric test for causality in quantile." *Econometric Theory* 28 (4): 861-887.
- Julio, B. and Y. Yook (2012). "Political uncertainty and corporate investment cycles." *The Journal of Finance* 67 (1): 45-83.
- Kim, H. and H. Kung (2016). "The asset redeploy ability channel: How uncertainty affects corporate investment." *The Review of Financial Studies* 30 (1): 245-280.
- Kjellén, R. (1911). *Stormakterna: konturer kring samtidens storpolitik*, H. Geber.
- Knox, P. L. and S. A. Marston (2001). *Places and regions in global context: human geography*, Prentice Hall.
- List, J. A. and M. S. Haigh (2010). "Investment under uncertainty: Testing the options model with professional traders." *The Review of Economics and Statistics* 92 (4): 974-984.
- Malmgren, P. (2015). "Geopolitics for Investors." *CFA Institute Research Foundation M2015-1*.
- Millichamp, A. H. (2002). *Auditing*, Cengage Learning EMEA.
- Moeller, R. R. (2007). *COSO enterprise risk management: understanding the new integrated ERM framework*, John Wiley & Sons.
- Nishiyama, Y., et al. (2011). "A consistent nonparametric test for nonlinear causality—Specification in time series regression." *Journal of Econometrics* 165 (1): 112-127.

28. Noueihed, L. (2011). "Peddler's martyrdom launched tunisia's revolution." Reuters.

29. Simon, H. A. (1960). "The new science of management decision."

30. Steele, K. and H. O. Stefánsson (2015). "Decision theory."

31. Victor, D. G., et al. (2006). Natural gas and geopolitics: From 1970 to 2040, Cambridge University Press.

32. Wooldridge, J. M. (2015). Introductory econometrics: A modern approach, Nelson Education.

33. Wu, B. K. H., et al. (2002). "Financial statement transparency and auditor responsibility: Enron and Andersen." International Journal of Auditing 6 (3): 287-302.

34. Kyereboah-Coleman, A. and Agyire-Tettey K. F. (2008), "Effect of exchange-rate volatility on foreign direct investment in Sub-Saharan Africa: the case of Ghana (Case study)" *Journal of Risk Finance*, 9(1), 52 – 70

35. Hailu, Z. A. (2010), "Demand Side Factors Affecting the Inflow of Foreign Direct Investment to African Countries: Does Capital Market Matter?", *International Journal of Business and Management*, Vol. 5, No. 5, May, 104-116.

36. Soumyananda, D. (2010). Factors determining FDI to Nigeria: an empirical investigation. Munich Personal Rep Ec Archive (MPRA). Available at: [http://mpra.ub.uni\\_muenchen.de/28097/](http://mpra.ub.uni_muenchen.de/28097/).

37. Obida, G. W. & Abu, N. (2010). Determinants of foreign direct investment in Nigeria: an empirical analysis. *Global Journal of Human Social Science*, 10 (1): 26-30.

APPENDIX

	VARIABLE	Proxy/measurement	Definitions
1	Dependent variable FDI	Net inflows (%of GDP)	Foreign direct investment (FDI) is defined as an investment involving a long-term relationship and reflecting a lasting interest and control by a resident entity in one economy (foreign direct investor or parent enterprise) in an enterprise resident in an economy other than that of the foreign direct investor
2	Geographic Risk (independent Variable)	World risk index; I. Exposure index II. Susceptibility index III. Vulnerability index IV. Lack of coping capacities index V. Lack of adaptive capacities index	I. Exposure to natural hazards such as earthquakes, storms, floods, droughts and sea level rise. II. Vulnerability of people and society to natural disaster. III. Susceptibility risk –likelihood of suffering harm in the event of a natural hazard process. IV. Lack Coping capacities encompass lack measures and abilities that are immediately available to reduce harm and damages in the occurrence of an event. V. Lack coping adaptive capacities-lack capacities to address future natural events and climate change.
3	Macroeconomic risks (independent variable)	Merchandised trade (%of GDP) Employment-Employment to population ratio Inflation-consumer price index Inflation-GDP deflator Exchange rate The Worldwide Governance Indicators I. Voice and Accountability(VAA) II. Political Stability and Absence of Violence(PSVN)	Merchandised trade (% of GDP) the sum of merchandise exports and imports divided by the value of GDP Employment is the portion of a country population that is employed starting from the age of 15 years Inflation (CPI)-the yearly percentage change in the cost to the average consumer of a buying a basket of goods and services. Inflation (Gdp deflator)-show the rate of changes in price in the economy as a whole. Exchange rate

4	Political Risk(independent Variable)	III. Government Effectiveness (GoE) IV. Regulatory Quality (RegQ) V. Rule of Law(ROL) VI. Control of Corruption(COC)	Measurement of the quality of governance
---	--------------------------------------	-------------------------------------------------------------------------------------------------------------------------------	------------------------------------------

Coefficient: Generalized least squares Panel: Homoskedatic Correlation: No auto-correlation					
Estimated covariance=1 Estimated Autocorrelation=0 Estimated Coefficient=17			Number of obs=112 Number of groups=16 Time period=7 Wald chi 2(16) =121.21 Prob>chi=0.0000		
fdigdp	coef	Std.Err	Z	p> z	(95% conf interval)
exp	-1.278676	.6182243	-2.07	0.039 **	-2.490373    -.0669787
vul	-1.202087	1.937611	-0.62	0.535	-4.999735    2.59556
sus	1.966978	.7434138	2.65	0.008 ***	.5099136    3.424042
icc	.0906522	.4300737	0.21	0.833	-.7522767    .9335811
iac	.0020794	.6855016	0.00	0.998	-1.3144479    1.345638
trade	.168977	.0733236	2.30	0.021**	.0252653    .3126887
emp	-.5072512	.1478906	-3.43	0.001***	-.7971114    -.2173909
exl	-.0013045	.0005824	-2.24	0.025 **	-.0024459    -.000163
icp	.0335847	.2776874	0.12	0.904	-.5106727    .577824
inf	.221492	.1198644	1.85	0.065 *	-.0134378    .4564219
vaa	-.2942941	.1252778	-2.35	0.019**	-.5398342    -.048754
psnv	.2367074	.1052032	2.25	0.024**	.0305129    .4429018
goe	.4868939	.2277155	2.14	0.033 **	.0405798    .933208
regg	-.8694653	.204261	-4.26	0.000 ***	-1.269809    -.4691212
rol	.2153904	.2464974	0.87	0.382	-.2677357    .6985165
coc	.3030627	.1756519	1.73	0.084*	-.0412087    .6473341
cons	22.09875	39.53032	0.56	0.576	-55.37926    99.57676





# The Marginal Diminishing Returns/Marginal Increasing Returns in the Pursuit of Happiness

By Prof. Alexandru Trifu

*University Petre Andrei*

**Abstract-** We are dealing with a psychological aspect of our actions and behavior and, consequently, we are focused on the Psychological approach of Marginalism.

Starting with the German economist of the 19<sup>th</sup> century, Hermann Heinrich Gossen, with his Law of the Marginal Diminishing Returns, in fact his first law, passing through the analyses and approaches of this theoretical products, along with practical examples from around us, from media information, to reach the point in which to affirm that either in the diminishing returns, or increasing returns, it is a threshold above or beyond which the feeling of pleasure/fullness, even a state of happiness, tends to disappear.

This survey regards only the consuming/purchasing of goods in the pursuit of happiness, because this issue is largely and more complex as far as we can see at first sight. Therefore, no abnormal actions to have more and more units of the same kind lead to get pleasure and happiness. We deal with the stock of a thing/commodity, in terms of increasing or diminishing, affecting the income, the wealth of a person and, by consequence, the good mood or even happiness.

**Keywords:** *marginal utility, diminishing returns, satiety, happiness.*

**GJMBR-B Classification:** *JEL Code: E00*



*Strictly as per the compliance and regulations of:*



# The Marginal Diminishing Returns/Marginal Increasing Returns in the Pursuit of Happiness

Prof. Alexandru Trifu

**Abstract-** We are dealing with a psychological aspect of our actions and behavior and, consequently, we are focused on the Psychological approach of Marginalism.

Starting with the German economist of the 19th century, Hermann Heinrich Gossen, with his Law of the Marginal Diminishing Returns, in fact his first law, passing through the analyses and approaches of this theoretical products, along with practical examples from around us, from media information, to reach the point in which to affirm that either in the diminishing returns, or increasing returns, it is a threshold above or beyond which the feeling of pleasure/fullness, even a state of happiness, tends to disappear.

This survey regards only the consuming/purchasing of goods in the pursuit of happiness, because this issue is largely and more complex as far as we can see at first sight. Therefore, no abnormal actions to have more and more units of the same kind lead to get pleasure and happiness. We deal with the stock of a thing/commodity, in terms of increasing or diminishing, affecting the income, the wealth of a person and, by consequence, the good mood or even happiness.

In this psychological enterprise, people must take into account the marginal utility of a commodity, thing, not to be pushed forward by snobbish desires to have more and more.

In our opinion, we consider that *the Happiness* is organic linked with each people's personality and human specificity (body and soul), or evolution in life and activity.

**Keywords:** *marginal utility, diminishing returns, satiety, happiness.*

## I. THE THEORETICAL BACKGROUND

The German economist Hermann Heinrich Gossen (1810-1858) is considered a *proto-marginalist* and part of the third emerging direction of the Marginalist School, that is *the Austrian School of Economic Thinking*. Based on general observations on human behavior, the theory of Gossen includes, in fact, 3 (three) laws, of which *the first one* is that interesting us in the present analysis.

The Austrian classic approach of economy, *from the psychological point of view*, is based on a *causal vision*, on *the subjects' perceptions*, which represent the prime reality and on the basis of which the economic theory is built. Even *this insight* into the depth of the analysis of the phenomena and economic categories and institutions gives the specificity of *the Austrian School of Economic Thought*.

**Author:** Ph. D. University "Petre Andrei" of Iasi.  
e-mail: [trifu.alex@gmail.com](mailto:trifu.alex@gmail.com)

The important representatives of this school (Carl Menger, Friedrich von Wieser, Eugen von Böhm-Bawerk) laid the foundations of a coherent methodology for economic analyses, targeting problems related to the human being in its complexity and progress (Trifu, 2005). But, roots of this economic theoretical element are found in the works of Mercantilist and representatives of Classic Economics, such as James Steuart, Jacques Turgot, Ricardo and others.

And an important aspect which should be taken into account in our exposure is that one of the application of *the Law of Diminishing Marginal Returns* on *short term*, because otherwise, the conditions of the business and natural environments, i.e. the rest of the factors will change on medium and long term.

*The law of diminishing marginal utility*, the vector of the present analysis, is telling us that the utility/pleasure/satiety from each added/successive unit of a commodity diminishes. Known also as the *Law of Satiety Wants*, this one highlights that we are in the presence of decreasing rate of utility, even the more consume of a commodity leads to an increase in the total utility.

This is an economic law, whose action is not known by too many people, *that means the manifestation of links of resistance, essential and with permanent character in the economic/business environment.*

The keyword of this analysis regards a *break point/maximum point* in adding marginal units from a specific commodity, *point after which the benefits gained, the pleasure, satiety, happiness will start decreasing.*

Here there are *Gossen's laws of marginal utility*, emphasized in his main work published in 1854 (Gossen, eng. ed. , 1983):

1. The first one, meaningful called "The law of diminishing marginal", states that *the magnitude of a given pleasure* (desire, we may add) *decreases continuously if the person (persons) continues (continue) to consume additional units in order to satisfy this pleasure until satiety is reached.*
2. The second one, presumes that "for a person who is free to choose between several desires/pleasures, but whose time is insufficient to satisfy them all".
3. The third law, in the terms of scarcity, as a pre-condition for economic value, affirms that "a good

has value only when the demand for it exceeds the supply. Based on Gossen own logic, since the marginal utility declines as consumption, a good can have only a positive marginal utility.

Thus, by its content, *the first law is essential in the present analysis*, because it takes into account the human behavior, pleasure, wants, even of a status of happiness. An aspect presented detailed in the 3<sup>rd</sup> part is that one regarding the natural and human necessity for income and wealth. Now, only a single remark suggesting that the desire to increase income and wealth becomes a negative force in the pursuit of happiness, in the sense that *more money/more jobs do not make you a happy person*.

To a careful radiography of all Gossen's laws, it can be seen that the core of the theory of the German author is based on the terminological equality *satisfaction=utility*. Especially, it is highlighted the term of *marginal utility* (that is, exactly the last unit added from an economic good, which ensures the desired satisfaction).

Also, the day-by-day realities around us show that, in a quasi-majority of cases, psychologically speaking, people with a high material standard, with substantial gains, plan to add marginal units to their assets.

Before analyzing the opposite process of the diminishing marginal returns, we want to focus on the most important aspect of the daily life and an outstanding source of happiness: money and marginal utility of wealth (see Pettinger, 2018). More precisely, it's about of the income earned by people. Gaining an increased amount of money, as salary or bonus, in the first stage, it involves the improving the standard of living. BUT, as the income/wealth grows, the more units of money added, the more desire to possess becomes stronger and the pleasure/benefit or even, the happiness, is much diminished. Indeed, the more you have, the greater desire to accumulate is greater, but the final human goal of unit body & soul is not reached.

The money brings happiness as long as the individual comes out from poverty, famine and can afford a decent living, ensuring priority to general physiological needs, as stipulated on the first level (the basic one) of the Maslow *Pyramid of Needs* (Maslow, 1987).

## II. METHODOLOGY

The method used is that of a survey of theoretical works in this respect and, also, of the opinions of different categories of people, both from my own experience and specific activity and from magazines, news, even social media, concerning opinions of people and celebrities in different domains. Consequently, the synthesis is the next method used, in order to capture what it is defining in the human activity towards a status of satiety, happiness, either

considering the marginal utility in diminishing, or increasing it in other cases, pursuing the same result.

## III. REACHING THE HAPPINESS ALSO BY INCREASING THE MARGINAL RETURNS

Continuing the idea from the final of the first part and strictly linked to the issue, the main questions that can be asked: are the people with a higher level of wealth happier than the others with low incomes? *Is it real, or a fact, that an increase in incomes or wealth actually leads to increase happiness?* The second one, is the most important for the present analysis.

People can get pleasure, satiety, money, positional goods, but all these don't mean they are in a status of happiness. There are, exactly as in Maslow's *Hierarchy Pyramid of Needs*, each person with its personality, degree of preparation

A person could be poor, uneducated, living alone, and not be very attractive, but, psychologically speaking, still be happy, due to the consuming of added units in the desired proportion, or getting spiritual achievements (recognition/appreciation, a new status in the company or society and so on).

Pursuing *Happiness* is, for the quasi-majority of the people, to reach and fulfill the desired (dreamed) goals (no matter the nature of this goal). Few are affirming that in first place they are looking for spiritual wealth or achievements (something apart from the cruel real world).

The reverse action, that one of *increasing marginal utility returns*, for individuals, is illustrated by purchasing new units of positional/luxury commodities (only in strict limits of utility, not by a snobbish action), new qualitative scientific papers (for academicians and researchers), more medals and records for athletes and so on.

What is the finalization of this scientific endeavor? It is to link *the diminishing and increasing marginal utility* in the pursuit of happiness, maybe starting from the thought that reaching the goal or obtaining the desired goods the person will be happy. Often, this goal is, in the pursuit of a relationship, a new job, a certain amount of money, or great notoriety that we want; then we'll be happy. Yet, the lesson of the tabloids is that the famous people who have many of the things we say we want aren't happy themselves. But why? What's going on here? Precisely because they reach the 5th level of the Maslow Hierarchy of Needs and they feel suffocated and bored by things, events, which they own, or which surround them.

Among the methods leading to the status of happiness, or satiety, we consider that is that of knowing the general principles of *kabbalah*. And, starting from this point and along with *Catch 22* meaning ([www.businessdictionary.com](http://www.businessdictionary.com)), we can highlight the importance of *diminishing marginal returns* and, continuing, to reach the happiness in the other sense,

that one of *increasing marginal returns*. The literature and practices in the field reveal, in the vast majority, the situations *within an entity, using mostly more units of labor as factor of production*.

Again, we call on the example of a favorite food. Continuing to eat, i.e. to add new units from this food, we reach a point of satiety. Beyond this point, we no longer enjoy that food and the pleasure diminishes. Based on the opinions in the field (see Laitman, 2006), we are in the presence of the called *Catch-22 selfishness*, that is the situation in which you get the desired product/the good what you want, *but for a time, or permanently, you don't want any longer that good/food*. When you considered that the satiety/pleasure threshold is reached, you stop eating. And this fact, because you are no longer interested in obtaining pleasure. Seeking new and diverse pleasures all the time, it is impossible to be satisfied by them and, therefore, we feel emptier and, finally, the more frustrated we become.

If we speak in the terms of kabbalah revealed by Michael Laitman (2006), *the more selfish we become, the more intense the in-crisis is*.

Moreover, the common term *catch 22* describes a paradoxical situation from which a person cannot escape, due to contradictory rules or limitations ([www.en.wikipedia.org](http://www.en.wikipedia.org)). In fact, it is a common term synonym for an absurd or contradictory choice. The term was coined, or introduced in circulation by the American writer Joseph Heller (1923-1999) in his known novel *Catch-22*, published in 1961. The understanding-key example is that one of applying to a job, when a restriction clause is included: experience is needed to get that job. And, here intervenes *the Catch 22*, under the explanation given by Brantley Foster character in *The Secret of My Success* (1987): how to get any experience until the job that gives me the needed experience? And examples can continue.

#### IV. CONCLUSIONS

Our intention is to highlight that the *utility (the satisfaction)* was a credo for H. H. Gossen, he arguing that each and every person must fulfill his life with as much pleasure as possible.

The analysis shows us that *the Law of Diminishing Marginal Returns*, synthesizing, expresses that a larger quantity of added units of a thing/commodity can be harmful for the consumers, not leading to get pleasure, even happiness.

Each commodity, better said, each kind/type of a commodity is considered unique in its usage. Because we are in psychological domain, people intend to be satisfied when tries out something new or something much wanted. Consuming/adding the first two units, the utility is high, but the following ones will operate with diminishing marginal utility. The decision is

either to switch over to another commodity or type, or waiting for a while to consume again the desired good.

In our days, it is not possible to avoid the action of the *Law of Diminishing Returns*, which is an economic law, and due to the advances in science and technology and, at the same time, in the standards of living, people and entities/businesses must be aware of the importance and impact of the last added units from different economic goods consumed, or introduced in economic processes, in order to gain pleasure/happiness and profit/sustainability for entities.

Therefore, we don't agree with the opinion that Happiness is something which any of us *can have, right here and right now*. With obstinacy, alternative thinking of the ways to action, with clear stage goals and final one, managing the challenges of the environment, with these ingredients, we can successfully pursuing the Happiness, that is the attempt of some important goals, using positive thinking and developing, through knowledge and culture, endogenous capacities and motivation.

This simplicity of understanding the essence of life and human becoming is spectacular described both in philosophy and lyrics of a manifest-song: "don't worry (equivalent in Chinese traditional philosophy with *mei guanxi*-it doesn't matter), *be happy!*"

#### REFERENCES RÉFÉRENCES REFERENCIAS

1. Gossen, H. H. (1983) *The Laws of Human Relations and the Rules of Human Action Derived There from* (English Edition), Cambridge: MIT Press.
2. Laitner, M. (2006) *Cabala descoperită* (The revealed kabbalah), [www.yumpu.com](http://www.yumpu.com) accessed December, 27, 2019.
3. Maslow, Abraham (1987)-*Motivation and Personality*, 3rd edition, New York, NY: Harper & Row.
4. Pettinger, Tejvan (2018) *Diminishing marginal utility of income and wealth*, [www.economicshelp.org/bl og/12309](http://www.economicshelp.org/bl og/12309) accessed January 5, 2020.
5. Ponnusamy, Sundaram (2014) *The Law of Diminishing Marginal Utility or Gossen's First Law*, [www.owlcation.com](http://www.owlcation.com) accessed December 27, 2019.
6. Trifu, Al. (2005) *Eseu privind panoptic de sinapse organice ale economiei (Essay on the panoptic of organic synapses of the economy)*, Performantica Publishers, Iasi, Romania.
7. Trifu, Al. (2017) *Happiness Economics With in the Real Life*, in *Sylwan Journal*, vol. 161, issue 6, section 1.
8. \*\*\* *Catch 22 meaning*, [www.en.wikipedia.org](http://www.en.wikipedia.org) accessed December 21, 2019.
9. \*\*\* *Increasing Marginal Returns*, [www.amosweb.com](http://www.amosweb.com) accessed January 4, 2020.
10. \*\*\* *The Secret of My Success* (1987), film by Herbert Ross, Brantley Foster main character, [www.imdb.com/title](http://www.imdb.com/title) accessed December 20, 2019.

This page is intentionally left blank



# The Effect of Pay as you Earn on Social and Economic Development in Nigeria

By Osho, Augustine E., Ogunyankin Easter O. B & Fadakinte, Bukola

*Ekiti State University*

**Abstract-** This study x-rayed the impact of pay as you earn on social and economic development (proxy by gross domestic ) in Nigeria. Secondary time series panel data was collected for the period 2009 to 2018 from the Statistical Bulletin of the Central Bank of Nigeria (CBN). The study employed Ordinary Least Squares (OLS) technique based on the computer software E-view 10 version for the analysis of data, where gross domestic products (GDP) is the independent variable, proxy for social and economic development, was regressed as a function of personal income tax (PIT) and value-added tax (VAT), the dependent variables. The results of the analysis showed that both personal income tax and value-added tax have significantly positive impact on social economic development. Based on the findings, the study recommended that government should strengthen the tax administration system to broaden the tax income, and embark on tax education to ensure voluntary tax compliance.

**Keywords:** *economic development, direct tax, personal income tax, social development, value added tax.*

**GJMBR-B Classification:** *JEL Code: F63*



*Strictly as per the compliance and regulations of:*



# The Effect of Pay as you Earn on Social and Economic Development in Nigeria

Osho, Augustine E. <sup>α</sup>, Ogunyankin Easter O. B <sup>σ</sup> & Fadakinte, Bukola <sup>ρ</sup>

**Abstract-** This study x-rayed the impact of pay as you earn on social and economic development (proxy by gross domestic products) in Nigeria. Secondary time series panel data was collected for the period 2009 to 2018 from the Statistical Bulletin of the Central Bank of Nigeria (CBN). The study employed Ordinary Least Squares (OLS) technique based on the computer software E-view 10 version for the analysis of data, where gross domestic products (GDP) is the independent variable, proxy for social and economic development, was regressed as a function of personal income tax (PIT) and value-added tax (VAT), the dependent variables. The results of the analysis showed that both personal income tax and value-added tax have significantly positive impact on social economic development. Based on the findings, the study recommended that government should strengthen the tax administration system to broaden the tax income, and embark on tax education to ensure voluntary tax compliance. The study also recommended that the tax authorities should employ qualified tax professionals who should be regularly trained and be retained in the tax administration system for effective and efficient tax administration and collection.

**Keywords:** economic development, direct tax, personal income tax, social development, value added tax.

## I. INTRODUCTION

Tax is a compulsory levy imposed as an instrument for economic development. Governments use tax proceeds to render their social functions, such as: the provision of goods, maintenance of law and order, defence against external aggression, regulation of trade and business to ensure social and economic maintenance (Edame & Okoi, 2014). And also use to reduce or increase flow of cash in circulation during inflation or deflation, as industries can be more easily secured with the use of tax through the means of increasing tariff on imported goods and services. The consumption and production of particular goods and services can also be checked, monitored or reduced with the use of tax (Agbetunde, 2010). Overall, tax is seen as a compulsory levy imposed by the government through its various means on the income, capital, or consumption of its subject (Mustapha, 2010). From

*Author α:* Ph. D Department of Accounting, Achievers University, P. M. B. 1030, Owo, Nigeria. e-mail: droshoaugustine@yahoo.com

*Author σ:* Bursary Department, Rufus Giwa Polytechnic, P. M. B. 1019, Owo, Nigeria. e-mail: ogunyankinesther@gmail.com

*Author ρ:* Department of Accounting, Rufus Giwa Polytechnic, P. M. B. 1019, Owo, Nigeria. e-mail: bukolafadakinte@gmail.com

these few explanations, it could be seen that the payment of tax is a compulsory exercise on all taxable individuals and corporate bodies.

Direct tax is a tax assessable directly on the tax payer who is required to pay tax on his income or profit while indirect tax is imposed on commodities before they reach the final consumer and is paid by them upon, not as taxes, but as part of selling price of the commodity (ICAN, 2006). Personal income tax (PIT) which forms part of direct tax refers to all taxes or levies imposed on the income, salaries and wages, profit, gratuities, etc., of individuals as well as interest and dividends from companies accruing to them. This tax is further divided into two categories: Pay As You Earn (PAYE) and direct assessment tax (Mohammed, 2017).

The PAYE directly on the individual's income as a result of employment and the employee's income are taxed using a graduated scale. The tax calculated is usually deducted from the source and is done by the employer who will remit the amount to the tax authorities. The second category, direct assessment tax, is a tax levied on the individual income as a result of self-employment. This part of income tax covers income from trade, business, profession, or vacation. The payment of this tax, occurs after the individual has collected his/her gross income and filed in a return on the gross income.

In a tax system, responsibility is delegated to three key entities: the tax payers whose obligation is payment of the assessed taxes promptly and accurately, tax authorities which ensure the collection of taxes for the government and the government whose duty is the imposition of taxes to finance the activities that ultimately benefit the citizens. Thus, the tripartite constituents of an effective tax system include tax administration, policy and law for effective service delivery (Olaofe, 2008).

With the recent reduction in the collection of revenue from the oil; which is the main source of the consolidated federation revenue there is the need for all the three tiers of government to look inwards. This study therefore seeks to examine the Impact of pay as you earn and social, Economic development in Nigeria for the period 2009-2018 (10 years).

## II. LITERATURE REVIEW

### a) *Conceptual Review*

#### i. *Concept of Taxation*

Taxation is the art or process of being taxed. It is the primary source of governmental revenue. Specifically, it is an instrument for moving resources from the private hands to the public in order to achieve some of the country's economic and social goals (Ekine, 2011). The primary purpose of taxation is to raise revenue to meet huge public expenditure. That is, to generate or create revenue capable of financing the expenditure of government at all levels (Emmanuel and Charles 2015). Taxation is a powerful tool in the hands of the governments (federal, state or local) to achieve stated economic and social goals among which is economic growth.

Furthermore, taxation according to Musgrave and Musgrave (1980) can be used extensively in regulating the pattern of consumption resulting in economic stabilization. Taxes can be used to control anti-social behaviour such as smoking, drinking of alcohol and pool betting or gambling by imposition of higher tax rate on production of such goods (Cornelius, Ogar & Oka, 2016).

Moreover, Anyanwu (1993), Nzotta (2007) as well as Onyele & Nwokoacha (2016) submitted that the purposes of taxation include raising revenue for the government for administration purpose and improvement of the society. As such, it is believed that payment of tax is helpful to the person paying and the citizenry, since tax revenue is used to accomplish some economic and social goals of the country. Examples of countries that have used tax revenue to create prosperity include Netherland and Canada. In addition, tax system provides a path for government to bring together additional revenue besides income from other sources, which is needed or required in discharging its imperative obligation. A good system of taxation also presents itself as one of the most effective means of assembling a country's domestic resources and it lends itself to make sustainable environment that will encourage growth and development.

Tax revenues are usually used for the provision of public goods including the defense of country against external aggression, maintenance or upholding of law and order, and regulation of trade and business environment to guarantee social and economic justice. Strictly speaking, the entire essence of taxation is to generate revenue to advance the welfare of the inhabitants of a nation with focus on promoting the growth and development of the country's economy through the provision of essential amenities for improved public services through proper managerial system and structures. However, over the years, these benefits in Nigeria have been insignificant and revenue

from taxes has been the explanation or cause of a little proportion of total government revenue in Nigeria.

#### ii. *Concept of Pay As You Earn (PAYE)*

Although all withholding taxes aim to tax income when it is earned, only withholding on wages is commonly known as pay-as-you-earn (PAYE). This tax plays an important role in nearly all national tax system. The PAYE is an important and easy-to-collect revenue item. Its claim on the resources of the tax administration is limited, particularly if return filing by employees is restricted to those who earn substantial other income or are entitled to significant special deductions, or both. A simple PAYE does not complicate the employer's wage administration. Compliance control can focus on employers only, rather than on individual employees. Non consolidation with other income is more acceptable when other income is also subject to withholding taxation (Uwaoma & George, 2015)

The PAYE is a high-yielding revenue collector in many countries. It generates a lion's share of the personal income tax and, in industrial countries, usually exceeds the revenue of the general sales tax or value-added tax (VAT) by an ample margin

#### iii. *Concept of Value Added Tax (VAT)*

Value Added Tax (VAT) is a consumption tax levied at each stage of the consumption chain and borne by the final consumer of the product or services. Each person is required to charge and collect VAT at a flat rate of 5% on all invoiced amount on all goods and services not exempted from paying VAT, Under Value Added Tax Act 1993, as amended. Where the VAT collected on behalf of the government (output VAT) in a particular month is more than the VAT paid to other persons (input VAT) in the same month, the difference is required to be remitted to the government on monthly basis, by the taxable person (Federal Inland Revenue Services. Information Circular No 9304). Where the reversed is the case, the tax payer is entitled to a refund of the excess VAT paid. All exports are zero rated for VAT, no VAT is payable on exports. Every person, whether resident in Nigeria, who sales goods or render services in Nigeria under the VAT Act as amended is obligated to register for VAT within six months of its commencement of business in Nigeria. The registration is with the Federal Board of Inland Revenue (FBIR).

Ajakaiye, (2000) defined VAT as a "multi stage tax imposed on the value added to goods and services as they proceed through various stages of production and distribution and to services as they are rendered" which is eventually borne by the final consumer but collected at each stage of production and distribution chain. Ola (2001), said that, VAT is a tax paid at each stage of value added. It is a multi-stage tax which applies whenever goods and services are supplied by the producers. He also said that VAT are levied on the



value gained or added on the products before being sold, VAT is an output tax less input tax. He went further to say that VAT is one of indirect taxes collected by the government in this case the incidence of tax is borne by either the producer or the final consumer or shared by both.

#### iv. *Taxation Principles*

Business Dictionary.com defined as basic concepts by which a government is meant to be guided to designing and implementing an equitable taxation regime. These include:

1. *Board Basing*: Taxes should be spread over as wide as a possible section of the population, or sectors of the economy, to minimize the individual tax burden.
2. *Compatibility*: Taxes should be coordinated to ensure tax neutrality and overall good governance.
3. *Convenience*: Taxes should be enforced in a manner that facilitates voluntary compliance to the maximum extent possible. Bhartia (2009) noted that the time of payment, the manner of payment, the quality to be paid ought to all be clear and plain to the tax payer and every other person.
4. *Earmarking*: Tax revenue from a specific source should be dedicated to a specific purpose only when there is a direct cost – and- benefit link between the tax source and the expenditure, such as the use of motor fuel tax for road maintenance and also education tax for buying educational materials. However, what we are experiencing today in Nigeria is fiscal indiscipline, corruption and misappropriation of funds.
5. *Efficiency*: Tax collection efforts should not cost an inordinately high percentage of tax revenue. This principle seems to be lacking in Nigerian tax system. World Bank Report says that for every N100 that business has to pay in taxes, they pay about N30 in compliance costs. According to the minister of finance Okonjo-Iweala, this is a waste of capital.
6. *Equity*: Taxes should equally burden all individuals or entities in similar economic circumstance. Equity Principle states that tax payer should pay the tax in proportion to his income (Anyanfo (1996) cited in Ogbonna & Ebimobowei, 2012)
7. *Neutrality*: Taxes should not favour any one group or sector over another, and should not be designed to interfere with or influence individual decisions making.
8. *Predictability*: Collection of taxes should reinforce their inevitability and regularity.
9. *Restricted Exemptions*: Tax exemptions must only be for purposes (such as to encourage investment) and for a limited period.

10. *Simplicity*: Tax assessment and determination should be easy to understand by an average tax payer.

11. On both equity and simplicity principles, Anyanfo (1996) “states that it is only when a tax is based on the tax payer’s ability to pay can it be considered equitable or just”. He argued that tax law should be transparent.

#### v. *Personal Income Tax*

According to Anyawu (2007) Personal income tax is a levy imposed by the government of a country on its citizens, individual or entities known as the taxpayers. The levy imposed on the taxpayers is such that it varies with the level of income or profits of the taxpayers. Taxes imposed on the personal income of an individual taxpayer are termed “Personal Income Tax”. Thus, personal income tax signifies taxes imposed on the personal income of the individual. These taxes are imposed on the income of the individual on a basis of ‘Pay as You Earn” (PAYE) and the individual taxpayer must be an employed person and expected to file returns on a yearly basis.

#### vi. *Tax Reform in Nigeria*

The role of taxation in every economy cannot be over emphasized, that is why every nation is working tirelessly to have a good tax law: Ogbonna and Ebimobowei (2012) highlighted numerous tax laws being enacted in Nigeria. Here, we enumerate only nine (9) bills on tax reforms recommended by study group on the Nigerian Tax System as follows: Federal Inland Revenue Services Act 2004, Companies Income Tax Act 2004, Petroleum Profit Tax Act 2004; Education Tax Act 2004, Customs, Excise Tariffs etc. (Consolidation) Act 2004; National Surgeon Development Act 2004; and National Automobile Council Act 2004.

#### vii. *Economic Development*

Economic development is the sustained, concerted actions of policy makers and communities that promote the standard of living and economic health of a given area. Economic development can also be referred to the quantitative and qualitative changes in the economy.

Economic development requires collective action and large-scale, long-horizon investment. Economic development addresses the fundamental conditions necessary for the micro economic functioning of the economy. It is within the purview of government. Though it is certainly possible to have growth without development in the short or even medium-term, economic development creates the conditions that enable long-run economic growth. Jobs are a main concern of policy: for growth what matters is the number of jobs while for economic development the focus is wages, career advancement opportunities, and working conditions (Feldman & Francis, 2003).

The Malthusian theory did not regard the process of economic development as automatic. Rather, it required consistent efforts on the part of people. Dafionone (2013), noted, "that for the country to lay claim on growth and development through taxation, there must be an improvement of the quality of life of the citizens, as measured by the appropriate indices in economic social, political and environmental terms". In Nigeria, dependency theorists' argument explains the precarious situation we are into. Dependency theorists argue that poor countries have sometimes experienced economic growth with little or no economic development initiatives. Today, Nigeria being the number one economies in Africa cannot boast of a good education system like our sister country Ghana. Nigeria only functions as resource-providers to wealthy industrialized countries. Although opposing argument has it that growth causes development because some of the increase in income gets spent on human development such as education and health. Other theories of economic development are Adam Smith's theory, the Ricardian theory, the Schumpeterian theory, the Keynesian theory e.t.c (Jhingon, 2002).

#### viii. *Gross Domestic Product (GDP)*

According to Adekunle and Aderemi, (2012), gross domestic product measures the monetary value of final goods and services, that is, those that are bought by the final users produced in a country in a given period of time e.g quarterly or yearly. It counts all the output generated within the borders of a country. GDP is composed of goods and services produced for sale in the market and also include some non market production, such as defence or education services provided by the government. An alternative concept, gross national product, or GNP, counts all the output of the residents of a country. Not all productive activity is included in GDP. For example, unpaid work (such as that performed in the home or by volunteers) and black-market activities are not included because they are difficult to measure and value accurately

#### ix. *The Effect of VAT on Social Economic Development*

VAT is a consumption tax levied at each stage of the consumption chain and borne by the final consumer of the product or service. Each person is required to charge and collect VAT at a flat rate of 5% on all invoiced amounts, on all goods and services not exempted from paying VAT, under the Value Added Tax Act 1993 as amended. Where the VAT collected on behalf of the government (output VAT) in a particular month is more than the VAT paid to other persons (input VAT) in the same month, the difference is required to be remitted to the government, on a monthly basis, by the taxable person (Oserogho & Associates, 2008). Where the reverse is the case, the taxpayer is entitled to a

refund of the excess VAT paid or more practically, to receive a tax credit of the excess VAT from the government. All exports are zero rated for VAT, i.e. no VAT is payable on exports. Also, VAT is payable in the currency of the transaction under which goods or services are exchanged (Umeora, 2013).

Value Added Tax (VAT) is one of the most popular taxes around the world. In sub-Saharan Africa for example, VAT has been introduced in Benin republic, Cote d'Ivoire, Guinea, Kenya, Madagascar, Mauritius, Niger republic, Senegal, Togo and Nigeria. Evidence has shown in these countries that VAT has been an important contributor to total government revenue (Ajakaiye 2000). Shalize & Squire (1988) found that VAT accounted for about 30% of total tax revenue in Cote d'Ivoire, Kenya and Senegal in 1982. Tait (1989) showed that VAT has According to Ajakaiye (2000), the impressive performance of VAT in virtually all countries where it has been introduced strongly influenced the decision to introduce it in Nigeria in 1993.

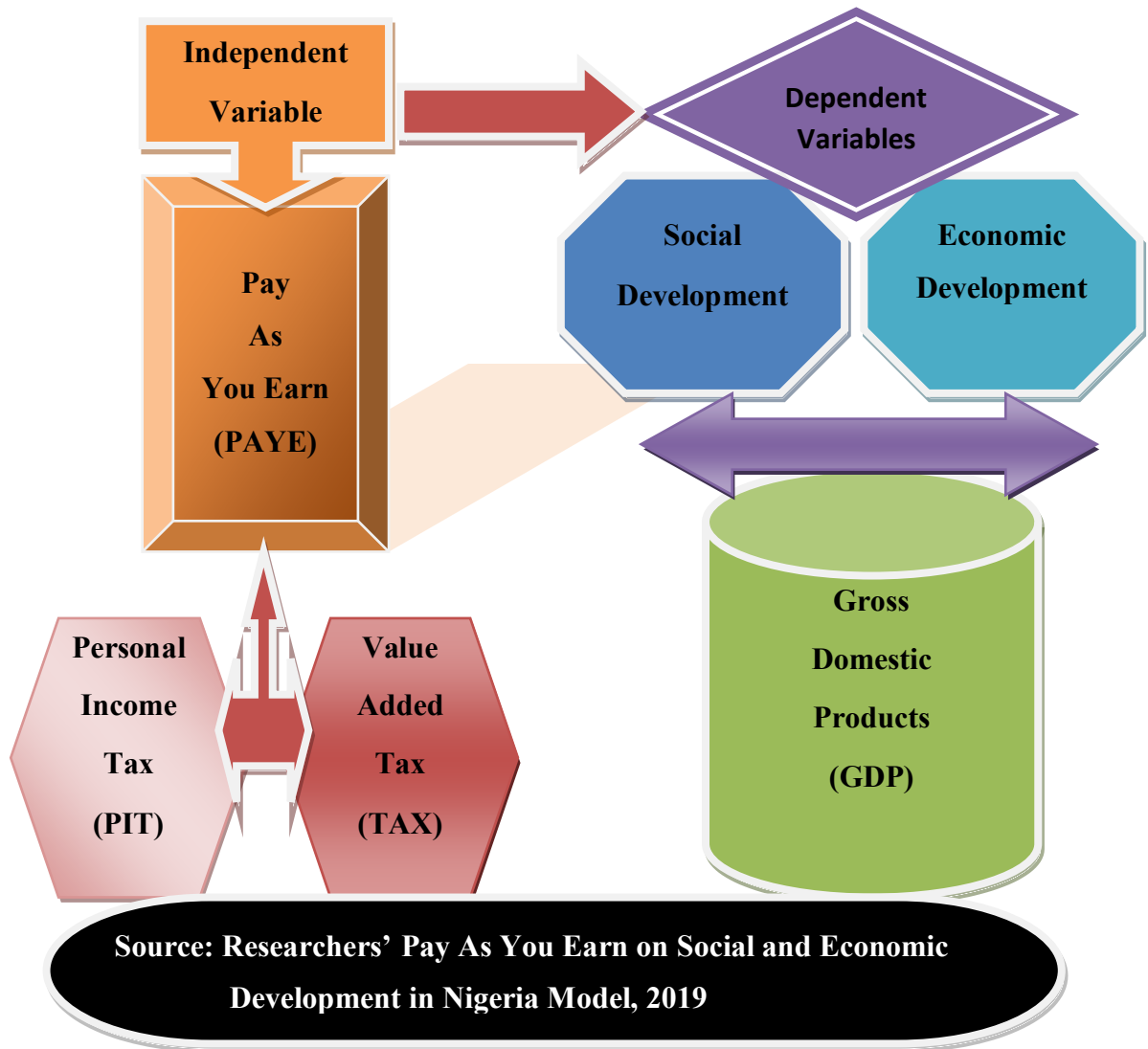
The main reason for the popularity of VAT is that it provides a buoyant revenue base that usually yields significantly more revenue than other tax on consumption. It is relatively easy to administer and difficult to avoid. The yield from VAT is a fairly accurate measurement of the growth of an economy since purchasing power increases with economic growth (Paulo 2002).

Evidence so far supports the view that VAT revenue is already a significant source of revenue in Nigeria. For example, actual VAT revenue from 1994 was #8.189 billion which is 36.59% higher than the project is #6 billion for the year. Similarly actual VAT revenue for 1995 was #21 billion compared with the projected #12 billion. In terms of contribution to total federally collected revenue, VAT accounted for about 4.06% in 2004 and 5.93% in 2005. As much as #404.5 billion was collected on VAT (5.1%) of total revenue in 2015, VAT revenue of #1.97 trillion was paid to federation account for the first half of the year 2018 (CBN, 2018)

So many scholars have investigated on the issue of VAT and its contributions to the nation. Owolabi and Okwu (2011) showed that VAT revenue contributed positively to the development of the respective sectors. Izedonmi and Okunbor (2014) showed that VAT Revenue accounts and total revenue account for as much as 92% significant variations in GDP in Nigeria. A positive and insignificant correlation exists between VAT Revenue and GDP. Both economic variables fluctuated greatly over the period though VAT Revenue was more stable. Umeorah, (2013) that VAT has significant effect on GDP and also on Total Tax Revenue. Though prior research revealed that VAT as a tax has contributed immensely on the economic growth of Nigeria. However,

the recent economic recession to an extent has eaten up the economy. This study therefore set up to assess the effect of value added tax (VAT) administration on the economic development in Nigeria.

x. *Conceptual Framework of Pay As You Earn on Social and Economic Development in Nigeria*



b) *Related Theoretical Review*

Apart from the obvious purpose of providing revenue, taxation aims at achieving other objectives. These are resources allocation, income redistribution, price stabilization, full employment and economic development. Based on this assertion, this work is based on the following theories:

i. *The expediency theory*

This theory asserts that every tax proposal must pass the test of practicability. It must be the only consideration weighing with the authorities in choosing a tax proposal. Economic and social objectives of the state as also the effects of a tax system should be treated as irrelevant. This proposition has a truth in it,

since it is useless to have a tax which cannot be levied and collected efficiently (Umeora, 2013). There are pressures from economic, social and political groups. Every group tries to protect and promote its own interests and authorities are often forced to reshape tax structure to accommodate these pressures. In addition, the administrative set up may not be efficient to collect the tax at a reasonable cost of collection. Taxation provides a powerful set of policy tools to the authorities and should be effectively used for remedying economic and social ills of the society such as income inequalities, regional disparities, unemployment, cyclical fluctuations and so on.

ii. *The benefits-received theory*

This theory proceeds on the assumption that there is basically an exchange or contractual relationship between tax-payers and the state. The state provides certain goods and services to the members of the society and they contribute to the cost of these supplies in proportion to the benefits received. In this quid pro quo set up, there is no place for issues like equitable distribution of income and wealth. Instead, the benefits received are taken to represent the basis for distributing the tax burden in a specific manner. (Uwaoma & George, 2015). This theory overlooks the possible use of the tax policy for bringing about economic growth or economic stabilization in the country.

iii. *The cost of service theory*

This theory is very similar to the benefits-received theory. It emphasis the semi commercial relationship between the state and the citizens to a greater extent. The implication is that the citizens are not entitled to any benefits from the state and if they do receive any, they must pay the cost thereof. In this theory, the state is being asked to give up basic protective and welfare functions. It is to scrupulously recover the cost of the services and therefore this theory unlike the benefits received one, specifically implies a balanced budget policy. ( Abata, 2014). In the process, the state is not to be concerned with the problems of income distribution. No effort is to be made to improve income distribution; and no notice is to be taken if the policy of levying taxes according to the cost of service principles deteriorates it further.

iv. *Ability to pay theory*

This approach considers tax liability in its true form-compulsory payment to the state without quid pro quo. It does not assume any commercial or semi-commercial relationship between the state and the citizens. According to Mohammed, (2007) in this theory, a citizen is to pay taxes just because he can and his relative share in the total tax burden is to be determined by his relative paying capacity. This doctrine has been in vogue for at least as long as the benefits theory. A good account of its history is found in Seligman. This theory was bound to be supported by socialist thinkers because of its conformity with the ideas and concepts of justice and equity. However, the doctrine received an equally strong support from non-socialist thinkers also and became a part of the theory of welfare economics.

The basic tenet of this theory is that the burden of taxation should be shared by the members of society on the principles of justice and equity and that these principles necessitates that the tax burden is apportioned according to their relative ability to pay.

III. METHODOLOGY

Data were sourced through secondary time series panel for the period of 2009 to 2018 from the Statistical Bulletin of the Central Bank of Nigeria (CBN). The model evaluated the effect of Pay As You Earn and Value Added Tax on Social and Economic Development in Nigeria. The study used Ordinary Least Squares (OLS) technique for the analysis of data, where gross Domestic Products (GDP) being the independent variable, proxy for social and economic development, was regressed as a function of personal income tax (PIT) and value-added tax (VAT), the dependent variables

a) *Model Specification*

To evaluate the objectives of this study and test the hypotheses the following regression model was developed to capture the causality relationship between VAT, PIT and GDP Value Added Tax (VAT), Personal Income Tax (PIT) as the dependent variables and regressed against the Gross Domestic Product (GDP) used as proxy for, social and economic development. The functional relationship and the resultant model for this study is as follow

$$Y_{it} = \alpha_{it} + \beta_1 VAT_{it} + \beta_2 PIT_{it} + \epsilon_{it} \dots \dots \dots 3.1$$

Where Y represents social and economic development in Nigeria measured by Gross Domestic Product (GDP)

- $\alpha$  = the constant term
- VAT = Value Added Tax
- PIT = Personal Income Tax
- $\beta$  = the coefficient of the function
- $\epsilon$  = error term.

Since Gross Domestic Product (GDP) is the proxies to be used in measuring, social economic development in Nigeria. In this study, the model will be modified as follows:

$$GDP_{it} = f(DAT_{it}, PIT_{it}) \dots \dots \dots 3.2$$

$$GDP_{it} = \alpha + \beta_1 VAT_{it} + \beta_2 PIT_{it} + \epsilon_{it} \dots \dots \dots 3.3$$

*A-priori Expectation*

Paye as you earn measured in terms of Value Added Tax, Personal Income Tax are expected to exert positive relationship with the social and economic development measured in terms of real gross domestic product (GDP).

IV. RESULTS

This study xtrayed the impact of PIT and VAT on GDP, using Ordinary Lease Square technique. The data so far gathered for the study was presented in table 1 below, while the results of the analysis are in table 2.

**Table 1:** Aggregate annual value of GDP, PIT and VAT from 2009 to 2018 in billions of Nigerian Naira

*Dependent Variables: GDP*  
*Method: Least Squares*  
*Date: 20/12/19 Time 10:17*  
*Sample (adjusted) 2009-2018*  
*Included Observation: 10*

Year	GDP	VAT	PIT
2009	29,221.76	25.12	4,762.40
2006	37,129.18	25.64	5,287.58
2007	41,315.18	26.24	4,462.92
2008	48,592.66	25.98	6,530.60
2009	49,588.48	23.86	3,191.94
2010	104,409.60	28.44	5,396.02
2011	126,517.16	28.44	8,878.98
2012	142,373.06	29.12	8,025.98
2013	160,444.26	31.14	6,809.24
2018	178,087.24	31.14	6,793.72

Source: Researchers' E-views Result, (2019).

*Test of Hypotheses*

H<sub>0</sub>: Pay as you earn has no significant effect on gross domestic product in Nigeria.

Dependent Variables: GDP  
 Method: Least Squares  
 Date: 20/12/19 Time 10:17  
 Sample (adjusted) 2009-2018  
 Included Observation: 10

**Table 2:** Regression results Dependent variable = GDP

Variable	Coefficient	Std. Error	t-statisti	Prob
Const.	86126.40	85980.18	-1.582645	0.7533
VAT	40402.80	9862.714	8.192420	0.0128
PIT	2.283704	6.221690	0.734110	0.0388
R-Squared	0.451075	Mean dependent var		23041.93
Adjusted R-Squared	0.213306	S. D. dependent var		14263.71
S. E. or regression	10929.23	Akaike info criterion		21.72544
Sum squared resid	7.17E+08	Schwarz criterion		41.565468
Log likelihood	-104.6272	Durbin-Watson stat		3.573386

Source: Researchers' E-views Result, (2019).

Table 2 above shows the summary of the regression results, that is, the correlation between PIT, VAT and GDP. From the results it is found that all the independent variables are significant and positively related to GDP.

The explanatory power of the model as given by the R<sup>2</sup> 0.90 or 90 per cent is statistically significant given the high value of the adjusted R<sup>2</sup> value of 0.85 or 85 per cent. This also means the independent variables jointly and adequately explained or accounted for changes in the dependent variable. The calculated Durbin Watson (DW) value is 3,57339 which is less than 5.0 indicated

that there was no autocorrelation between the independent variables and Schwarz criterion is 41.56547 which is below 50 per cent.

The regression model revealed a contemporaneous positive and significant impact given that about 85 per cent of the variation of the dependent variable (GDP) is jointly explained by changes in the behaviour of PIT and VAT. The relatively high adjusted R<sup>2</sup> of 0.85 or 85 per cent revealed that the model is a good fit.

PIT have statistically contemporaneous positive and significant relationship with GDP, this is given the

fact the Prob. value of PIT is 0.039 and this is less than the critical value of 0.1. Also VAT had statistically positive significant relationship with GDP given the Prob. value of 0.013 and less than critical value of 0.1.

The coefficient of Personal Income Tax is statistically significant as shown by both the corresponding standard error and t-values. Thus, Cumulative Personal Income Tax is elastic to Inflation rate. This positivity of the coefficient of pay as you earn conforms to the economic a priori expectation of a positive impact of personal income tax on Inflation rate. Furthermore, the result obtained from the regression shows that Value Added Tax (VAT) has a positive impact on Inflation rate. This is indicated in its positive coefficient of 40402.80. However, Value Added Tax is elastic to Inflation rate since the standard error and t-values revealed that the coefficient is statistically significant.

The F-statistics shows overall significance of the regression model. F-sig. level of .000 is less than 0.1 which suggests that  $H_0$  should be rejected. Therefore, Personal income tax has significant and positive impact on Inflation rate, thus pay as you earn is an instrument for social and economic development in Nigeria. This means that both PIT and VAT have a contemporaneous positive and significant impact on GDP. The results of the study analysis have shown that Personal Income Tax and Value-Added Tax have a contemporaneous positive and positive impact on economic development

## V. CONCLUSION

The paper has established that the collection of pay as you earn and direct assessment to be weak when compared with the total revenue generated under the period covered in the study. Similarly, gross domestic product has a positive and significant impact on the states' internally generated revenue. Overall, with regard to the overall picture of Federally generated revenues, the findings have depicted the following: inflation has a negative but significant impact on state federally generated revenue; unemployment has a negative though insignificant influence; population has an insignificant positive influence; agriculture has significant positive relationship; manufacturing has significant positive relationship; and the service sector has significant and positive correlation.

It is recommended that the government should look inwards and develop strong strategies to enhance their federally generated revenue, most especially with the dwindling prices of oil in the international market. The emphasis should be on enhancing direct assessment through capturing every eligible tax payer in the informal sector. Every government should also know its GDP with the aim of boosting its level. As it is only when you know the capacity of your people that you could plan successfully.

## REFERENCES RÉFÉRENCES REFERENCIAS

1. Abata, M. A. (2014). The Impact of Tax Revenue on Nigerian Economy (case of Federal Inland Revenue Service *Journal of Policy and Delevement Studies*, 9(1): 109-121.
2. Adekunle and Aderemi (2012). "Internationalization of Income Measures and the U.S Book-Tax Relationship" *National Tax Journal*; 62 (1).
3. Agbetunde, L. A. (2010). *Principles & Practice of Nigerian Personal Income Tax*. Lagos, Nigeria: Feetal consulting publishers.
4. Ajakaye, T. T. (2000). *Taxation for Development: Principles and Application*. New York. Oxford University Press.
5. Anyanwu, J. C. (1993). *Monetary Economics: Theory, Policy and Institutions*. Hybrid Publishers, Onitsha.
6. Anyawu, J. C. (1996). *Boosting Revenue Generation by State Governments in Nigeria. The Tax Consultants Option Revisited*. *European Journal of Social Sciences*, 8(4): 532 – 539.
7. Appah, E. & Ogbonna, G. N. (2014). *Self-Assessment Scheme and Revenue Generation in Developing Country Studies*, 4(10), 102-111.
8. Bhartia, H. L. (2009). *Public Finance*, 4th Edition, Vikas Publishing House PVT Ltd, New Delhi.
9. Central Bank of Nigeria (2018). *Economic Report Fourth Quarter*
10. Corlinieus, S. S., Ogar R. T. & Okar.U. (2016). "The Challenges of Tax Mobilization and Management in the Nigerian Economy". *Journal of Business Administration Management*, 6(2): 128 – 136.
11. Dafionone, D. (2013). *Taxation as Tool for National Development in Nigeria*. ([www.sustainableconversion.com/taxation-as-tool-for-national-development](http://www.sustainableconversion.com/taxation-as-tool-for-national-development))
12. Edame, G. E., & Okoi, W. W. (2014). *The Impact of Taxation on Investment and Economic Development in Nigeria*. *Academic Journal of Interdisciplinary Studies*. 3 (4): 209- 218. doi: <https://doi.org/10.5901/ajis.2014.v3n4p209>
13. Ekine, T. (2011). *The Impact of Tax Accounting on Economic Development of Nigeria: Collection and Remittance Perspective*. *Scholarly Journal of Business Administration*, 4(3): 60-66.
14. Emmanuel, N. I. & Carles.Y. (2015). *Challenges of Tax Authorities Tax Payers in the Management of Tax Reform Processes*. *Niger. Account* 42(2) : 36 - 42.
15. Feldman, M. P. & Francis, J. (2003). *Fortune Favors the Prepared Region: The Case of Entrepreneurship and the Capitol Region Biotechnology Cluster*. *European Planning Studies*, 11 (7): 765-788.
16. Izedonmi, F. I. O. & Okunbor, J. A. (2014). *The Roles of Value Added Tax in the Economic Growth*

- of Nigeria. *British Journal of Economics, Management & Trade* 4(12): 1999-2007
17. Jhingan, M. L. (2002). *The Economics of Development and Planning*. Vrinda Publications CP. Ltd Mayor Vihar Phase 1, Delhi
  18. Mohammed, A. N. (2017). *The Impact of Direct Assessment Tax on performance of internal revenue in Zamfara state*. An Msc Accounting Thesis, ABU, Zaria
  19. Mohammed, A. (2008). *Assessment of Personal Income Tax in Kaduna State the Direct Assessment*. An Msc. Accounting Thesis, ABU, Zaria
  20. Mustapha, L. O. (2010). *The Level of Compliance with Value Added tax provisions by vatable persons in Nigeria*. *Journal of Finance and Accounting Research*, Department of accounting, Nasarawa State University, Keffi, 2(3): 8-13.
  21. Musgrave, R. and Musgrave, P. (1980). *Public finance in theory and practice*, 5th edition. London: McGraw Hills Publishers
  22. Ola, Y. (2001). *Taxation for Development: Principles and Application*. New York. Oxford University Press.
  23. Olaofe, E. O. (2008). *Overview of Tax Administration and three Tier of Government in Nigeria*. *Institute of Chartered Accountants of Nigeria Student's Journal*, 12(2): 7-15.
  24. Ogbonna, G. N. & Ebimobowei, A. (2012). *Impact of Tax Reforms and Economic Growth of Nigeria: A Time Series Analysis*. *Current Research Journal of Social Sciences* 4(1): 62-68.
  25. Onyele, K. O. & Nwokoacha, E. B. (2016). *Sources of Public Funds and Economic Prosperity: The Nigerian Case*, *Journal of Business & Financial Affairs*.5 (4), 1-11
  26. Oserogho and Associates (2008) *VAT and Foreign Non Resident Companies in Nigeria*, *Legal Alert March*, assessed from <http://www.oseroghcassociates.com/pdf/200-03.Pdf> on July 2, 2011.
  27. Owolabi, S. A. & Okwu, A.T. (2011). *Empirical evaluation of contribution of value added tax to development of Lagos State Economy*. *Middle East Finance and Economics*.
  28. Paulo, D. S. (2002). *VAT Introduction Administrative Issues*. A Paper Presented at the Caribbean Regional Assistance Centre (CARTAC). Retrieved from: [www.caricom.org/community/cota/general-assembly/17cota-vat-implementation-tc.18/12/2010](http://www.caricom.org/community/cota/general-assembly/17cota-vat-implementation-tc.18/12/2010)
  29. Samuel, S. E. & Tyokoso, G. (2014). *Taxation and Revenue Generation: an Empirical Investigation of Selected States in Nigeria*. *Journal of Poverty, Investment and Development*, 4: 102-114.
  30. Tait, A. (1989). *VAT Revenue, Inflation and Foreign Trade Balance in developing countries*. World Bank.
  31. Umeora, L. I. (2013). *The Effects of value added tax on the economic growth of Nigeria*. 1(6): *Journal of Economics and sustainable Development*.
  32. Uwaoma, O. & George, U. M. (2015). *Value added tax and the financial performance of quoted agribusinesses in Nigeria* *International Journal of Business and Economic Development*.

This page is intentionally left blank





GLOBAL JOURNAL OF MANAGEMENT AND BUSINESS RESEARCH: B  
ECONOMICS AND COMMERCE

Volume 20 Issue 1 Version 1.0 Year 2020

Type: Double Blind Peer Reviewed International Research Journal

Publisher: Global Journals

Online ISSN: 2249-4588 & Print ISSN: 0975-5853

# Institutional Quality and Financial Development in West Africa Economic and Monetary Union

By SOW Djeri, Liangsheng Du (Prof), M' baye Mamadou (Phd),  
Nyande Fania & Gnangoinyobouet Thierry Bienvenu

*Dongbei University of Finance and Economic (DUFE)*

**Abstract-** Having become aware of the financial status of underdeveloped countries of the West African Economic and Monetary Union (WAEMU) and the potential role of institutional factors in the effectiveness of financial development policies, this study proposes an analysis of the impact of institutional quality on the success of their financial development policy. The results of the study show that institutions have a decisive impact on the finance effect on economic growth and development. The study explains that since independence (1960) to the present, various financial development policies have not paid off. The author, therefore, assigns a cause for these, institutional deficiencies, and inconsistencies in the choice of economical and financial policies and shortcomings in the quality of governance. This study emphasizes the role of institutions and a favorable legal and institutional environment for the formation of a foundation for healthy financial development.

**Keywords:** *institutional quality, financial policy development, static and dynamic panel, a composite indicator of financial development.*

**GJMBR-B Classification:** *JEL Code: E00, G20, E44*



*Strictly as per the compliance and regulations of:*



© 2020. SOW Djeri, Liangsheng Du (Prof), M' baye Mamadou (Phd), Nyande Fania & Gnangoinyobouet Thierry Bienvenu. This is a research/review paper, distributed under the terms of the Creative Commons Attribution-Noncommercial 3.0 Unported License (<http://creativecommons.org/licenses/by-nc/3.0/>), permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

# Institutional Quality and Financial Development in West Africa Economic and Monetary Union

SOW Djeri <sup>α</sup>, Liangsheng Du (Prof) <sup>σ</sup>, M'baye Mamadou (Phd) <sup>ρ</sup>, Nyande Fania <sup>ω</sup>  
& Gnangoinyobouet Thierry Bienvenu<sup>¥</sup>

**Abstract-** Having become aware of the financial status of underdeveloped countries of the West African Economic and Monetary Union (WAEMU) and the potential role of institutional factors in the effectiveness of financial development policies, this study proposes an analysis of the impact of institutional quality on the success of their financial development policy. The results of the study show that institutions have a decisive impact on the finance effect on economic growth and development. The study explains that since independence (1960) to the present, various financial development policies have not paid off. The author, therefore, assigns a cause for these, institutional deficiencies, and inconsistencies in the choice of economical and financial policies and shortcomings in the quality of governance. This study emphasizes the role of institutions and a favorable legal and institutional environment for the formation of a foundation for healthy financial development. We are building a new composite indicator of financial development, incorporating institutional variables. We have shown through econometric estimates both on developed countries and those of the West African Economic and Monetary Union in the period 1996-2016, as the institutional quality has a positive impact on financial development.

**Keywords:** institutional quality, financial policy development, static and dynamic panel, a composite indicator of financial development.

## I. INTRODUCTION

Developing countries, particularly those from the West African Economic and Monetary Union (WAEMU), are characterized by economic, political, and social structures that do not meet the basic needs of the population. Massive poverty and low integration also characterize these countries into the global economy. The rates of economic growth in that area of Africa are relatively low and are also characterized by excess volatility.

This economic and monetary zone has a rather significant financial delay over the developing countries

**Author α:** Dongbei University of Finance and Economic (DUFE) School of Economics. e-mail: djerisow88@yahoo.fr

**Author σ:** Economic School, Dongbei University of Finance and Economic (DUFE) School of Economics. e-mail: duliangsheng@vip.sina.com

**Author ρ:** Professor of Economics at Mali's Higher Institute of Computer Science and Management School of Economics. e-mail: mbayemamadou18@yahoo.fr

**Author ω:** Dongbei University of Finance and Economic (DUFE) School of Accounting. e-mail: sianyande@outlook.com

**Author ¥:** Dongbei University of Finance and Economic (DUFE) School of Economics. e-mail: thierrybienvenu2010@yahoo.fr

in general and the other countries in sub-Saharan Africa in particular although it is seen as one of the most dynamic and promising areas of the continent. Indeed, the financial sector of the WAEMU countries, notwithstanding the development it has experienced in recent years, remains characterized by a low depth, extent, and access, which impedes sustainable economic development and is harmful to the effectiveness of macroeconomic policies.

These shortcomings at the level of their financial system can be explained by shortcomings in their institutions and governance mechanisms (political, economic, social, etc.). These shortcomings jeopardize a real development process, which would be characterized by their transition from a stage of economy based on the exploitation of primary products to that of industrial transformation. In our view, an analysis of the problems experienced by these developing countries, consisting of an evaluation of financial development policies in terms of institutional factors, would be a fruitful approach to estimating the potential of Development in these countries. However, as part of our research, we found it useful to focus on the internal dynamics of development, namely the links between the institutional and the financial aspects. This study aims to answer the question on to what extent does the State or sub-regional institutional framework influences the performance of the financial system; and conditions the results of financial development policies?

Indeed, the institutional issue in an empirical approach to financial development is the subject of more and more research work in economics. Increasingly, the idea that the performance of the financial system cannot be the result of the only factor of financial liberalism is present in the literature. But these performances would be due to the interaction of a more complex set of data that does not just fall within the evolution of financial regulations. In particular, institutional policies and arrangements would play a role in the relationship between finance and growth; the quality of the institutions may even be perceived as the primary determinant of financial and economic development (Acemoglu et al., 2004; Rodrik and Subramanian, 2003). The institutional issue thus has an undeniable relevance in so far as the paradigm of development prevailing until the beginning of the 90s

fails to explain the failure of development policies derived from its theoretical corpus. By exploring this new path of research, it becomes possible to explain to some extent the economic and especially financial difficulties of developing countries. In this perspective, an adequate institutional framework would contribute to financial development and increase the effect of the latter on growth.

Conversely, a deficient institutional system, introduces distortions in the functioning of markets and is a hindrance to the development of the economic activity. The hypothesis derived from this reasoning is based on the work of Arestis et al. 2002. It stipulates that financial reform cannot promote the development of the financial sector until the economic system is anchored in a sound, credible, and adequate legal and institutional structure. Since a developed financial system alone can guarantee a substantial effect on the real performance of the economy, institutions' development is vital towards guaranteeing this effect.

The objective of this study is to examine the effect of institutional quality on financial development based on panel data analysis across developed and west Africa countries.

This study seeks to extend the literature in three dimensions. First, the financial development indicator is built-in using the institutional and financial parameters. Secondly, a linear and nonlinear dynamic panel data models are set up to test the linear and non-linear financial development-institutional quality relationships. This can be considered as one of the pioneer empirical works that used the robust dynamic panel system GMM approach to estimate the nonlinear relationship. Thirdly, the models are estimated based on the newly assembled institutional quality measure developed by Kaufmann et al. (2008) that consists of various sets of institutional quality variables, which can assess what dimensions of the quality of institutions affect financial development.

This study seeks to validate this hypothesis by building a new composite indicator of financial development and introducing this new indicator of development in an econometric equation to explain the Financial development in the WAEMU zone between 1996 and 2016.

Also, by way of confirmation of our results, the study is remaking the same estimate on a sample of developed countries 25, all Organization for Economic Co-operation and Development (OECD). Furthermore, after obtaining results using one of the most robust methods for estimating dynamic panel data (Generalized Method of Moment System), we realize that the retarded variable of our dependent variable is not significant, and therefore we could settle for static panel estimates (Fixed-effects model or random-effect model). The question underlying this methodological approach concerns the explanatory capacity of our

composite financial development indicator to reveal the shortcomings of the WAEMU financial sector. To this end, we proceed to a second econometric estimation (both static and dynamic) on a control sample, made up of countries with different characteristics from those of the WAEMU countries, that is to say, OECD countries. These results will enlighten us on how the quality of institutions contributes to the process of developing the financial sector. And at the same time, the question arises as to whether it is not the shortcomings of the institutions that need to be attributed to the blockages of the growth of the financial sector and, therefore, that of the real increase.

In our approach, we first start to create a composite indicator of financial development and then to form our two (2) databases, both for WAEMU countries (sample of 8 countries) and those of the OECD (sample of 25 countries) on the period 1996-2016. Each of the two (2) databases includes the following variables: The gross domestic product per capita, the consumer price index, an average of the indicators representing the economic institutions, and that of the political indicators, and the indicator of financial development creates. Two methods, namely that of the Generalized Method of Moment (GMM System) on dynamic panel data at first and the estimation of models with fixed effects or random effect, are used in a second time. We decide to adopt a double-estimation approach to ensure the robustness of our econometric conclusions.

The first part provides a brief overview of the institutional framework as well as a panorama of empirical studies of the relationship between the institutional framework and the development of the financial sector (and by implication, the growth of economic activity). The second part is devoted to the methodology used. The last part is devoted to the results and discussions.

## II. LITERATURE REVIEW

In this literature review, we first highlight the first wave of work that has set out to seek the link between the quality of institutions and economic development. And in a second time, we present our work, which consisted specifically in searching the link between, on the one hand, the institutional quality and, on the other hand, the capacity of the financial system to contribute to the financing of the economy.

It should be noted that the analysis for the role of the financial system in the growth process has been enriched by the development of theoretical models of endogenous growth integrating the financial sphere since the work of Schumpeter (1912) and Gurley and Shaw (1955). It is established that capital accumulation and technological change are not the only factors that explain the differences in the level of development

between countries. The recent literature on growth also stresses the role of financial development and the quality of institutions, separately on the one hand and jointly, as fundamental determinants of economic growth. Also, an extensive literature has accumulated in recent years to show that macroeconomic stability and financial liberalization are insufficient for the real deepening of the financial sectors (and thus gaining growth). This literature also shows that other institutional reforms should accompany these policies. By basing their work on the gross domestic product per capita as a measure of economic development, many researchers have concluded that the differences found at the global level could be explained by the quality of the country or the study area. Growth would be high when institutions are functioning well and weak when they are deficient. By improving laws and their application, it is possible to stimulate the economic growth in particular for African countries that are experiencing real deficits in this area. This renewed interest in the institutions follows the work of the new institutional economics, notably those of Douglass North (1990). Indeed, North (1990) defines institutions as the set of rules and standards of a society or, more formally, the constraints established by men who frame and regulate behaviors. These are both formal institutions (such as rules, laws, constitutions) and informal institutions (such as unwritten social behavior standards, conventions, self-imposed codes of conduct). Based on this definition of "Northienne" of institutions, Daron Acemoglu et al. (2004) distinguish economic institutions from political institutions. Economic institutions would structure the rules of the economic game and concern, for example, property rights, the execution of contracts, and the transparency of contracts while political institutions include democracy, bureaucracy, and political stability. It is up to the economic and political institutions to ensure respect for the rules of law, which allow for the proper functioning of the spheres of production and exchange. They consist of formal rules of the game (constitutions, laws, property rights) and informal (customs, traditions, social capital, and rules of conduct, etc.).

The objective behind the conception of the institutions is the establishment of a certain order and, therefore, the reduction of the possible uncertainties in the exchange. They can be considered as corporate technologies in the functioning of productive economic activities (Nelson and Sampat, 2001). Many recent studies have emphasized the importance of institutional quality for an economic performance like Rodrik et al. (2004), Hall and Jones (1999), Knack and Keefer (1995), Mauro (1995), a positive relationship between the various indicators of institutional quality and the performance of the economy in general. In the same vein, Pistor et al. (1998) highlight the role of law and legal systems in economic development in Asia in an informative analysis. We now need to be interested in

the part of the literature that has sought to report on the relationship between the financial sector and the level of institutional development. Few studies have looked at the exploration of this link. In particular, the current of law and finance whose intellectual leaders are the Porta et al. (1998), the work of Demetriades and Law (2006), Gregorio and Guidotti (1995), Knack and Keefer (1995), Levine and Renelt (1992), Wurgle (2000), Arestis et al. (2002) have all in their way in different studies, with various and varied theoretical and empirical research techniques supported with some close differences, that economies with a legal system that facilitates contracts between agents private and guarantees property rights, are in favor of the accumulation of private capital and the expansion of the financial markets.

And conversely, the low-level economies of a legal system suffer from a low incentive to lending activities and financial transactions. They also create a market for non-productive activities such as rent-seeking or bribery, which generate high transaction costs and poor resource allocation. Also, Demetriades and Law in 2006 concluded that, in low-income countries, institutional quality appears to be a fundamental determinant of economic development, more than financial development, and any positive effect of financial development on growth would be weakened without the existence of good institutions. And also, some work goes so far as to condition the impact of financial liberalization policies on the development of the financial system to institutional differences between countries.

More recent work such as Gani and Ngassam (2008), Girma and Shortland (2008), Lawand Azman-Sain (2008), Baida et al. (2009), Law and Habibullah (2009), Demetriades and Fielding (2009), Anayiotos and Toroyan (2009), Singh et al. (2009), Beji and Youssef (2010), highlighted the importance of institutions for finance, such as rules of law, political stability, government efficiency and the control of corruption. In these works, the authors used different samples from several countries of economic and geographical zones of the world. By using advanced quantitative techniques, they come to similar conclusions regarding the confirmation of the thesis on which the theory of law and finance rests (La Porta et al., 1998). We see through the results of these works; the institutional quality strongly influences the efficiency of the financial system. Indeed, variables such as the quality of regulation and control, corruption, political instability, protection of rights, in particular, private property rights, are elements in the process of financial development of an economy. In most of these recent studies, recourse to the application of the GMM method in the dynamic panel by the authors is noted.

Subsequently, Minea and Villieu (2010) attempted to reproduce this result in an endogenous growth model. They show that when "institutional quality"

exceeds a certain threshold, the relationship between finance and growth is positive, while it becomes negative below the threshold. The intuitive explanation for this result is that financial development lowers transaction costs on private investment, but also reduces the revenue of seignior age usable for public investment. It is supportive of growth only if the government can obtain other revenue to finance infrastructure, that is, if the institutional quality is sufficient to allow the collection of taxes other than by tax Inflationary. If the institutional quality is too low, Seignior age's revenue loss cannot be offset by the collection of new taxes, and the infrastructure necessary for development cannot be programmed.

Our literature review concludes with the result that financial development is not conceivable without a sound institutional framework conducive to the development of economic and financial activities. This brings an additional guarantee to our idea of building from the outset of our research, an indicator of financial development that incorporates the quality of the institutions in determining the level of efficiency of the financial sector.

### III. METHODOLOGY

#### a) Creating a new financial development indicator

We calculated our development index through two steps. First, we calculated a composite index of the quality of institutions. For this, we referred to the databases of World Governance Indicators, December 2018, built thanks to the work of Kaufman and al. This is a database with indicators relating to 6 variables of institutional development, mainly the voice and accountability, political stability and no Violence, government effectiveness, regulatory quality, the rule of law, and control of corruption. We extracted data about each of these variables from this basis to build an index successively for the quality of political institutions and then an index for the quality of economic institutions. Each variable is rated between -2.5 and +2.5.

$$FINANCE_{it} = \alpha_i + \beta_1 INTECO_{it} + \beta_2 INSTPO_{it} + \beta_3 INSTFIN_{it} + \beta_4 INFLATION_{it} + \beta_5 RGDPC_{it} + \epsilon_{it}$$

Where FINANCE is financial development, INTECO is economic institutions, INSTPO is political institutions, INSTFIN is financial institutions, RGDPC is real GDP per capita, the subscripts i and t index countries and time respectively. Also, the specification contains an unobservable country-specific effect  $\alpha_i$  and error-term  $\epsilon$ .

- The random-effects model

This model, also called the *compound error model*, assumes the random  $U_i, V_t$ . The basic specification assumes:

- The centered  $U_i, V_t$  and  $W_{it}$  (zero expectation)
- The respective  $U_i, V_t$  and  $W_{it}$  homoscedastic and standard deviation  $\sigma_u, \sigma_v, \Sigma_w$ .

We combined these institutional variables with six financial variables whose data were derived from the Global Financial Development Database (GFDD) 2017. These variables are bank credit to bank deposit, deposit money bank asset to GDP, domestic credit to the private sector, Private credit by deposit money banks and other financial institutions to GDP, Liquid liabilities to GDP, and Financial system deposits to GDP.

After ensuring the availability of data on all dimensions of our final indicator of financial development, we selected a sample of 97 countries, including countries from all continents around the world. And it's from 1996 to 2016, which is the time interval within which we obtain data. Finally, we used the Principal Component Analysis method on the XLSTAT in Excel software to get our financial indicator.

#### b) Estimation method in static and dynamic panel data: the fixed effects model with random effects, the GMM model in System

- The Fixed effects and random effects models
  - Fixed effects model

This model, also known as the *covariance model*, assumes that  $U_i$  and  $V_t$  are constant, non-random effects, which therefore change the value of the econometric equation constant according to the values i and t. This is an estimate that is carried out by the Ordinary Least Squares (OLS), after an addition to the explanatory variables of the indicator variables, or dummy variables, associated with individuals i and periods t (less an individual and a period to not create co linearity with the Constant. Assuming that the random cross-disturbance  $W_{it}$  satisfies the conventional assumptions of the OLS (i.e., they are centered, homoscedastic, independent, and normal), the estimates are optimal and allow for particular Fisher Tests to test the need for the terms  $U_i$  or  $V_t$ . The fixed-effects model is:

- $U_i, V_t$  and  $W_{it}$  are not correlated and independent

The idea of this modeling is that the three no longer practice on the constant of the model, but really on the random disturbance  $\epsilon$ . The method then aims to clarify these effects to take them into account to refine the estimate.

Under the assumptions indicated, the variance of the Chazard is:

$$Var(\epsilon) = (\sigma_u * \sigma_u) + (\sigma_v * \sigma_v) + (\sigma_w * \sigma_w)$$

Although fixed-effects and random-effects models appear to be different, the second is generally recommended. Tests (notably Hausman) allow testing both hypotheses. And from the moment when the main

objective is the estimation of the coefficients of variables other than the constant and if they differ a bit, the question of the choice between the two models (fixed

effects and random effects) loses its acuity. The random effects model is

$$FINANCE_{it} = \alpha + \beta_1 INTECO_{it} + \beta_2 INSTPO_{it} + \beta_3 INSTFIN_{it} + \beta_4 INFLATION_{it} + \beta_5 RGDP_{it} + \mu_i + \varepsilon_{it}$$

- The Generalized Method of Moment (GMM) model in System

GMM in the dynamic panel has several virtues: they solve problems of bias of concurrency, inverse causation, and omitted variables. The GMM estimator is better than the Ordinary Least Squares (OLS) estimator. There are two (2) forms of GMM estimators in dynamic panels: The first difference GMM Estimator and the System GMM Estimator. The Arellano & Bond Model (1991) offers a first-GMM-difference estimator. It consists in taking for each period the first difference of the equation to be estimated to eliminate the country of the specific effects, and to the instrument after that the explanatory variables of the equation in first difference by their values at the level retarded of a period or more. The Blundell & Bond Model (1998) determines a

system-GMM estimator that combines the first-difference equations with the level equations in which their primary differences instrument the variables. The GMM estimator in the system appears to be better than the GMM estimator since the latter gives biased results in the case of finite samples when the instruments are weak. The determination of the GMM estimator depends on the validity of the hypothesis that the error terms are not self-correlated and the validity of the instrumental variables used. To ensure the lack of self-correlation of the error terms and the validity of the instruments used, Blundell and Bond (1998) propose two essential tests: The Sargan test which allows to analyze the over-identification of the model and the validity Instruments used for the estimation and common test of lack of self-correlation for error terms,  $\varepsilon_{it}$ . Basic GMM model is:

$$FINANCE_{it} = \alpha + FINANCE_{it-1} + \beta_1 INTECO_{it} + \beta_2 INSTPO_{it} + \beta_3 INSTFIN_{it} + \beta_4 INFLATION_{it} + \beta_5 RGDP_{it} + \mu_i + \varepsilon_{it}$$

Where FINANCE is financial development, INTECO is economic institutions, INSTPO is political institutions, INSTFIN is financial institutions, RGDP is real GDP per capita, the subscripts i and t index countries and time respectively. Also, the specification contains an unobservable country-specific effect  $\mu_i$  and error-term  $\varepsilon_{it}$ . The data used in this study are mostly from the World Bank.

of the various variables that we use as a weighting in the calculation of our synthetic indicator for the quality of institutions.

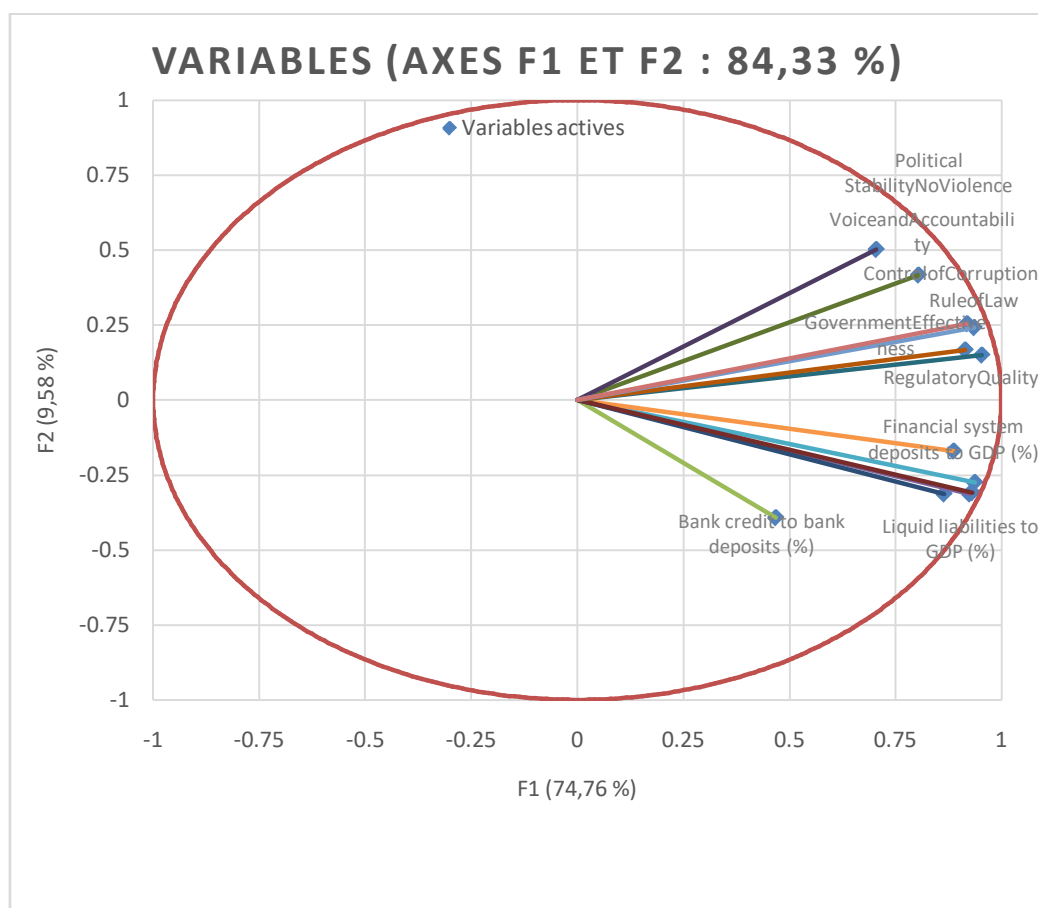
#### IV. RESULTS

In this part, we will first give the results of our composite financial indicator and then the results of our econometric model with all its tests.

##### a) Composite indicator of financial development

To obtain this index, we proceed by applying the Principal Component Analysis method to achieve a weighting that reflects the reality of contributions from different dimensions of financial development. This Principal Component Analysis work focuses on data from institutional and financial variables such as the *Voice and accountability, Political Stability and no Violence, Government Effectiveness, regulatory quality, rule of law, Control of Corruption, bank credit to bank deposit, deposit money bank asset to GDP, Domestic credit to private sector, Private credit by deposit money banks and other financial institutions to GDP, Liquid liabilities to GDP and Financial system deposits to GDP.* The software used XLSTAT when applying the PCA gives us a table of contribution to the different variables to the construction of the different axes. It is the contributions





Source: Author

Figure1: Circle of correlation

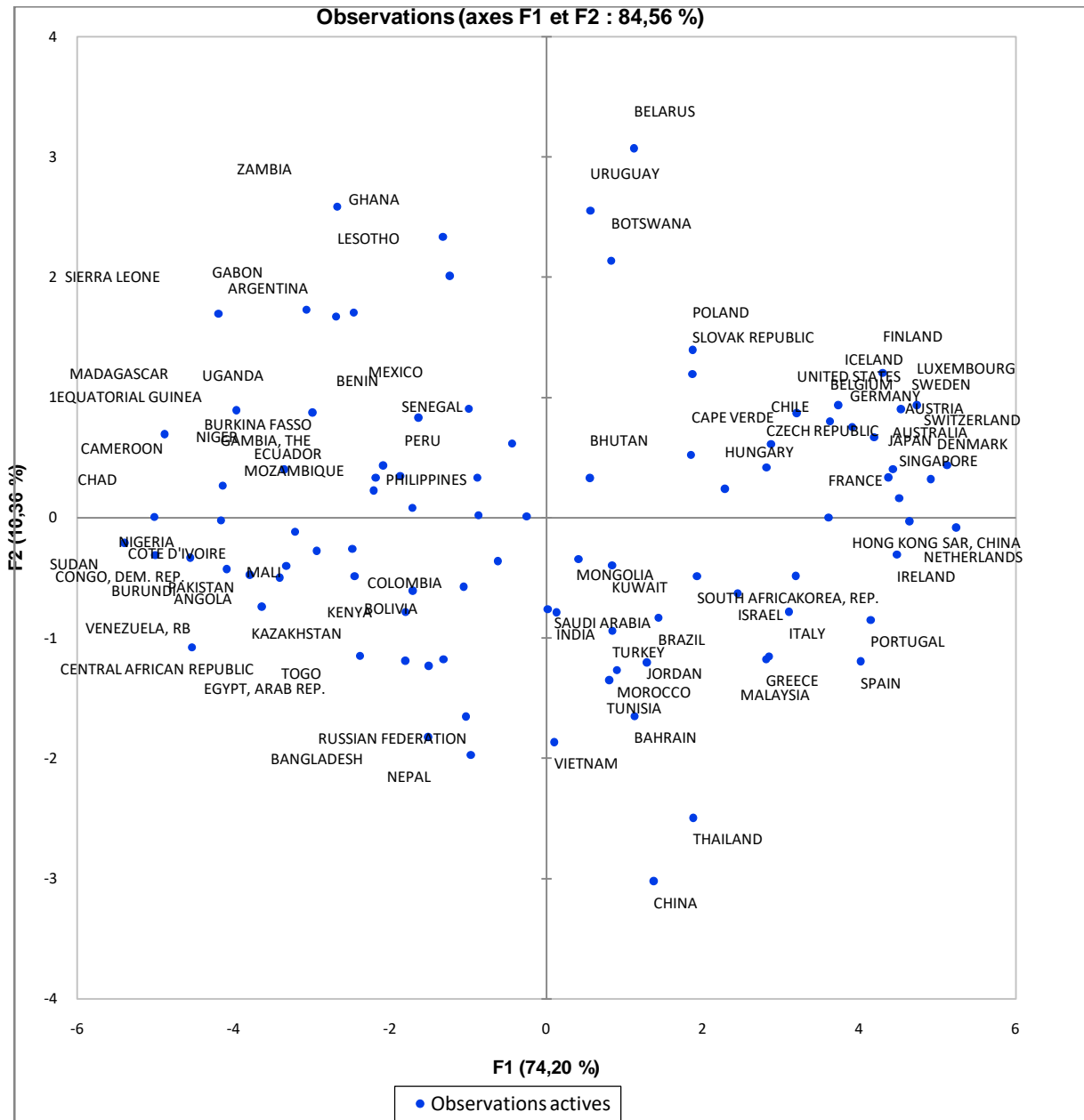
Table 1: Contributions of variables

	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12
Bank credit to bank deposits (%)	0.573	15.814	51.152	12.470	13.716	1.541	1.898	0.002	0.077	2.509	0.239	0.009
Deposit money banks' assets to GDP (%)	9.419	10.680	0.003	1.251	1.224	0.124	67.543	3.522	3.306	2.103	0.625	0.201
Domestic credit to private sector (% of GDP)	9.526	9.528	0.503	7.556	11.760	1.509	9.133	1.361	0.184	1.332	0.398	47.211
Financial system deposits to GDP (%)	7.017	2.772	29.006	4.271	2.904	0.991	7.573	0.000	2.067	41.375	1.979	0.044
Liquid liabilities to GDP (%)	7.229	9.242	14.819	12.769	9.921	0.516	0.178	0.043	3.111	38.977	2.974	0.221
Private credit by deposit money banks and other financial institutions to GDP (%)	9.627	9.158	0.468	7.756	12.941	0.262	6.407	1.108	0.000	0.365	0.023	51.885
Voice and Accountability	6.578	18.489	0.555	0.831	1.046	71.181	0.244	0.335	0.403	0.027	0.116	0.196
Political Stability No Violence	6.859	7.593	1.076	47.864	34.606	0.762	0.000	1.107	0.064	0.017	0.034	0.017
Government Effectiveness	11.319	2.079	0.595	1.253	1.443	7.463	0.369	0.874	69.399	3.846	1.359	0.002
Regulatory Quality	10.556	3.813	0.419	3.297	4.604	6.075	5.717	41.591	11.899	5.198	6.768	0.063
Rule of Law	10.942	4.409	0.937	0.639	2.613	6.321	0.027	1.757	4.243	2.556	65.514	0.042
Control of Corruption	10.355	6.422	0.468	0.043	3.224	3.255	0.911	48.300	5.245	1.694	19.971	0.111

Source: Author

We have deduced the following weighting from the results of our application:

- Bank credit to bank deposits (0.573%)
- Deposit money banks' assets to GDP (9.419%)
- Domestic credit to the private sector (9.526%)
- Financial system deposits to GDP (7.017%)
- Liquid liabilities to GDP (7.229%)
- Private credit by deposit money banks and other financial institutions to GDP (9.627%)
- Voice-and-Accountability (6.578%),
- Political Stability-No-Violence (6.859%),
- Government-Effectiveness (11.319%),
- Regulatory-Quality (10.556%),
- Rule-of-Law (10.942%),
- Control-of-Corruption (10.355%)



Source: Author

Figure 2: The Principal Component Analysis graph



The results show us that finance, growth, and the quality of institutions are correlated variables. The idea that countries with better institutions are also those with the highest levels of GDP per capita, a more efficient financial sector, and our composite indicator of financial development is involved in confirming these results, precisely as it is highly correlated with the variables mentioned above. This gives relevance to this indicator about its ability to reveal the economic, institutional, and financial situation of the 97 countries in our sample.

Besides, the analysis of the data tells us once again that the OECD developed countries and some countries in Asia and South America, are a group of leading countries, characterized by high capita GDP, a level of inflation relatively correct, an institutional framework conducive to the development of financial activities. And then there is a group of countries, most of which are less economically and financially developed, some of which show encouraging signs and others, including many African countries, which are experiencing real difficulties and must make significant efforts to improve their institutions, to hope for stronger growth and more improved indicators of financial development.

By analyzing our results (taking the most recent date, 2016), we find that out of the 97 countries in our sample, 38 of them have an above-average index of 28.12, and symmetrically 59 countries are classified as having a lower than the sample average. When we look closer, the ranking shows that the leading countries are Hong Kong, followed by Luxembourg, Japan, Switzerland, China, Denmark with indices of 113.38 respectively; 83.61; 77.83; 77.35; 64.43; 60.58; 77.73; 73.04 show top-notch performance according to our calculations, and whose indices indicate a deviation from the average of the sample. The United States (53.57) occupies the 12th position, France (42.72) is in 21st position. Generally, in these countries, agents do not experience a financial constraint framework in these financial systems. Financial intermediation is effective, and firms and households can finance their projects. These systems fulfill the six main financial functions: the legal and regulatory framework, risk-sharing, and investment monitoring are conducive to economic agents; the information available is sufficient for decision making. Among the countries of the African continent, it can be seen that South Africa (42.94), Morocco (34.71), Cape Verde (34.04), Tunisia (32.90) are the best performing in Africa with higher indices than the average.

On the other hand, the second half of the classification, that is, the countries of Sub-Saharan Africa, massively occupy its lower extremity. With exceptions such as Argentina (7.76), Pakistan (12.23) at the level of the last 20 positions are only African

countries (South of Sahara). Malawi (6.00), Sierra Leone (5.11), Chad (4.44), Sudan (4.30), and Congo Democratic Republic (2.80) have the five least developed and worst-performing financial systems in our sample. Firms and households in these countries face significant financial constraints. Economic agents do not operate within an institutional (economic and political) framework sufficiently conducive to business, and governments do not provide effective law enforcement, property, and regulations for framework good economic practice.

For the WAEMU countries of the zone, namely Togo (18.73), Senegal (16.51), Burkina Faso (12.85), Benin (12.47), Ivory Coast (11.78), Mali (10.97), Niger (7.85), Guinea-Bissau (7.17). They are characterized by a lower-than-average index of the sample indices, which indicates a significant delay in the financial system of the countries in this WAEMU economic zone, which is manifested by inadequacies in both purely financial indicators, as well as institutional indicators.

#### b) *The results of the econometric analysis*

##### i. *Estimation in dynamic panel (GMM)*

##### a. The WAEMU zone

Our results, obtained after the use of Stata software (Version Stata 12) are shown in the following table:

Table 2: GMM model regression (The 8 WAEMU countries)

FINANCE	Coef.	Std.Err.	t	P >  t
FINANCE(t-1)	0.004	0.004	1.04	0.331
RGDPC	-0.481	0.276	-1.75	0.124
INFLATION	-1.753	1.103	-1.59	0.156
INTECO	-0.732	0.198	-3.70	0.008***
INSTPOL	-0.484	0.053	-9.12	0.000***
INSTFIN	2.094	0.032	65.01	0.000***
CONSTANT	4.572	2.428	1.88	0.102
Hansen test for overid. restrictions	chi2 (97) = 0.03		prob>chi2 = 1.000	
Arellano-Bond test for AR (1)	z = -0.78		pr> z = 0.438	
Arellano-Bond test for AR (2)	z = -0.35		pr> z = 0.727	
Prob> F = 0.000 ***		F(5, 7) = 1,14e+06		

Source: Author

Notes: INTECO= Economic Institutions; INSTPOL =Political Institutions; INSTFIN= Financial Institutions; RGDPC = Gross Domestic Product per capita. The Arellano and Bond dynamic panel system GMM estimations (Stata xtabond2 command) is used to estimate this model. P-value \*\*\* indicates 1% of the significance level. The Hansen test is accepted the over-identification restrictions. The null hypothesis of the absence of first-order serial correlation (AR1) and second-order serial correlation (AR2) are also accepted.

These results show us that our new composite indicator of financial development had a positive and significant impact on development. Economic institutions and political institutions have taken in isolation have negative and significant coefficients, which we explain by the fact that in our opinion, the quality of the institutions will only have a real and significant impact on the financial sphere when there is an interpenetration of institutional performance with financial variables.

- Regarding the delayed variable of finance and the price, the level has insignificant coefficients. This can be explained by the fact that the problems of endogeneity that were suspected are not proven, and we could, therefore, have estimated our equation with a static panel model (what we do later in this work).
- The gross domestic product (GDP) per capita and inflation have negative and insignificant coefficients, so we will avoid giving them an interpretation.

Our composite indicator of financial development has a positive coefficient (+ 2.09) and significant. As a result, our assumption, according to which the financial development indicator we have built, is sufficiently relevant to explain that the evolution and development process of the financial system tends to be reinforced by the positive and significant sign in its coefficient in econometric estimates.

The WAEMU countries are among the countries that are experiencing difficulties in their economic development. On the one hand, these difficulties are remarkable because of the inefficiency that characterizes their financial system. We believe from the

results we have obtained during our research (theoretical and empirical) that institutional quality plays a very significant role in the functioning and capacity of the financial sphere to enable the emergence of a financial system efficient in an economy. We also believe that the positive impact of our composite indicator of development (unlike the coefficients of economic and political institutions indicators taken in isolation) shows its consistency in its ability to measure financial development.

We found it interesting to replicate the same method to see if the results that support the relevance of our composite indicator of financial development to countries with characteristics quite different from those of the WAEMU countries, namely 25 OECD countries.

b. The OECD zone  
The table below shows the results:

Table 3: GMM model regression (the 25 OECD countries)

FINANCE	Coef.	Std.Err.	t	P >  t
FINANCE (t-1)	-0.003	0.002	-1.31	0.203
RGDPC	-0.896	0.718	-1.25	0.224
INFLATION	0.052	0.140	0.37	0.716
INTECO	-0.502	0.225	-2.23	0.036**
INSTPOL	-0.199	0.116	-1.72	0.098*
INSTFIN	2.063	0.007	314.03	0.000***
CONSTANT	3.625	2.626	1.38	0.180
Hansen test for overid. restrictions	chi2 (98) = 22.20		prob>chi2 = 1.000	
Arellano-Bond test for AR (1)	z = -0.46		pr> z = 0.648	
Arellano-Bond test for AR (2)	z = -2.13		pr> z = 0.033**	
Prob> F = 0.000***		F(5, 24) = 662886.55		

Source: Author

Notes: INTECO= Economic Institutions; INSTPOL =Political Institutions; INSTFIN= Financial Institutions; RGDPC = Gross Domestic Product per capita. The Arenallo and Bond dynamic panel system GMM estimations (Stata xtabond2 command) is used to estimate this model. P-value\*, \*\*, \*\*\* indicate respectively 10%,5%and 1%, of significance levels. The Hansen test is accepted the over-identification restrictions. The null hypothesis of the absence of first-order serial correlation (AR1) is accepted, but the absence of second-order serial correlation (AR2) is rejected.

These results show us that in the OECD, as in the WAEMU countries, the signs and the significance of the different variables are similar. The results are similar in detail to those obtained above. Indeed, as in the WAEMU zone, the new indicator has its relevance as to the impact it has on the functioning of the financial sector.

- The coefficient of the new indicator is positive (+ 2.06) and significant.
- As for the gross domestic product and inflation, their coefficients are not significant, as in the estimate on the countries of the WAEMU zone. Therefore, they cannot be interpreted reliably.
- And finally, as with the WAEMU area, with OECD countries, we get a coefficient of the delayed variable of non-significant financial development. At this level, too, the GMM system model could have been replaced by the techniques for estimating static panel models (what we do after that).

After using the GMM System model estimation method and obtaining results showing the non-significance of the delayed variable coefficient, weconcluded that a static panel estimation technique could have estimated our model. The next part will be devoted to this task.

ii. *Static panel estimation (fixed and random effects model)*

a. The WAEMU Zone

We have obtained results that support those obtained during our regressions by the GMM System method. First of all:

- Global significance tests of both models (Fixed Effects and Random Effects) show that both models are significant.
- The signs of the coefficients for the two (2) models are almost identical.
- Apart from the Economic Growth variable, whose significance is only certain at a threshold of 10%, all other variables are significant.

Table 4: The fixed-effect model

FINANCE	Coef.	Std.Err.	t	P >  t
RGDPC	-0.460	0.257	-1.79	0.076*
INFLATION	2.104	0.007	312.57	0.000***
INTECO	-0.492	0.052	-9.39	0.000***
INSTPOL	-0.464	0.083	-5.60	0.000***
INSTFIN	-1.395	0.232	-6.02	0.000***
CONSTANT	3.961	0.788	5.02	0.000***
sigma u		0.109		
sigma e		0.098		
rho		0.552		
Prob> F = 0.000***F test that all u <sub>i</sub> = 0 F(7, 131) = 6.81				

Source: Author

Notes: INTECO= Economic Institutions; INSTPOL =Political Institutions;INSTFIN= Financial Institutions; RGDPC = Gross Domestic Product per capita. P value\* and \*\*\* indicate respectively 10% and 1%, of significance levels.

Table 5: The random effects model

FINANCE	Coef.	Std.Err.	z	P >  z
RGDPC	-0.315	0.122	-2.58	0.010***
INFLATION	2.093	0.006	356.30	0.000***
INTECO	-0.487	0.046	-10.52	0.000***
INSTPOL	-0.540	0.0722	-7.47	0.000***
INSTFIN	-1.210	0.217	-5.58	0.000***
CONSTANT	3.276	0.531	6.17	0.000***
sigma u		0.051		
sigma e		0.098		
rho		0.213		
Prob> chi2 = 0.000                      wald chi2 (5) = 351754.94				

Source: Author

Notes: INTECO= Economic Institutions; INSTPOL =Political Institutions;INSTFIN= Financial Institutions; RGDPC = Gross Domestic Product per capita. P value \*\*\* indicates 1%, of significance level.

Table 6: Test Hausman and Test of Breusch-Pagan

Test of Breusch-Pagan		Test Hausman	
Chi2 (1)	9.37	Chi2 (5)	16.88
Prob> chi2	0.0022	Prob> chi2	0.0047

Source: Author

*Test Hausman:* H0: difference in coefficient not systematic

Because the probability of Hausman's test (0.0047) is less than 5%, the fixed-effect model is preferable to the random effects model.

*Test of Breusch-Pagan:* This test decides between a random effects regression and a simple OLS regression. The probability of Breusch- Pagan test (0.0022) is less than 5%, so the null hypothesis is accepted, and the random effect is appropriate.

#### b. The OECD Zone

As in our previous results, we achieved results almost similar to those obtained in our regressions for the WAEMU countries. First of all:

- Global significance tests of both models (Fixed Effects and Random Effects) show that both models are significant

- The signs of the coefficients for the two (2) models are almost identical.

- Apart from the Inflation variable, all other variables are significant. The significance of the "Economic growth" variable is only at the 10% threshold.

Table 7: The fixed\_effect model

FINANCE	Coef.	Std.Err.	t	P >  t
RGDPC	-0.353	0.135	-2.62	0.009***
INFLATION	2.056	0.001	3751.16	0.000***
INTECO	-0.228	0.059	-3.87	0.000***
INSTPOL	-0.697	0.060	-11.58	0.000***
INSTFIN	-0.0367	0.048	-0.76	0.449
CONSTANT	1.627	0.529	3.07	0.002***
sigma u		0.232		
sigma e		0.100		
rho		0.843		
Prob> F = 0.000*** F test that all u_i F(24, 420) = 87.75				

Source: Author

Notes: INTECO= Economic Institutions; INSTPOL =Political Institutions; INSTFIN= Financial Institutions; RGDPC = Gross Domestic Product per capita. P value \*\*\* indicates 1%, of significance level.

Table 8: The random effects model

FINANCE	Coef.	Std.Err.	z	P >  z
RGDPC	-0.326	0.119	-2.73	0.006***
INLATION	2.056	0.001	3808.95	0.000***
INTECO	-0.217	0.0568	-3.81	0.000***
INSTPOL	-0.691	0.0581	-11.89	0.000***
INSTFIN	0.0296	0.046	0.64	0.520
CONSTANT	3.276	0.461	3.26	0.001***
sigma u		0.051		
sigma e		0.098		
rho		0.213		
Prob> chi2 = 0.000		wald chi2 (5) = 2.56e+07		

Source: Author

Notes: INTECO= Economic Institutions; INSTPOL =Political Institutions;INSTFIN= Financial Institutions; RGDPC = Gross Domestic Product per capita. P value \*\*\* indicates 1%, of significance level.

Table 9: Test Hausman and Test of Breusch-Pagan

Test of Breusch-Pagan		Test Hausman	
Chi2 (1)	2404.82	Chi2 (5)	5.55
Prob> chi2	0.0000	Prob> chi2	0.3521

Source: Author

*Test Hausman:* H0: difference in coefficient not systematic

Because the probability of Hausman's test (0.3521) is high than 5%, the random-effect model is preferable to the fixed-effects model.

*Test of Breusch-Pagan:* This test decides between a random effects regression and a simple OLS regression. The probability of Breusch- Pagan test (0.0000) is less than 5%, so the null hypothesis is accepted, and the random effect is appropriate.

Our results in this static panel regression game show us that:

- When working with the Panel of Eight (8) WAEMU countries, the Hausman test tells us that the fixed-effect model should be retained, while with the

sample of the OECD countries, the Hausman test does not allow us to decide between the two models (fixed Effects and Random Effects).

- In both samples and regardless of the estimated model, the coefficients are almost identical. Namely: A positive and significant effect of the new composite indicator of financial development. And the other institutional variables taken in isolation show negative and significant coefficients on the phenomenon of financial development.

## V. CONCLUSION

The WAEMU countries are characterized by what is called financial underdevelopment in literature. This work aimed to show that the quality of (political and economic) institutions has an influence on the process

of financial development in this part of the world on the one hand and to bring a new composite indicator of financial development into the financial development debate on the other hand.

This work tells us first that when a financial system works effectively, it results in mobilization and adequate allocation of available economic resources. We have developed a new composite indicator of financial development, built for 97 countries between 1996 and 2016. It brings together several aspects of financial development. This is a more comprehensive and accurate indicator of the real financial development of countries.

#### *Acronyms and abbreviations*

FD: Financial Development

INST: Institution

INTECO: Economic Institutions

INSTFIN: Financial Institutions

INSTPO: Political Institutions

### REFERENCES RÉFÉRENCES REFERENCIAS

1. Acemoglu, D., Johnson, S., Robinson, J., and Thaicharoen, Y. (2004), "Institutional Causes, Macroeconomic Symptoms: Volatility, Crises, and Growth," *Journal of Monetary Economics*, Vol. 50, N°1, pp. 49-123.
2. Anayiotos G. C. & Toroyan H. (2009), "Institutional Factors and Financial Sector Development: Evidence from Sub-Saharan Africa," *IMF Working Paper WP/09/258*, 7, 197–208.
3. Blundell, R. and Bond, S., (1998), "Initial Conditions and Moment Restrictions in Dynamic Panel Data Models," *Journal of Econometrics*, 87:115-143.
4. Kaufmann D., Kraay A., Mastruzzi M. (2003), «Governance Matters III; Governance Indicators for 1996- 2002», World Bank Policy Research Working Paper, n°2772, Washington D.C.
5. Kaufmann, D., Kraay, A. and Zoido-Lobaton, P. (1999), "Aggregating Governance Indicator," World Bank Policy Research Working Paper No. 2195, Washington, D. C.
6. Kaufmann, Kray, Zoido-Lobaton (2002), "Governance Matters II: Updated Indicators for 2000-01", World Bank Policy Research Working Paper No. 2772
7. Kaufmann, D., Kraay, A. and M. Mastruzzi (2008), "Governance Matters VI: Governance Indicators for 1996-2006", World Bank Policy Research wp, No. 4280.
8. Kuipou, T, C., Nembot N, L., Tafah O, E., (2012), « Financial Development and Economic Growth in CEMAC Countries », *Global Journal of Management and Business Research*, volume XII version 1.
9. La Porta, R., F. Lopez-de-Silanes, A. Shleifer et R. W. Vishny, (1998), "Legal Determinants of External Finance," *Journal of Finance*, 52: 1131-1150.

Secondly, through our econometric work, we have achieved results. Indeed, estimating our static panel model gives us results that validate the relevance of our composite indicator of financial development. Indeed, as in our regressions (Dynamic and Static Panel), the coefficient of the new composite indicator is "positive and significant." Indeed, all of these results reinforce the idea that our new composite indicator of financial development has its relevance (Relevance that we capture by its ability to measure the performance of financial systems for different countries).

GDP: Gross Domestic Product

GFDD: Global Financial Development Database

GMM: Generalized Method of Moment

OECD: Organization for Economic Co-operation and Development

10. La Porta R., Lopez-de-Silanes F., Shleifer A. & Vishny R. (1998), "Law and Finance," *Journal of Political Economy*, 106(6), 1113–1155.
11. Law S. H. & Azman-Saini W. (2008), the Quality of Institutions and Financial Development. MPRA Paper, (12107).
12. Singh R. J., Kpodar K. & Ghura D. (2009), "Financial Deepening in the CFA Franc Zone: The Role of Institutions," *IMF Working Paper WP/09/113*.
13. Solow, R. (1956), "A contribution to the theory of economic growth," *The Quarterly Journal of Economics* 70, 65.
14. Stiglitz J. (1994), "The role of the state in financial markets" *Proceedings of the World Bank Annual Conference on Development Economics, 1993, Supplement to the World Bank Economic Review and the World Bank Research Observer*, pp. 19-52.
15. World Bank, [2007] *World Development Indicators*, Washington DC
16. World Bank, [2007] *Doing Business 2008*, Washington DC
17. World Bank, [2008] *Worldwide Governance Indicators: 1996-2007*, Washington, D.C.
18. Wurgler J. (2000), "Financial Markets and the Allocation of Capital," *Journal of Financial Economics*, 58(1-2), 187–214.

This page is intentionally left blank



# Constructive Trust: The only True Potent Weapon to Fight Corruption among Public Officers in Nigeria

By Dr. Abomaye-Nimenibo, Williams Aminadokiari Samuel

*Obong University*

**Abstract-** This paper treats the topic which seeks to know whether Constructive Trust could be a powerful weapon against corruption among public office holders and Examines the functions of public service and the code of conduct for public servants in Nigeria and to ascertain the provisions of the relevant laws. The Public sector, represent the realm where the government operates for the benefits of the citizenry of any nation. On the adjacent is the private sector where an individual or group of individuals operates. The public service is a typical bureaucratic organization made up of public servants who are recruited based on their skills and qualifications with expertise. Apart from the 1999 Constitution of the Federal Republic of Nigeria, has a whole section for the public service regarded generally as the grand norm and a Revised Public Service Rules, We also have the 2006 public servants rules all of which has to be obeyed and followed unabated. The study, therefore, adopts the descriptive analyses.

**Keywords:** *constructive trust, powerful weapon, corruption, public officers, equity, estate, criminal code, fraud, vendors of land, mortgages, mortgagors, acquisition of property. public service.*

**GJMBR-B Classification:** *JEL Code: E69*



*Strictly as per the compliance and regulations of:*





# Constructive Trust: The only True Potent Weapon to Fight Corruption among Public Officers in Nigeria

Dr. Abomaye-Nimenibo, Williams Aminadokiari Samuel

**Abstract-** This paper treats the topic which seeks to know whether Constructive Trust could be a powerful weapon against corruption among public office holders and examines the functions of public service and the code of conduct for public servants in Nigeria and to ascertain the provisions of the relevant laws. The Public sector, represent the realm where the government operates for the benefits of the citizenry of any nation. On the adjacent is the private sector where an individual or group of individuals operates. The public service is a typical bureaucratic organization made up of public servants who are recruited based on their skills and qualifications with expertise. Apart from the 1999 Constitution of the Federal Republic of Nigeria, has a whole section for the public service regarded generally as the grand norm and a Revised Public Service Rules, We also have the 2006 public servants rules all of which has to be obeyed and followed unabated. The study, therefore, adopts the descriptive analyses. It is unarguable that Nigeria has basic legislation for the regulation of the code of conduct for public service, with the code of conduct Bureau and Tribunal to curb corruption among Public and Civil Servants but to no avail, as enforcement mechanisms put in place to curb general corruption in all sectors of the economy could not prevail. The solution or answer to the question – 'what other tools could then be thought wise to apply in curbing corruption in Nigeria This paper recommends that there is the need for public servants to adhere to the public service laws and regulations and not to violate the laws and enrich themselves. It also recommends that corruption and other vices in all sectors of the economy must be tackled by the government through empowered agencies for effective public service in Nigeria and elsewhere. Nigerians should be educated and enlightened through campaigns held to be patriotic, honest, hold on to integrity, be committed and dedicated to service and above all have the fear of God especially those holding public offices and/or positions. It finally recommends that penal sanctions and punishment alone are not enough to curb public misconduct, but by extension, the application of constructive trust laws as a potent weapon to fight against corruption among public office holders in Nigeria.

**Keywords:** *constructive trust, powerful weapon, corruption, public officers, equity, estate, criminal code, fraud, vendors of land, mortgages, mortgagors, acquisition of property. public service.*

**Author:** *Ph.D., M.Sc., B.Sc. Economics, MBA Management and University Diploma in Personnel Management and Industrial Relations, Director of Post Graduate Studies, School of Post Graduate Studies, Obong University, Obong Ntak, Etim Ekpo Local Government Area, Akwa Ibom State, Nigeria. e-mail: wasanim2006@yahoo.com*

## I. INTRODUCTION

This paper treats the topic which seeks to know whether Constructive Trust could be a powerful weapon against corruption among public officeholders. The public service is an Organization that is saddled with the responsibility of managing the resources of a nation on behalf of the people who are the real owners of these resources, and its affairs are run or administered by both elected and appointed officials. According to section 318 (1) of the constitution of the Federal Republic of Nigeria, 1999 (as amended), elective as well as appointed officials include The President, Vice President, Governors and their Deputies, Ministers and commissioners, members and staff of legislative Houses, Chairmen, Directors of all corporations and companies in which the government has controlling shares. The public sector represents the realm where the government operates for the benefits of the citizenry of the same country. This organization is different from the ones of the private sector which are run by their owners who individually manages them. The public service is a typical bureaucratic organization made up of public servants who are recruited based on their individual skills/qualification(s) and expertise. The 1999 Constitution of the Federal Republic of Nigeria, being the grunt grand norm of the public service, there exist also the Revised Public Service Rules, 2006 for the guidance of public servants whose rules are to be obeyed and follow holistically. In revise, we commonly find the public servants defying these rules with all impunity in the name of immunity and go scout free as the government is less concerned in meeting out punitive measures against violators. It is, therefore, the concern of the researcher to see if some kind of measures existing in the constitution can be invoked to restructure the culprits and divestiture them and recover the looted treasures legally through the application of constructive trust law as these public servants hold positions of trust in the government public service.

## II. CONCEPTUAL CLARIFICATION

The term public service includes the following:

- a. The Civil Service: the career personnel of the presidency, ministers, Extra Ministerial Departments, the National Assembly and the Judiciary.

- b. The Armed Forces, The Police, Other Security agencies e.g. Para-Military organizations.
- c. The Parastatals or Public Enterprises.

a) *Meaning of Public Service*

The Public Service as is contained in section 277 (91) of the Constitution of the Federal Republic of Nigeria of 1979 now section 169 of the 1999 Constitution as incorporating the civil service (Ministerial departments), statutory corporations or parastatals, judiciary, legislature, educational institutions, financially wholly or principally owned by government at the Local, State and Federal levels, The Nigeria Police, the Armed Forces and other organizations in which the Federal or state or local governments owned controlling share(s) or vested interest. The meaning of the concept of Public or Civil Service as established by the Nigerian Constitution is as provided in Sections 171, 172, 206, 208 and 318 and in spelt out under section 10 of the Third Schedule of the 1999 Constitution, as amended. The government's bureaucracy in Nigeria is public service. The government at whatever level pronounces and implements the policies, programs and projects of the nation through the instrumentally of the public service that is service oriented in nature.

b) *Meaning of Civil Service*

The Civil service is an organ the State or Federal government created to ensure that policies and programs of any government at any particular time are carried out as enshrined in the constitution or Act that created it. The Civil Service the main organ of Government subsists having perpetual life and nature of existence irrespective of the changing of constitutionally elected governments; which has been saddled with specific functions or peculiarities or inclinations of that government. The Civil Service is known as:

- a) Non - partisan to enable it to serve any government of the day.
- b) Must be made up of experienced men and women with technical and professional expertise know to enable it to implement government policies and programmes.
- c) Orderliness and ensuring that orderly administration of the country is without stoppage, and rather continuous.
- d) Indispensable continues the traditional role of keeping the functions of government running no matter what changes occurs in the administration of the country.
- e) Operating under rules called the Civil Service Rules and Regulations which guide its conduct.
- f) An entity which operates in hives of activities, divided between Ministers and Departments each having its own set of functions and goals.

c) *Meaning of Parastatals or Public Enterprises*

Parastatals are the operational arm of government ministers; that are established to provide services to the populace. The scopes of the services they provide are usually sufficiently complex to warrant their establishment as separate bodies outside the normal operations of government departments. The laws setting them up to do not only allow considerable flexibility as against the rigid demands of the Civil Service for a high degree of accountability but also guarantee some measure of autonomy. This autonomy is subject to government general direction of their operations to ensure the achievements of the desired objective without sacrificing accountability.

d) *Meaning of Code of Conduct*

A code of conduct is a set of rules outlining the responsibilities of, or proper practices for, an individual, party or organization which concepts include ethical, honour and moral codes, as well as religious laws as explained by section 98(1) of the Criminal Code, The Laws of the Federation of Nigeria and Lagos, 1958.

The International Federation of Accountants provides a working definition of code of conduct as, 'principles, values, standards, or rules of behaviour that guide the decisions, procedures and systems of an organization in a way that (a) contributes to the welfare of its key stakeholders, and (b) respects the rights of all constituents affected by its operations'.

### III. FUNCTIONS OF PUBLIC SERVICE

The public service (Ministers, Department and Agencies) has always been the tool available to the Nigeria government for the implementation of development goals and objective. The Public Service is a responsible organ for the creation of an appropriate conducive environment in which all sectors of the economy can operate maximally. Under the New Public Management, the public service is expected to play a catalytic role in the economic sector by providing the enabling policies for all the sectors of the economy; and whose functions include:

1. Implementing and enforcing economic, political and social policies of the current Government.
2. Designing and implementing public service.
3. Raising revenue for the government.
4. Ensuring managerial, political and financial accountability.
5. Serving people.
6. Monitoring and evaluating the performance of organizations (Public, private or non-Governmental) that is rendering service on behalf of the government.
7. Driving all development initiatives.
8. Delivering quality public service (such as education, electricity, water and transportation).

The public service is the organ responsible for the overall efforts towards nation-building.

a) *The Code of Conduct for Public Officers*

The public service is the machinery that Government uses to render services to the people and as such, public servants should be proper and thorough avenues by constantly and conveniently improved upon to give better services at all times. The rendering of these services must conform to the prescribed code of conduct provided by the constitution of the Federal Republic of Nigeria. Hence, the said constitution which has been established on threshold or standards that would guide a public servant in the discharge of his or her duties. Part 1 of the fifth schedule of the 1999 constitution has generally made provision in respect of code of conduct and work attitude for a public servant.

*Section 1* provides that, 'a public officer shall not put himself in a position where his interest conflicts with his duties and responsibilities'. This section makes it imperative for a public officer not to put himself in a position where his interest conflicts with his duties and responsibilities; which duty is an aspect of the common law to act in good faith. This means that the law imposes on the public officer the duty to show fidelity in the discharge of his duties and responsibilities. The rule is strict and is justified on the basis that would a public officer be faced with such a conflict between his interest and his official duty, he will naturally favour his interest over that of his duty. The law, therefore, requires him not to even allow himself to be exposed to such temptation. Occasionally, a public officer may experience a situation where his interest conflicts with his duty, in the course of his official duty. When such a situation arises, the public officer is liable for a breach of code of conduct, if he allows his interest to take precedent.

*Section 2 (a)* provides that, 'public officer shall not receive or be paid the emoluments of any public office at the same time as he receives or is paid the emoluments of any other public officer'. This section restricts a public officer from receiving or being paid double emoluments of any other public office. This rule is closely linked to that which prohibits a conflict of interest. The rule seeks to prevent a public officer from receiving or be paid emoluments from two different public offices.

*Section 19* of the Fifth Schedule of the 1999 Constitution as amended talk about emolument as follows:

*Any salary, wage, overtime or leave pay, commission, fee, bonus, gratuity, benefit, advantage (whether or not that advantage is capable of being turned into money or money's worth), allowances, pension or annuity paid, given or granted in respect of any employment or office.*

Subparagraph (b) of this section goes on to restrict a public officer from engaging or participating in the management of any private business, profession or trade except where his employment is on a part-time basis. But the rule did not prevent a public officer from engaging in farming or fishing.

*Section 3* prohibits maintaining or operating a foreign bank account by the President, Vice-President, Governor, Deputy Governor, and Ministers of the Federation and Commissioners of the Governments of the States, and such other public officers or persons as the National Assembly may by law prescribed. Today, we see this law being circumvented blatantly.

*Section 4* sanctions a public officer from accepting more than one remunerative position as chairman, director or employee of a company owned or controlled by the Government; or any public authority after his retirement from public service and while receiving a pension from public funds. However, section 14 (a) exempt members of legislative houses from the provision of this section.

Subparagraph (2) of this section prohibits a retired civil servant from receiving any other remuneration from public funds in addition to his pension and the emolument of such one remunerative position. This provision prohibits a public officer from benefiting twice from public funds when others are yet to benefit even once.

*Section 5* prohibits retired and ex-serving, Presidents, Vice-Presidents, Chief Justices of Nigeria, Governors and Deputy Governors of a State from serving or accepting employment in foreign companies or enterprises. This is due to the sensitive nature of the offices they have hitherto held in Nigeria.

*Section 6* prohibits a public officer from asking for and accepting property or benefit of any kind for himself or from any other person on account of anything done or omitted to be done by him in the discharge of his duties.

Subparagraph 2 of Section 6 prohibits the receipt of any gift or benefit by a public officer from commercial firms, business enterprises or persons who have contracts with the Government; whereas Sub-Paragraph 3 allows a public officer to accept personal gifts or benefits from relatives or personal friends, and donations or gifts to public institutions.

The import or weight of these considerations and stipulations is that a public servant must be loyal and honest to government and must fight against gratifications. Public servants are paid salaries from government pulse for doing their jobs and must not receive gratifications for government jobs being done by them in the course of their job functions.

*Section 7* provides that the President and his Vice, Governor and his Deputy, Minister and Commissioner, Permanent Secretary, Head of any public Corporation,



University, or other Parastatals and organizations shall not accept:

- a) A loan, except government or its agencies, a bank, building society, mortgage institution or other financial institution recognized by law; and
- b) Any benefit of whatever nature from any company, contractor, or businessman, or the nominee or agent of such person.

With a proviso that Head of a public corporation or a University or other parastatal organization may, subject to the rules and regulations of the body, accept a loan from such body.

Section 8 is an extension of good faith and it is to the effect that a public officer is under an obligation not to take a bribe or any kind of inducement while executing his duties or responsibilities. A bribe can take the form of cash payment as secret commission, discount against other transactions or bonus for service rendered. A bribe represents a particular type of secret profit and the law takes a very serious view of secret benefits as it can compel a public officer to compromise his position. When a bribe is established, it constitutes a violation of the code of conduct.

*Section 9 provides that:*

*A public officer shall not do or direct to be done in the house of his office, any arbitrary act prejudicial to the rights of any other person knowing that such act is unlawful or contrary to any government policy.*

Section 10 also provides that, 'a public officer shall not be a member of, belong to, or take part in any society the membership of which is incompatible, the functions or dignity of his office'. This provision is similar to Rule 020210 of the Public Service Rule which provides that;

*No public officer shall become a member of any secret society. Any public officer who is a member of such society shall renounce his membership forthwith, by making a statutory declaration to that effect, or resign his appointment, or retire from the service.*

This rule encourages ethics and morality in the public service by restraining officers from cultism and other unwanted social behaviours.

*Section 11* is also an important provision of the code of conduct that has a very good foundation in enhancing probity, honesty and good public image for the public servants. The section provides that any public officer shall within three (3) months after being appointed into office and thereafter, the end of every four (4) years of the end of his term, submit to the Code of Conduct Bureau a written declaration of all his properties, assets and liabilities and those of his unmarried children under the age of 18 years. Any statement in the declaration

that is found to be false by any authority or person authorized in that behalf to verify it shall be deemed to be in breach of the code and any property or assets acquired by a public officer after any declaration required under the constitution and which is not fairly attributable to the income, gift or loan approved by the code shall be deemed to have been acquired in its breach unless the contrary is proved. This provision of the law is in line with the legal concept of public accountability. Therefore, Public Officers shall remain honest and shall not misuse or misappropriate public funds. They are not expected to enrich themselves by the advantage of their access to public funds and authority.

*Section 12* provides that any allegation against a public officer who has committed a breach of or has not complied with the provisions of this code should be reported to the code of conduct Bureau. The Bureau has the power to investigate the alleged violation and if a case is found, institute an action at the code of conduct Tribunal. The Tribunal has the power to handle cases of breach of work ethics and code of conduct. Therefore, when any public officer is found guilty of contravening any section of the provisions of the code of conduct, then the tribunal shall impose punishment which includes any of the following: -

- a. Vacation of office or seat in any legislative house, as the case may be
- b. Disqualification from membership of a legislative house and the holding of any public office for a period not exceeding two years; and
- c. Seizure and forfeiture to the State of any property acquired in abuse or corruption of office.

In the recent case of *Ahmed v Ahmed* at Supreme Court while giving life to the above provision, held thus:

*"Any allegation that a public officer has committed a breach of or has not complied with the provisions of this code shall be made to the code of conduct Bureau". The foregoing provisions are unambiguous and so construed literally mean that any breaches of any provisions of the said 5th Schedule or matters of noncompliance with any provisions of the code shall (meaning that it is mandatory i.e. must) be made to the code of conduct Bureau that has established its Tribunal with the exclusive jurisdiction to deal with any violations of any provisions under the code, if I may emphases any violation shall be made to code of conduct Bureau...*

This provision has expressly ousted the powers of ordinary regular courts in respect of such violation.

- b) *The Setup of Code of Conduct Bureau and Tribunal*  
The Political Bureau recommended to the Federal Military Government in 1988 the establishment

of a Code of Conduct Bureau and Tribunal to strengthen the existing pieces of machinery for monitoring the actions and behaviour of public officers, to ensure that they conform to the highest standards of public morality and accountability. The Political Bureau observed that corruption and indiscipline were the banes responsible for our underdevelopment. The recommendation of the Public Bureau resulted in the establishment of Code of Conduct Bureau and Code of Conduct Tribunal with powers to enforce the code of conduct for public officers as enshrined in the 1979 Constitution of the Federal Republic of Nigeria. These provisions were equally retained in the Third and Fifth Schedules of the 1999 Constitution of the Federal Republic of Nigeria (as amended) respectively and the establishment of Code of Conduct Bureau and Tribunal Act.

The importance of the Code of Conduct Bureau was aptly stated by Ademola (2012) in the following words:

*... The Bureau has been doing all within its powers and limited resources to put public officers in constant check through public enlightenment, Administering of Assets Declaration Forms (Form CCB – 1) to public officers and prosecuting erring officers at the Code of Conduct Tribunal. At the moment, more efforts are being channelled into the prevention of various abuses of public office through constant monitoring of public officers' assets base and verification of same at regular intervals, workshops, seminars and other forms of public enlightenments<sup>10</sup>.*

c) *Statutory Functions of the Code of Conduct Bureau*

The Code of Conduct Bureau has a clear mandate to ensure corrupt-free public service in all tiers of government in Nigeria as its functions are provided for under paragraph 3 of the Third Schedule, Part 1, Section A of the 1999 Constitution of the Federal Republic of Nigeria as follows:

- a. To receive declarations by Public Officers made under paragraph 11 of Part 1, of the fifth schedule of the 1999 Constitution.
- b. Examine the declarations following the requirements of the Code of Conduct or any law of the Federal Republic of Nigeria.
- c. Retain custody of such declarations and make them available for inspection by any citizen of Nigeria on such terms and condition as the National Assembly may prescribe.
- d. Ensure compliance with and where appropriate enforce the provisions of the Code of Conduct or any other related law.
- e. Receive complaints of noncompliance with the Code of Conduct, investigate the complaint and where appropriate refer such matters to the Code of Conduct Tribunal.

It is clear from the above functions of the Code of Conduct Bureau, which renders strategic and important roles in ensuring that public officers are working and conducting themselves within the ambit of the law.

d) *Who is a Public Officer?*

A Public Officer is the holder of Public office under the Crown, or public agent (Osbon's Concise Law Dictionary, 8th Edition, 1993). Now if a public officer is an agent of the public, who then is the Principal? The simple answer is – The Public. Thus the Public Officer by extension holds the office in trust for the benefit of the Public. If this argument is acceptable, thus, the Public Officer by extension holds the office in trust for the benefit of the Public. If this argument is accepted, then it is easy to conclude that the Public Officer is a trustee of a Sort.

e) *What then is Corruption?*

According to the Standard Dictionary International Edition, 1978, Corruption is a state of being corrupted, while to be corrupt means dishonesty or bribe. Corruption is an offence under section 98 (1) of the Criminal Code, The Laws of the Federation of Nigeria and Lagos, 1958. The section prescribes a seven years imprisonment to any Public Officer found guilty of the offence.

Corruption according to Wikipedia is the abuse of entrusted power for private gain. In a philosophical, theological, or moral discussion, corruption is the abuse of bestowed power or positions to acquire a personal benefit. Corruption may include many activities such as bribery and embezzlement.

Obayelu (2007) defined Corruption in a paper presented at the 2007 African Economic Conference, as efforts to secure wealth or power through illegal means for private gain at public expense; or a misuse of public power for private benefit. Corruption like cockroaches has coexisted with human society for a long time and remains as one of the problems in many of the world's developing economies with devastating consequences.

Agbu (2001), defines corruption as the behaviour of public and private officers who improperly and unlawfully enrich themselves and/or those closely related to them, or induce others to do so, by misusing the position in which they are placed. Systemic corruption also referred to as entrenched corruption, which occurs where bribery (money in cash or kind) is taken or given in a corrupt relationship. These include kickbacks, pay-off, sweeteners, greasing palms, etc.) are widely practised on a large or small scale. It is regularly experienced when a license or a service is sought from government officials especially in the case of Public Office holders which differs from petty corruption in that it is not individualized. We have Systemic Corruption that is apparent whenever the

administration itself transposes the expected purposes of the organizations; by forcing participants to follow what otherwise would be termed unacceptable ways and punishing those who resist and try to live up to the formal norms (International Center for Economic Growth, 1999).

Agbu, (2001) went on to say that Corruption is a global problem, and exists in varying degrees in different countries Corruption is not only found in democratic and dictatorial politics but also feudal, capitalist and socialist economies.

Dike, (2005) says that Christians, Muslims, Hindus, and Buddhists cultures are equally bedevilled by corruption. Corrupt practices according to Lipset and Lenz, (2000) say that corruption is not an issue that just begins today; but the history is as old as the world.

The World Bank (1997) defines corruption as the abuse of public office for private gains; and Public office is abused through rent-seeking activities for private gain when an official accepts, solicits, or extorts a bribe. Public office is also abused when private agents actively offer bribes to circumvent public policies and processes for competitive advantage and profit. Public office can also be abused for personal benefit even if no bribery occurs, through patronage and nepotism, the theft of state assets or the diversion of state resources. A public official is said to be corrupt if he accepts money for doing something that he is either under obligation or duty to do or not. Corruption is a betrayal of trust more especially in public office resulting directly or indirectly from the subordination of public goals to those of the individual interest. Thus a person who engages in nepotism has committed an act of corruption by putting his family interests over those of the larger society (Gire 1999).

It is a cankerworm that has eaten deep in the fabric of our nation. It ranges from petty corruption to political/bureaucratic corruption or Systemic corruption (International Center for Economic Growth, 1999). World Bank studies put corruption at over \$1 trillion per year accounting for up to 12% of the Gross Domestic Product of nations like Nigeria, Kenya and Venezuela (Nwabuzor, 2005).

In the opinion of Agbu, (2003) corruption is endemic as well as an enemy within a nation. Economic and Financial Crime Commission (EFCC), (2005) says that corruption is a cankerworm that has eaten deep in the fabric of this country and had made the various sectors of GDP to have stunted growth. Independent Corrupt Practices Commission (ICPC), (2006) says that corruption has been the primary reason behind the country difficulties in developing fast. This is evident in Transparency International's consistent rating of Nigeria as one of the top three most corrupt countries in the world.

Corruption has always been in existence with human development and efforts at curbing its menace has always been short-lived. Modern waves of corruption, of which fraud is a subset, do not seem to recognize the essence of sovereignty, territorial boundaries or race. Corruption is a global phenomenon not peculiar to Nigeria alone.

Transparency International, a non-government organization using the Corruption Perception Index (CPI) categorized Nigeria as the first in the ranking of corrupt nations of the world in the year 2000. In 1999, Nigeria was ranked 98 out of the 99 countries according to Salisu, (2006). In 2001 the image of Nigeria slipped further to 90 out of 91 countries and coming as the second most corrupt nation with Bangladesh as the most corrupt. Nigeria maintained the same position as Bangladesh in 2003, (Ike 2009).

A onetime Nigerian Head of State was reported to have paid a total sum of N12.4 billion between September 1988 and 30th June 1994 into a "Special Dedicated Account", funds which under normal conditions should have been paid into the Federal Accounts as required by law, News watch (2004) and The Punch Editorial (2003). Out of this amount, the report further reveals that the military President and the Governor of the Central Bank clandestinely disbursed N12.2 billion without any explanation as to the extra-budgetary expenditures.

Many factors account for the spate of corruption in Nigeria's social life. One is that the incapacitating socio-economic situation of Nigerians must have heightened the potential for corrupt and sharp practices in the public and private sectors of the economy. Secondly, the leaders get deep-rooted in corruption because they lack independent economic base; and therefore rely on the state for survival, and they who are perpetrators of fraud and corrupt enrichment often go scot-free. Former President Obasanjo in 2000, highlighted the elements of corruption in Nigeria as (i) use of one's office for pecuniary (money), (ii) gratification (iii) influence peddling, (iv) insincerity in advice to gain, tardiness, slovenliness and less than a full day's work for a full day's pay.

In Nigeria, corruption cannot be detached from poverty amongst the populace who on the average earn just \$260 a year which is far less a pay that can't stop an average Nigerian from being corrupt. It is of prime importance to know that less than one per cent of the population own over 60 per cent of the nation's wealth; and over 50 per cent of the wealth is however kept overseas thus leaving Nigeria's economy in very bad shape, poor and in servitude. As a result of mismanagement and relentless assault on the public, Nigeria's GDP per capita dropped from \$1,010 in the early 1980s to less than \$300 in 2006 (CBN Statistical

Bulletin,2007). About 70 per cent of Nigerians according to Sanda, (2002) survive barely on an income that is less than one dollar per day.

However, as part of efforts geared at fighting corruption and strengthening the economy, Nigeria embarked on an aggressive pursuit of economic reform through privatization, banking sector reform, anti-corruption campaigns and establishment of clear and transparent fiscal standards since 1999 with no apparent improvement.

Fraud is criminal deception, whereby the use of false representation or trick, or deception intended to benefit a party is common. Fraud also means the use of criminal deception by someone to obtain an unjust or illegal advantage from another person. Fraud also means the diversion of persons or organizations money, property or material by someone for the satisfaction of the perpetrators personal or selfish gains through criminal deceptive means. Fraud as an act or cause of deception or trick deliberately indulged or practised by someone to gain some advantage dishonestly from another person. A person is said to be fraudulent having the intent to defraud, having the intention to deceive and using such deceit, obtain some advantage for himself and to cause loss to another person. Corruption is synonymous with decomposition, moral deterioration, bribery, kickbacks, embezzlement, and the use of corrupt practices. Fraud is a component of Corruption.

#### f) *Constructive Trust*

According to Osbon's Concise Law Dictionary (supra) is a trust "raised by Equity to satisfy the demands of justice and good conscience without reference to any presumed intention of the parties". Kodilinye (1994) defined Constructive Trust as an imposition "by the Court on grounds of conscience, without reference to the implied or presumed intention of any person". Even though the concept, according to him, is imprecise, in America its wide application is used against unjust enrichment. However, in English law, the scope is narrower to the following headings:

- i. Unauthorized profits by trustees and other fiduciaries.
- ii. Strangers receiving or intermeddling with trust property.
- iii. Vendors of the land after signing the Contract of Sale.
- iv. Mortgages and Mortgagors in certain situations.
- v. Acquisition of property by fraud.

Of these, the first application of constructive trust is more appealing as a weapon against corruption among public officers.

According to the Trust Concept, a trustee is a person who holds the trust property for the benefit of the cestus que trust, though the legal owner of the property, the trustee is not to benefit anything from the Property.

- a. *Trust* refers to the wilful dispossession of one's property by passing on or vesting the ownership of its title to one or more persons known as trustees who can only apply the benefits arising from the property so bequeathed at the appropriate time to the benefit of the beneficiary (ies). A trust can be created when an estate or property is held by a person known as a trustee for the benefit of another person so named in the will called a beneficiary. Trust also relates to an equitable obligation that is binding on a person called the trustee dealing in a property he has custody of, for the benefit of persons called beneficiaries of which he/she may be one beneficiary.
- b. *Trustee* refers to a person whom the administration of a trust is given, and holds the property on trust on behalf of another person known as a beneficiary. However, nothing in law precludes a trustee from being a beneficiary if so appointed. Trustees are persons to whom a property (ies) is/are legally committed in trust, to be applied either for the benefit of specified individuals or public uses; one who is instructed with property for the benefit of another. It may also be a person in whose hands or care the effects of another person are attached in a trustee process. It may also be an attachment of a debtor's wages, credits, or property in the hands of a third person solely for the interest of the creditor. In a simple term, your property is kept within the trust to administer in your interest either to generate interest or profit from it. This interest or income so generated may be for my exclusive use or your use but some stipend has to come to the fund manager and the government (Abomaye-Nimenibo, 2017: 171-178)

By extension, that is "a constructive trustee of any profits he makes out of the property" under his care, for the benefit of the beneficiary (Kodilinye, supra). Under the authority of *De Bussche V. Alt. (1877) 8 Ch.D.286*, the above rule applies not only to trustees but also to other fiduciaries such as agents, partners and Company Directors.

"It is an inflexible rule of a Court of equity that a person in a fiduciary position is not, unless otherwise expressly provided, entitled to make a profit; he is not allowed to put himself in a position where his interest and duty conflict" Lord Herschell in *Bray V. Ford (1896) A.C. 44, H.L.*, at p.51.

A leading Case is *Keech V. Sand ford (1726) Sel. Cas. t. King 61*. In that case, the defendant was the express trustee of the Lease of a market for an Infant. The defendant requested a renewal in favour of the infant but this was refused by the lessor on grounds of the infant's Contractual incapacity. As the lessor had no objection to a renewal in favour of the trustee, he took a

renewal on his behalf. The defendant was held to be a constructive Trustee of the new lease for the infant.

In Nigeria, this rule was applied both in *Marques V. Edematie* (1950) 19 N.L.R. 75 and *Ukatta V. Emembo* (1963) 7 E.N.L.R. 139. In the latter case, the defendant agreed in writing to assign to the Plaintiff the lease of a plot of land at Aba as soon as he obtained an assignment of it from the Crown lessee. In furtherance of the agreement, the Plaintiff paid N2, 000.00, the full purchase price to the defendant. The Plaintiff, at the request of the defendant, paid the renewal fees, while the defendant obtained the renewal in his name. It was held that the defendant was a Constructive trustee.

This principle could be applied for example in situations where some public officers in Nigeria, acquire property in one of the Nigerian Newspapers that Retired Major General Useni, at the time he was Minister of the Federal Capital Territory, unjustly acquired over fifty (50) houses at the expense of the masses. If this accusation is established to be a fact, General Useni should be held as holding those houses in trust for Nigerians. Both his "interest and duty must not conflict".

Again, public officers who receive or ask for a bribe or incidental profits during the performance of their duty do not deserve such profits and should be regarded as constructive trustee of the bribe or incidental profit in trust for the person (s) from whom the bribe was taken. This law if in vogue now will reduce corruption and fraud in Nigeria and by extension the whole world. A constructive trust is a good weapon to fight corruption in Nigeria and elsewhere.

#### IV. CONCLUSION

Public service is too important in public service delivery and governance. Therefore, the quality of the public service largely determines the pace of development of any nation due to the crucial role public servants play in the formulation and implementation of programs and policies of governments. The public officers propel the engine of societal growth must as a matter of fact and principle set good examples to other members of the society by living and acting above board in their conducts and behaviours. The template of good behaviour has been set by the Constitution of the Federal Republic of Nigeria 1999 (as amended) should be holistically followed in terms of probity.

Regardless of the enormous ineffectiveness of the code of conduct laws, many public servants seemed not to be fully aware of the provisions therein; and even those who are aware of it were found to hardly put its provisions into implementation. The Code of Conduct Tribunal and its performance have been very poor in convicting guilty officers who enriched themselves at the expense of the government irrespective of the enormous powers it was granted under the Constitution. The tribunal hardly passes judgment against violators of the

code of conduct of the law by convicting them. Trendossguy posted on the internet on November 6, 2016, a list of Nigerian looters as released by World Bank names of Nigerian looters who deposited a huge sum of money in London, Swiss (\$), USA(\$), and Germany Banks respectively as follows:

- i. *General Ibrahim Babangida (6.25bn 7.41bn 2.00bn 9.00bn)*
- ii. *General Abdulsalami Alhaji Abubakar (1.31bn 2.33bn 800M) etc.*

These generals were regarded as sacred cows that could not be touched by anybody and could not face the penal laws of Nigeria. The flexibility of the Concept of Constructive trust could be expanded to cover areas bothering on corruption among Public officers. Perhaps by the time a corrupt Public Officer realises that the unjust enrichment of himself he has made in actuality belongs to him legally but benefits accruing there from will benefit the actual person(s). The writer or researcher concludes that by extension, that constructive Trust could be a potent weapon against corruption among public officers. Therefore, a constructive trust is a potent weapon against corruption among Public Officers.

#### V. RECOMMENDATIONS

The following recommends are made to solve the Nigerian endemic and structured institutional corruption in Nigeria:

- i. Public Servants should adhere to public service laws and regulations and not violate the laws to enrich themselves.
- ii. Corruption and other vices in all sectors of the economy must be tackled by the government through empowered agencies for effective public service in Nigeria and elsewhere.
- iii. Nigerians should be educated and enlighten the populace through campaigns to discourage corrupt practices, especially in the public service.
- iv. Nigerians should be taught and trained to be patriotic, honest, hold on to integrity at all times, be committed and dedicated to service.
- v. All humans including those of Nigeria should always have the fear of God especially those holding public offices and/or positions in the country.
- vi. Penal sanctions and punishments should be meted out to corrupt Public Office holders both in Nigeria and abroad.
- vii. There should be no sacred cow no matter whose horse is gourd.
- viii. More concerted efforts should be channelled into the prevention of various abuses of public office through constant monitoring of public officers'



- assets base and verification of the same at regular intervals.
- ix. The Code of Conduct Bureau should rise now and exercise all its powers and limited resources to put public officers in constant check through public enlightenment campaigns, vigorously administering Assets Declaration Forms (Form CCB-1) to public officers and prosecuting erring officers at the Code of Conduct Tribunal.
  - x. *Application of constructive trust laws without fear or favour as a potent weapon to fight against corruption among public office holders in Nigeria.*
  - xi. *Workshops, seminars and other forms of public enlightenments should be launched about the application of Constructive Trust Law.*
- ### REFERENCES RÉFÉRENCES REFERENCIAS
1. Abomaye-Nimenibo, W.A.S (2017). The Concept and Practice of Taxation in Nigeria, Port Harcourt, Nimehas Publishers.
  2. Adebo A. Why Code of Conduct Bureau should not be removed from the Constitution (2012) available at [www.thisdaylive.com/article/why-codeof-conduct-bureau-should-not-be-removed-from-the-constitution](http://www.thisdaylive.com/article/why-codeof-conduct-bureau-should-not-be-removed-from-the-constitution). Accessed on 05 / 02 / 2015.
  3. Ademola Adebo (2012). Why Code of Conduct Bureau should not be removed from the Constitution—available at [www.thisdaylive.com/article/whycode-of-conduct-bureau-should-not-be-removed-from-the-constitution](http://www.thisdaylive.com/article/whycode-of-conduct-bureau-should-not-be-removed-from-the-constitution). Accessed on 08/10/2018.
  4. Agbu. O. (2003). Corruption and Human Trafficking: the Nigerian case. West Africa Review (2003)
  5. Ayodele, O. F. 'Performance Measurement and Management,' a publication of the National Open University, School of Business and Human Resources Management, Lagos. [www.nou.edu.ng](http://www.nou.edu.ng)? Accessed on 20/06/2014.
  6. CBN Statistical Bulletin, 2007
  7. Code of Conduct Bureau and Code of Conduct Tribunal enshrined in the 1979 Constitution of the Federal Republic of Nigeria.
  8. Dankofa Y., Work Attitude and Organization Efficiency: The Need to Enforce the Code of Conduct in the Nigerian Civil Service in Wamako A.M (ed)
  9. Ethics and Discipline in Public Service (Ahmadu Bello University Press Limited, Zaria, 2013).
  10. Dike, V.E (2005). Corruption in Nigeria: A New Paradigm for Effective Control. Africa Economic Analysis. Retrieved on 1st August 2007 from <http://www.jsdafrica.com/Jsda/Summer1999/articles/pdf/ARC%20-%20A%20Psychological%20Analysis%20of%20Corruption%20in%20Nigeria.pdf>
  11. EFCC reports (2005). Effect of Corruption on Nigeria's Economy. Nigeria EFCC Information Communication Technology Department. Abuja.
  12. FRN (2006) Public Service Rules (Revised to December 2006)
  13. FRN (2011) The 1999 Constitution of the Federal Republic of Nigeria with amendment 2011.
  14. FRN (2013) Ahmed v. Ahmed (2013) Law Pavilion Electronic Report- 21143.
  15. FRN (2004) Code of Conduct Bureau and Tribunal Act, Cap. 15 Laws of the Federation of Nigeria, 2004.
  16. Gire, J. T, (1999). A Psychological Analysis of Corruption in Nigeria. Journal of Sustainable Development. Retrieved 20 April 2007 from <http://www.jsdafrica.com/Jsda/Summer1999/articles/pdf/ARC%20%20A%20Psychological%20Analysis%20of%20Corruption%20in%20Nigeria.pdf>
  17. I.C.P.C (2006). Nigeria and Corruption. Independent Corrupt Practices and Other Related Offences Commission
  18. Ike, D. N (2009): "Corruption and its Impact on the Economic Development of Nigeria", 28th Public Lecture, 17th April 2009, Covenant University, Ota, pp.10-12.
  19. International Center for Economic Growth (1999). ICEG Information Brief 6, Causes and Effects of Corruption, Nairobi, 1999.
  20. International Good Practice Guidance (2007), Defined and developed an effective code of conduct for the organization, available at <http://www.ifac.org>. Accessed on 05/02/2015.
  21. Lipset, S. M., and Lenz, Gabriel S. (2000). Corruption, Culture, and Markets, in Culture Matters, Lawrence E. Harrison, and Samuel P. Huntington, eds., (New York: Basic Books, 2000), p.112.
  22. Marshall, Junaidu Bello and Murtala, Aminu M. (2015), Public Service in
  23. Nigeria- An Overview of Functions and Code of Conduct, Global Journal of Politics and Law Research, Vol.3, No.1, pp.61-69, March 2015
  24. Nwabuzor, A. (2005). Corruption and Development: New Initiatives in Economic Openness and Strengthened Rule of Law. Ethics, a publication of Springer Volume 59, Number 1, June 2005, pp. 121-138(18)
  25. Obayelu (2007). Effects of Corruption and Economic Reforms on Economic Growth and Development: Lessons from Nigeria, Being a paper prepared and submitted for the 2007 African Economic Conference
  26. Obasanjo, O (2000): "President Obasanjo's Speech at the Signing Ceremony of the Anti-Corruption Law of the Federal Republic of Nigeria". Times Press, Lagos
  27. Olaopa T., A Critical Overview of Public Sector Reform in Nigeria; Framework of Transformation for the Federal Civil Service (NIPSS, Kuru, 2012).
  28. Osbon's Concise Law Dictionary, 8th Edition, 1993.

29. Pagbemi A. O. (2014), Performance Measurement and Management, a Publication of the School of Business and Human Resources Management, National Open University, Lagos, accessed from www.nou.edu.ng on 20 June 2014.
30. Paragraph 3 of the Third Schedule, Part 1, Section A of the 1999 Constitution of the Federal Republic of Nigeria as amended.
31. Paragraph 11 of Part 1, of the fifth schedule of the 1999 Constitution of the Federal Republic of Nigeria as amended.
32. Ribadu, M. N (2003). Economic Crime and Corruption in Nigeria: the Causes, Effects, and efforts aimed at combating these vices in Nigeria. Paper presented at the Monaco World Summit 5th International Summit on Transnational Crime Monte Carlo 23rd and 24th October 2003
33. Salisu, M. A (2006): "Corruption in Nigeria", Lancaster University Management School, Working Paper (2000-2006), pp 1-2, 15, 23.
34. Sanda, A. B (2002): "Moving Nigerian Economy Forward", Nigerian Tribune, October 29, p.25.
35. Sani A.M., (2013). Discipline and Ethical Values: A Tool for Effective Public Service Delivery in Wamako A.M (ed), Ethics and Discipline in Public service (Ahmadu Bello University Press Ltd, Zaria.
36. Section 98(1) of the Criminal Code, The Laws of the Federation of Nigeria and Lagos, 1958
37. Sections 171, 172, 206, 208 and 318 and in section 10 of Third Schedule of the 1999 Constitution of the Federal Republic of Nigeria, as amended.
38. The International Federation of Accountants
39. The News Watch (2004), Lagos, July 17, pp 16-20
40. The Punch Editorial (2003): November 14, p.17
41. The Standard Dictionary International Edition, 1978
42. The Third and Fifth Schedules of the 1999 Constitution of the Federal Republic of Nigeria (as amended).
43. The Transparency International Corruption Index (CPI), 2001; pp.234-236
44. The Transparency International Corruption Index (CPI), 2002 [http://www.transparency.md/Docs/TI\\_CPI2002\\_en.pdf](http://www.transparency.md/Docs/TI_CPI2002_en.pdf),
45. Transparency International Corruption Index 2004 [http://www.investinestonia.com/pdf/CPI\\_2004.pdf](http://www.investinestonia.com/pdf/CPI_2004.pdf), Accessed on May 28, 2008
46. Trendossguy (2016). Complete list of Nigerian looters released by World Bank See the amount of money they stole, Internet posting on 6th November 2016.wikipedia.org/wiki/code-of-conduct. Accessed on 05/02/2015.
47. World-Bank (1997). Helping Developing Countries Combat Corruption: The Role of the World Bank. New York, Oxford University Press Crimes in Nigeria," p. 39-51

*Cited Cases*

1. Bray v. Ford (1896) A.C. 44, H.L, at p.51.
2. De Bussche v. Alt. (1877) 8 Ch.D.286
3. Keech V. Sandford (1726) Sel. Cas. t. King 61.
4. Lord Herschell in Bray V. Ford (1896) A.C. 44, H.L, at p.51.
5. Marques V. Edematie (1950) 19 N.L.R. 75.
6. Ukatta V. Emembo (1963) 7 E.N.L.R. 139.



GLOBAL JOURNAL OF MANAGEMENT AND BUSINESS RESEARCH: B  
ECONOMICS AND COMMERCE

Volume 20 Issue 1 Version 1.0 Year 2020

Type: Double Blind Peer Reviewed International Research Journal

Publisher: Global Journals

Online ISSN: 2249-4588 & Print ISSN: 0975-5853

## Influence De La Concurrence Sur L'efficience Bancaire Dans Les Pays En Développement

By Mela Christel, Bitia Charles-Alain & Abessolo Yves André

*Abstract-* The purpose of this article is to assess the effect of competition on banking efficiency in developing countries and particularly some countries of the CEMAC during the period 2000-2013. To achieve this, our methodological approach is structured around two stages. First, we calculate the banking efficiency levels using the non-parametric input-oriented DEA method with variable returns to scales. Second, we assess the effect of competition as measured by the CR3 concentration ratio on efficiency levels using a Tobit model. The results reveal a negative effect of competition on bank efficiency.

*Keywords:* competition, efficiency, DEA, tobit model.

*GJMBR-B Classification:* JEL Code: F63



*Strictly as per the compliance and regulations of:*



RESEARCH | DIVERSITY | ETHICS

# Influence De La Concurrence Sur L'efficience Bancaire Dans Les Pays En Développement

MELA Christel <sup>α</sup>, Bita Charles-Alain <sup>σ</sup> & Abessolo Yves André <sup>ρ</sup>

**Résumé-** L'objet de cet article est d'évaluer l'effet de la concurrence sur l'efficience bancaire dans les pays en développement et particulièrement quelques pays de la CEMAC au cours de la période 2000-2013. Pour y arriver, notre démarche méthodologique s'articule autour de deux étapes. En premier lieu, nous calculons les niveaux d'efficience bancaire grâce à la méthode non paramétrique DEA orientée input avec rendements d'échelles variables. En second lieu, nous évaluons l'effet de la concurrence mesurée par le ratio de concentration CR3 sur les niveaux d'efficience à l'aide d'un modèle Tobit. Les résultats révèlent un effet négatif de la concurrence sur l'efficience bancaire.

**Mots-clés:** concurrence, efficience, dea, modèle tobit.

**Abstract-** The purpose of this article is to assess the effect of competition on banking efficiency in developing countries and particularly some countries of the CEMAC during the period 2000-2013. To achieve this, our methodological approach is structured around two stages. First, we calculate the banking efficiency levels using the non-parametric input-oriented DEA method with variable returns to scales. Second, we assess the effect of competition as measured by the CR3 concentration ratio on efficiency levels using a Tobit model. The results reveal a negative effect of competition on bank efficiency.

**Keywords:** competition, efficiency, DEA, tobit model.

## I. INTRODUCTION

La concurrence<sup>1</sup> est généralement considérée comme un vecteur de l'efficience dans la plupart des industries. En ce qui concerne le secteur bancaire, elle réduit le coût de l'intermédiation, ce qui augmente le volume de l'épargne et de l'investissement,

*Author α:* Docteur en sciences économiques. Monitrice à la Faculté des Sciences Économiques et de Gestion de l'université de Maroua-Cameroun BP: 46 Maroua. e-mail: mel.christel@yahoo.fr

*Author σ:* Maître de Conférences à la Faculté des Sciences Économiques et de Gestion - Université de N'Gaoundéré-Cameroun

*Author ρ:* Maître de Conférences agrégé à la Faculté des Sciences Économiques et de Gestion de l'université de Maroua-Cameroun

<sup>1</sup> Selon la théorie standard, la concurrence est un état statique dans lequel les firmes ne peuvent pas vendre à un prix excessif et puis gagner les profits excessifs. D'autre part, d'autres économistes, en particulier ceux de l'école autrichienne, ont critiqué cette conception statique et ont maintenu le rôle central joué par la rivalité dans la définition de la concurrence. Pour l'école autrichienne, les économistes néoclassiques font un mauvais usage du terme concurrence en l'appliquant à un état plutôt qu'à un processus. La concurrence est considérée non pas comme un état statique mais comme processus complexe de la rivalité entre les firmes. Le cœur de la concurrence est le comportement des firmes sur le marché. De manière simple, l'efficience signifie l'atteinte d'un objectif à moindre coût.

et revigore la croissance économique. La concurrence accroît l'efficience par une réduction des prix des services bancaires, il s'en suit une augmentation conséquente de la contribution des banques à l'économie sous la forme de prêts (Berger et Hannan, 1994 ; Claessens et Laeven, 2004).

Dans un contexte de plus en plus concurrentiel, l'efficience devient ainsi un impératif de survie pour les firmes bancaires. Ainsi, l'analyse de l'efficience bancaire est importante à plus d'un titre. Elle est un outil d'information pour les autorités de régulation dans la mesure où elle permet d'évaluer les politiques réglementaires et structurelles initiées par les autorités à travers l'évaluation de leurs actions sur la performance des banques et la stabilité du secteur. Par ailleurs, en identifiant les bonnes et mauvaises pratiques l'analyse de l'efficience permet aux banques d'améliorer leur performance managériale.

Promouvoir l'efficience du système bancaire reste encore un défi majeur pour plusieurs économies en développement, notamment celles de la zone CEMAC. Des années après l'ensemble des réformes (libéralisation, privatisation) entreprises dans le système bancaire des pays de la CEMAC, le système bancaire de la sous-région est encore sous-développé et inefficace en matière d'intermédiation (Florian, 2015). Ces systèmes sont rentables et ne répondent pas encore de manière satisfaisante au financement de l'économie qui est leur raison d'être. L'une des raisons souvent avancées pour expliquer la faible efficience couplée à une forte rentabilité est le manque de concurrence.

Les études sur le lien concurrence-efficience bancaire aboutissent à des résultats controversés. D'une part, le Quiet Life Hypothesis soutient une relation négative entre le pouvoir de marché et l'efficience. En effet, un pouvoir de marché élevé, c'est-à-dire l'absence de concurrence, est associée à une faible efficience dans la production et l'offre des services bancaires. Par contre, la prise en compte des spécificités du marché bancaire caractérisé par l'asymétrie informationnelle et les économies d'échelle permet de constater qu'une forte concurrence conduit à des relations bancaires de courte durée et moins stables, ainsi qu'à une moindre production de l'information. Or l'efficience bancaire repose également sur la capacité des banques à collecter l'information et le monitoring à moindre coût.

En facilitant l'acquisition de l'information, le pouvoir de marché permet une allocation efficiente des ressources. Ainsi l'hypothèse des spécificités bancaires soutient plutôt une relation négative entre la concurrence et l'efficience bancaire. Ces oppositions théoriques relatives à l'effet de la concurrence sur l'efficience se répercutent également dans les travaux empiriques, d'où l'intérêt de mener une étude sur le cas précis de la CEMAC.

La suite de cet article est organisée de la manière suivante: la deuxième section s'intéresse à la revue de littérature. La troisième section présente la méthodologie utilisée pour les tests empiriques ainsi que l'origine des données. La quatrième section présente les principaux résultats et leurs implications en matière de politique économique. La cinquième section conclue le travail.

## II. CONCURRENCE ET EFFICIENCE DES BANQUES: UNE REVUE DE LITTÉRATURE

Les premiers travaux consacrés à l'analyse de la structure des marchés bancaires ont été fortement imprégnés par les différents cadres d'analyses proposés par l'économie industrielle. Ainsi, concernant l'effet de la concurrence sur l'efficience, trois théories permettent de mieux cerner la relation entre ces deux concepts (Fungáčová et al., 2012). Nous présentons au préalable les différentes théories relatives au lien concurrence efficience et ensuite nous présentons une synthèse des travaux empiriques sur le sujet.

La théorie du Quiet Life Hypothesis proposée par Hicks (1935) stipule que les firmes ayant du pouvoir de marché sont moins efficientes soutenant ainsi une influence positive de la concurrence sur l'efficience coût. Cette hypothèse suggère que sur les marchés concentrés, il y a moins de pression concurrentielle, ce qui n'encourage pas les managers à fournir des efforts pour maximiser l'efficience de la firme<sup>2</sup>. En effet, leur pouvoir de marché leur permet de jouir d'une vie tranquille, libre de toute concurrence. Par conséquent, l'accroissement de la concentration du marché affaiblit la concurrence et l'efficience des firmes.

En revanche, l'hypothèse de la structure efficiente proposée par Demsetz (1973) quant à elle prédit un effet négatif de l'efficience sur la concurrence. En effet, les banques les plus efficientes tirent avantage de leurs coûts bas pour augmenter leur part de marché et leur taille aux dépens des banques inefficientes, il en résulte une concentration plus forte du marché. Dans ce cas la causalité est inverse, elle va de la performance (l'efficience) à la structure de marché (concurrence).

Néanmoins, ces deux hypothèses ne sont pas spécifiques au secteur bancaire. Ainsi, l'hypothèse des spécificités bancaires est plus adaptée à l'analyse de la concurrence dans le secteur bancaire (Carbo et al. 2009). Les spécificités de la concurrence dans le secteur bancaire peuvent conduire à un impact négatif de la concurrence sur l'efficience. La littérature théorique bancaire suggère que la concurrence imparfaite sur les marchés bancaires peut entraîner des asymétries d'information entre banque et emprunteur dans l'activité de crédit. En conséquence, les banques doivent mettre en œuvre des mécanismes pour résoudre les problèmes qui en résultent, tels que la sélection adverse et l'aléa moral. L'une des solutions est la mise en place par la banque d'une relation client de long terme pour obtenir de meilleures informations sur l'emprunteur et réduire les asymétries d'information.

Selon Diamond (1984), les banques disposent d'un avantage comparatif dans le suivi ex post des emprunteurs par rapport aux investisseurs, du fait de l'existence d'économies d'échelle résultant de leur rôle de moniteur délégué. Or, une intensification de la concurrence peut rendre impossible la réalisation de telles économies d'échelle dans la mesure où elle rend plus difficile la mise en place et le maintien des relations de long terme. De ce fait, la concurrence peut augmenter les coûts de surveillance et réduire la durée des relations client, diminuant ainsi l'efficience coût des banques. Cette hypothèse des spécificités bancaires soutient une relation négative entre concurrence et efficience coût des banques. Cette hypothèse peut être plus pertinente dans les économies en développement comme celles de la CEMAC. En effet, les systèmes bancaires de ces économies sont caractérisés par une opacité informationnelle comme en témoigne le faible accès aux données comptables (Pruteanu-Podpiera et al., 2007; Florian, 2012).

Cette opposition au plan théorique sur la relation entre la concurrence et l'efficience se s'observe dans les travaux empiriques peu abondants surtout dans les pays en voie de développement. En utilisant des mesures structurelles et non structurelles pour mesurer la concurrence, certains travaux trouvent un effet positif de la concurrence sur l'efficience des banques (Berger et Hannan, 1994; Turk Ariss, 2010; Alhassan et Ohene-Asare, 2016); tandis que d'autres soulignent plutôt l'effet contraire (Weill, 2004; Kouki et Al-Nasser, 2014; Sarpong-Kumankoma et al., 2017). La divergence des résultats nous conduit à structurer la littérature selon que les études parviennent à un effet positif ou négatif de la concurrence sur l'efficience.

### *Concurrence et efficience: liaison positive*

Berger et Hannan (1994) furent les premiers à traiter empiriquement cette question. Ces auteurs étudient la relation entre la structure du marché bancaire et l'efficience coût sur un échantillon d'environ 5000

<sup>2</sup> À cet effet, l'auteur affirme que « *The best of all monopoly profits is the quiet life* » (Hicks, 1935, p. 8) - le meilleur de tous les bénéfices de monopole est la vie tranquille -

banques des États-Unis pour les années de 1980 à 1989. Ils utilisent l'indice de Herfindahl-Hirschman (HHI)<sup>3</sup> comme indicateur de mesure de la concurrence et la méthode des Moindres Carrés Ordinaires. Ils ont constaté que les marchés plus concentrés reflètent un niveau de concurrence faible et occasionnent une inefficience coût élevée pour les banques à cause d'un management laxiste. Les auteurs trouvent que le pouvoir de marché est négativement relié à l'efficience coût des banques. Leur résultat soutient donc la théorie du « Quiet Life Hypothesis ».

Hauner et Peiris (2005) analysent l'impact des réformes bancaires de grande envergure entreprises en Ouganda pour améliorer la concurrence et l'efficience. Les auteurs constatent que le niveau de la concurrence a significativement augmenté et est associé à une augmentation de l'efficience. D'ailleurs, en moyenne, les plus grandes banques et des banques d'appartenance étrangère sont devenues plus efficaces, alors que de plus petites banques sont devenues moins efficaces face à l'intensification de la pression concurrentielle.

Deltuvaitė et al., (2007) examinent l'impact de l'accroissement de la concentration et des nouvelles technologies ainsi que le processus de fusions et acquisitions sur le degré de concurrence et d'efficience des banques commerciales lituaniennes sur la période 2000-2006. La concurrence est approchée par la statistique H de Panzar et Rosse (1987) et la concentration est mesurée par l'indice de Herfindahl Hirschman et le ratio de concentration. Leurs résultats montrent une corrélation négative entre la concentration et la concurrence d'une part et une relation significativement positive entre la concurrence et l'efficience d'autre part.

Koetter et Vins (2008) adoptent une approche unifiée pour mesurer simultanément la concurrence et l'efficience coût et profit des banques d'épargne allemandes sur la période 1996-2006. Ces auteurs se servent de l'indice de Lerner pour mesurer la concurrence et la méthode des frontières stochastiques pour estimer les scores d'efficience coût et profit. Ces derniers trouvent à l'aide d'un modèle tobit en panel avec effets fixes une relation négative entre l'efficience coût et l'indice de Lerner, soutenant ainsi le QLH. Par contre, la relation entre l'efficience profit et le pouvoir de marché, est significativement positive. Elle est plutôt en conformité avec le paradigme de la structure efficiente qui pose en principe que seules les banques les plus efficaces restent sur le marché et forment sa structure.

Delis et Tsionas (2009) utilisent la méthode de l'estimation conjointe de l'efficience et du pouvoir de

marché de différentes banques pour analyser la question. Le modèle est appliqué sur les secteurs bancaires de l'union européenne et des USA sur la période 2000-2007. L'indicateur de concurrence retenu par ces auteurs est l'indice de Lerner et l'efficience coût est estimée par la méthode des frontières stochastiques. Les résultats suggèrent que la plupart des banques sont caractérisées par le comportement modérément concurrentiel. En outre, une relation clairement négative est identifiée entre le niveau du pouvoir de marché et de l'efficience des différentes banques, résultat en conformité avec l'hypothèse du Quiet Life de Hicks (1935).

Coccorese et Pellecchia (2010) ont également testé le Quiet Life Hypothesis sur les données des banques italiennes pour la période 1992-2007. Ils appliquent un procédé en deux étapes qui consiste à estimer en premier les scores d'efficience coût des banques et les indices de Lerner. Ensuite, les indices de Lerner estimés, ainsi qu'un vecteur des variables de contrôle, sont utilisés pour expliquer l'efficience coût. L'évidence empirique obtenue à l'aide des méthodes tobit et logistique soutient le QLH. En utilisant les données des banques de 60 pays en voie de développement sur la période 1999-2005, Turc Ariss (2010) fournit l'évidence pour une relation négative entre le pouvoir de marché et l'efficience coût des banques. Cependant, ses résultats indiquent que le pouvoir du marché est positivement associé à l'efficience profit.

Dans la même veine, Wanniarachchige et Suzuki (2010) estiment l'effet de la concurrence sur l'efficience coût dans le système bancaire Sri-Lankais de 2003 à 2007. L'efficience des banques est estimée à l'aide de la méthode DEA ou méthode d'enveloppement des données, la concurrence est mesurée par l'indice de Herfindahl-Hirschman. Les résultats de la régression montrent un effet positif fort de la concurrence sur l'efficience au cours de la période d'étude, alors que l'expansion du réseau des succursales a une influence négative faible et que l'environnement macroéconomique n'a pas d'influence statistiquement significative sur l'efficience du système bancaire.

Fare et al. (2012) ont exploré le lien entre le pouvoir de marché et l'efficience coût dans le secteur bancaire espagnol. Le pouvoir de marché est approché par l'indice de Lerner et l'efficience coût est estimée par la méthode paramétrique DEA. Les résultats montrent que la relation est non linéaire, en effet elle varie en fonction du pouvoir sur le marché, de la composante d'efficience évaluée (coût, technique ou allocative) et du type de la banque (banque commerciale ou banque d'épargne), suggérant ainsi que le Quiet Life Hypothesis pourrait être une réalité seulement pour certaines institutions financières.

Lapteacru et Nys (2011) analysent l'influence de la concurrence bancaire sur l'efficience des banques dans les Pays d'Europe Centrale et Orientale. Les

<sup>3</sup> L'indice de HHI est défini comme la somme des parts de marchés au carré de toutes les banques qui opèrent sur le marché. Dans cette étude, le taux de concentration ou l'indice de HHI est considérée en tant qu'inverse de la concurrence bancaire selon le modèle SCP.

auteurs déterminent le niveau de concurrence par l'approche de Panzar et Rosse et utilisent la méthode DEA pour estimer l'efficacité de coût et la méthode paramétrique SFA pour déterminer l'efficacité de profit et de revenu d'intérêt. Leurs résultats montrent que la concurrence et l'efficacité sont positivement corrélés pour les scores d'efficacité coût et profit, et négativement corrélés pour le score d'efficacité de revenu d'intérêt.

Dans le même sillage, Mohamed et Sghaier (2012) employant les données des banques tunisiennes, analysent la relation causale entre la concurrence et l'efficacité bancaire au cours de la période 1990 à 2009. Comme Berger et Hannan (1994), les auteurs utilisent l'indice de Herfindahl-Hirschman pour évaluer le niveau de la concurrence bancaire et l'approche des frontières stochastiques pour estimer le niveau d'efficacité. Leurs résultats montrent que l'efficacité et la concurrence vont de concert dans le secteur bancaire tunisien.

Castellanos et García (2013) analysent la relation entre le degré de concurrence et l'efficacité du secteur bancaire mexicain sur la période 2002 - 2012, en utilisant la régression Tobit. Ils emploient la méthode DEA et l'indicateur de Boone pour mesurer respectivement l'efficacité et le degré de concurrence. Leurs principaux résultats indiquent une augmentation de l'efficacité dans le secteur bancaire pendant la période de l'étude et un lien positif entre la concurrence et efficacité. Ce résultat est conforme à celui de Solis et Maudos (2008) qui ont également constaté un effet négatif du pouvoir de marché sur l'efficacité coût dans des banques mexicaines.

Dans le système bancaire de l'Union Européenne pour la période 2004 - 2010, Andries et Capraru (2014) analysent l'impact des mesures de la concurrence bancaire sur deux mesures alternatives d'efficacité, à savoir l'efficacité coût et l'efficacité profit par la causalité de Granger. Les résultats confirment l'hypothèse de concurrence-efficacité en termes d'efficacité coût et profit pour tous les groupes de pays, excepté les pays hors zone euro, où les résultats ne sont pas statistiquement significatifs.

Alhassan et Ohene-Asare (2016) examinent la question dans le secteur bancaire ghanéen de 2004 à 2011. La méthode DEA est employée pour estimer l'efficacité coût et l'efficacité technique tandis que l'indicateur de Boone est utilisé pour approcher la concurrence. Les auteurs appliquent également la théorie de convergence de croissance pour examiner l'existence de la convergence d'efficacité. Leurs résultats suggèrent que la concurrence exerce une influence positive sur l'efficacité coût. Les auteurs trouvent également une évidence en faveur de la convergence de l'efficacité coût et technique. De même, Ab Rahim (2016) s'intéresse aux banques commerciales de la Malaisie sur la période 1996-2011.

À l'aide d'un test de causalité de Granger, l'auteur trouve un effet positif de la concurrence sur l'efficacité des banques malaisiennes.

U-Din et al. (2017) examinent le lien entre le pouvoir de marché et l'efficacité des banques sur les marchés bancaires d'Australie et de la Nouvelle Zélande pendant la période 2003-2015. Cette période est choisie par les auteurs pour évaluer l'impact de la crise financière globale de 2008 sur l'efficacité et la concurrence. Les résultats montrent un impact positif du pouvoir de marché et de la concentration du marché sur l'efficacité profit, tandis que l'impact sur l'efficacité coût est négatif sur les deux marchés pendant la période d'étude. De façon générale, leurs résultats rejettent le QLH en Australie et en Nouvelle Zélande en ce qui concerne l'efficacité profit mais valident cette hypothèse pour l'efficacité coût.

#### *Concurrence et efficacité: liaison négative*

Contrairement aux travaux précédents, d'autres études soutiennent plutôt un effet négatif de la concurrence sur l'efficacité. Weill (1998) se sert d'un modèle de concurrence spatiale avec différenciation horizontale sur les coûts de contrôle des emprunteurs par les banques pour étudier la relation entre la concurrence et l'efficacité des banques de plusieurs pays membres de l'OCDE. L'auteur montre que l'augmentation du nombre de banques (concurrence) a un impact négatif sur l'efficacité des banques. Afin de vérifier cette relation, l'auteur effectue une régression entre divers indices de concentration et l'efficacité de coût moyenne des banques, estimée par l'approche à distribution libre. Les résultats montrent une corrélation positive significative entre la concentration et l'efficacité moyenne des banques.

De même, Maudos et Fernandez de Guevara (2007) s'intéressent au coût du pouvoir de marché dans le secteur bancaire de 15 Pays de l'Union Européenne sur la période 1994-1999. Ils approchent le pouvoir de marché par l'indice de Lerner et estiment l'inefficacité coût par l'approche des frontières stochastiques. Les résultats montrent l'existence d'une relation positive entre le pouvoir de marché et l'efficacité-coût permettant ainsi le rejet du QLH. La perte de bien-être social imputable au pouvoir de marché en 2002 représentait 0,54% du PIB des 15 pays de l'Union Européenne. Par ailleurs, les résultats soutiennent que les gains de bien-être associés à une réduction du pouvoir de marché sont plus importants que la perte d'efficacité coût des banques, ce qui montre l'importance des mesures de politique économique visant à éliminer les obstacles à la concurrence extérieure.

En utilisant les données des banques européennes pour la période 2000-2005, Casu et Girardone (2007) optent pour le test de causalité de Granger et trouvent une causalité négative de l'efficacité

à la concurrence, alors que la causalité inverse, bien que positive, est relativement faible.

Pruteanu-Podpiera et al. (2007) considèrent le secteur bancaire de la république Tchèque. Les auteurs effectuent un test de causalité de Granger afin d'évaluer la relation et la causalité entre la concurrence et l'efficacité. Leurs résultats rejettent le QLH. En particulier, comme la concurrence cause négativement l'efficacité au sens de Granger, ils affirment qu'une plus forte concurrence, menant à une augmentation des coûts de surveillance à travers une réduction de la durée des relations bancaires et la présence des économies d'échelle dans le secteur bancaire, détermine la réduction de l'efficacité coût des banques.

Williams (2012) étudie le lien entre l'efficacité des banques et le pouvoir de marché pour un échantillon de 419 banques latino-américaines au cours de la période 1985-2010. L'auteur emploie le modèle des doubles moindres carrés avec variables instrumentales et approche le degré de concurrence par l'indice de Lerner. Les résultats des auteurs rejettent la théorie du "quiet life hypothesis" et sont plutôt conformes à l'hypothèse de la structure efficiente.

Florian (2012) analyse l'effet de la concurrence bancaire sur l'efficacité des banques au sein des pays de l'Union Économique et Monétaire Ouest Africaine (UEMOA) sur la période 2002-2007. L'auteur estime l'efficacité par l'approche des frontières stochastiques et approche la concurrence par deux indicateurs à savoir l'indice HHI de Herfindahl-Hirschman et l'indice de Lerner. Le principal résultat est l'effet négatif et robuste de la concurrence sur l'efficacité coût des banques (ou effet positif du pouvoir de marché sur l'efficacité-coût) alors que son effet sur l'efficacité-profit est nul. L'auteur explique cet effet sur l'efficacité coût par une capacité de produire de l'information pour les banques disposant d'un pouvoir de marché.

Koetter et al., (2012) analysent la relation entre le pouvoir de marché et l'efficacité pour un panel d'environ 350.000 banques commerciales des États-Unis de 1976 à 2007. Cette période correspond à celle de déréglementation géographique aux États-Unis. Ces auteurs proposent l'indice de Lerner ajusté pour mesurer le pouvoir de marché car la présence des inefficiences tend à induire une sous-estimation du pouvoir de marché. Contrairement aux études précédentes, les auteurs estiment simultanément les mesures de concurrence et d'efficacité. Les résultats montrent une relation positive entre le pouvoir de marché et l'efficacité coût; et une relation significativement négative entre le pouvoir de marché et l'efficacité profit.

Kouki et Al-Nasser (2014) analysent l'impact du pouvoir de marché sur l'efficacité et la stabilité des banques de 31 pays africains sur la période 2005-2010. Ces auteurs mesurent la performance à l'aide de deux indicateurs à savoir le rendement des actifs et le

rendement des fonds propres d'une part et les scores d'efficacité estimés par la méthode non paramétrique DEA orientée input d'autre part. Le pouvoir de marché est mesuré par l'indice de Lerner. Leurs résultats montrent que le pouvoir de marché est positivement associé à l'efficacité et à la stabilité des banques.

Viverita (2014) examine la relation entre le pouvoir de marché et l'efficacité de coût, ainsi que les deux hypothèses concurrentes de la relation entre pouvoir de marché et efficacité (le modèle Structure Conduite Performance et l'hypothèse de la Structure efficiente) dans le secteur bancaire indonésien de 2002 à 2011. L'estimation de l'efficacité est obtenue par la méthode non paramétrique DEA et l'indice de Lerner est utilisé pour mesurer le niveau de concurrence. Les résultats de cette étude n'ont pas rejeté l'hypothèse de structure efficiente, mais désapprouvent l'existence du Quiet Life Hypothesis sur le marché bancaire indonésien.

Ningaye Paul et al., (2014) analysent les effets de la concurrence sur l'efficacité coût et profit des banques de la CEMAC sur la période 2003-2010. Les auteurs estiment les scores d'efficacité à l'aide de l'approche des frontières stochastiques et approchent la concurrence par l'indice de Lerner ajusté. Leurs résultats soutiennent que la concurrence affecte positivement l'efficacité profit et négativement l'efficacité coût. Il serait intéressant tout de même d'utiliser d'autres indicateurs de mesure de la concurrence ainsi que de l'efficacité pour voir si la nature de la relation demeure la même dans ce contexte.

Sarpong-Kumankoma et al., (2017) ont également évalué l'effet de la liberté financière et de la concurrence sur l'efficacité bancaire de 11 pays en Afrique subsaharienne sur la période 2006-2012. Ces auteurs approchent la concurrence par l'indice de Lerner et l'efficacité coût est estimée par une méthode paramétrique à savoir celle des frontières stochastiques (SFA). Les résultats obtenus par le modèle Tobit indiquent que l'augmentation du pouvoir de marché (moins de concurrence) mène à une plus grande efficacité coût des banques, malgré que cet effet soit plus faible avec des niveaux plus élevés de la liberté financière.

### III. MÉTHODOLOGIE ET DONNÉES UTILISÉES

Afin d'évaluer l'effet de la concurrence sur l'efficacité bancaire, notre démarche méthodologique s'articule autour de deux étapes. En premier lieu, nous calculons les niveaux d'efficacité bancaire grâce à la méthode non paramétrique DEA orientée input avec rendements d'échelles variables. Ensuite, la concurrence ainsi qu'un ensemble de variables de contrôle sont utilisés pour expliquer l'efficacité.



a) *Mesure de la concurrence et de l'efficience bancaire*

La littérature propose diverses méthodes de mesure de la concurrence et de l'efficience. Il s'agit des mesures structurelles et non structurelles pour la concurrence; et des méthodes paramétriques et non paramétriques pour l'efficience.

i. *Mesure de l'efficience bancaire*

L'efficience prise en compte dans notre étude est l'efficience de coût<sup>4</sup> car comme le souligne Berger et Mester (1997), l'efficience coût et l'efficience profit basées sur l'optimisation économique sont plus adaptées pour l'analyse de l'efficience des banques. Pour mesurer l'efficience d'une unité de production, on utilise généralement les frontières de production. Cette approche par les frontières se subdivise en deux grandes méthodes à savoir: la méthode paramétrique et la méthode non paramétrique. Des auteurs comme Grigorian et Manole (2006) ont appliqué la méthode DEA pour estimer le niveau d'efficience coût des banques, Havrylchuk (2006) utilise la même méthode pour la Pologne, Isik et Hassan (2002) pour la Turquie. Comme ces auteurs, la méthode non paramétrique DEA orientée input<sup>5</sup> avec rendement d'échelle variable est retenue pour l'estimation des scores d'efficience.

La méthode DEA est une technique non paramétrique de programmation linéaire permettant de mesurer l'efficience relative d'un ensemble assez homogène d'unités de prise de décision ou Decision Making Unit (DMU), il s'agit en effet des firmes qui sont des banques dans notre étude. Les possibilités de production des firmes constituent la frontière et l'efficience relative de chacune peut être évaluée par rapport à cette frontière. Ceci implique que l'unité la plus efficiente sert de référence et l'efficience des autres DMU de l'étude est calculée relativement à cette référence. Les unités de décision ou firmes qui se trouvent sur la frontière sont efficaces tandis que celles qui ne sont pas sur la frontière sont inefficaces.

Contrairement à la méthode paramétrique SFA, l'approche non paramétrique DEA a le mérite de n'imposer aucune forme préétablie à la frontière de production dans le calcul des scores d'efficience. En outre, elle est généralement recommandée lorsque la forme fonctionnelle de la fonction de production de l'entreprise n'est pas connue comme dans le cas des

banques ou lorsque l'entreprise produit plusieurs outputs (Kobou et al., 2009)<sup>6</sup>.

La méthode DEA a été initialement développée par Charnes et al., (1978). Ces auteurs ont proposé un modèle orienté input sous l'hypothèse des rendements d'échelles constants. Plus tard, Banker et al., (1984) ont proposé le modèle avec rendements d'échelles variables. Ce sont là les deux principales variantes du modèle DEA qui sont largement répandues dans la littérature bancaire.

- Le modèle DEA avec rendement d'échelle constant  
Soient N banques qui utilisent k facteurs de productions (inputs) pour produire M outputs. Désignons, respectivement, par  $y_i$  les vecteurs des inputs et outputs de la banque  $i$ . Notons par  $K \times N$  la matrice des inputs  $X$  et par  $M \times N$  la matrice des outputs  $Y$ . L'efficience de la banque  $i$  est déterminée par le ratio de tous les outputs sur tous les inputs tel que

$$u'y_i/v'x_i \tag{1}$$

où  $u$  est le vecteur  $M \times 1$  des pondérations des outputs et  $v$  est le vecteur  $K \times 1$  des pondérations des inputs. La sélection des pondérations optimales se fait en résolvant le problème de programmation mathématique suivant:

$$\begin{aligned} & \max_{u,v} (u'y_i/v'x_i), \\ \text{s/c } & u'y_j/v'x_j \leq 1, j=1,2,\dots,N, \\ & u,v \geq 0 \end{aligned} \tag{2}$$

D'après cette équation, il faut trouver les valeurs de  $u$  et  $v$  de sorte que l'efficience de la  $i$ -ième DMU soit maximisée sous contrainte que les scores d'efficience obtenus soient inférieurs ou égaux à un. Le problème avec cette formulation particulière est qu'elle a un nombre infini de solutions. Pour éviter cela on peut imposer la contrainte  $v'x_i = 1$  (Coelli, 1996). La forme transformée de l'équation précédente est donnée par :

$$\begin{aligned} & \max_{\mu,w} (\mu'y_i), \\ \text{s/c } & w'x_i = 1, \\ & \mu'y_j - w'x_j \leq 0, j=1,2,\dots,N, \\ & \mu,w \geq 0 \end{aligned} \tag{3}$$

où le changement de notation de  $u$  et  $v$  à  $\mu$  et  $w$  reflète la transformation. Cette forme est connue sous le nom de forme multiplicatrice du problème de programmation linéaire.

En utilisant la dualité en programmation linéaire, on peut obtenir une forme d'enveloppement équivalent de ce problème écrite de la façon suivante:

<sup>6</sup> La méthode SFA attribue une forme particulière au processus de production, réduisant ainsi les possibilités d'interaction entre les facteurs de production et les outputs. Imposition d'une fonction particulière à la frontière d'efficience.

<sup>4</sup> L'efficience-coût évalue dans quelle mesure une banque est capable de produire un niveau donné d'output à moindre coût (Florian, 2012).

<sup>5</sup> L'utilisation de la méthode DEA requiert le choix de l'orientation à donner au modèle. Le modèle DEA peut être orienté input ou orienté output. Avec l'orientation input, l'objectif est de minimiser les ressources pour produire les outputs. En revanche, avec l'orientation output, l'objectif est de maximiser la production d'outputs sans dépasser un niveau donné de ressources. Bref, les inputs satisfont le critère de minimisation et les outputs le critère de maximisation.

$$\begin{aligned} & \text{Min}_{\theta, \lambda} \quad \theta, \\ & s/c \quad -y_i + y\lambda \geq 0, \\ & \theta x_i - x\lambda \geq 0, \\ & \lambda \geq 0 \end{aligned} \tag{4}$$

où  $\theta$  est un scalaire et  $\lambda$  le vecteur de  $N \times 1$  constantes. Cette forme d'enveloppement implique moins de contraintes que la forme du multiplicateur ou primale ( $K + M < N + 1$ ), et est donc généralement la forme préférée à résoudre. La valeur obtenue de  $\theta$  représente le score d'efficacité de la banque  $i$  et prend des valeurs comprises entre 0 et 1.

Si  $\theta=1$ , cela indique une banque techniquement efficace selon la définition de Farrell (1957). Ces banques avec  $\theta=1$  sont des références puisqu'elles se trouvent sur la frontière.

Si  $\theta < 1$ , alors la banque est inefficace et a besoin d'une réduction de  $1 - \theta$  du niveau de ses inputs pour atteindre la frontière efficace. Le problème de programmation linéaire doit être résolu  $N$  fois, une fois pour chaque DMU ou banque dans l'échantillon. Cette méthode suppose que les rendements d'échelles sont constants.

*Le modèle DEA avec rendement d'échelle variable*

L'hypothèse des rendements d'échelle constants est appropriée uniquement lorsque les firmes considérées opèrent à une échelle optimale (Coelli, 1996 P18). Cependant comme le souligne Coelli (1996), la concurrence imparfaite, les contraintes financières peuvent empêcher une DMU ou firme (banque dans notre cas) d'opérer à une échelle optimale. Banker et al., (1984) ont suggéré une extension du modèle DEA avec REC pour tenir compte des situations de rendements d'échelle variables (REV). L'utilisation de la spécification avec REC lorsque toutes les DMU n'opèrent pas à une échelle optimale, entraînera des mesures de l'efficacité technique qui se confondent à l'efficacité d'échelle. L'utilisation de la spécification avec REV permettra le calcul de l'efficacité technique dépourvu de ces effets de l'efficacité d'échelle. Pour ces raisons, nous utilisons le modèle DEA avec REV pour mesurer les scores d'efficacité.

Le problème de programmation linéaire REC peut être facilement modifié pour tenir compte des REV par ajout de la contrainte de convexité  $N1'\lambda = 1$  à l'équation (4) comme suit:

$$\begin{aligned} & \text{min}_{\theta, \lambda} \quad \theta, \\ & s/c \quad -y_i + y\lambda \geq 0, \\ & \theta x_i - x\lambda \geq 0, \\ & N1'\lambda = 1 \\ & \lambda \geq 0 \end{aligned} \tag{5}$$

où  $N1$  est un vecteur  $N \times 1$  des uns. La contrainte de convexité s'assure qu'une banque est comparée uniquement aux banques de taille semblable et en conséquence, le modèle à REV enveloppe les données plus étroitement que le modèle à REC. En conséquence, les scores d'efficacité technique obtenus sous l'hypothèse des REV sont supérieurs ou égaux à ceux obtenus sous l'hypothèse des REC. Le modèle DEA avec REV mesure seulement l'efficacité technique.

L'efficacité coût ou efficacité économique objet de notre intérêt est le produit entre l'efficacité technique et l'efficacité allocative ou prix. Nous considérons l'objectif de minimisation de coût avec information sur les prix. L'équation (5) ci-dessus permet d'obtenir l'efficacité technique.

Quant à l'efficacité d'allocation, supposons que  $w_i$  est le vecteur des prix des inputs pour la banque  $i$  et le programme de minimisation des coûts à résoudre selon le modèle DEA orienté input sous l'hypothèse des REV est le suivant:

$$\begin{aligned} & \text{min}_{\lambda, x_i^*} \quad w'_i x_i^* \\ & s/c \quad -y_i + Y\lambda \geq 0, \\ & x_i^* - X\lambda \geq 0, \\ & N1'\lambda = 1 \\ & \lambda \geq 0 \end{aligned} \tag{6}$$

$x_i^*$  est le vecteur des facteurs de production qui minimise le coût de la banque  $i$ , étant donné leur prix  $w_i$  et les quantités des inputs  $y_i$ . La banque aura un coût minimum  $w'_i x_i^*$  qui, par définition, sera inférieur ou égal au coût observé  $w'_i x_i$ . Les valeurs optimales  $x_i^*$  sont trouvées en résolvant le problème de programmation linéaire (équation 6), où la matrice  $X$  et  $Y$  sont les données observées de toutes les banques. L'efficacité coût (EC) de la banque  $i$  est calculée comme le rapport du coût minimum au coût effectif (Coelli, 1996). Ainsi

$$EC = \frac{w'_i x_i^*}{w'_i x_i} \tag{7}$$

L'efficacité coût désigne la capacité d'une banque à minimiser ses coûts de production pour un niveau donné d'outputs (Weill, 1998). Ainsi, un score d'efficacité coût de 0,7 indique qu'il serait possible pour la banque concernée de produire le même vecteur d'output en réduisant ses coûts de 30 %. Les scores d'efficacité économique sont compris entre zéro et un. Un score d'efficacité de un représente une banque coût efficace et elle est également considérée comme celle ayant les meilleures pratiques dans l'échantillon; en revanche, les banques inefficaces en matière de coût présentent un score inférieur à un. Une banque est coût efficace si elle est simultanément efficace techniquement et allocativement.

- Spécification des Inputs et Outputs bancaires

La mesure de l'efficacité de l'activité bancaire suppose a priori, l'identification des variables d'inputs et d'outputs nécessaires pour la modélisation de la fonction coût. À ce sujet, deux<sup>7</sup> approches sont évoquées dans la littérature: l'approche de production et l'approche d'intermédiation. L'approche d'intermédiation est privilégiée dans cette étude dans la mesure où elle reflète mieux l'activité bancaire et plus particulièrement l'intermédiation bancaire. En effet l'intermédiation demeure la principale activité des banques de la sous-région CEMAC. De plus, cette approche tient compte des dépenses d'intérêts, et est donc plus appropriée pour évaluer les institutions financières car en général ces dépenses représentent au moins la moitié des coûts totaux (Berger et Humphrey, 1997).

Ainsi, comme Florian (2012), Fungacova et al. (2012) et Turk Ariss (2010) l'output retenu est l'actif total. L'output bancaire est produit grâce à la combinaison de trois facteurs de production, à savoir: le facteur travail, le facteur capital physique et le facteur capital financier. Quant aux inputs, les banques doivent faire face à deux catégories de coûts: les coûts d'exploitation et les coûts financiers. Les premiers correspondent à l'utilisation du facteur travail et du capital physique dans la production

bancaire et comprennent les charges du personnel, les autres charges d'exploitation, les dotations aux amortissements et provisions et les impôts d'exploitation tandis que les seconds correspondent essentiellement aux charges d'intérêts. Ainsi, nous retenons trois inputs: le travail (L) mesuré par les dépenses de personnels, le capital physique (K): mesuré par les charges opérationnelles; le capital financier (F): mesuré par les charges d'intérêts.

Par conséquent, le prix du facteur travail (PL) est obtenu en divisant les charges de personnel par le total de l'actif. Le prix du capital physique (PK) est donné par le rapport entre les charges générales d'exploitation et les immobilisations totales; Le prix du capital financier (PF) est obtenu en rapportant les charges d'intérêts au total des dépôts; Le cout total (CT) est la somme des charges de personnel, des frais généraux d'exploitation et des charges d'intérêts.

La définition de ces différents coûts et ratios est en accord avec la plupart des études concernant la concurrence et l'efficacité des banques, telles que celles de Lapteacru et Nys (2011), Florian (2012), Fungacova et al. (2012) et Turk Ariss (2010). Le tableau suivant récapitule les différentes variables inputs et outputs retenues dans l'estimation des niveaux d'efficacité.

**Tableau 1:** Récapitulatif des variables incluses dans l'estimation des scores d'efficacité

Variables	Description	Source des données
<b>Inputs</b>		
Travail	Dépenses de personnel	COBAC
Capital physique	Charges opérationnelles	
Capital financier	Charges d'intérêt	
<b>Output</b>		
Total actif		COBAC
<b>Prix des inputs</b>		
Prix du travail	Dépenses de personnel / Actif total	COBAC
Prix du capital physique	Charges opérationnelles / Immobilisation total	
Prix du capital financier	Charges d'intérêt / Total dépôt	

Source: Rapports COBAC 2000-2013

<sup>7</sup> Deux approches sont proposées dans la littérature bancaire pour la définition des inputs et des outputs. L'approche d'intermédiation suppose que la banque collecte les dépôts pour les transformer en prêts, en utilisant le travail et le capital, par opposition à l'approche de la production, qui considère que les banques utilisent la main-d'œuvre et le capital pour produire les dépôts et les prêts.

### Résultats de l'estimation de l'efficacité coût par la méthode DEA

Comme Dietsch et Lozano-Vivas (2000), nous avons estimé une frontière de coût commune aux trois pays de notre échantillon. Une frontière commune permet d'avoir un ordre relatif des pays en termes d'efficacité des banques. Pour chaque pays de notre échantillon, l'ensemble des banques est considéré comme une seule unité de production<sup>8</sup>.

Les équations (5) et (6) ont été utilisées pour estimer les scores d'efficacité. Le logiciel DEAP 2.1 de Coelli (1996) nous a permis de calculer les scores

d'efficacité. Le tableau 1 en l'annexe synthétise les résultats des scores d'efficacité obtenus. En plus de l'efficacité coût (EC) qui est le produit de l'efficacité allocative et de l'efficacité technique, ce tableau présente les scores d'efficacité allocatives (EA) et technique (ET).

Les scores d'efficacité sont compris entre 0 (inefficacité totale) et 1 (efficacité totale). Ainsi, un score d'efficacité coût de 0,95 signifie que la banque est efficace à 95% relativement à la banque qui présente les meilleures pratiques. Ce score signifie que la banque pourrait produire la même quantité en réduisant ses coûts de 5%.

Tableau 2: Statistiques descriptives des variables efficacité (eff) et inefficacité (ineff)

Variable	Obs	Mean	Std.Dev.	Min	Max
Eff	42	0,8386667	0,2749511	0,145	1
Ineff	42	0,1633333	0,2749511	0	0,855

Source: Logiciel STATA 12.1 à partir des résultats fournis par le Logiciel DEAP version 2.1

Sur la période d'étude 2000-2013, les banques de notre échantillon affichent un niveau d'efficacité coût moyenne de 83, 87%. Ce résultat signifie que les banques concernées (Cameroun, Congo et Gabon) auraient pu économiser en moyenne 16, 13% de leurs ressources et produire le même niveau d'output. Ainsi, l'inefficacité se situe en moyenne autour de 16, 13%. Une analyse par pays fait apparaître des différences, en effet les valeurs moyennes de l'efficacité coût sur l'ensemble de la période par pays sont de 89,11% pour le Congo, 83, 57% au Gabon et 78, 91% au Cameroun (voir tableau1 annexe). Ces valeurs indiquent que le Congo regroupe les banques les plus efficaces en termes de coût tandis que les banques les moins efficaces en termes de coût se trouvent au Cameroun. L'efficacité coût moyenne des banques de l'échantillon sous rendements d'échelles variables (REV) est passée de 73, 8% en 2000 à 85, 3% en 2013. Ce qui marque une amélioration. Toutefois, l'efficacité coût moyenne à atteint son niveau le plus faible en 2005 et son niveau le plus élevé en 2003.

#### b) Mesure de la concurrence

Le taux de concentration est généralement utilisé pour apprécier l'intensité concurrentielle sur les marchés bancaires selon le modèle SCP. Selon ce modèle, la concurrence peut être mesurée par les indices de concentration tels que la part de marché des

trois ou cinq plus grandes banques sur le marché, ou par l'indice Herfindahl. Cette approche structurelle de la concurrence infère de la structure de marché le type de comportement concurrentiel. Elle est souvent qualifiée de courant structuraliste, par opposition au courant comportementaliste. Spécifiquement, la concurrence est approchée par des mesures de structure du marché telles que le nombre de banques, la part de marché des plus grandes banques et l'indice de Herfindahl-Hirschman en tant que indicateurs inverse de l'intensité concurrentielle (Claessens et Laeven, 2004; Claessens, 2009)<sup>9</sup>. Le niveau de concurrence sur le marché bancaire est mesuré comme Weill (1998), Berger et Hannan (1994), Florian (2012), Maudos et Fernandez De Guevara (2007) par un indicateur structurel de la concurrence à savoir le ratio de concentration (CR3). Cet indicateur est calculé comme la somme des parts de marché en termes de total actif des trois banques les plus importantes sur le marché bancaire considéré et permet de mesurer le pouvoir de marché dans l'industrie bancaire. Le taux de concentration (CRn) ainsi que l'indice de Herfindahl-Hirschman (HHI) tiennent compte du nombre de banques sur le marché et la distribution de leur taille. Par ailleurs, ces deux indicateurs mettent l'accent sur la part de marché pour apprécier l'intensité concurrentielle du marché bancaire. Ainsi, la part de marché (PM) de chaque banque *i* est mesurée par le ratio suivant (Weill, 1998):

<sup>8</sup> Voir Ambapour, S. (2004) « Efficacité technique comparée des systèmes de santé en Afrique subsaharienne: une application de la méthode de DEA » Document de Travail n° 10, Bureau D'Application des Méthodes Statistiques et Informatiques (BAMSI).

<sup>9</sup> Cette conception de la concurrence constitue un axe d'analyse plus intéressant de la concurrence au sein des systèmes bancaires africains dans la mesure où ceux-ci sont généralement caractérisés par une forte concentration des dépôts et des crédits entre les mains de quelques acteurs

$PM_i$  = total des actifs de la banque  $i$  / somme des actifs de toutes les banques du pays de la banque  $i$

$$PM_i = \frac{\text{total des actifs de la banque } i}{\text{somme des actifs de toutes les banques du pays de la banque } i}$$

- *Le ratio de concentration (CRn)*

Ce ratio est la mesure la plus communément utilisée dans la littérature afin de déterminer le niveau de concentration régnant sur un marché donné. Il mesure le poids économique des  $n$  premières entreprises du marché à partir des parts de marché. Les valeurs les plus récurrentes de  $n$  sont 3 et 5. Concernant le marché bancaire, ce ratio s'obtient en additionnant les parts de marché des  $n$  banques les plus importantes en termes de total actifs:

$$CR_n = \sum_{i=1}^n PM_i$$

$PM$  représente la part de marché des  $n$  plus grandes entreprises. Cet indicateur fournit un résultat compris entre 0 et 1. Si le ratio de concentration tend vers 0, on est en présence d'un marché très concurrentiel. Lorsqu'il tend vers 1, le marché est dit fortement concentré.

En analysant la structure du marché, nous considérons chaque pays comme un marché unique, puisque les différents marchés bancaires de la CEMAC sont bien délimités, le concept de marché national semble approprié. Une concentration plus élevée peut être associée à des coûts plus élevés ou plus bas. Si une concentration plus élevée est le résultat du pouvoir de marché, la concentration et les coûts vont dans le même sens (Leibenstein, 1966). En effet, un niveau de concentration élevé accroît le pouvoir de marché des banques<sup>10</sup>. Ce pouvoir leur donne la possibilité d'extraire des rentes en faisant payer le crédit plus cher, en rémunérant moins les dépôts, ou en prélevant des commissions plus élevées. Dans ce sens, la concentration n'est pas bénéfique pour l'efficacité mais va dans le même sens que l'inefficacité<sup>11</sup>. Berger et Hannan (1994) trouvent que le pouvoir de marché est

négativement relié à l'efficacité coût des banques aux États-Unis. Turk Ariss (2010) trouve le même résultat pour un ensemble de pays en développement.

En revanche, une concentration plus élevée peut être associée à des coûts plus bas (niveaux d'efficacité élevés) si la concentration est le résultat d'un management supérieur ou d'une plus grande efficacité dans le processus de production (Demsetz, 1973). Les travaux de Dietsch et Lozano-vivas (2000), Kablan (2007) vont dans ce sens et montrent plutôt une relation positive entre la concentration et efficacité.

- c) *Les variables de contrôle*

Les travaux de recherches consacrés à l'analyse des facteurs explicatifs de l'efficacité bancaire sont nombreux. Les premières études à l'instar de celle de Dietsch et Lozano-Vivas (2000), Grigorian et Manole (2006) ont mis l'accent sur les effets des variables environnementales sur l'efficacité bancaire. D'autres études notamment celles de Hauner (2005), Havrylychuk (2006), ont considéré d'autres variables internes aux banques et spécifiques au marché, susceptibles d'expliquer les différences d'efficacité entre banques, en plus des variables environnementales. Dans cette logique nous introduisons dans notre étude des variables spécifiques au secteur bancaire (la taille, le ratio d'intermédiation et les prêts non performants) et un ensemble de variables environnementales.

- *Les variables spécifiques aux banques*

La variable taille de la banque est mesurée par le logarithme de l'actif de la banque. L'intérêt de l'inclusion de cette variable dans le modèle se justifie par le fait qu'elle peut avoir un effet sur l'efficacité des banques à travers les économies d'échelle. De plus, il est essentiel de savoir quelle taille optimise l'efficacité des banques. Les résultats des études précédentes sur la relation entre la taille et l'efficacité des banques sont contradictoires.

Certaines études ont trouvé un impact positif de la taille sur l'efficacité bancaire. Sufian (2008) a montré que les grandes banques de propriété privée ou à rentabilité élevée sont plus efficaces que les petites banques, de propriété publique ou encore avec des niveaux faibles de rentabilité, à cause des économies d'échelles qu'elles peuvent réaliser. En revanche, d'autres études soutiennent un effet négatif de taille des banques sur leur efficacité (Isik et Hassan, 2002; Girardone et al., 2004), tandis que d'autres observent une influence insignifiante de la taille des banques sur

<sup>10</sup> Selon Dietsch(2005) le pouvoir de marché d'une manière générale dépend de trois grands facteurs à savoir l'élasticité de la demande, le nombre de concurrents et du degré de concentration de l'offre (un degré de concentration plus fort accroît le pouvoir de marché des offreurs) et enfin, des réactions stratégiques des concurrents.

<sup>11</sup> Les résultats de Dietsch et Lozano-Vivas (2000) montre les coûts bancaires augmentent avec le degré d'imperfection dans la concurrence bancaire. En particulier, le coefficient de l'indice de Herfindhal a un signe positif. Cet indice étant mesure du pouvoir de marché, le signe positif indique qu'un pouvoir de marché plus élevé incite les banques à dépenser plus en personnel ou en dépenses personnelles.

l'efficacité (Berger et Mester, 1997, Ariff et Can, 2008; Staub et al., 2010).

Nous prenons également en compte le ratio d'intermédiation définie comme le ratio du total des prêts sur le total des dépôts. Il permet d'appréhender la capacité des banques à convertir les dépôts en prêts. Plus le ratio d'intermédiation est élevé, plus les coûts du secteur bancaire sont bas. Généralement, on s'attend à ce que le coût des banques soit négativement associé au ratio d'intermédiation.

Afin de tenir compte du risque lié à l'activité bancaire, le ratio créances douteuses/crédits bruts rend compte du niveau de risque de l'activité bancaire. Cette variable indique comment le risque pris par les banques affecte leur efficacité. Comme le souligne Kablan (2007), les créances irrécouvrables ont tendance à alourdir les coûts des banques. En effet, dans un environnement caractérisé par un taux élevé de crédits de mauvaise qualité, les banques auront tendance à être plus réticentes dans l'octroi de crédit du fait des pertes que cela occasionne. De ce fait nous testons la significativité de la variable prêts non performants dans la détermination de l'efficacité bancaire. Cette variable représente le total des créances douteuses dans chaque pays de la zone rapporté au total des crédits bruts. Elle est censée impacter négativement l'efficacité des banques dans les pays de l'échantillon.

En plus des variables spécifiques bancaires, nous introduisons des variables environnementales susceptibles d'expliquer les scores d'efficacité. L'intérêt de ces variables est la prise en compte de l'environnement dans lequel la production et l'intermédiation bancaire s'opèrent. À cet effet, Dietsch et Lozano-Vivas (2000) ont comparé l'efficacité coût des banques françaises et espagnoles au cours de la période 1988-1992. Pour expliquer l'origine des différences d'efficacité coût entre des banques françaises et espagnoles, ces auteurs font recours à trois catégories de variables environnementales à savoir les variables macroéconomiques qui décrivent les principales conditions macroéconomiques et déterminent les caractéristiques de demande de la production bancaire; des variables liées à la structure et la réglementation de l'industrie bancaire et celles qui caractérisent l'accessibilité aux services bancaires.

Pour tenir compte des conditions macroéconomiques dans cette étude, nous incluons le taux de croissance du PIB, l'inflation et la densité de population en nous basant sur Dietsch et Lozano-Vivas (2000), Grigorian et Manole (2006). La variable densité de la population qui désigne la population par kilomètre carré permet de prendre en compte l'effet des différents niveaux de peuplement des pays sur l'efficacité. En effet, l'augmentation du volume des crédits accordés pourrait être corrélée à la croissance de la population et

comme le souligne Grigorian et Manole (2006), l'offre des services bancaires dans les zones à faible densité de population génère des coûts bancaires élevés et n'encouragent pas les banques à augmenter leurs niveaux d'efficacité.

La croissance économique peut exercer un impact positif ou négatif sur l'efficacité des banques commerciales. Des études ont montré qu'une forte croissance économique améliore l'efficacité de l'intermédiation, puisqu'elle encourage plus de dépôts et la demande des prêts utilisés dans divers investissements, l'opposé est vrai en cas de faible croissance économique. Selon Dietsch et Lozano-Vivas (2000), le revenu par habitant affecte plusieurs facteurs liés à l'offre et à la demande des services bancaires principalement les dépôts et les prêts. Les pays ayant un revenu par habitant plus élevé ont un système bancaire qui fonctionne dans un environnement mature et comme résultat, des taux d'intérêt et marges de profit plus concurrentiels. Par ailleurs, Grigorian et Manole observent que l'efficacité coût des banques est significativement et positivement corrélée avec le PIB par tête. Nous attendons un signe positif de cette variable.

#### d) *Les données*

Les données utilisées dans cette étude sont des données annuelles des banques, agrégées par pays. Elles portent sur un panel de trois(3) pays de la CEMAC à savoir le Cameroun; le Congo et le Gabon. Ce choix de ces pays loin d'être volontaire, est dicté par la disponibilité des données, mais c'est également au cours de cette période que le désengagement des États du système bancaire devient effectif, laissant la place à des marchés bancaires libéralisés. Toutefois cet échantillon bien que restreint est représentatif. En effet, ces trois pays totalisent 33 sur les 50 banques présentes dans la sous-région CEMAC en décembre 2014, soit une représentativité de 66% des banques du système. Par ailleurs, les trois pays représentent 77% des crédits, 76,27% du total actif et 72,63% des dépôts du système bancaire de la zone CEMAC<sup>12</sup>. De plus, d'après le rapport annuel de la zone franc de 2017, les trois principaux systèmes bancaires de la CEMAC, le Cameroun (38 %), le Gabon (21 %) et le Congo (16 %), représentent les trois quarts du bilan agrégé de la zone.

Ces données collectées sur la période 2000-2013 sont agrégées par pays et proviennent des sources diverses: les rapports d'activités annuels de la COBAC, le World Development Indicator (WDI) de la banque mondiale et la Financial Development and Structure Dataset 2016.

<sup>12</sup> Calculs faits à partir du rapport COBAC 2014.

e) *Modèle et technique d'estimation*

Afin de déterminer l'effet de la concurrence sur l'efficacité bancaire en zone CEMAC, nous régressons les scores d'efficacité estimés précédemment sur un ensemble de variables. Puisque la variable dépendante (l'efficacité) prend des valeurs dans l'intervalle] 0 1], nous ne pouvons pas appliquer la méthode des moindres carrés ordinaires (MCO); les modèles censurés tels que le modèle Tobit censuré sont plus adaptés (Kobou et al., 2009). Comme le soulignent ces auteurs, ces modèles sont particulièrement recommandés lorsque les valeurs de la variable endogène appartiennent à un intervalle précis.

Le modèle Tobit est utilisé lorsque deux conditions sont réunies à savoir: la variable dépendante est continue dans un intervalle et la probabilité pour que la variable dépendante prenne des valeurs nulles est positive. Pour le cas de l'évaluation de l'effet de la

concurrence sur l'efficacité bancaire, la variable dépendante (niveau d'efficacité) est continue dans l'intervalle] 0 1]. Le modèle Tobit censuré n'est pas approprié puisque la variable dépendante n'admet pas des valeurs nulles. Pour résoudre cette difficulté, nous expliquons plutôt l'inefficacité des banques, en ayant recours comme Kobou et al., (2009) au modèle Tobit censuré puisque le niveau d'inefficacité prend des valeurs nulles, positives et continues dans l'intervalle [0 1]. Ainsi, la variable dépendante sera censurée en gardant dans l'échantillon les observations pour lesquelles la valeur de la variable dépendante est nulle. Ainsi, si Y représente le niveau d'inefficacité (1- efficacité) des banques du pays i, le modèle tobit à estimer pour évaluer l'effet de la concurrence sur l'inefficacité des banques dans la CEMAC s'écrit comme suit :

$$\{avec Y_{it} = X_{it} \beta + \mu_i \quad \{ Y_{it} = Y_{it}^* \text{ si } Y_{it}^* > 0 \quad Y_{it} = 0 \text{ sinon}$$

Lorsque les valeurs de  $Y_{it}^*$  sont nulles ou négatives,  $Y_{it}$  est égale à 0 mais l'on connaît néanmoins les valeurs des variables explicatives. Les données dans ce type de modèle sont dites censurées à gauche,  $Y_{it}$  suit alors une loi normale censurée (Bourbonnais, 2015).

Dans la relation  $X_i$  est le vecteur des variables explicatives,  $\beta$  le vecteur des paramètres à estimer et  $Y_i^*$  est une variable latente qui peut être considérée comme

le seuil à partir duquel les variables affectent l'efficacité d'une banque (Afonso et Aubyn, 2006). Dans cette étude, la variable dépendante « inefficacité » est continue et limitée à zéro. En supposant que les erreurs sont normalement distribuées, l'estimation du modèle Tobit censuré ci-dessus passe par la maximisation du logarithme de la vraisemblance suivante Kobou et al.(2009) :

$$LogL = \sum_{i=1}^n Log [1 - \Phi(X_i \beta / \delta)] + \sum_i^n Log \left( \frac{1}{\sqrt{2\pi}\delta} \right) - \frac{\sum_{i=1}^n (Y_i X_i \beta)^2}{2\delta^2}$$

Où n représente le nombre d'observations,  $\delta$  l'écart type.

De manière explicite le modèle à estimer s'inspire des travaux de Grigorian et Grigorian et

Manole, 2006 ainsi que Coccoresse et Pellicchia, 2010. Ledit modèle est spécifié comme suit

$$INEFF_{it} = \alpha_0 + \alpha_1 CR3_{it} + \alpha_2 TA_{it} + \alpha_3 INTER_{it} + \alpha_4 PNP + \alpha_5 DENSPOP_{it} + \alpha_6 INFL_{it} + \alpha_7 TPIBT_{it} + \epsilon_{it} \quad (1)$$

où  $INEFF_{it}$  représente le niveau d'inefficacité (1- efficacité), CR3 représente le ratio de concentration utilisé pour approcher la concurrence, TA désigne la taille de la banque mesurée par le logarithme du total actif, INTER le ratio d'intermédiation, PNP représente les créances douteuses rapportées au crédit brut encore appelé prêts non performants, DENSPOP la densité de la population, INF le taux d'inflation, TPIBT le taux de croissance du PIB et ite terme d'erreur, (i, t) indiquent respectivement le pays et le temps. Toutefois, le signe des paramètres qui expliquent l'inefficacité signifie que ces paramètres ont un effet inverse sur l'efficacité coût

des banques de l'échantillon. Les variables utilisées pour l'évaluation de l'effet de la concurrence sur l'efficacité bancaire sont consignées dans le tableau ci-dessous.

Tableau 3: Définition des variables utilisées dans l'analyse empirique

Variables	Définitions	Signes attendus	Sources
Concentration <b>RC3</b>	Part de marché des trois plus grandes banques en termes de total actif	-/+	Financial Development and Structure Dataset 2016
<b>LNTA</b> = log (total actif)	Taille de la banque mesurée par le Logarithme népérien du total actif	+/-	Rapports COBAC
Ratio d'intermédiation <b>INTER</b>	Ratio total prêts/total crédits	-	Rapports COBAC
Prêts non performants <b>PNP</b>	Ratio Créances Douteuses/Total Crédit	-	Rapports COBAC
Densité de la population <b>DENSPOP</b>	Nombre d'habitants par kilomètre carré	+	World Development Indicator (WDI)
<b>TCPIB</b>	La croissance économique mesurée aux de variation annuelle (en %) du Produit Intérieur Brut (PIB)	+	World Development Indicator (WDI)
<b>INFL</b>	L'inflation mesurée chaque année par le taux de variation (en %) de l'indice des prix à la consommation.	-	World Development Indicator (WDI)

Source: Auteur sur la base de la littérature

#### IV. PRÉSENTATION ET DISCUSSION DES RÉSULTATS

Les résultats des estimations figurent dans les tableaux ci-après.

Après avoir estimé l'effet de la concurrence sur l'efficacité. Nous avons calculé les effets marginaux.

Tableau 4: Effet de la concurrence sur l'efficacité bancaire dans la CEMAC

Variable dépendante : inefficience coût	
Variabes	Coefficients (p-value)
Constante	6.34* (0.051)
cr3	-0.037** ( 0.027)
Lnta	-0.61* (0.080)
Inter	0 .014 (0.158)
Pnp	0.00069 (0.700)
Denspop	-0.035* (0.084)
Inf	-0.061** (0.040)
Tcpib	0.046 (0.379)
Nombre d'observations: 42 Nombre d'observations censurées à gauche : 27 Nombre d'observations non censurées: 15 Nombre d'observations censurées à droite : 0 Wald (7) : 9,45 Prob>Chi2 0,0018	

Source: Stata 12

\*\*\* significativité au seuil de 1 %, \*\* significativité au seuil de 5 %, \* la significativité au seuil de 10 %.



Note: Le signe des paramètres qui expliquent l'inefficience signifie que ces paramètres ont un effet inverse sur l'efficience coût des banques de l'échantillon.

Les résultats du tableau montrent que le modèle est globalement significatif car  $Prob > \chi^2 = 0,0018 < 0,01$ . Les résultats de l'estimation laissent entrevoir que la concentration CR3, (mesure inverse de la concurrence) a un effet négatif et significatif sur l'inefficience au cours de la période d'étude. De manière précise, une augmentation du ratio de concentration entraîne une réduction de l'inefficience coût des banques. L'intensification de la concentration (réduction de la concurrence) réduit ainsi l'inefficience coût des banques de notre échantillon. On pourrait en déduire qu'une augmentation du niveau de concentration (augmentation du pouvoir de marché) bancaire a comme conséquence une augmentation de l'efficience coût des banques dans la CEMAC. Ce résultat est conforme à l'hypothèse des spécificités bancaires selon laquelle la concurrence affecte négativement l'efficience. En effet, comme l'a souligné Florian (2012), cet effet sur l'efficience coût pourrait s'expliquer par la capacité de produire l'information pour les banques disposant d'un pouvoir de marché.

La concentration est ainsi considérée comme une source d'efficience bancaire. Dans ce sens, Grigorian et Manole (2006) ont relevé une relation positive et significative entre une concentration élevée du marché bancaire et l'efficience coût. Ce résultat est conforme à ceux de Ningaye Paul et al., (2014), Florian (2012), Kouki et Al-Nasser (2014), Sarpong-Kumankoma et al. (2017) qui trouvent un effet positif du pouvoir de marché sur l'efficience coût. Par contre ce résultat diffère des travaux de Berger et Hannan (1994), qui montrent que le pouvoir de marché est négativement relié à l'efficience coût des banques aux États-Unis. De même que ceux de Turk Ariss (2010) qui trouve une relation négative et significative entre le pouvoir de marché des banques et l'efficience coût dans un échantillon de pays en développement.

La variable taille (TA) présente un signe négatif et statistiquement significatif. En effet, un accroissement de la taille des banques entraîne une réduction de l'inefficience coût. Cela signifie que les grandes banques sont plus efficaces que les petites banques en termes de coût grâce aux économies d'échelles qu'elles peuvent réaliser dans leurs différentes activités. Ce constat suggère que les banques camerounaises, congolaises et gabonaises pourraient améliorer leur efficience coût en augmentant leur taille par exemple par des fusions et acquisitions. Ce résultat est conforme à ceux de Sufian (2008) et Hauner (2005) qui ont trouvé une relation positive entre la taille et l'efficience coût des banques. Selon Hauner (2005), l'impact positif de la taille sur l'efficience coût des banques s'explique par le

fait que les grandes banques bénéficient des rendements d'échelle croissants grâce à l'attribution de coûts fixes (par exemple pour la recherche ou la gestion des risques) sur un volume de services plus important ou des gains d'efficacité d'une main-d'œuvre spécialisée supérieure.

En ce qui concerne la variable *Inter*, le résultat de la régression présente contrairement au signe attendu un signe positif et statistiquement significatif de la variable *ratio d'intermédiation* sur l'inefficience des banques. Cela signifie qu'un accroissement de la liquidité bancaire entraîne une hausse de l'inefficience coût. En effet ce n'est qu'en employant les dépôts collectés dans l'octroi des crédits que les banques deviennent plus efficaces. Car, comme le souligne Dietsch et Lozano-Vivas (2000) un montant plus élevé de prêts par unité de dépôts diminue les coûts bancaires puisqu'une banque ayant un taux d'intermédiation élevé a la possibilité de bénéficier des économies d'échelle et de réduire, ainsi, ses coûts. De plus, trop de liquidités représente un manque à gagner pour la banque et, par voie de conséquence, impacterait négativement sa performance.

Ce signe négatif de la variable *ratio d'intermédiation* pourrait s'expliquer dans notre étude par le fait que les banques concernées n'accordent pas suffisamment de crédits pour pouvoir bénéficier des économies d'échelles qui en découlent afin de réduire leurs coûts.

Le coefficient de la variable *prêts non performants* est positif. Plus la proportion des créances douteuses dans le total des crédits augmente, plus la banque est inefficace en termes de coût. Plus précisément, une augmentation de la proportion des créances douteuses dans le total des crédits, entraînerait une diminution de l'efficience coût des banques. Ce qui confirme l'idée selon laquelle, plus les banques accumulent des créances douteuses, plus elles deviennent réticentes à octroyer des crédits, ce qui affecte négativement leur efficience. Kablan (2007) a obtenu le même résultat pour les pays de l'UEMOA.

Contrairement à nos attentes, les résultats montrent que l'effet du taux d'inflation sur l'efficience est positif et significatif. L'inflation augmente l'incertitude et peut se traduire dans le secteur bancaire par les taux d'intérêt élevés. Ainsi, le signe positif de la variable *inflation* montre que les banques en zone CEMAC peuvent tirer avantage d'un environnement économique inflationniste puisqu'elles sont capables de transmettre le coût de l'inflation à leurs clients en fixant des taux de prêts plus élevés relativement aux taux de dépôts. Ce résultat est semblable aux résultats de Grigorian et de Manole (2006). Ainsi, l'inflation en zone CEMAC peut influencer le comportement des banques en les incitant à se faire concurrence par une multiplication des agences bancaires (Kasman et le Yildirim, 2006) et

d'avantage par la fixation des marges d'intérêt élevées. Conformément à nos attentes, le coefficient de la variable densité de la population favorise l'efficacité des banques. En effet les résultats indiquent qu'une densité de la population plus élevée contribue à une diminution

de l'inefficacité bancaire. Contrairement à nos attentes, le taux de croissance du PIB a un signe négatif, mais non significatif. Par la suite les effets marginaux ont été calculés, le tableau qui suit présente les résultats.

Tableau 5: Résultats du calcul des effets marginaux

Variable	dy/dx	Std. Err.	z	P>  z	X
Rc3	-.0377274	.01701	-2.22	0.027**	73.5397
Lnta	-.613685	.35032	-1.75	0.080*	7.36949
Inter	.0143078	.01013	1.41	0.158	59.6934
Pnp	.0006986	.00181	0.39	0.700	83.8081
Denspop	-.0357193	.02065	-1.73	0.084*	22.3866
Infl	-.0615729	.03002	-2.05	0.040**	12.9629
Tcpib	.0462681	.05256	0.88	0.379	3.67799

Source: Stata 12

Note:; \*\*\* significativité au seuil de 1 %, \*\* significativité au seuil de 5 %, \* la significativité au seuil de 10 %

L'analyse des effets marginaux montrent toutes choses égales par ailleurs, qu'une variation des variables concentration (rc3), taille des banques (lnta), densité de la population (denspop) et inflation (infl) font baisser significativement la probabilité d'inefficacité des banques respectivement de 0, 037%, 0, 61%, 0, 035% et 0, 061%. De manière plus explicite, une variation d'un pourcent de la concentration CR3 entraîne une diminution de la probabilité que les banques soient inefficaces de 0, 037 %. Une augmentation de la taille des banques entraîne une diminution de la probabilité d'être inefficace de 0, 61%. Une augmentation du nombre d'habitants par kilomètre carré entraîne une diminution de la probabilité d'être inefficace de 0,035%. Une augmentation de l'inflation entraîne une diminution de la probabilité d'être inefficace de 0,061%.

## V. CONCLUSION

La concurrence dans le secteur bancaire est plus complexe que la concurrence dans d'autres secteurs en raison même de la nature de son activité. La revue de littérature théorique et empirique, traitant du lien entre la concurrence et l'efficacité bancaire, ne débouche pas sur un consensus. Partant de ce constat, nous avons évalué dans cet article l'effet de la concurrence sur l'efficacité bancaire en zone CEMAC sur la période 2000-2013. Dans une première étape, les scores d'efficacité ont été estimés à l'aide de la méthode DEA. Nous avons adopté une approche structurelle de mesure de la concurrence, l'indicateur retenu est le ratio de concentration CR3 qui mesure le pouvoir de marché des banques. Par la suite, les scores d'efficacité estimés ont été régressés sur un ensemble de variables explicatives dont la variable d'intérêt est le taux de concentration. Nous y avons associé un ensemble de variables de contrôles. Nos résultats obtenus par le modèle Tobit, montrent un effet positif du

taux de concentration sur l'efficacité coût des banques. Par effet de miroir on peut en déduire qu'une intensification de la concurrence (réduction du taux de concentration) réduit l'efficacité des banques des pays de notre échantillon. Les résultats de ces estimations soutiennent ainsi l'hypothèse des spécificités bancaires. Ainsi le pouvoir de marché permet aux banques de produire davantage d'informations et à moindre coût. Ainsi, les politiques qui permettent aux banques de maintenir un certain niveau de pouvoir de marché peuvent être nécessaires pour assurer l'efficacité bancaire dans la CEMAC.

## REFERENCES RÉFÉRENCES REFERENCIAS

1. *Ab Rahim, R. (2016), "Does competition foster efficiency? Empirical evidence from Malaysian commercial banks". AAMJAF Vol. 12, No. 1, 1–23.*
2. *Afonso, A. et M. Aubyn (2006), "Cross-country efficiency of secondary education provision: a semi-parametric analysis with non-discretionary inputs". Economic Modelling, vol. 23, p. 476-491.*
3. *Alhassan A.L et Ohene-Asare, K. (2016), "Competition and Bank efficiency in emerging markets. Empirical evidence from Ghana. "African Journal of Economic and Management Studies, Vol 7, 268-288*
4. *Ambapour, S. (2004), "Efficacité technique comparée des systèmes de santé en Afrique subsaharienne : une application de la méthode de DEA ". Document de Travail n° 10, Bureau D'Application des Méthodes Statistiques et Informatiques (BAMSI).*
5. *Andries, A. M. et Capraru, B. (2014), "The nexus between competition and efficiency: The European banking industries experience", International Business Review, n° 23, pp.566-579.*

6. Ariff, M. et Can, L. (2008), "Cost and profit efficiency of Chinese banks: A non-parametric analysis", *China Economic Review*, vol.19, n°2, pp. 260-273.
7. Banker, R., Charnes, A. et Cooper, W. (1984), "Some Models for Estimating Technical and Scale Inefficiencies in Data Envelopment Analysis", *Management Science*, 30, pp.1078-1092.
8. Berger, A. N., et Hannan, T. H. (1994), "The efficiency cost of market power in the banking industry: A test of the "Quiet Life" and related hypotheses", *Working Paper n°29, the Wharton School University of Pennsylvania*.
9. Berger, A. N. et Humphrey, B. (1997), "Efficiency of financial institutions: International survey and directions of future research", *European Journals of Operational Research*, 97, pp.175-212.
10. Berger, A. N. et Mester, L. J. (1997), "Inside the Black Box: What Explains Differences in the Efficiencies of Financial Institutions?", *Journal of Banking and Finance*, 21, pp. 895-947.
11. Bourbonnais (2015), "Économétrie Cours et exercices corrigés" 9<sup>e</sup> édition, DONOD.
12. Carbo-Valverde, S., Humphrey, D., Maudos, J. et Molyneux, P. (2009), "Cross-Country Comparisons of Competition and Pricing Power in European Banking", *Journal of International Money and Finance*, 28, pp. 115-134.
13. Castellanos, S. G. et Garza-García, J.G. (2013), "Competition and Efficiency in the Mexican Banking Sector" *BBVA Research Working Paper N013/29*
14. Casu, B. et Girardone, C. (2007), "Bank Competition, Concentration and Efficiency in the Single European Market", *The Manchester School*, vol. 74, n° 4, pp. 441-468.
15. Charnes, A., Cooper, W. W., et Rhodes, E. (1978), "Measuring The Efficiency of Decision Making Units", *European Journal of Operational Research*, vol.2, n°6, pp. 429-444.
16. Claessens, S. (2009), "Competition in the financial sector: Overview of competition policies", *IMF Working Paper n°.09/45*.
17. Claessens, S. et Laevan, L. (2004), "What Drives Bank Competition? Some International Evidence", *Journal of Money, Credit and Banking*, vol. 36, n° 3, pp. 563-583.
18. COBAC, *Rapport annuel*, de 2000 à 2014.
19. Coccoresse, P. et Pellicchia, A. (2010), "Testing the "quiet life" hypothesis in the Italian banking industry", *Review of Banking, Finance and Monetary Economics*, vol. 39, n° 3, pp. 173-202.
20. Coelli T. J. (1996), "A Guide to DEAP Version 2.1: A Data Envelopment Analysis (Computer) Program", *CEPA Working Paper n°8/96*. University of New England, Australia.
21. Delis, M. et Tsionas, E. (2009), "The joint estimation of bank-level market power and efficiency", *Journal of Banking and Finance*, 33, pp.1842-1850.
22. Deltuvaite, V., Vaškelaitis, V. et Pranckevičiūtė, A. (2007), "The Impact of Concentration on Competition and Efficiency in the Lithuanian Banking Sector", *Economics of Engineering Decisions*, n° 4, pp. 1392-2785.
23. Demsetz, H. (1973), "Industry structure, market rivalry, and public policy," *Journal of Law and Economics*, vol.16, n°1, pp.1-9.
24. Diamond, D. (1984), "Financial Intermediation and Delegated Monitoring", *Review of Economic Studies*, 51, pp.393-414.
25. Dietsch, M. (2005), "La place de la concurrence dans l'organisation et le fonctionnement du secteur bancaire", *Cycle de conférences: Droit, Economie et Justice dans le secteur bancaire*.
26. Dietsch, M. et Lozano-Vivas, A. (2000), "How the environment determines banking efficiency: A comparison between French and Spanish industries", *Journal of banking and Finance*, vol 24, n°24, pp. 985-1004.
27. Färe, R., Grosskopf, S., Maudos, J. et Tortosa-Ausina, E. (2012), "Revisiting the quiet life hypothesis in banking using nonparametric techniques", *Journal of Business Economics and Management*, vol.16, n°1, pp.159-187.
28. Farrel, M.J. (1957), "The measurement of productive efficiency", *Journal of the Royal Statistical Society. Series A (General)*, vol.120, n°3, pp.253-281.
29. Florian, L. (2012), "Effet de la concurrence sur l'efficience bancaire en Afrique: Le cas de l'UEMOA", *Etudes et Documents*, n°2, CERDI.
30. Florian, L. (2015), "What do we know about the role of bank competition in Africa?" *Etudes et Documents*, n° 16, CERDI.
31. Fungáčová, Z., Pessarossi, P. et Weill, L. (2012), "Is bank competition detrimental to efficiency? Evidence from China", *BOFIT Discussion Papers* n°. 31.
32. Girardone, C., Molyneux, P. et Gardener, E. P. M. (2004), "Analysing the determinants of bank efficiency: the case of Italian banks", *Applied Economics*, vol.36, n°3, pp. 215(213).
33. Grigorian, D. A. et Manole, V. (2006), "Determinants of commercial bank performance in transition: An application of data envelopment analysis", *Comparative Economic Studies* n°48, pp. 497-522.
34. Hauner, D. (2005), "Explaining efficiency differences among large German and Austrian banks". *Applied Economics*, vol.37, n°9, pp.969-980
35. Hauner, D. et Peiris, S. (2005), "Bank efficiency and competition in low-income countries: the case of Uganda." *IMF Working Paper* n°240.

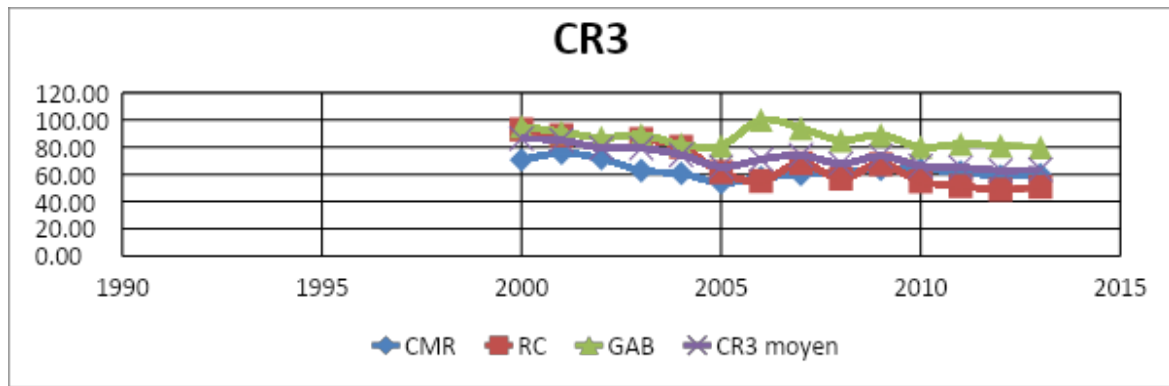
36. Havrylchuk O. (2006), "Efficiency of the Polish banking industry: foreign versus domestic banks", *Journal of Banking and Finance*, vol 30, pp 1975-1996.
37. Hicks, J. (1935), "Annual survey of economic theory: The theory of monopoly" *Econometrica JSTOR*, vol 3, pp.1-20.
38. Isik, I. et Hassan, M. K. (2002), "Technical, scale and allocative efficiencies of Turkish banking industry", *Journal of Banking and Finance*, vol.26,n°4, pp. 719-766.
39. Kablan, S. (2007), "Mesure de la Performance des Banques dans les Pays en Développement: le Cas de l'UEMOA", *Workshop du 2-7 Juin*.
40. Kasman, A. et Yildirim, C. (2006), "Cost and profit efficiencies in transition banking: the case of new EU members", *Applied Economics*, vol.38, n°9, pp. 1079-1090.
41. Kobou, G., Mougou, S. et Ngoa-Tabi, H. (2009), "L'efficacité du financement des micro et petites entreprises dans la lutte contre la pauvreté au Cameroun", *Colloque International, la vulnérabilité des TPE et des PME dans un environnement mondialisé*.
42. Koetter, M., Kolari, J. W. et Spierdijk, L. (2012), "Enjoying the Quiet Life under Deregulation? Evidence from Adjusted Lerner Indices for U.S. Banks", *Review of Economics and Statistics*, vol.94, n°2, pp.462-480.
43. Kouki et Al-Nasser A (2014), "The implication of banking competition: Evidence from African countries", *Research in International Business and Finance*, vol 39, pp. 878-895.
44. Lapteacru, I. et Nys, E. (2011), "L'impact de la concurrence bancaire sur l'efficience des banques : le cas des Pays d'Europe Centrale et Orientale", *Revue Economique, Presses de Sciences Po*, vol.2, n°62, pp.313-329.
45. Leibenstein, H. (1966), "Allocative efficiency vs X-efficiency", *The American Economic Review*, vol.56, n°3, pp. 392-415.
46. Maudos, J. et Fernandez de Guevara, J. (2007), "The Cost of Market Power in Banking: So-cial Welfare Loss vs. Cost Inefficiency", *Journal of Banking and Finance*, vol.31, n°2, pp. 2103-2125.
47. Mohamed, S. B. A. et Sghaier, A. (2012), "Competition and Banking Efficiency: Evidence from Tunisian Banking Industry", *Journal of Islamic Economics, Banking and Finance*, vol. 8, n°1.
48. Ningaye, P., Madaha Yemetio, M. et Nembot Ndeffo (2014), "Competition and Banking Efficiency in the CEMAC Zone", *International Journal of Economics and Finance*, vol. 6, n°. 6.
49. Panzar, J. C. et Rosse, J. N. (1987), "Testing for "monopoly" equilibrium", *The Journal of Industrial Economics*, vol.35, n°4, pp. 443-456.
50. Pruteanu-Podpiera, A., Weill, L. et Schobert, F. (2007), "Market Power and Efficiency in the Czech Banking Sector", *CNB Working Paper Series n° 6*.
51. Sarpong-Kumankoma, E, Abor, J et Aboagye, A.Q.Q. (2017), "Freedom, competition and bank efficiency in Sub Saharan Africa", *International Journal of Law and Management* vol 59, pp.1359-1380.
52. Solis, L. et Maudos, J. (2008), "The Social Costs of Bank Market Power: Evidence from Mexico", *Journal of Comparative Economics*, vol.36, n°3, pp.467-488.
53. Staub, R. B., Da Silva Souza, G. et Tabak, B. M. (2010), "Evolution of bank efficiency in Brazil: A DEA approach", *European Journal of Operational Research*, vol.202, n°1, pp.204-213.
54. Sufian F. (2008), "Determinants of bank efficiency during unstable macroeconomic environment: Empirical evidence from Malaysia", *Research in International Business and Finance*.
55. Turk-Ariss, R. (2010), "On the Implications of Market Power in Banking: Evidence from Developed Countries", *Journal of Banking and Finance*, vol.34, n°4, pp. 765-775.
56. U-Din, S., Tripe, D. et Kabir, M. H. (2017), "Market Competition and Bank Efficiency: A Post GFC Assessment of Australia and New Zealand", *SSRN Electronic Journal*, 2017(August).
57. Viverita (2014), "Cost Efficiency and Market Power: A Test of Quiet Life and Related Hypotheses in Indonesian Banking Industry". In: Emrouznejad A. et Cabanda E. (eds) *Managing Service Productivity. International Series in Operations Research & Management Science*, vol 215. Springer, Berlin, Heidelberg 7, n° 1, pp. 1-23.
58. Wanniarachchige, M. K. et Suzuki, Y. (2010), "Bank Competition and Efficiency: The Case of Sri Lanka", *Asia Pacific World*, vol.1, n°1, pp.117-131.
59. Weill, L. (1998), "Concurrence et efficience dans la banque", *Revue Française D'économie*, vol.13, n°2, pp.101-127.
60. Weill, L. (2004), "On the Relationship between competition and efficiency in the EU banking sectors", *Kreditund Kapital*, 37, pp. 329-352.
61. Williams, J. (2012), "Efficiency and market power in Latin American banking", *Journal of Financial Stability*, vol.8, n°4, pp. 263-276.

## ANNEXE

Tableau: Scores d'efficacité estimés par la méthode DEA

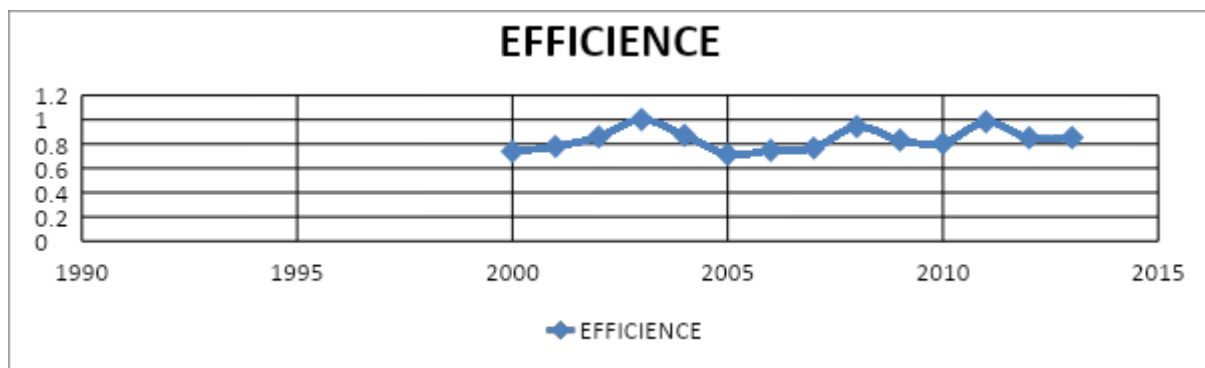
Années	efficacité	Cameroun		Congo		Gabon		Efficacité moyenne	
		REC	REV	REC	REV	REC	REV	REC	REV
2000	ET	0.152	0.305	1.000	1.000	0.634	1000	0.595	0.768
	EA	0.706	0.706	1.000	1.000	0.706	1000	0.804	0.902
	EC	0.108	0.215	1.000	1.000	0.448	1000	0.518	0.738
2001	ET	1.000	1.000	1.000	1.000	0.130	0.336	0.710	0.779
	EA	1.000	1.000	0.255	1.000	1.000	1.000	0.752	1.000
	EC	1.000	1.000	0.255	1.000	0.130	0.336	0.461	0.779
2002	ET	1.000	1.000	0.540	1.000	0.192	0.577	0.577	0.859
	EA	1.000	1.000	0.156	1.000	0.863	1.000	0.673	1.000
	EC	1.000	1.000	0.084	1.000	0.166	0.577	0.417	0.859
2003	ET	0.043	1.000	0.944	1.000	1.000	1.000	0.662	1.000
	EA	0.576	1.000	0.953	1.000	1.000	1.000	0.843	1.000
	EC	0.025	1.000	0.899	1.000	1.000	1.000	0.641	1.000
2004	ET	0.029	1.000	1.000	1.000	1.000	1.000	0.676	1.000
	EA	0.025	0.617	0.501	0.998	1.000	1.000	0.509	0.872
	EC	0.001	0.617	0.501	0.998	1.000	1.000	0.501	0.872
2005	ET	0.020	0.786	1.000	1.000	0.070	1.000	0.363	0.929
	EA	0.274	0.185	1.000	1.000	0.809	1.000	0.694	0.728
	EC	0.006	0.145	1.000	1.000	0.056	1.000	0.354	0.715
2006	ET	0.063	1.000	1.000	1.000	0.036	1.000	0.366	1.000
	EA	0.031	0.239	1.000	1.000	0.162	1.000	0.398	0.746
	EC	0.002	0.239	1.000	1.000	0.006	1.000	0.336	0.746
2007	ET	0.159	1.000	1.000	1.000	0.088	1.000	0.416	1.000
	EA	0.151	1.000	1.000	1.000	0.019	0.300	0.390	0.767
	EC	0.024	1.000	1.000	1.000	0.002	0.300	0.342	0.767
2008	ET	0.031	0.966	1.000	1.000	0.019	1.000	0.350	0.989
	EA	0.208	0.861	1.000	1.000	0.173	1.000	0.460	0.954
	EC	0.006	0.832	1.000	1.000	0.003	1.000	0.337	0.944
2009	ET	1.000	1.000	0.839	1.000	1.000	1.000	0.946	1.000
	EA	1.000	1.000	0.294	0.493	1.000	1.000	0.765	0.831
	EC	1.000	1.000	0.246	0.493	1.000	1.000	0.749	0.831
2010	ET	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	EA	0.338	1.000	0.389	0.417	1.000	1.000	0.576	0.806
	EC	0.338	1.000	0.389	0.417	1.000	1.000	0.576	0.806
2011	ET	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	EA	0.963	1.000	0.875	1.000	0.928	0.942	0.922	0.981
	EC	0.963	1.000	0.875	1.000	0.928	0.942	0.922	0.981
2012	ET	1.000	1.000	0.807	1.000	0.818	1.000	0.875	1.000
	EA	1.000	1.000	0.235	0.568	0.918	0.986	0.718	0.851
	EC	1.000	1.000	0.189	0.568	0.751	0.986	0.647	0.851
2013	ET	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	EA	0.410	1.000	1.000	1.000	0.559	0.559	0.656	0.853
	EC	0.410	1.000	1.000	1.000	0.559	0.559	0.656	0.853

Source: Résultats fournis par le Logiciel DEAP v2.1



Source: Financial Development and Structure Dataset (2016)

Figure 1: Évolution des taux de concentration CR3 en termes de total bilan



Source: Données COBAC, à partir d'EXCEL

Figure 2: Évolution du niveau d'efficacité moyenne des banques

# GLOBAL JOURNALS GUIDELINES HANDBOOK 2020

---

[WWW.GLOBALJOURNALS.ORG](http://WWW.GLOBALJOURNALS.ORG)

# MEMBERSHIPS

## FELLOWS/ASSOCIATES OF MANAGEMENT AND BUSINESS RESEARCH COUNCIL FMBRC/AMBRC MEMBERSHIPS

### INTRODUCTION



FMBRC/AMBRC is the most prestigious membership of Global Journals accredited by Open Association of Research Society, U.S.A (OARS). The credentials of Fellow and Associate designations signify that the researcher has gained the knowledge of the fundamental and high-level concepts, and is a subject matter expert, proficient in an expertise course covering the professional code of conduct, and follows recognized standards of practice. The credentials are designated only to the researchers, scientists, and professionals that have been selected by a rigorous process by our Editorial Board and Management Board.

Associates of FMBRC/AMBRC are scientists and researchers from around the world are working on projects/researches that have huge potentials. Members support Global Journals' mission to advance technology for humanity and the profession.

## FMBRC

### FELLOW OF MANAGEMENT AND BUSINESS RESEARCH COUNCIL

FELLOW OF MANAGEMENT AND BUSINESS RESEARCH COUNCIL is the most prestigious membership of Global Journals. It is an award and membership granted to individuals that the Open Association of Research Society judges to have made a 'substantial contribution to the improvement of computer science, technology, and electronics engineering.

The primary objective is to recognize the leaders in research and scientific fields of the current era with a global perspective and to create a channel between them and other researchers for better exposure and knowledge sharing. Members are most eminent scientists, engineers, and technologists from all across the world. Fellows are elected for life through a peer review process on the basis of excellence in the respective domain. There is no limit on the number of new nominations made in any year. Each year, the Open Association of Research Society elect up to 12 new Fellow Members.





## BENEFIT

### TO THE INSTITUTION

#### GET LETTER OF APPRECIATION

Global Journals sends a letter of appreciation of author to the Dean or CEO of the University or Company of which author is a part, signed by editor in chief or chief author.



### EXCLUSIVE NETWORK

#### GET ACCESS TO A CLOSED NETWORK

A FMBRC member gets access to a closed network of Tier 1 researchers and scientists with direct communication channel through our website. Fellows can reach out to other members or researchers directly. They should also be open to reaching out by other.

Career

Credibility

Exclusive

Reputation



### CERTIFICATE

#### CERTIFICATE, LOR AND LASER-MOMENTO

Fellows receive a printed copy of a certificate signed by our Chief Author that may be used for academic purposes and a personal recommendation letter to the dean of member's university.

Career

Credibility

Exclusive

Reputation



### DESIGNATION

#### GET HONORED TITLE OF MEMBERSHIP

Fellows can use the honored title of membership. The "FMBRC" is an honored title which is accorded to a person's name viz. Dr. John E. Hall, Ph.D., FMBRC or William Walldroff, M.S., FMBRC.

Career

Credibility

Exclusive

Reputation

### RECOGNITION ON THE PLATFORM

#### BETTER VISIBILITY AND CITATION

All the Fellow members of FMBRC get a badge of "Leading Member of Global Journals" on the Research Community that distinguishes them from others. Additionally, the profile is also partially maintained by our team for better visibility and citation. All fellows get a dedicated page on the website with their biography.

Career

Credibility

Reputation



## FUTURE WORK

### GET DISCOUNTS ON THE FUTURE PUBLICATIONS

Fellows receive discounts on future publications with Global Journals up to 60%. Through our recommendation programs, members also receive discounts on publications made with OARS affiliated organizations.

Career Financial



## GJ ACCOUNT

### UNLIMITED FORWARD OF EMAILS

Fellows get secure and fast GJ work emails with unlimited forward of emails that they may use them as their primary email. For example, john [AT] globaljournals [DOT] org.

Career Credibility Reputation



## PREMIUM TOOLS

### ACCESS TO ALL THE PREMIUM TOOLS

To take future researches to the zenith, fellows receive access to all the premium tools that Global Journals have to offer along with the partnership with some of the best marketing leading tools out there.

Financial

## CONFERENCES & EVENTS

### ORGANIZE SEMINAR/CONFERENCE

Fellows are authorized to organize symposium/seminar/conference on behalf of Global Journal Incorporation (USA). They can also participate in the same organized by another institution as representative of Global Journal. In both the cases, it is mandatory for him to discuss with us and obtain our consent. Additionally, they get free research conferences (and others) alerts.

Career Credibility Financial

## EARLY INVITATIONS

### EARLY INVITATIONS TO ALL THE SYMPOSIUMS, SEMINARS, CONFERENCES

All fellows receive the early invitations to all the symposiums, seminars, conferences and webinars hosted by Global Journals in their subject.

Exclusive





## PUBLISHING ARTICLES & BOOKS

### EARN 60% OF SALES PROCEEDS

Fellows can publish articles (limited) without any fees. Also, they can earn up to 70% of sales proceeds from the sale of reference/review books/literature/publishing of research paper. The FMBRC member can decide its price and we can help in making the right decision.

Exclusive

Financial

## REVIEWERS

### GET A REMUNERATION OF 15% OF AUTHOR FEES

Fellow members are eligible to join as a paid peer reviewer at Global Journals Incorporation (USA) and can get a remuneration of 15% of author fees, taken from the author of a respective paper.

Financial

## ACCESS TO EDITORIAL BOARD

### BECOME A MEMBER OF THE EDITORIAL BOARD

Fellows may join as a member of the Editorial Board of Global Journals Incorporation (USA) after successful completion of three years as Fellow and as Peer Reviewer. Additionally, Fellows get a chance to nominate other members for Editorial Board.

Career

Credibility

Exclusive

Reputation

## AND MUCH MORE

### GET ACCESS TO SCIENTIFIC MUSEUMS AND OBSERVATORIES ACROSS THE GLOBE

All members get access to 5 selected scientific museums and observatories across the globe. All researches published with Global Journals will be kept under deep archival facilities across regions for future protections and disaster recovery. They get 10 GB free secure cloud access for storing research files.

### ASSOCIATE OF MANAGEMENT AND BUSINESS RESEARCH COUNCIL

ASSOCIATE OF MANAGEMENT AND BUSINESS RESEARCH COUNCIL is the membership of Global Journals awarded to individuals that the Open Association of Research Society judges to have made a 'substantial contribution to the improvement of computer science, technology, and electronics engineering.

The primary objective is to recognize the leaders in research and scientific fields of the current era with a global perspective and to create a channel between them and other researchers for better exposure and knowledge sharing. Members are most eminent scientists, engineers, and technologists from all across the world. Associate membership can later be promoted to Fellow Membership. Associates are elected for life through a peer review process on the basis of excellence in the respective domain. There is no limit on the number of new nominations made in any year. Each year, the Open Association of Research Society elect up to 12 new Associate Members.



## BENEFIT

### TO THE INSTITUTION

#### GET LETTER OF APPRECIATION

Global Journals sends a letter of appreciation of author to the Dean or CEO of the University or Company of which author is a part, signed by editor in chief or chief author.



### EXCLUSIVE NETWORK

#### GET ACCESS TO A CLOSED NETWORK

A AMBRC member gets access to a closed network of Tier 2 researchers and scientists with direct communication channel through our website. Associates can reach out to other members or researchers directly. They should also be open to reaching out by other.

Career

Credibility

Exclusive

Reputation



### CERTIFICATE

#### CERTIFICATE, LOR AND LASER-MOMENTO

Associates receive a printed copy of a certificate signed by our Chief Author that may be used for academic purposes and a personal recommendation letter to the dean of member's university.

Career

Credibility

Exclusive

Reputation



### DESIGNATION

#### GET HONORED TITLE OF MEMBERSHIP

Associates can use the honored title of membership. The "AMBRC" is an honored title which is accorded to a person's name viz. Dr. John E. Hall, Ph.D., AMBRC or William Walldroff, M.S., AMBRC.

Career

Credibility

Exclusive

Reputation

### RECOGNITION ON THE PLATFORM

#### BETTER VISIBILITY AND CITATION

All the Associate members of ASFRC get a badge of "Leading Member of Global Journals" on the Research Community that distinguishes them from others. Additionally, the profile is also partially maintained by our team for better visibility and citation. All associates get a dedicated page on the website with their biography.

Career

Credibility

Reputation

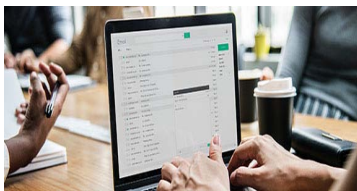
## FUTURE WORK

### GET DISCOUNTS ON THE FUTURE PUBLICATIONS

Associates receive discounts on the future publications with Global Journals up to 60%. Through our recommendation programs, members also receive discounts on publications made with OARS affiliated organizations.

Career

Financial



## GJ ACCOUNT

### UNLIMITED FORWARD OF EMAILS

Associates get secure and fast GJ work emails with 5GB forward of emails that they may use them as their primary email. For example, john [AT] globaljournals [DOT] org..

Career

Credibility

Reputation



## PREMIUM TOOLS

### ACCESS TO ALL THE PREMIUM TOOLS

To take future researches to the zenith, fellows receive access to almost all the premium tools that Global Journals have to offer along with the partnership with some of the best marketing leading tools out there.

Financial

## CONFERENCES & EVENTS

### ORGANIZE SEMINAR/CONFERENCE

Associates are authorized to organize symposium/seminar/conference on behalf of Global Journal Incorporation (USA). They can also participate in the same organized by another institution as representative of Global Journal. In both the cases, it is mandatory for him to discuss with us and obtain our consent. Additionally, they get free research conferences (and others) alerts.

Career

Credibility

Financial

## EARLY INVITATIONS

### EARLY INVITATIONS TO ALL THE SYMPOSIUMS, SEMINARS, CONFERENCES

All associates receive the early invitations to all the symposiums, seminars, conferences and webinars hosted by Global Journals in their subject.

Exclusive





## PUBLISHING ARTICLES & BOOKS

### EARN 60% OF SALES PROCEEDS

Associates can publish articles (limited) without any fees. Also, they can earn up to 30-40% of sales proceeds from the sale of reference/review books/literature/publishing of research paper.

Exclusive

Financial

## REVIEWERS

### GET A REMUNERATION OF 15% OF AUTHOR FEES

Fellow members are eligible to join as a paid peer reviewer at Global Journals Incorporation (USA) and can get a remuneration of 15% of author fees, taken from the author of a respective paper.

Financial

## AND MUCH MORE

### GET ACCESS TO SCIENTIFIC MUSEUMS AND OBSERVATORIES ACROSS THE GLOBE

All members get access to 2 selected scientific museums and observatories across the globe. All researches published with Global Journals will be kept under deep archival facilities across regions for future protections and disaster recovery. They get 5 GB free secure cloud access for storing research files.



ASSOCIATE	FELLOW	RESEARCH GROUP	BASIC
<p>\$4800 lifetime designation</p> <hr/> <p>Certificate, LoR and Momento 2 discounted publishing/year Gradation of Research 10 research contacts/day 1 GB Cloud Storage GJ Community Access</p>	<p>\$6800 lifetime designation</p> <hr/> <p>Certificate, LoR and Momento Unlimited discounted publishing/year Gradation of Research Unlimited research contacts/day 5 GB Cloud Storage Online Presense Assistance GJ Community Access</p>	<p>\$12500.00 organizational</p> <hr/> <p>Certificates, LoRs and Momentos Unlimited free publishing/year Gradation of Research Unlimited research contacts/day Unlimited Cloud Storage Online Presense Assistance GJ Community Access</p>	<p>APC per article</p> <hr/> <p>GJ Community Access</p>





# PREFERRED AUTHOR GUIDELINES

**We accept the manuscript submissions in any standard (generic) format.**

We typeset manuscripts using advanced typesetting tools like Adobe In Design, CorelDraw, TeXnicCenter, and TeXStudio. We usually recommend authors submit their research using any standard format they are comfortable with, and let Global Journals do the rest.

Alternatively, you can download our basic template from <https://globaljournals.org/Template.zip>

Authors should submit their complete paper/article, including text illustrations, graphics, conclusions, artwork, and tables. Authors who are not able to submit manuscript using the form above can email the manuscript department at [submit@globaljournals.org](mailto:submit@globaljournals.org) or get in touch with [chiefeditor@globaljournals.org](mailto:chiefeditor@globaljournals.org) if they wish to send the abstract before submission.

## BEFORE AND DURING SUBMISSION

Authors must ensure the information provided during the submission of a paper is authentic. Please go through the following checklist before submitting:

1. Authors must go through the complete author guideline and understand and *agree to Global Journals' ethics and code of conduct*, along with author responsibilities.
2. Authors must accept the privacy policy, terms, and conditions of Global Journals.
3. Ensure corresponding author's email address and postal address are accurate and reachable.
4. Manuscript to be submitted must include keywords, an abstract, a paper title, co-author(s) names and details (email address, name, phone number, and institution), figures and illustrations in vector format including appropriate captions, tables, including titles and footnotes, a conclusion, results, acknowledgments and references.
5. Authors should submit paper in a ZIP archive if any supplementary files are required along with the paper.
6. Proper permissions must be acquired for the use of any copyrighted material.
7. Manuscript submitted *must not have been submitted or published elsewhere* and all authors must be aware of the submission.

## Declaration of Conflicts of Interest

It is required for authors to declare all financial, institutional, and personal relationships with other individuals and organizations that could influence (bias) their research.

## POLICY ON PLAGIARISM

Plagiarism is not acceptable in Global Journals submissions at all.

Plagiarized content will not be considered for publication. We reserve the right to inform authors' institutions about plagiarism detected either before or after publication. If plagiarism is identified, we will follow COPE guidelines:

Authors are solely responsible for all the plagiarism that is found. The author must not fabricate, falsify or plagiarize existing research data. The following, if copied, will be considered plagiarism:

- Words (language)
- Ideas
- Findings
- Writings
- Diagrams
- Graphs
- Illustrations
- Lectures



- Printed material
- Graphic representations
- Computer programs
- Electronic material
- Any other original work

## AUTHORSHIP POLICIES

Global Journals follows the definition of authorship set up by the Open Association of Research Society, USA. According to its guidelines, authorship criteria must be based on:

1. Substantial contributions to the conception and acquisition of data, analysis, and interpretation of findings.
2. Drafting the paper and revising it critically regarding important academic content.
3. Final approval of the version of the paper to be published.

### Changes in Authorship

The corresponding author should mention the name and complete details of all co-authors during submission and in manuscript. We support addition, rearrangement, manipulation, and deletions in authors list till the early view publication of the journal. We expect that corresponding author will notify all co-authors of submission. We follow COPE guidelines for changes in authorship.

### Copyright

During submission of the manuscript, the author is confirming an exclusive license agreement with Global Journals which gives Global Journals the authority to reproduce, reuse, and republish authors' research. We also believe in flexible copyright terms where copyright may remain with authors/employers/institutions as well. Contact your editor after acceptance to choose your copyright policy. You may follow this form for copyright transfers.

### Appealing Decisions

Unless specified in the notification, the Editorial Board's decision on publication of the paper is final and cannot be appealed before making the major change in the manuscript.

### Acknowledgments

Contributors to the research other than authors credited should be mentioned in Acknowledgments. The source of funding for the research can be included. Suppliers of resources may be mentioned along with their addresses.

### Declaration of funding sources

Global Journals is in partnership with various universities, laboratories, and other institutions worldwide in the research domain. Authors are requested to disclose their source of funding during every stage of their research, such as making analysis, performing laboratory operations, computing data, and using institutional resources, from writing an article to its submission. This will also help authors to get reimbursements by requesting an open access publication letter from Global Journals and submitting to the respective funding source.

## PREPARING YOUR MANUSCRIPT

Authors can submit papers and articles in an acceptable file format: MS Word (doc, docx), LaTeX (.tex, .zip or .rar including all of your files), Adobe PDF (.pdf), rich text format (.rtf), simple text document (.txt), Open Document Text (.odt), and Apple Pages (.pages). Our professional layout editors will format the entire paper according to our official guidelines. This is one of the highlights of publishing with Global Journals—authors should not be concerned about the formatting of their paper. Global Journals accepts articles and manuscripts in every major language, be it Spanish, Chinese, Japanese, Portuguese, Russian, French, German, Dutch, Italian, Greek, or any other national language, but the title, subtitle, and abstract should be in English. This will facilitate indexing and the pre-peer review process.

The following is the official style and template developed for publication of a research paper. Authors are not required to follow this style during the submission of the paper. It is just for reference purposes.



### ***Manuscript Style Instruction (Optional)***

- Microsoft Word Document Setting Instructions.
- Font type of all text should be Swis721 Lt BT.
- Page size: 8.27" x 11", left margin: 0.65, right margin: 0.65, bottom margin: 0.75.
- Paper title should be in one column of font size 24.
- Author name in font size of 11 in one column.
- Abstract: font size 9 with the word "Abstract" in bold italics.
- Main text: font size 10 with two justified columns.
- Two columns with equal column width of 3.38 and spacing of 0.2.
- First character must be three lines drop-capped.
- The paragraph before spacing of 1 pt and after of 0 pt.
- Line spacing of 1 pt.
- Large images must be in one column.
- The names of first main headings (Heading 1) must be in Roman font, capital letters, and font size of 10.
- The names of second main headings (Heading 2) must not include numbers and must be in italics with a font size of 10.

### ***Structure and Format of Manuscript***

The recommended size of an original research paper is under 15,000 words and review papers under 7,000 words. Research articles should be less than 10,000 words. Research papers are usually longer than review papers. Review papers are reports of significant research (typically less than 7,000 words, including tables, figures, and references)

A research paper must include:

- a) A title which should be relevant to the theme of the paper.
- b) A summary, known as an abstract (less than 150 words), containing the major results and conclusions.
- c) Up to 10 keywords that precisely identify the paper's subject, purpose, and focus.
- d) An introduction, giving fundamental background objectives.
- e) Resources and techniques with sufficient complete experimental details (wherever possible by reference) to permit repetition, sources of information must be given, and numerical methods must be specified by reference.
- f) Results which should be presented concisely by well-designed tables and figures.
- g) Suitable statistical data should also be given.
- h) All data must have been gathered with attention to numerical detail in the planning stage.

Design has been recognized to be essential to experiments for a considerable time, and the editor has decided that any paper that appears not to have adequate numerical treatments of the data will be returned unrefereed.

- i) Discussion should cover implications and consequences and not just recapitulate the results; conclusions should also be summarized.
- j) There should be brief acknowledgments.
- k) There ought to be references in the conventional format. Global Journals recommends APA format.

Authors should carefully consider the preparation of papers to ensure that they communicate effectively. Papers are much more likely to be accepted if they are carefully designed and laid out, contain few or no errors, are summarizing, and follow instructions. They will also be published with much fewer delays than those that require much technical and editorial correction.

The Editorial Board reserves the right to make literary corrections and suggestions to improve brevity.



## FORMAT STRUCTURE

***It is necessary that authors take care in submitting a manuscript that is written in simple language and adheres to published guidelines.***

All manuscripts submitted to Global Journals should include:

### **Title**

The title page must carry an informative title that reflects the content, a running title (less than 45 characters together with spaces), names of the authors and co-authors, and the place(s) where the work was carried out.

### **Author details**

The full postal address of any related author(s) must be specified.

### **Abstract**

The abstract is the foundation of the research paper. It should be clear and concise and must contain the objective of the paper and inferences drawn. It is advised to not include big mathematical equations or complicated jargon.

Many researchers searching for information online will use search engines such as Google, Yahoo or others. By optimizing your paper for search engines, you will amplify the chance of someone finding it. In turn, this will make it more likely to be viewed and cited in further works. Global Journals has compiled these guidelines to facilitate you to maximize the web-friendliness of the most public part of your paper.

### **Keywords**

A major lynchpin of research work for the writing of research papers is the keyword search, which one will employ to find both library and internet resources. Up to eleven keywords or very brief phrases have to be given to help data retrieval, mining, and indexing.

One must be persistent and creative in using keywords. An effective keyword search requires a strategy: planning of a list of possible keywords and phrases to try.

Choice of the main keywords is the first tool of writing a research paper. Research paper writing is an art. Keyword search should be as strategic as possible.

One should start brainstorming lists of potential keywords before even beginning searching. Think about the most important concepts related to research work. Ask, "What words would a source have to include to be truly valuable in a research paper?" Then consider synonyms for the important words.

It may take the discovery of only one important paper to steer in the right keyword direction because, in most databases, the keywords under which a research paper is abstracted are listed with the paper.

### **Numerical Methods**

Numerical methods used should be transparent and, where appropriate, supported by references.

### **Abbreviations**

Authors must list all the abbreviations used in the paper at the end of the paper or in a separate table before using them.

### **Formulas and equations**

Authors are advised to submit any mathematical equation using either MathJax, KaTeX, or LaTeX, or in a very high-quality image.

### **Tables, Figures, and Figure Legends**

Tables: Tables should be cautiously designed, uncrowned, and include only essential data. Each must have an Arabic number, e.g., Table 4, a self-explanatory caption, and be on a separate sheet. Authors must submit tables in an editable format and not as images. References to these tables (if any) must be mentioned accurately.



## Figures

Figures are supposed to be submitted as separate files. Always include a citation in the text for each figure using Arabic numbers, e.g., Fig. 4. Artwork must be submitted online in vector electronic form or by emailing it.

## PREPARATION OF ELETRONIC FIGURES FOR PUBLICATION

Although low-quality images are sufficient for review purposes, print publication requires high-quality images to prevent the final product being blurred or fuzzy. Submit (possibly by e-mail) EPS (line art) or TIFF (halftone/ photographs) files only. MS PowerPoint and Word Graphics are unsuitable for printed pictures. Avoid using pixel-oriented software. Scans (TIFF only) should have a resolution of at least 350 dpi (halftone) or 700 to 1100 dpi (line drawings). Please give the data for figures in black and white or submit a Color Work Agreement form. EPS files must be saved with fonts embedded (and with a TIFF preview, if possible).

For scanned images, the scanning resolution at final image size ought to be as follows to ensure good reproduction: line art: >650 dpi; halftones (including gel photographs): >350 dpi; figures containing both halftone and line images: >650 dpi.

Color charges: Authors are advised to pay the full cost for the reproduction of their color artwork. Hence, please note that if there is color artwork in your manuscript when it is accepted for publication, we would require you to complete and return a Color Work Agreement form before your paper can be published. Also, you can email your editor to remove the color fee after acceptance of the paper.

## TIPS FOR WRITING A GOOD QUALITY MANAGEMENT RESEARCH PAPER

Techniques for writing a good quality management and business research paper:

**1. Choosing the topic:** In most cases, the topic is selected by the interests of the author, but it can also be suggested by the guides. You can have several topics, and then judge which you are most comfortable with. This may be done by asking several questions of yourself, like "Will I be able to carry out a search in this area? Will I find all necessary resources to accomplish the search? Will I be able to find all information in this field area?" If the answer to this type of question is "yes," then you ought to choose that topic. In most cases, you may have to conduct surveys and visit several places. Also, you might have to do a lot of work to find all the rises and falls of the various data on that subject. Sometimes, detailed information plays a vital role, instead of short information. Evaluators are human: The first thing to remember is that evaluators are also human beings. They are not only meant for rejecting a paper. They are here to evaluate your paper. So present your best aspect.

**2. Think like evaluators:** If you are in confusion or getting demotivated because your paper may not be accepted by the evaluators, then think, and try to evaluate your paper like an evaluator. Try to understand what an evaluator wants in your research paper, and you will automatically have your answer. Make blueprints of paper: The outline is the plan or framework that will help you to arrange your thoughts. It will make your paper logical. But remember that all points of your outline must be related to the topic you have chosen.

**3. Ask your guides:** If you are having any difficulty with your research, then do not hesitate to share your difficulty with your guide (if you have one). They will surely help you out and resolve your doubts. If you can't clarify what exactly you require for your work, then ask your supervisor to help you with an alternative. He or she might also provide you with a list of essential readings.

**4. Use of computer is recommended:** As you are doing research in the field of management and business then this point is quite obvious. Use right software: Always use good quality software packages. If you are not capable of judging good software, then you can lose the quality of your paper unknowingly. There are various programs available to help you which you can get through the internet.

**5. Use the internet for help:** An excellent start for your paper is using Google. It is a wondrous search engine, where you can have your doubts resolved. You may also read some answers for the frequent question of how to write your research paper or find a model research paper. You can download books from the internet. If you have all the required books, place importance on reading, selecting, and analyzing the specified information. Then sketch out your research paper. Use big pictures: You may use encyclopedias like Wikipedia to get pictures with the best resolution. At Global Journals, you should strictly follow here.



**6. Bookmarks are useful:** When you read any book or magazine, you generally use bookmarks, right? It is a good habit which helps to not lose your continuity. You should always use bookmarks while searching on the internet also, which will make your search easier.

**7. Revise what you wrote:** When you write anything, always read it, summarize it, and then finalize it.

**8. Make every effort:** Make every effort to mention what you are going to write in your paper. That means always have a good start. Try to mention everything in the introduction—what is the need for a particular research paper. Polish your work with good writing skills and always give an evaluator what he wants. Make backups: When you are going to do any important thing like making a research paper, you should always have backup copies of it either on your computer or on paper. This protects you from losing any portion of your important data.

**9. Produce good diagrams of your own:** Always try to include good charts or diagrams in your paper to improve quality. Using several unnecessary diagrams will degrade the quality of your paper by creating a hodgepodge. So always try to include diagrams which were made by you to improve the readability of your paper. Use of direct quotes: When you do research relevant to literature, history, or current affairs, then use of quotes becomes essential, but if the study is relevant to science, use of quotes is not preferable.

**10. Use proper verb tense:** Use proper verb tenses in your paper. Use past tense to present those events that have happened. Use present tense to indicate events that are going on. Use future tense to indicate events that will happen in the future. Use of wrong tenses will confuse the evaluator. Avoid sentences that are incomplete.

**11. Pick a good study spot:** Always try to pick a spot for your research which is quiet. Not every spot is good for studying.

**12. Know what you know:** Always try to know what you know by making objectives, otherwise you will be confused and unable to achieve your target.

**13. Use good grammar:** Always use good grammar and words that will have a positive impact on the evaluator; use of good vocabulary does not mean using tough words which the evaluator has to find in a dictionary. Do not fragment sentences. Eliminate one-word sentences. Do not ever use a big word when a smaller one would suffice. Verbs have to be in agreement with their subjects. In a research paper, do not start sentences with conjunctions or finish them with prepositions. When writing formally, it is advisable to never split an infinitive because someone will (wrongly) complain. Avoid clichés like a disease. Always shun irritating alliteration. Use language which is simple and straightforward. Put together a neat summary.

**14. Arrangement of information:** Each section of the main body should start with an opening sentence, and there should be a changeover at the end of the section. Give only valid and powerful arguments for your topic. You may also maintain your arguments with records.

**15. Never start at the last minute:** Always allow enough time for research work. Leaving everything to the last minute will degrade your paper and spoil your work.

**16. Multitasking in research is not good:** Doing several things at the same time is a bad habit in the case of research activity. Research is an area where everything has a particular time slot. Divide your research work into parts, and do a particular part in a particular time slot.

**17. Never copy others' work:** Never copy others' work and give it your name because if the evaluator has seen it anywhere, you will be in trouble. Take proper rest and food: No matter how many hours you spend on your research activity, if you are not taking care of your health, then all your efforts will have been in vain. For quality research, take proper rest and food.

**18. Go to seminars:** Attend seminars if the topic is relevant to your research area. Utilize all your resources.

**19. Refresh your mind after intervals:** Try to give your mind a rest by listening to soft music or sleeping in intervals. This will also improve your memory. Acquire colleagues: Always try to acquire colleagues. No matter how sharp you are, if you acquire colleagues, they can give you ideas which will be helpful to your research.

**20. Think technically:** Always think technically. If anything happens, search for its reasons, benefits, and demerits. Think and then print: When you go to print your paper, check that tables are not split, headings are not detached from their descriptions, and page sequence is maintained.



**21. Adding unnecessary information:** Do not add unnecessary information like "I have used MS Excel to draw graphs." Irrelevant and inappropriate material is superfluous. Foreign terminology and phrases are not apropos. One should never take a broad view. Analogy is like feathers on a snake. Use words properly, regardless of how others use them. Remove quotations. Puns are for kids, not grunt readers. Never oversimplify: When adding material to your research paper, never go for oversimplification; this will definitely irritate the evaluator. Be specific. Never use rhythmic redundancies. Contractions shouldn't be used in a research paper. Comparisons are as terrible as clichés. Give up ampersands, abbreviations, and so on. Remove commas that are not necessary. Parenthetical words should be between brackets or commas. Understatement is always the best way to put forward earth-shaking thoughts. Give a detailed literary review.

**22. Report concluded results:** Use concluded results. From raw data, filter the results, and then conclude your studies based on measurements and observations taken. An appropriate number of decimal places should be used. Parenthetical remarks are prohibited here. Proofread carefully at the final stage. At the end, give an outline to your arguments. Spot perspectives of further study of the subject. Justify your conclusion at the bottom sufficiently, which will probably include examples.

**23. Upon conclusion:** Once you have concluded your research, the next most important step is to present your findings. Presentation is extremely important as it is the definite medium through which your research is going to be in print for the rest of the crowd. Care should be taken to categorize your thoughts well and present them in a logical and neat manner. A good quality research paper format is essential because it serves to highlight your research paper and bring to light all necessary aspects of your research.

## INFORMAL GUIDELINES OF RESEARCH PAPER WRITING

### **Key points to remember:**

- Submit all work in its final form.
- Write your paper in the form which is presented in the guidelines using the template.
- Please note the criteria peer reviewers will use for grading the final paper.

### **Final points:**

One purpose of organizing a research paper is to let people interpret your efforts selectively. The journal requires the following sections, submitted in the order listed, with each section starting on a new page:

*The introduction:* This will be compiled from reference matter and reflect the design processes or outline of basis that directed you to make a study. As you carry out the process of study, the method and process section will be constructed like that. The results segment will show related statistics in nearly sequential order and direct reviewers to similar intellectual paths throughout the data that you gathered to carry out your study.

### **The discussion section:**

This will provide understanding of the data and projections as to the implications of the results. The use of good quality references throughout the paper will give the effort trustworthiness by representing an alertness to prior workings.

Writing a research paper is not an easy job, no matter how trouble-free the actual research or concept. Practice, excellent preparation, and controlled record-keeping are the only means to make straightforward progression.

### **General style:**

Specific editorial column necessities for compliance of a manuscript will always take over from directions in these general guidelines.

**To make a paper clear:** Adhere to recommended page limits.

### *Mistakes to avoid:*

- Insertion of a title at the foot of a page with subsequent text on the next page.
- Separating a table, chart, or figure—confine each to a single page.
- Submitting a manuscript with pages out of sequence.
- In every section of your document, use standard writing style, including articles ("a" and "the").
- Keep paying attention to the topic of the paper.



- Use paragraphs to split each significant point (excluding the abstract).
- Align the primary line of each section.
- Present your points in sound order.
- Use present tense to report well-accepted matters.
- Use past tense to describe specific results.
- Do not use familiar wording; don't address the reviewer directly. Don't use slang or superlatives.
- Avoid use of extra pictures—include only those figures essential to presenting results.

#### **Title page:**

Choose a revealing title. It should be short and include the name(s) and address(es) of all authors. It should not have acronyms or abbreviations or exceed two printed lines.

**Abstract:** This summary should be two hundred words or less. It should clearly and briefly explain the key findings reported in the manuscript and must have precise statistics. It should not have acronyms or abbreviations. It should be logical in itself. Do not cite references at this point.

An abstract is a brief, distinct paragraph summary of finished work or work in development. In a minute or less, a reviewer can be taught the foundation behind the study, common approaches to the problem, relevant results, and significant conclusions or new questions.

Write your summary when your paper is completed because how can you write the summary of anything which is not yet written? Wealth of terminology is very essential in abstract. Use comprehensive sentences, and do not sacrifice readability for brevity; you can maintain it succinctly by phrasing sentences so that they provide more than a lone rationale. The author can at this moment go straight to shortening the outcome. Sum up the study with the subsequent elements in any summary. Try to limit the initial two items to no more than one line each.

*Reason for writing the article—theory, overall issue, purpose.*

- Fundamental goal.
- To-the-point depiction of the research.
- Consequences, including definite statistics—if the consequences are quantitative in nature, account for this; results of any numerical analysis should be reported. Significant conclusions or questions that emerge from the research.

#### **Approach:**

- Single section and succinct.
- An outline of the job done is always written in past tense.
- Concentrate on shortening results—limit background information to a verdict or two.
- Exact spelling, clarity of sentences and phrases, and appropriate reporting of quantities (proper units, important statistics) are just as significant in an abstract as they are anywhere else.

#### **Introduction:**

The introduction should "introduce" the manuscript. The reviewer should be presented with sufficient background information to be capable of comprehending and calculating the purpose of your study without having to refer to other works. The basis for the study should be offered. Give the most important references, but avoid making a comprehensive appraisal of the topic. Describe the problem visibly. If the problem is not acknowledged in a logical, reasonable way, the reviewer will give no attention to your results. Speak in common terms about techniques used to explain the problem, if needed, but do not present any particulars about the protocols here.

*The following approach can create a valuable beginning:*

- Explain the value (significance) of the study.
- Defend the model—why did you employ this particular system or method? What is its compensation? Remark upon its appropriateness from an abstract point of view as well as pointing out sensible reasons for using it.
- Present a justification. State your particular theory(-ies) or aim(s), and describe the logic that led you to choose them.
- Briefly explain the study's tentative purpose and how it meets the declared objectives.





**Approach:**

Use past tense except for when referring to recognized facts. After all, the manuscript will be submitted after the entire job is done. Sort out your thoughts; manufacture one key point for every section. If you make the four points listed above, you will need at least four paragraphs. Present surrounding information only when it is necessary to support a situation. The reviewer does not desire to read everything you know about a topic. Shape the theory specifically—do not take a broad view.

As always, give awareness to spelling, simplicity, and correctness of sentences and phrases.

**Procedures (methods and materials):**

This part is supposed to be the easiest to carve if you have good skills. A soundly written procedures segment allows a capable scientist to replicate your results. Present precise information about your supplies. The suppliers and clarity of reagents can be helpful bits of information. Present methods in sequential order, but linked methodologies can be grouped as a segment. Be concise when relating the protocols. Attempt to give the least amount of information that would permit another capable scientist to replicate your outcome, but be cautious that vital information is integrated. The use of subheadings is suggested and ought to be synchronized with the results section.

When a technique is used that has been well-described in another section, mention the specific item describing the way, but draw the basic principle while stating the situation. The purpose is to show all particular resources and broad procedures so that another person may use some or all of the methods in one more study or referee the scientific value of your work. It is not to be a step-by-step report of the whole thing you did, nor is a methods section a set of orders.

**Materials:**

*Materials may be reported in part of a section or else they may be recognized along with your measures.*

**Methods:**

- Report the method and not the particulars of each process that engaged the same methodology.
- Describe the method entirely.
- To be succinct, present methods under headings dedicated to specific dealings or groups of measures.
- Simplify—detail how procedures were completed, not how they were performed on a particular day.
- If well-known procedures were used, account for the procedure by name, possibly with a reference, and that's all.

**Approach:**

It is embarrassing to use vigorous voice when documenting methods without using first person, which would focus the reviewer's interest on the researcher rather than the job. As a result, when writing up the methods, most authors use third person passive voice.

Use standard style in this and every other part of the paper—avoid familiar lists, and use full sentences.

**What to keep away from:**

- Resources and methods are not a set of information.
- Skip all descriptive information and surroundings—save it for the argument.
- Leave out information that is immaterial to a third party.

**Results:**

The principle of a results segment is to present and demonstrate your conclusion. Create this part as entirely objective details of the outcome, and save all understanding for the discussion.

The page length of this segment is set by the sum and types of data to be reported. Use statistics and tables, if suitable, to present consequences most efficiently.

You must clearly differentiate material which would usually be incorporated in a study editorial from any unprocessed data or additional appendix matter that would not be available. In fact, such matters should not be submitted at all except if requested by the instructor.



**Content:**

- Sum up your conclusions in text and demonstrate them, if suitable, with figures and tables.
- In the manuscript, explain each of your consequences, and point the reader to remarks that are most appropriate.
- Present a background, such as by describing the question that was addressed by creation of an exacting study.
- Explain results of control experiments and give remarks that are not accessible in a prescribed figure or table, if appropriate.
- Examine your data, then prepare the analyzed (transformed) data in the form of a figure (graph), table, or manuscript.

**What to stay away from:**

- Do not discuss or infer your outcome, report surrounding information, or try to explain anything.
- Do not include raw data or intermediate calculations in a research manuscript.
- Do not present similar data more than once.
- A manuscript should complement any figures or tables, not duplicate information.
- Never confuse figures with tables—there is a difference.

**Approach:**

As always, use past tense when you submit your results, and put the whole thing in a reasonable order.

Put figures and tables, appropriately numbered, in order at the end of the report.

If you desire, you may place your figures and tables properly within the text of your results section.

**Figures and tables:**

If you put figures and tables at the end of some details, make certain that they are visibly distinguished from any attached appendix materials, such as raw facts. Whatever the position, each table must be titled, numbered one after the other, and include a heading. All figures and tables must be divided from the text.

**Discussion:**

The discussion is expected to be the trickiest segment to write. A lot of papers submitted to the journal are discarded based on problems with the discussion. There is no rule for how long an argument should be.

Position your understanding of the outcome visibly to lead the reviewer through your conclusions, and then finish the paper with a summing up of the implications of the study. The purpose here is to offer an understanding of your results and support all of your conclusions, using facts from your research and generally accepted information, if suitable. The implication of results should be fully described.

Infer your data in the conversation in suitable depth. This means that when you clarify an observable fact, you must explain mechanisms that may account for the observation. If your results vary from your prospect, make clear why that may have happened. If your results agree, then explain the theory that the proof supported. It is never suitable to just state that the data approved the prospect, and let it drop at that. Make a decision as to whether each premise is supported or discarded or if you cannot make a conclusion with assurance. Do not just dismiss a study or part of a study as "uncertain."

Research papers are not acknowledged if the work is imperfect. Draw what conclusions you can based upon the results that you have, and take care of the study as a finished work.

- You may propose future guidelines, such as how an experiment might be personalized to accomplish a new idea.
- Give details of all of your remarks as much as possible, focusing on mechanisms.
- Make a decision as to whether the tentative design sufficiently addressed the theory and whether or not it was correctly restricted. Try to present substitute explanations if they are sensible alternatives.
- One piece of research will not counter an overall question, so maintain the large picture in mind. Where do you go next? The best studies unlock new avenues of study. What questions remain?
- Recommendations for detailed papers will offer supplementary suggestions.



**Approach:**

When you refer to information, differentiate data generated by your own studies from other available information. Present work done by specific persons (including you) in past tense.

Describe generally acknowledged facts and main beliefs in present tense.

## THE ADMINISTRATION RULES

Administration Rules to Be Strictly Followed before Submitting Your Research Paper to Global Journals Inc.

*Please read the following rules and regulations carefully before submitting your research paper to Global Journals Inc. to avoid rejection.*

*Segment draft and final research paper:* You have to strictly follow the template of a research paper, failing which your paper may get rejected. You are expected to write each part of the paper wholly on your own. The peer reviewers need to identify your own perspective of the concepts in your own terms. Please do not extract straight from any other source, and do not rephrase someone else's analysis. Do not allow anyone else to proofread your manuscript.

*Written material:* You may discuss this with your guides and key sources. Do not copy anyone else's paper, even if this is only imitation, otherwise it will be rejected on the grounds of plagiarism, which is illegal. Various methods to avoid plagiarism are strictly applied by us to every paper, and, if found guilty, you may be blacklisted, which could affect your career adversely. To guard yourself and others from possible illegal use, please do not permit anyone to use or even read your paper and file.



CRITERION FOR GRADING A RESEARCH PAPER (COMPILATION)  
BY GLOBAL JOURNALS

Please note that following table is only a Grading of "Paper Compilation" and not on "Performed/Stated Research" whose grading solely depends on Individual Assigned Peer Reviewer and Editorial Board Member. These can be available only on request and after decision of Paper. This report will be the property of Global Journals.

Topics	Grades		
	A-B	C-D	E-F
<i>Abstract</i>	Clear and concise with appropriate content, Correct format. 200 words or below	Unclear summary and no specific data, Incorrect form  Above 200 words	No specific data with ambiguous information  Above 250 words
<i>Introduction</i>	Containing all background details with clear goal and appropriate details, flow specification, no grammar and spelling mistake, well organized sentence and paragraph, reference cited	Unclear and confusing data, appropriate format, grammar and spelling errors with unorganized matter	Out of place depth and content, hazy format
<i>Methods and Procedures</i>	Clear and to the point with well arranged paragraph, precision and accuracy of facts and figures, well organized subheads	Difficult to comprehend with embarrassed text, too much explanation but completed	Incorrect and unorganized structure with hazy meaning
<i>Result</i>	Well organized, Clear and specific, Correct units with precision, correct data, well structuring of paragraph, no grammar and spelling mistake	Complete and embarrassed text, difficult to comprehend	Irregular format with wrong facts and figures
<i>Discussion</i>	Well organized, meaningful specification, sound conclusion, logical and concise explanation, highly structured paragraph reference cited	Wordy, unclear conclusion, spurious	Conclusion is not cited, unorganized, difficult to comprehend
<i>References</i>	Complete and correct format, well organized	Beside the point, Incomplete	Wrong format and structuring



# INDEX

---

## **A**

Affiche · 97  
Amended · 63, 67  
Anticipate · 60  
Appetite · 3, 4, 10  
Assertion · 69  
Asymétries · 17, 83, 85

---

## **C**

Coalition · 56  
Conduire · 17, 85, 87, 89  
Continent · 49, 50, 51, 59, 60  
Corruptibles · 93

---

## **D**

Deregulation · 5, 51, 58  
Demiers · 19, 81, 93, 97  
Dirigeants · 87, 89

---

## **E**

Empiriques · 17, 84, 85, 89, 97, 99  
Epargne · 96  
Expenditure · 52, 54, 63, 65

---

## **F**

Fondatrices · 86, 87  
Fragility · 49, 55

---

## **G**

Gratuities · 62

---

## **I**

Illustratif · 79  
Imbalances · 56  
Indicators · 3, 8, 49, 55  
Irrelevant · 69  
Italiennes · 20

---

## **L**

Liberalization · 51, 56  
Liquidité · 41, 77

---

## **M**

Matière · 15, 17, 28, 79, 81, 83, 85, 87, 89, 91, 98  
Mauritius · 67  
Mauvaises · 15, 87  
Misappropriation · 65

---

## **P**

Pouvoir · 15, 17, 19, 20, 21, 23

---

## **R**

Redistribution · 69, 88  
Rentabilité · 15, 34, 81, 84, 85, 93, 104, 108  
Repatriation · 52  
Retenu · 20, 29, 42, 91, 93  
Robustesse · 96

---

## **S**

Scenario · 5, 8  
Schwarz · 72, 73

---

## **T**

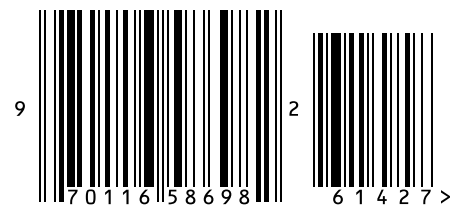
Taille · 17, 27, 31, 34, 37, 40, 42, 85, 86, 89, 95, 99  
Théoriques · 17  
Tranquille · 17



save our planet

# Global Journal of Management and Business Research

Visit us on the Web at [www.GlobalJournals.org](http://www.GlobalJournals.org) | [www.JournalofBusiness.Org](http://www.JournalofBusiness.Org)  
or email us at [helpdesk@globaljournals.org](mailto:helpdesk@globaljournals.org)



ISSN 9755853

© Global Journals