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# EXCHANGE RATE VOLATILITY, EXTERNAL SHOCK, AND CAPITAL INFLOWS IN NIGERIA



Thesis Submitted to School of Economics, Finance and Banking Universiti Utara Malaysia In Fulfilment of the Requirements for the Degree of Doctor of Philosophy

# EXCHANGE RATE VOLATILITY, EXTERNAL SHOCK, AND CAPITAL INFLOWS IN NIGERIA



DOCTOR OF PHILOSOPHY UNIVERSITI UTARA MALAYSIA August 2016

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### ABSTRACT

This research focuses on exchange rate volatility, external shock, and capital inflows. The study uses secondary data for the period of 1986 to 2014 for its analysis. The three specific objectives of the study are to investigate whether current exchange rate volatility has any relationship with its conditional volatility in periods ahead using Exponential Generalized Autoregressive Conditional Heteroskedasticity (EGARCH) technique; to examine the impact of external shocks on exchange rate volatility; and to evaluate the relationship between capital inflows and exchange rate volatility using Autoregressive Distributed Lags (ARDL) and Johansen co-integration methods, respectively. The results show that current exchange rate volatility is related to its conditional volatility in periods ahead, external shock significantly impacted on exchange rate volatility and that exchange rate volatility significantly explains capital inflows. Based on these findings, the research recommends that minimizing effects of exchange rate volatility on its conditional volatility in periods ahead. So, the government needs proactive monetary and fiscal policies like prudent allocation of foreign currencies through Central Bank of Nigeria, direct swap of Naira to other currency aside United States Dollar (USD), and diversifying the economy to increase non-oil exports. The study suggested that political instability can be addressed through jobs creation for the youth like investment in small and medium enterprises, provision of affordable basic necessities of life, proper remuneration and equipping the security agencies. On oil price, the government should diversify the economy for the solid minerals and agricultural sectors to lead as Nigeria exports. The recommendations on financial crisis are that government should have a database for prompt response and forecasting. Financial leakage should address and reckless corrupt practices should legally deal with. This study equally recommends conducive legal, stable infrastructure, and reliable security framework for achieving sustainable capital inflows.

Keywords: exchange rate volatility, external shock, capital inflows, Nigeria.

#### ABSTRAK

Kajian ini memberi tumpuan kepada ketidaktentuan kadar pertukaran, kejutan luaran, dan aliran masuk modal. Analisis kajian menggunakan data sekunder bagi tempoh 1986-2014. Tiga objektif khusus kajian adalah untuk mengenal pasti sama ada ketidaktentuan kadar pertukaran semasa mempunyai hubung kait dengan keadaan turun naik pada masa akan datang dengan menggunakan teknik Heteroskedastisiti Eksponen Umum Autoregresif Bersyarat (EGARCH); menyelidik kesan kejutan luaran terhadap ketidaktentuan kadar pertukaran; dan menilai hubungan antara aliran masuk modal dan kadar pertukaran menggunakan Lat Teragih Autoregresif (ARDL) dan kaedah integrasi Johansen. Dapatan kajian menunjukkan bahawa ketidaktentuan kadar pertukaran semasa berkait dengan keadaan turun naik pada masa akan datang, kejutan luaran memberi kesan yang ketara kepada keadaan turun naik kadar pertukaran, dan keadaan turun naik kadar pertukaran secara signifikan menjelaskan aliran masuk modal. Berdasarkan penemuan ini, kajian mencadangkan agar kesan ke atas keadaan turun naik kadar pertukaran pada masa hadapan diminimumkan. Dengan itu, kerajaan memerlukan dasar kewangan yang proaktif dan dasar fiskal seperti peruntukan berhemat mata wang asing melalui Bank Pusat Nigeria, swap langsung Naira kepada mata wang lain selain Dolar Amerika (USD), dan mempelbagaikan ekonomi untuk meningkatkan eksport bukan minyak. Kajian ini mencadangkan bahawa ketidakstabilan politik boleh diatasi melalui penyediaan peluang pekerjaan kepada belia seperti pelaburan dalam perusahaan kecil dan sederhana, penyediaan kemudahan asas kehidupan yang berpatutan, saraan dan melengkapkan agensi-agensi keselamatan. Berkaitan dengan harga minyak pula, kerajaan perlu mempelbagaikan ekonomi bagi mineral pepejal dan sektor pertanian untuk menjadikannya sebagai eksport utama Nigeria. Bagi menangani krisis kewangan, kerajaan dicadangkan supaya mempunyai pangkalan data untuk peramalan dan tindak balas yang cepat. Masalah kebocoran kewangan perlu ditangani dan amalan rasuah haruslah dibanteras. Di samping itu, undangundang yang kondusif, infrastruktur yang stabil, dan rangka kerja keselamatan yang kukuh pula dicadangkan bagi mencapai aliran masuk modal yang mampan.

Kata kunci: ketidaktentuan kadar pertukaran, kejutan luar, aliran masuk modal, Nigeria.

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# LIST OF ABBREVIATIONS

ERV	Exchange Rate Volatility.
ER	Exchange Rate
OP	Oil Price
PI	Political Instability
GDP	Gross Domestic Product
TOP	Trade Openness
GE	Government Expenditure
CI	Capital Inflows
FR	Foreign Reserve
ARCH	Autoregressive Conditional Heteroskedasticity
EGARCH	Exponential Generalized Autoregressive Conditional
	Heteroskedasticity
CBN	Central Bank of Nigeria
BOS	Bureau of Statistics
SAP	Structural Adjustment Programme
SSA	Sub-Sahara Africa
M & A	Merger and Acquisition
SFEM	Second-Tier Foreign Exchange Market





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# CHAPTER ONE INTRODUCTION

#### **1.1 Introduction**

This chapter introduces the thesis. Whereas Section 1.1 provides the background to this study and Section 1.2 presents the problems addressed in this study. Section 1.3 and Section 1.4 present the research questions and objectives of this study, respectively. While Section 1.5 discusses the significance of this study, Section 1.6 explains the scope of this study and Section 1.7 discusses the organization of this thesis. Finally, Section 1.8 concludes this chapter.

#### 1.2 Background of the Study

Nigeria, like many underdeveloped economies of the world, has experienced external shock emanating from worsening terms of trade obviously on account of fluctuations in the international commodity price (agricultural product, oil and gas prices), financial market crisis, property price, war and terrorism, natural disaster, political instability and economic policy shock (Abdur, 2015; Almukhtar, 2013; Chad & Meredith, 2014; Jiménez-Rodríguez, 2008). Among researchers, there has not be been a conventional or a generally accepted definition of what is external shock. Some scholars like Ahmed and Alih (1999), Ahmet, Sensoy and Sobaci (2014), Alley, Asekomeh, Mobolaji, and Adeniran (2014), Almukhtar (2013), Ibrahim (2013), Obaseke (2001), Reys (2006) and Thorsten (2015) are of the opinion that external shocks in Nigeria and other economic community of west African states (ECOWAS) basically are distortions that are not

# The contents of the thesis is for internal user only

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