FINANCIAL DEVELOPMENT AND THE EFFECTIVENESS OF MONETARY POLICY: TRANSMISSION MECHANISMS, FINANCIAL INNOVATION, AND MACROECONOMIC PERFORMANCE IN NIGERIA AND AFRICA

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Abstract

This thesis critically examines the role of financial system developments in influencing the monetary policy effectiveness and its transmission to economic activities in Nigeria and Africa. It was motivated by emerging concerns about the effectiveness of conventional monetary policy tools in many African economies, weakened by the underdeveloped nature of many African financial systems and weaker government institutions, which continue to affect the efficacy of monetary policy channels and economic activity. Collectively, the publications within the thesis employ advanced econometric and quantitative methods such as the non-linear autoregressive distributed lag (ARDL), quantile ARDL, novel dynamic ARDL, feasible quasi-generalised least squares (FQGLS), panel spatial correlation-consistent fixed effect methods, and the mixed data sampling approach (MIDAS) to analyse the results on the African continent. Moreover, it approaches financial development from several dimensions, including financial markets and financial institutions. In addition, the technologies, access, and usage of these financial system tools were explored to understand their key influence on economic outcomes.

The findings revealed that financial system developments play a critical role in strengthening monetary policy effectiveness and transmission, and foster output and price stability in Africa. Furthermore, the findings demonstrated that the interest rate channel is the most important in influencing output, while the expectations channel has a more dominant impact on inflation in Africa. The main contribution of the thesis is its integrative approach, combining the roles of financial system development, financial innovations, monetary transmission mechanisms, and macroeconomic performance within a unified analytical framework for Africa. It advances the frontier of knowledge in the literature by showing the conditions under which monetary policy operations are most effective in an underdeveloped African financial market. The thesis offers credible insights for governments, policymakers, central bankers, and financial regulators to strengthen central bank operations and government policies in Africa.

Chapter One: Introduction and Outline of the Research

1.1. Basis of the Submission

The thesis is based on a critical evaluation of 10 of my publications in peer-reviewed academic journals over the past few years, as an academic and professional economist who have previously worked in the international development, public policy, and consulting space, especially focused on the Global South and Emerging Markets and Developing Economies (EMDEs). The publications of this thesis span the period 2023 to 2026, but my research trajectory began in 2016, after completing my master's degree. The published works that culminated the thesis were curated from single-authored publications in business, finance and economics. All publications were written, analysed, and published by me. The research publications were written and developed to improve financial system efficiency and effectiveness, strengthen monetary policy transmission, and enhance macroeconomic resilience in African countries, especially Nigeria.

Advances in financial system reforms and in the effectiveness of monetary policy transmission can catalyse the full pass-through of monetary policy, fostering economic growth and price stability and helping achieve economic stabilisation and resilience across African economies. As established in prior studies by Nguyen et al. (2022), Oanh et al. (2023), and others, financial system reforms and monetary policy effectiveness are crucial tools for stabilising the macroeconomic environment and strengthening monetary policy operations to achieve sustainable economic growth and development within African economies and across the globe. Additionally, several of these studies also opine that financial system development can serve as a catalyst to foster economic growth and price stability on the continent (Fiador et al., 2022; Oanh et al., 2023). Therefore, in contextualising financial system reforms and monetary policy effectiveness on African economies, it is important to consider the inherent nature of many African economies, their degree of development, the regulatory environment and the quality of their institutions within their development process.

These arguments, backed up by available data from reputable institutions, defined the stance of my proposed thesis and academic studies and formed the crux of the debates proposed in my thesis. The papers submitted, backed by the requisite data, argued that financial reforms are crucial to enhancing monetary policy effectiveness and strengthening its transmission into economic activity (Papers 1 to 4). The findings from these studies align with previous studies by Lerskullawat (2018), Fiador et al. (2022), Meneses-González et al. (2022), among many others.

The efficiency and liberalisation of the financial sector, across the banking sector, stock market, bond market, and central bank architecture within the financial system, are at the heart of my research. The general functioning of these sub-sectors is crucial to the financial sector within African economies. For instance, while the banking sector is crucial for transmitting credit from surplus to deficit units across the economy, the capital market is vital for providing long-term funds to the economy. In contrast, the bond market is crucial for providing short- to long-term funds for economic activities. As a result, the size and activities within these sub-sectors are crucial for driving economic activity, macroeconomic growth and stability in African nations. Therefore, this study's portfolio examines the effects of financial system developments on monetary policy transmission, its effectiveness, and how these are crucial for fostering economic outcomes in Africa.

Additionally, Nigeria is seen as a critical economy to the growth and success of Africa. It was the largest in GDP terms until very recently, has the second largest financial sector (across financial markets and institutions), has the most population on the continent, has implemented three important institutional reforms over the past 22 years, and is a strategically important country not just in West Africa but on the continent as a whole. Activities within the Nigerian market are readily transferable to other African markets. Kindly refer to papers 1, 2, 3, 4, 5, 6, 7, 8.

The articles selected for the thesis portfolio were drawn from a total portfolio of 43 peer-reviewed articles published during my tenure as an economist and finance expert, as well as a senior lecturer. Despite my experience across different areas of these disciplines, the ten proposed articles provide a cohesive argument for my position that financial sector reforms, shaped by local conditions, particularly across financial markets and institutions, can catalyse financial system transformation in Africa. Moreover, these articles further justify my position that advances in financial systems are essential for Africa's economic development.

Nevertheless, weak transmission of monetary policy or weak effectiveness in monetary policy operations may not promote economic development, as expected. The studies (papers 1, 2, 3, 4) demonstrate that financial sector development must not only increase the size and activities within the sector, but also promote monetary policy transmission and its effectiveness. Otherwise, the African financial system remains weak and underdeveloped, unable to compete with global counterparts in Asia, the Middle East, Europe, or America. This position was supported by previous studies such as Effiong et al. (2020), Fiador et al. (2022), Meneses-González et al. (2022), among many others.

Therefore, the selected published peer-reviewed articles collated for this body of work vary markedly in analysis, approach, style, or focus. This was largely quantitative and methodological, highlighting their roles in policy and the empirical and theoretical implications of the study for the African and Nigerian contexts. The main contributions of the thesis are delineated in Table 1, alongside my information as the sole author of these publications. Consequently, the primary contributions of each of the peer-reviewed articles are delineated below.

1. The study provided evidence-based evaluations of the roles of financial development in the transmission of monetary policy in Africa.
2. It examined which monetary transmission channel has the dominant effect on output and price stability in Africa.
3. It considered the roles of financial system developments across financial markets and financial institutions in strengthening money transmission and monetary policy effectiveness on economic activities in Africa, particularly in Nigeria.
4. It examined the nonlinearities in the transmission of monetary policy in Nigeria with respect to financial development and monetary policy.
5. It incorporated financial system developments into the interest rate channel of monetary policy (the dominant monetary policy channel for output) to determine whether interest rate pass-through is complete, incomplete, or overshooting in Africa and Nigeria.
6. It examined the critical roles that financial inclusion, financial innovations and financial technology (FinTech) platforms play in strengthening economic growth in Nigeria.
7. It examined the effects of financial sector reforms on the stability of income velocity and the demand for money in Nigeria.

8. It ascertained the effects of macroeconomic uncertainties, including exchange rate, inflation, real GDP, and interest rate uncertainties, on the ten largest sectors (constituting approximately 90 per cent of total economic activities) of the Nigerian economy.
9. It assessed West Africa's readiness for a monetary union in preparation for its proposed take-off in 2027.
10. It examined the drivers of currency fluctuations in Nigeria and how exchange rate fluctuations affect macroeconomic stability.
11. It established whether the Marshall-Lerner conditions, the J-Curve Phenomena or the Thirlwall Hypothesis hold in the case of Nigeria.

1.2. My Personal Research Background

Despite obtaining my first degree in 2012, my journey in research did not begin until 2016, after completing my master's degree at Obafemi Awolowo University (OAU), Ile-Ife, Nigeria. I worked as a research assistant to my supervisor between 2016 and 2018. It was at OAU that I learned the ropes of academic research during my master's days. How to write an introduction, conduct literature reviews, collect and analyse data, as well as interpret results and discuss the implications and proffer solutions based on the findings. Furthermore, I continued my academic training with an MBA in 2023 from Imperial College London (ICL), focused on Finance, and completed this degree in 2024. My work experience also spans the banking industry (2018-2021), where I worked as a finance and relationship manager and banking operations expert for about 3.5 years before moving into consulting and advisory. I expanded this consulting role by taking on a technical economic assistant position for the chairman of the Nigerian President's Economic Advisory Council, who was also the Chief Economic Adviser to the Nigerian President at the time. These two roles have helped shape my views on macroeconomic policy, financial markets, and institutions, roles that have been vital for shaping my personal research and for driving solutions to economic outcomes in society, especially in African economies and Nigeria. I have now become a student member of the Royal Economic Society (RES), a full member of the Nigerian Economic Society (NES), and a full member of the African Finance and Economic Association (AFEA). These professional bodies have helped shape my understanding of the discipline and my application of finance and economics to solve real-world problems.

Immediately after arriving in the UK in 2022, I landed my first research role as an Economic Research Officer at the Commonwealth Secretariat. I was on the role for two years before moving to the Cabinet Office as an Economist. I worked at the Cabinet Office for 7 months. During my time at the Commonwealth Secretariat, I was tasked with designing frameworks to promote and enhance economic resilience and macroeconomic stability across the 56 Commonwealth member countries. Notable among my works are my contributions to the Universal Vulnerability Index (UVI) project and the publication of our work, titled GDP+: A Vulnerability-Inclusive Measure, at the Commonwealth Secretariat.

Additionally, my role at the UK Cabinet Office gave me an understanding of the UK's domestic economic policy. I spent 7 months in the role, focusing on how the UK can improve veterans' lives after transition to civilian life. My role as an economist was to design economic policies that could foster that transition and help them integrate more effectively into society. As a result, I conducted impact assessments, cost-benefit analysis, scenario-based analysis, and sensitivity analyses. I forecasted the implications of the 'Do-Nothing' Scenario, Minimum Intervention option, and 'Do

Something/Preferred Intervention' Option, following the UK government's HM Treasury Greenbook and applied them using the Five-Case model employed for public business cases. Even though I spent only a short time in this role, it was an eye-opener for me on how decisions are made within the UK government, broadening my economic lens and expertise as an economist.

Indeed, these roles exposed me to nation-building, not just as an academic, but also as someone offering relevant, policy-centric solutions to problems that matter, not just within the Commonwealth but across the globe. In essence, my role at the Commonwealth Secretariat aligns with the UK's foreign economic policy to promote the UK and the Commonwealth worldwide. While undertaking these roles, I have also volunteered to peer-review many journal articles for Elsevier, Springer, Taylor & Francis, Emerald, Wiley Online, Sage, among others. At the moment, I am a Guest Editor on a Special Issue in the Journal of Risk and Financial Management, MDPI. Finally, I am also a Senior Fellow at Kingsgate Advisory Institute and contribute as a Member of the Advisory Council for Harvard Business Review. These experiences over the past couple of years have built my research profile, enhanced my understanding of the research process, and enabled me to adopt several research techniques to address real-world financial and economic problems in global and African contexts.

My research is empirically and theoretically grounded, providing insights for real-world applications. Moreover, my research focuses on three main areas. The first strand focuses on the effects of financial sector systems on monetary policy transmission and monetary policy effectiveness on economic activities. I examined the role of financial development in these processes, how it can catalyse developments in the banking, capital, and bond markets, and the consequences of these developments for monetary policy transmission and the effectiveness of monetary policy on economic activity. The second strand of literature focuses on the role of financial innovation in the ever-evolving monetary landscape in Africa and Nigeria. The final strand of studies focuses on how macroeconomic uncertainty affects sectoral output across the economy. In essence, my research interests centre on financial system developments across African economies, and their impact on monetary transmission mechanisms and the effectiveness of monetary policy on economic activities in Africa and Nigeria. It utilises macroeconomic data and bank-level data to generate its findings. This was done with the aim of strengthening the discussion of the critical role the financial system plays in enhancing money transmission and economic outcomes in Africa.

1.3. Background of the Submitted Papers

The portfolio of peer-reviewed articles in this thesis used both macroeconomic and micro-level financial data across the banking industry (financial institutions) and capital markets (financial markets) to understand the macro-financial linkages between financial sector developments and macroeconomic policy within the context of monetary policy and central bank operations in Africa and Nigeria. These works are broadly divided into three general themes: Financial Development and Monetary Transmission Mechanism, Financial Innovation and the Evolving Monetary Landscape, and Macroeconomic performance - Calibration, Exchange Rates and Uncertainty. The first theme focuses on the effects of financial sector development on the monetary transmission mechanism and on the effectiveness of monetary policy in driving economic activity in Africa and Nigeria. The second theme focuses on the roles of financial innovation, including FinTech, bank innovations and financial inclusion in the ever-changing monetary policy landscape. The final

theme focuses on how exchange rate volatility and macroeconomic uncertainty affect macroeconomic performance.

Based on the broad objectives of these studies, the data gathered spanned 54 African countries, covering the length and breadth of African economies, and included a specific case study analysis of Nigeria. Additionally, the papers used macroeconomic and financial data to achieve the study's objectives. Papers 1, 2, 3 and 4 fall into this category. Papers 5, 6, 7, 8, 9, and 10 used macroeconomic data to achieve their objectives. The period of analysis spanned the 1980s through 2024.

1.4. Overview of Submitted Publications and Contributions

As mentioned earlier, the thesis's submissions are divided into three sub-sections. Based on these three broad sections, the thesis contributes to the frontier of knowledge within these areas. These unique contributions are discussed within the introduction, literature review, methodology and estimation techniques, empirical analysis and results' interpretation, and peer review assignments.

1.4.1. Financial Development and Monetary Transmission Mechanism

This sub-section includes studies examining the effects of financial system developments across financial institutions and markets during periods of financial liberalisation and deregulation in African financial markets, and their effects on the monetary transmission mechanism and monetary policy effectiveness on output and prices. The studies employed macroeconomic and financial data from the banking, capital, and bond markets to examine the macro-financial linkages between financial system developments and monetary policy transmission in Africa. The sub-section comprises four published articles.

1. Oyadeyi, O.O. (2026a). Financial Development, Financial Inclusion and the Effectiveness of Monetary Policy Transmission Mechanism on Economic Activities in Africa. *Borsa Istanbul Review,* 26, 100743. Elsevier Publications https://doi.org/10.1016/j.bir.2025.10.016.

- **Contributions/originality**

This study investigates the effects of financial development and financial inclusion on the monetary transmission mechanism in Africa. It focuses on the roles of financial development and financial inclusion in strengthening the transmission of monetary policy. It provides evidence on which monetary policy channel has the dominant impact on output and prices in Africa. The findings showed that financial development and financial inclusion can be used as policy tools to strengthen four of the five monetary transmission channels, except the exchange rate channel, which was found to be very weak or nonexistent among African countries. Furthermore, the findings showed that the interest rate channel of monetary policy is the most important channel for stimulating output. In contrast, the inflation expectations channel is the strongest driver of price increases. Ultimately, the study affirms the critical role that financial systems and financial inclusion play in strengthening the monetary policy channels in Africa.

• Personal Contributions: In terms of my contribution, I am the sole author of this work, meaning that I wrote all sections within the manuscript, gathered the data, analysed the data, interpreted the findings, and concluded the paper with some policy considerations.

2. Oyadeyi, O.O. (2024a). Financial Development, Monetary Policy and Monetary Transmission Mechanism – An Asymmetric ARDL Analysis. *Economies,* 12(8), 191. MDPI Publications. https://doi.org/10.3390/economies12080191.

- **Contributions/originality**

This study examines the asymmetric effects of financial development and monetary policy on the monetary transmission mechanism in Nigeria. The study, as a contribution to the literature, employed asymmetric analyses to examine how changes in monetary policy (both positive and negative) and in financial system development (both positive and negative) affect monetary transmission in Nigeria across the five monetary policy channels. Furthermore, financial development indicators were collated across the banking, stock, and bond markets to understand these nuanced nonlinear relationships. The findings demonstrated that positive and negative changes in financial development and monetary policy have non-uniform effects on the transmission of monetary policy in Nigeria. It further emphasised that responses in the monetary transmission channel depend on the level of financial development, thereby suggesting that these responses are symptomatic of financial markets on their way towards advanced development. Consequently, the implication is that as a financial system matures, monetary policy will have a more significant influence on the cost of short-term financing for banks and other financial system participants, without affecting borrowing rates for firms and households.

• Personal Contributions**:** For the study, I wrote and analysed the entire manuscript. I gathered the data, cleaned and analysed them, interpreted them, and concluded with some policy options based on the findings.

3. Oyadeyi, O.O. (2026b). Financial Development and Monetary Policy Effectiveness on the Nigerian Economy. *Financial Innovation*, 12(5), 1–31. Springer Publications. https://doi.org/10.1186/s40854-025-00798-5.

- **Contributions/originality**

This study examines the effects of financial development and monetary policy on the effectiveness of monetary policy operations in Nigeria. In terms of contribution, the study employed the feasible quasi-generalised least square (FQGLS) method to understand these impacts. As we already know, financial development can directly affect monetary policy channels, as well as the effectiveness of monetary policy actions and their influence on economic activity. The findings showed that advances in financial development across the banking, stock, and bond markets weaken the effects of monetary policy in supporting output, inflation, and investment in Nigeria. As Nigeria's financial infrastructure advances, the conventional methods by which monetary policy influences the economy become less effective, leading to diminished effects on real GDP growth, investment, and inflation management.

• Personal Contributions: I was the sole author on this publication. I conceptualised the idea, designed the frameworks and methodology and wrote all sections of the manuscript, including the analysis, interpretation and conclusion of the results.

4. Oyadeyi, O. (2023). Financial Development, Interest Rate Pass-through and the Interest Rate Channel of Monetary Policy. *Cogent Economics & Finance*. 11(1), 1–29. Taylor & Francis Publications. https://doi.org/10.1080/23322039.2023.2209952.

- **Contributions/originality**

The study examined the interest rate transmission channel, assessing the role of financial development in interest rate pass-through to determine whether pass-through is complete, incomplete, or overshooting. The study's originality stems from establishing the role of financial development in the interest rate pass-through process and in monetary policy effectiveness through the interest rate channel. Answering this question was the central theme of this study. Consequently, the study examined the role of financial development in the interest rate pass-through across different markets (money markets and lending and deposit rate markets). The findings from nonlinear analysis showed that interest rate pass-through is incomplete, but stronger in the long term than in the short term. Furthermore, financial development weakened the effectiveness of the interest rate pass-through process due to factors such as high bank switching costs, asymmetric information, interest rate stickiness, and others.

• Personal Contributions: I wrote and analysed the entire script. I was in charge of the end-to-end process of this research, including the drafting, collation of results and the entire write-up of the article.

1.4.2. Financial Innovation and the Evolving Monetary Landscape

5. Oyadeyi, O.O. (2024b). The Velocity of Money and Lessons for Monetary Policy in Nigeria: An Application of the Quantile ARDL Approach. *Journal of the Knowledge Economy*, 16(2), 8249–8285. Springer Publications. https://doi.org/10.1007/s13132-024-02201-7.

- **Contributions/originality**

The study specifically investigates the velocity of money function in the light of recent events in the Nigerian economy. It tests whether the velocity of money is stable and predictable in light of recent financial innovation activities in Nigeria. Another contribution is its use of structural break models and the quantile autoregressive distributed lag (quantile ARDL) model to ascertain the effects of the velocity of money function. Additionally, it considers four income velocity of money functions, including the velocity of reserve money (VM0), the velocity of narrow money (VM1), the velocity of broad money (VM2), and the velocity of extended broad money (VM3). The findings showed that financial innovation, income, exchange rates, interest rates and inflation are all determinants of money velocity. Furthermore, it showed that the income velocity of money in Nigeria is unstable and unpredictable, a precondition for the use of the inflation targeting strategy. Therefore, the study proposed adopting an inflation-targeting framework to curb inflation and ensure a stable, predictable money velocity function in Nigeria. In March 2026, the Central Bank of Nigeria (CBN) proposed a framework to facilitate the transition to an inflation-targeting

monetary policy, which is to take effect in the latter part of 2026. This shows the study's contribution to the development of monetary policy formulation and implementation in the Nigerian economy.

• Personal Contributions: I wrote and analysed the entire manuscript.

6. Oyadeyi, O. (2024c). Banking Innovations, Financial Inclusion and Economic Growth in Nigeria. *Journal of the Knowledge Economy,* 15(2), 7014–7043. Springer Publications. https://doi.org/10.1007/s13132-023-01396-5.

- **Contributions/originality**

The study examined the effects of banking innovation and financial inclusion on economic growth in Nigeria. Using banking and financial technology (FinTech) channels such as automated teller machines (ATM), point of sales (POS), cheques, mobile banking transactions, and internet/web banking transactions, combined with financial inclusion channels such as financial usage, financial penetration and financial access, the findings from this study showed that POS, ATM, web and internet transactions stimulate economic growth in Nigeria. On the other hand, cheque transactions do not stimulate growth. The originality of this study stems from its use of innovative banking and FinTech platforms, as well as financial inclusion, in ascertaining their effects on economic growth in Nigeria. Furthermore, the study used two separate methods, including the mixed data sampling technique (MIDAS) and the ARDL technique, to ascertain these findings, and the results were similar across these two methods. Additionally, this study shows that the POS channel was the most significant channel for stimulating output in Nigeria, followed by ATM, mobile banking, and web banking. These findings have important ramifications in Nigeria, as they show the extent to which FinTech and financial inclusion channels have stimulated economic growth and which channels to promote if economic activities are to move to a more advanced phase.

• Personal Contributions: I conceptualised the ideas behind this work, conducted all investigations, wrote and analysed the entire manuscript, and submitted it for peer review.

7. Oyadeyi, O.O. (2026c). The Macroeconomic Determinants of Exchange Rate Volatility and the Impact of Currency Volatility on the Performance of the Nigerian Economy. *Foreign Trade Review,* 61(1), 79–108. Sage Publications. https://doi.org/10.1177/00157325241295884.

- **Contributions/originality**

This study extended the analysis by examining the determinants of exchange rate volatility and its influence on the real, external, and monetary sectors of the Nigerian economy. The uniqueness of the study lies in its approach: it uses the nonlinear generalised autoregressive conditional heteroscedasticity (nonlinear GARCH) to generate nonlinear GARCH effects, and it also employs the novel dynamic ARDL method to test the effects of currency fluctuations on real economic activities. The findings showed that several variables, including financial development, government expenditure, lending and policy interest rates, and oil prices, are determinants of exchange rate fluctuations in Nigeria. In contrast, shocks affecting exchange rates have consequential effects on economic output, inflation, and the current account dynamics. These findings were generated through the impulse response functions of the novel dynamic ARDL

estimation method. This study provided information on events that destabilise the exchange rate in Nigeria, as the economy is largely import-dependent and exchange rate shocks tend to have debilitating consequences for the economy as a whole.

• Personal Contributions: I wrote and analysed the entire manuscript, including data collection and cleaning, data conversion, and estimation, generating insights useful for policy recommendations to resolve the persistent exchange rate quagmire in the Nigerian economy.

1.4.3. Macroeconomic performance - Calibration, Exchange Rates and Uncertainty

8. Oyadeyi, O.O. (2024d). Monetary Integration across West Africa: Is the Region Ripe for a Monetary Union? *SageOpen,* 14(2), 1–21. Sage Publications. https://doi.org/10.1177/21582440241242958.

- **Contributions/originality**

The study focused on establishing whether the West African economy is ready for a monetary union in 2027. Consequently, it established whether shocks affecting output, inflation and monetary conditions have the same effects across the West African countries under observation. The study's unique method is the use of structural vector autoregressive (SVAR) models to assess the authenticity of a monetary union and the integration process among West African economies. The main contribution of the study was to test whether any West African country meets the convergence criteria set out by the Economic Community of West African States (ECOWAS) in the 2017 Convergence Reports. The essence of meeting the ECOWAS convergence criteria is that countries that meet them can adopt a monetary union. Also, countries that do not meet the criteria may be at a disadvantage if they join the monetary union. The findings showed that shocks affecting the anglophone West African countries have dissimilar effects across these countries. On the other hand, shocks affecting Francophone countries in West Africa had similar effects on output levels, prices, and monetary policy. Based on this, the study suggested a piecemeal approach, with countries that meet the convergence criteria (specifically, Francophone countries) joining the monetary union first, while the others can follow suit when they meet the criteria.

• Personal Contributions: I conceptualised the idea behind the manuscript, gathered the data, analysed it and wrote and reviewed the entire manuscript from inception to completion.

9. Oyadeyi, O.O. (2024e). Macroeconomic Uncertainty and Sectoral Output in Nigeria. *Economies*, 12(11), 304. MDPI Publications. https://doi.org/10.3390/economies12110304.

- **Contributions/originality**

The study analysed the effects of macroeconomic uncertainty on the ten largest sectors of the Nigerian economy. The contributions of the study stems from the fact that the study created an index for macroeconomic uncertainty, which was generated from a consolidation of interest rate, real gross domestic product (RGDP), inflation and exchange rate uncertainty and tested their effects across the largest subsectors of the Nigerian economy, which are the manufacturing sector, the oil and gas sector, the solid minerals sector, the finance and insurance sector, the real estate sector, the construction sector, the trade sector, the ICT sector, the agriculture sector, and the

transport sector. The study is also unique, as these subsectors account for roughly 90 per cent of economic activity. Using the novel dynamic ARDL method, the findings suggest that macroeconomic uncertainty significantly affects the performance of these sectors, and the method's impulse response functions show that shocks from macroeconomic uncertainty significantly disrupt output across these sectors. Furthermore, the findings showed that interest rate, RGDP, inflation, and exchange rate uncertainty affected sectoral output across these sectors. Also, shocks affecting each of these individual uncertainty indices have negative consequences for each sub-sector, with exchange rate uncertainty posing the most significant threat to sectoral output in Nigeria. These findings have important ramifications: they highlight the significance of macroeconomic shocks on sectoral output and provide policy guidance to mitigate macroeconomic uncertainty and sustain growth across the economy.

• Personal Contributions: I wrote and analysed the entire manuscript.

10. Oyadeyi, O. (2024f). Testing the J-Curve, Marshall-Lerner Condition and Thirlwall Hypothesis – An Empirical Evidence from Nigeria. *International Journal of Business and Emerging Markets,* 16(3), 313-334. Inderscience Publishers. https://doi.org/10.1504/IJBEM.2024.10062439.

- **Contributions/originality**

This study tested for the existence of the J-Curve Phenomenon, the Marshall-Lerner Conditions, and the Thirlwall Hypothesis in the Nigerian economy. The study's contributions and findings showed that exchange rate depreciation provides an impetus to reduce Nigeria's current account deficits in the short run (which is inconsistent with the J-Curve Hypothesis). Furthermore, it showed that, in the long run, exchange rate depreciation would improve Nigeria's current account balance by increasing exports and/or decreasing imports (consistent with the Marshall-Lerner conditions). Additionally, the findings suggested that exchange rate depreciation is a major predictor of the current account position and its changes in Nigeria, suggesting that these movements align with Nigeria's economic fundamentals. Moreover, the findings demonstrated that Nigeria's import growth rate is not consistent with the nation's long-term economic growth rate (contrary to Thirlwall's Law). This means that balance-of-payments problems may hold back long-run growth in Nigeria. Finally, the findings revealed that Nigeria's imports are price-inelastic, meaning they are necessities and people cannot do without them. These contributions are unique to this study and help demonstrate whether the long-run balance-of-payments problems in Nigeria align with its economic fundamentals.

• Personal Contributions: I conceptualised the ideas, gathered the evidence, analysed them, and wrote the article based on the ideas, their conceptual and theoretical underpinning, and the findings from the analyses.

1.5. Co-authors

I have no co-authors for any of the ten manuscripts submitted towards finalising this doctoral thesis, nor for the peer-reviewed articles within the thesis. I also do not have any hidden research assistance, data support or collaborative origin with anyone in the process of carrying out the 10 research papers.

1.6. Structure of the Thesis

The PhD by Publication differs stylistically from the traditional PhD thesis, as the traditional PhD has distinct chapters, such as the introductory section, the literature review, the research methods and framework, the findings, and the concluding section. On the other hand, the PhD by Publication entails that the literature review section, the research methods and framework section, the analysis and findings section and the concluding sections be embedded within the submitted peer-reviewed published articles. As a result, this commentary provides a critical analysis and evaluation of the published papers only and the contributions of these publications to the body of knowledge. Therefore, this section of the commentary is equivalent to the introduction and conclusion of the traditional PhD thesis.

The next section discusses the literature related to the submitted works. In the submitted works, I endeavoured to provide pertinent empirical literature directly and indirectly related to the submitted peer-reviewed publications. Chapter three offers a critical analysis of the published works, highlighting their contributions to the literature and their shortcomings. Chapter four provides a critical analysis of the submitted peer-reviewed articles, highlighting their citation analyses, contributions to the frontier of knowledge, practical and theoretical contributions, and qualitative metrics. The final section concludes the work with critical observations and a final remark on the thesis.

Chapter Two: Conspectus of the Literature

2.1. Introduction

This section provides an overview of the literature on the portfolio of articles used in this thesis. PhD by Publication offers a timely perspective on the literature at the time the articles were written, unlike the traditional PhD thesis literature review. Thus, this section examines the overall perspective on financial development, the effectiveness of monetary policy, and macroeconomic performance in Africa, with a specific analysis of Nigeria.

The study focused on the sectors across the financial system, including financial markets and financial institutions, using macroeconomic and financial-level data across the African economic environment. The subsequent sections of the thesis are structured as follows. The first sub-section offers a contextual literature review of the links between financial system developments, monetary policy effectiveness, and monetary transmission mechanisms, illustrating how recent financial developments have influenced the transmission of monetary policy into economic activity. The second sub-section provides a summary of the specialised literature on the themes of the thesis on financial innovation and the evolving monetary landscape. The final sub-section focuses on macroeconomic performance, including calibration, exchange rates, and uncertainty, and how these important factors affect macroeconomic performance in Africa and Nigeria.

2.2. Overview of the Specialist Literature

2.2.1. Overview of the Specialist Literature: Financial Development and Monetary Transmission Mechanism

The African financial landscape has undergone several significant reforms over the years. This began in the middle of the 1980s, when many African countries adopted the Structural Adjustment Programme (SAP), which brought about the liberalisation and deregulation of many financial systems (Rodrik, 1990; Cheru, 1992). These reforms were strongly based on neoclassical ideas, yielding both positive and negative outcomes across many of these nations. Due to these reforms, the financial system has developed, allowing private individuals to own commercial banks, insurance firms, mortgage banks, investment banks, and other financial institutions. Furthermore, many stock exchanges were introduced in the 80s, allowing companies to list on different exchanges within their respective African countries. These developments have brought about several changes, including consolidation, mergers, acquisitions, and expansions in these industries. The focus of this section will be on the banking industry's financial development (financial institutions) and the capital market (financial market). The review in this section cuts across Publications 1, 2, 3, and 4.

In Publication 1, the earliest studies linking financial development and monetary transmission mechanisms are largely attributed to the works of Mishkin (1995), Bernanke and Gertler (1995), among many others. These studies specifically investigated monetary transmission mechanisms and the role of financial systems in their effectiveness. These studies were mostly focused on

global analysis, with a specific focus on advanced economies. Despite several studies on this topic, studies on the African environment have been sparse in the literature. Moreover, the several financial system reforms implemented in the financial sector and their implications for money transmission have not received adequate attention in Africa, especially in Nigeria. Finally, the effect of financial inclusion on the transmission of monetary policy has yet to receive the attention it deserves in the literature. Therefore, this study contributed to the frontier of knowledge in this regard.

Therefore, Publication 1 addresses three major issues in the literature. These include analysing the effects of financial development and financial inclusion on the monetary transmission mechanism in Africa, analysing which channel of monetary policy has the most significant effect on economic output and prices in Africa, and analysing the forward and backwards-looking indicators for monetary policy operations, financial inclusion, and financial system developments to help policymakers understand the connections and causal relationships between these variables. In terms of their methods, the study employed recent methods such as quantile regression, JKS Causality tests, panel spatial correlation-consistent methods, and structural VAR methods to ascertain these findings. These contributions serve as the primary catalysts for this investigation. As a result, recent research has identified this study as an influential work on strong methodologies for examining the effects of financial development and financial inclusion on the transmission of monetary policy in Africa.

Profiling Publication 2, it focused on the asymmetric effects of financial development and monetary policy on the transmission of monetary policy in Nigeria. The empirical literature on the relationship between financial development and the monetary transmission mechanism was developed through early studies by Mishkin (1995), Bernanke and Gertler (1995), among others. The literature on financial development and monetary transmission is not new. For instance, several studies, such as Fiador et al. (2022) and Nguyen et al. (2022), have examined the influence of financial development on the transmission mechanism. However, leaning on asymmetric analyses in line with previous studies by Brooks et al. (2002) and Li et al. (2021), the study employed the nonlinear ARDL method to establish the effects of financial development on monetary transmission mechanisms. Moreover, this study contributed to the corpus of knowledge by establishing how asymmetric or nonlinear changes in financial system development and monetary policy operations affect the transmission of monetary policy in Nigeria. Therefore, Publication 2 provided evidence on how positive and negative changes to monetary policy and financial systems affect the transmission of monetary policy, with a special focus on Nigeria. This study is important as it highlights the intricacy of the monetary transmission mechanism and the need for a sophisticated understanding of the interplay between financial development and monetary policy operations in different circumstances.

In Publication 3, the earliest studies on finance-growth relationships are McKinnon (1973), Shaw (1973), and Levine (2005), among others. This study focused on the effects of financial development on monetary policy effectiveness on economic activities in Nigeria. Prior works on

African economies can be traced to Apanisile and Osinubi (2020), Effiong et al. (2020), and Fiador et al. (2022), among others. However, interest in this nexus was renewed due to recent events such as the COVID-19 pandemic, the geopolitical risks and others affecting many developing countries, especially Nigeria. Moreover, monetary policy effectiveness has taken a hit, as continuous hikes in the policy interest rate have not brought down inflation during the period the study was conducted.

Additionally, apart from Apanisile and Osinubi (2020), who focused on Nigeria, the other studies were more broadly focused on Africa, providing further impetus to situate our study in Nigeria. Nevertheless, Apanisile and Osinubi's (2020) study did not consider many recent events in the Nigerian economy over the last 10 years in its data framework, and it employed data only over a short time frame from 2004 to 2016, which is a strong reason to contribute in this regard. Moreover, their study focused solely on output, without an empirical investigation of how policy effectiveness affected investment in Nigeria.

Therefore, this study improved knowledge in this regard by understanding how financial systems can strengthen the effectiveness of monetary policy on economic productivity, inflation, and investment in Nigeria. Additionally, the study employed data sets over longer time horizons from 1981 to 2021, using the feasible quasi-generalised least squares (FQGLS), a recent econometric technique suitable for uncovering monetary policy effectiveness and establishing pathways to it. Therefore, by including financial development indicators across the banking, capital, and bond markets, the study sought to determine whether, in the presence of financial system development, monetary policy enhances its effectiveness on output, inflation, and investment in Nigeria.

Publication 4, diverts from the extant literature by focusing on a single monetary policy channel – the interest rate channel of monetary policy. This is because, according to Publications 1 and other extant literature, it is the most significant monetary policy channel on economic activities across the globe. Therefore, this study examined the role of financial development in the interest rate pass-through process to determine whether pass-through is complete, incomplete, or overshooting. Additionally, the study sought to determine whether financial development weakens the effects of monetary policy on the interest rate pass-through in Nigeria.

There are several studies on interest rate pass-through in Nigeria, including Jibrilla and Balami (2022), Oyadeyi and Akinbobola (2022), Oyadeyi (2022a, 2022b), and Bello and Isah (2025), among others. However, these studies failed to account for the pass-through from the policy interest rate to the interbank or money market rate, and they did not account for the role of financial development in the interest rate pass-through process and transmission. Therefore, our study focused on the transmission of the policy interest rate to the money market rate, deposit rates, and lending interest rates. Also, it examined the role of financial development in this process to assess the effectiveness of interest rate transmission and determine whether it is complete, incomplete, or overshooting. Consequently, it is an empirical investigation that reconciles theory with the practicalities of central banking policies.

2.2.2. Overview of Specialist Literature: Financial Innovation and the Evolving Monetary Landscape

This subsection covers studies on financial innovation and its influence on Nigeria's ever-evolving monetary policy landscape. The subsection consists of three publications, including Publications 5, 6, and 7. Publication 5 focuses on the determinants of the income velocity of money in Nigeria, and its stability and predictability. There have been a few studies in this regard in Nigeria, including Akinlo (2006), Doguwa et al. (2014), and Oyadeyi (2025a). However, these studies did not incorporate the role of a structural break in the income velocity of money function.

Furthermore, none of the previous studies focused on the four income velocity of money functions in Nigeria, including the velocity of reserve money (VM0), the velocity of narrow money (VM1), the velocity of broad money (VM2), and the velocity of extended broad money (VM3). A few of them focused only on VM2, while others focused on VM1 and VM2. Moreover, the study evaluated these models using the quantile ARDL method, which helps ascertain the money velocity relationships and conditionalities across different quantiles. Therefore, this publication expanded the frontier of knowledge in this area by establishing the determinants of the four money velocity functions, assessing their stability, and determining whether monetary policy targeting or an inflation targeting strategy is the ideal monetary policy framework for Nigeria.

Publication 6, on the other hand, focuses on the roles of FinTech, financial inclusion and other bank innovations on sustainable economic growth in Nigeria. There have been a few studies on this impact based on prior literature (Beck and Demirgüç-Kunt, 2008; Domeher et al., 2022; Oyadeyi, 2025b; among others). However, previous studies on this relationship have focused more on financial development issues, paying less attention to FinTech developments. Therefore, the study employed data on FinTech and bank innovation platforms, such as ATM, POS, web, cheque, and mobile payment channels, to examine their roles in economic growth in Nigeria. Furthermore, financial inclusion measures such as financial usage, financial penetration, and financial access were employed to examine the role of financial inclusion in economic growth in Nigeria. The study employed MIDAS and ARDL frameworks to provide further insight into these relationships. The study significantly enhances the financial development literature and offers new insights into the relationships with economic growth. The findings corroborate previous studies on the vital role of bank and FinTech innovations for economic growth.

Publication 7 focuses on the macroeconomic determinants of exchange rate volatility and the effects of currency volatilities on Nigeria's macroeconomic performance. Due to constant exchange rate depreciation, which increased from $0.61 per naira in 1981 to ₦400 per dollar in 2021, and ₦899 per dollar by the end of 2023. Likewise, exchange rates further depreciated to ₦1,472 per dollar in 2024 and then appreciated slightly to ₦1,429 per dollar at the end of 2025. These persistent exchange rate issues provided the rationale for the study to quantify the impact of these depreciation episodes on economic activities, including inflation, economic growth and the current account balance. Drawing on prior studies by Brooks (1997), Brooks (2001), and Brooks

and Persand (2003), that employed GARCH methods to forecast volatility, the study employed the EGARCH method to forecast exchange rate volatility in Nigeria, while employing the novel dynamic ARDL method to examine its effect on macroeconomic performance. Moreover, the study is among the earliest to quantify these relationships, while also employing novel dynamic ARDL and nonlinear GARCH methods to establish the findings. In essence, this publication is an empirical examination aimed at testing the arguments of the World Bank and IMF for exchange rate unification to reduce exchange rate premiums and curb round-tripping activities that may undermine economic stability in Nigeria.

2.2.3. Overview of Specialist Literature: Macroeconomic performance - Calibration, Exchange Rates and Uncertainty

This subsection reviews the literature on macroeconomic performance, including its calibration and the roles of exchange rate volatility and macroeconomic uncertainty in economic performance, especially in Nigeria. The subsection consists of three publications, including Publications 8, 9, and 10. Publication 8 focuses on answering the important question of whether the region is ready for a monetary union. This is because the West African region is expected to boost its productive output, reduce inflation, strengthen and harness monetary policy across the region. However, evidence over the years indicates that the region is not yet ready for a monetary union (Houssa, 2008; Onye et al., 2023). Thus, the study undertakes an empirical investigation to ascertain whether each West African country has met the convergence criteria stipulated in the ECOWAS convergence reports in 2017. The study also contributed in this regard by using the SVAR approach to examine whether global, regional, and domestic shocks have the same effects on the region's GDP, inflation, and monetary policy. This is very important because monetary integration in West Africa is a crucial channel for increasing regional trade, macroeconomic stability, long-term economic development, resilience, and financial integration. Nevertheless, its success hinges on whether these countries meet their convergence criteria, maintain fiscal and institutional coordination, and address asymmetric shocks using a coordinated approach.

Publication 9 helps us to empirically investigate the roles of macroeconomic uncertainty on sector output in Nigeria. There have been several studies in the literature on the role of macroeconomic uncertainty in aggregate output (Shields et al, 2005; Fountas et al., 2006; Ghirelli et al., 2021, among others). However, these studies have not considered the role of macroeconomic uncertainty in sectoral output, especially in an EMDE like Nigeria. Furthermore, aside from an aggregate uncertainty measure, such as macroeconomic uncertainty, previous studies, such as Kalay et al. (2018), Ghirelli et al. (2021), among others, have not explored the roles of exchange rate uncertainty, inflation uncertainty, interest rate uncertainty and real GDP uncertainty on sectoral output. Therefore, this study contributes to the literature in these regards, as the Nigerian economy is susceptible to these uncertainty shocks. As a result, the study contributes to the frontier of knowledge in several ways. First, it contributes to knowledge by identifying economic uncertainty arising from exchange rates, interest rates, real GDP, and inflation, and by examining their roles in shaping the ten largest sectors of Nigeria's economy, which account for roughly 90 per cent of

economic activity. Second, the study also contributes to knowledge by employing the novel dynamic ARDL method, a recent econometric technique, in examining this empirical investigation. Furthermore, the study was the first to explain the responses of these ten sectors to shocks arising from macroeconomic uncertainty, including exchange rates, inflation rates, monetary policy rates, and real GDP.

The final publication of this empirical literature exercise investigated whether the J-Curve Phenomenon, the Marshall-Lerner Conditions, and the Thirlwall Hypothesis hold in the case of Nigeria. Drawing on previous research in this area (Bahmani-Oskooee and Gelan, 2012; Beckmann and Czudaj, 2016), this study examines whether these three conditions exist in Nigeria, given persistent exchange rate challenges and current account deficits. Consequently, the study contributes to knowledge by establishing whether the J-Curve effects exist in Nigeria, the Marshall-Lerner Conditions hold in Nigeria, and the Thirlwall Hypothesis holds in Nigeria. The findings from the study helped better understand Nigeria's exchange rate and balance of payments problems, and provided strategies to resolve persistent exchange rate volatility and current account deficits. Moreover, since the exchange rate transmission channel is weak, it is helpful to implement policies that strengthen it in Nigeria.

Upon reviewing the submitted articles in the scholarly commentary, I have provided insights into finance and financial economics, focusing on financial sector developments, uncertainties, exchange rate management, and their impact on monetary policy effectiveness, money transmission, and economic growth in Africa, especially Nigeria. Consequently, these studies enhance empirical research on financial sector developments, exchange rate uncertainties and the effectiveness of monetary policy on economic growth and stability.

2.2.4. Overview of Methods adopted in the Publications

The study used several research methods across the portfolio of publications submitted for this thesis. For instance, Paper 1 employed the panel spatial correlation-consistent fixed-effect method. Papers 2, 4, 5, 6, 7, 9, and 10 employed several variants of the linear and nonlinear ARDL method. Paper 3 employed the FQGLS method, while Paper 8 employed the SVAR method. A discussion of these different research methods is presented in the subsections below.

2.2.4.1. Panel Spatial Correlation Consistent – Fixed Effects

The panel spatial-correlation-consistent fixed-effects (PSCC-FE) regression method was proposed by Driscoll and Kraay (1998). This estimation method helps account for cross-sectional dependence, heteroscedasticity, and serial correlation arising from the proximity of the countries' datasets in the selected sample. The method is particularly helpful for observing the effects of independent variables on the dependent variable across cross-sections and over time, yielding robust findings. The method is also selected for its ability to account for unobserved heterogeneity across the selected countries. Moreover, the PSCC-FE was selected ahead of the PSCC ordinary least squares regression (PSCC-OLS) because unobserved heterogeneity is not taken into consideration by the PSCC-OLS approach.

Without acknowledging variations across African nations, it assumes that all share similar traits and favourable conditions, which may not be true in many countries. As a result, Publication 1 from the thesis uses the PSCC-FE regression method to achieve its objectives. The extant literature on monetary transmission mechanisms has used OLS models. However, this method neglects unobserved heterogeneity, serial correlation, heteroscedasticity, and cross-sectional dependence among the observed countries. Therefore, the PSCC-FE fills that gap due to its strengths in addressing the issues outlined in its methodological framework and its suitability for this type of analysis.

2.2.4.2. The Autoregressive Distributed Lag (ARDL) Method

The ARDL model, proposed by Pesaran et al. (2001), was used to achieve the objectives of Publications 4, 5, 6, 7, 9, and 10. This is due to its ability to analyse regressions and to establish short- and long-run dynamics within the model (Pesaran et al., 2001). Moreover, its flexibility to analyse any combination of I(1), or I(0) variables, or a combination of either, makes it suitable for achieving the objectives of these publications. Several studies on the effects of financial development on monetary policy or on economic growth have employed the OLS technique (Levine et al., 2000; Levine, 2005; Beck et al., 2008). However, the OLS technique has many limitations, including the requirement that all variables be integrated of order zero before it can be used.

Furthermore, it can only interpret long-run information and does not provide information on short-run adjustments to the long run. Since the ARDL model addresses these issues, it is ideal to employ it, a major reason for its application across publications. Additionally, Publications 2 and 4 employed the nonlinear ARDL analysis, while Publication 5 employed the quantile ARDL, and Publications 7 and 9 employed the novel dynamic ARDL technique.

2.2.4.3. The Feasible Quasi-Generalised Least Square (FQGLS)

Publication 3 employed the FQGLS method propounded by Westerlund and Narayan (2015). The FQGLS was selected as our predictive regression model due to its ability to address endogeneity, heteroskedasticity, and serial correlation, as highlighted by Westerlund and Narayan (2015). The FQGLS approach is suitable for regression analysis with insufficient predictors, since it removes bias from the regression results. It mitigates biases and potential heteroscedasticity in the data by pre-weighting the data using the inverse of the residuals' standard errors. Moreover, OLS models are often criticised for potential bias arising from their neglect of certain aspects of regression analysis, which justifies the use of the FQGLS approach in this work. Therefore, the study employed the FQGLS method to analyse the effects of financial development on monetary policy effectiveness in the Nigerian economy.

2.2.4.4. The Structural Vector Autoregressive Model (SVAR)

Publications 1 and 8 employed the SVAR model to achieve their objectives. The justification for using the SVAR model is that VAR models include limitations in discerning the fundamental connections among variables, since the structural configuration of the model often remains

ambiguous. The structural vector autoregression (SVAR) framework offers a solution by imposing restrictions that capture the economic interrelationships among the variables. The SVAR framework encompasses all endogenous variables, therefore eliminating the conventional distinction between exogenous and endogenous variables. Moreover, each variable in the model relies not only on its historical values but also on the historical data of all other variables, ensuring that all variables are treated equally and interact concurrently. This characteristic renders the SVAR model especially appropriate for the aims of this study. Given that SVAR models help identify the economic relationships among variables, Publications 1 and 8 employed SVAR models, which are more suitable than ordinary VAR models for achieving the study's objectives. Moreover, a previous study by Houssa (2008) had also employed this method and provided a rationale for the greater use of SVAR models. Therefore, the SVAR model was employed to identify the most significant monetary transmission channels for output and prices in Africa. At the same time, Publication 8 used the SVAR model to examine how monetary, demand and supply-side shocks affect the West African region.

Chapter Three: Critical Analysis of The Submitted Publications

3.1. Introduction

The last chapter emphasises the significant works that have shaped my writing and the need to enhance the current literature. This chapter provides an overview and analysis of the methodologies and contents of the submitted works with a focus on scientific appraisal. The weaknesses and alternative approaches of some studies are examined to impact future research in my areas of focus. This chapter presents a comprehensive examination of eight of the ten publications (Publications 1-8) submitted for the thesis.

3.2. Critical Analyses of the Papers

The papers included in the critical analyses are those focusing on Africa using a panel econometric framework and on Nigeria using time-series econometric analysis. Publication 1 (see Table 1) provides a strong analysis of the effects of financial development and financial inclusion on the effectiveness of monetary policy transmission in Africa. It focuses on the strength of the transmission and how progress in the financial system can help strengthen or weaken monetary policy transmission. Additionally, the study helps identify the dominant monetary policy channel for output and inflation across the continent, thereby enabling policymakers to target the strongest and most effective channel to amplify growth and reduce inflationary pressures. Having investigated the existing literature on monetary transmission mechanisms and the role of financial systems in strengthening monetary policy, I identified several concerns that needed to be critically addressed through the study.

First, other studies (Fikri, 2018; Dieng and Sene, 2024) treated the monetary transmission mechanism in isolation, without considering the critical roles that financial systems play in strengthening or weakening monetary policy transmission. Second, the investigation that considered the critical role of financial inclusion (through channels such as financial access, usage, and penetration) in the monetary transmission process was sparse. Moreover, previous studies had several methodological gaps, paving the way for this study to contribute to the frontier of research in this area. For instance, some of these previous studies employed methods such as ordinary least squares (OLS) or VAR methods, and these methods are either problematic and may not capture issues such as cross-sectional dependence, endogeneity and heteroscedasticity (OLS) or may not adequately capture the economic relationships within the variables (VAR).

To address these issues, the study first included financial development and financial inclusion indicators in the monetary transmission models to assess their effects on the strength or weakness of monetary policy actions. In measuring financial development, the study used both financial markets (capital market indicators) and financial institutions (banking sector indicators), while measuring financial inclusion using financial inclusion access, financial inclusion usage, and financial inclusion penetration. These were done to develop robust indicators of financial inclusion and financial development to assess their effects across monetary policy transmission in the African macroeconomic environment.

Second, after reviewing the strengths and suitability of the PSCC-FE method, the study employed it to address unobserved heterogeneity, cross-sectional dependence, serial correlation, and heteroscedasticity issues that affect panel data regressions, given the unique nature of African economic data and the nature of these economies. Additionally, to account for the sensitivity of results across different quantiles, the study employed quantile regressions to assess the effects of different levels of financial development and financial inclusion on money transmission across African countries. Finally, unlike previous studies that employed VAR models to identify the dominant monetary policy channel, the study used a panel structural VAR (PSVAR) model, which is stronger at identifying structural relationships within the VAR. In summary, these identified issues motivated the present study.

The findings showed that financial development and financial inclusion can be used as policy tools to strengthen monetary policy transmission through the interest rate, credit, asset price, and inflation expectation channels. At the same time, these two indicators do not affect the exchange rate channel. This suggests that the financial system can catalyse the strengthening of monetary policy transmission among African countries. Additionally, the study found that the interest rate channel has the greatest impact on output, while the inflation expectations channel has a greater impact on prices in Africa.

In terms of study contribution, this study integrated financial development and financial inclusion into monetary transmission mechanism models across African studies to ascertain their impact on strengthening monetary policy. Furthermore, this study employed quantile regressions and a PSCC-FE method to examine the effects of financial development and financial inclusion on monetary transmission in Africa. Additionally, the study conceptually analysed the transmission of monetary policy from the policy instrument or operational target (the policy rate) to the monetary policy channels (mechanisms or pathways through which the operational target impacts economic activities) and how these pathways influence the outcome variables (or targets such as inflation and output) in Africa. Finally, the study established the dominant monetary policy channel on output and inflation in Africa using a PSVAR approach.

After writing the draft, it was submitted to a special issue in the journal Borsa Istanbul Review. Due to the paper's strengths and its unique contributions, it underwent a single peer-review process involving two anonymous peer reviewers and the editor. One of the criticisms of the paper during the peer review process was that the study treated the continent as a homogeneous economic space, without accounting for structural differences between countries. In response to this, I re-embarked on the analysis, accounting for the issues highlighted by the reviewer and also supported it with evidence based on the African context, including pan-African issues such as monetary sovereignty, political interference, differences in exchange rate regimes, depth of financial systems, fiscal dominance, and central bank independence. The journal later accepted it within 3.5 months. The study was finally available online in October 2025 and was included in a special issue of the journal in August 2026.

A limitation of this study is that FinTech is not explicitly modelled within the analysis. This is because financial inclusion measured by conventional banking indicators may not adequately capture Africa's rapidly evolving digital financial architecture, driven by rising FinTech channels such as mobile money operators, digital payments, web or internet banking, and mobile banking. Therefore, introducing a FinTech/digital finance index can highlight the effects of digital finance on the monetary transmission mechanism in Africa, an area I will explore in future research.

Publication 2 focuses on the effects of financial development and monetary policy on the transmission of monetary policy in Nigeria. This research is an addendum to publication 1, which focuses on a similar objective, but across the 54 African countries. Nevertheless, this publication has its own strengths, as it focuses on a country-specific study and uses nonlinear frameworks to understand this compelling relationship. Given the nature of financial development's effects on money transmission in Africa, I decided to focus on a country-specific study, such as Nigeria, to determine whether these effects hold in a country-specific context. To do this, the study incorporated several financial development indicators across the banking, capital, and bond markets, and employed the nonlinear ARDL analysis to obtain the results. The study contributes to the literature in two ways. First, the study provided empirical evidence on how positive and negative changes in monetary policy operations and financial system developments affect the transmission of monetary policy in Nigeria. Second, the study ascertained these effects using seven financial development indicators across the financial system.

The findings showed that both negative and positive changes in financial development and monetary policy operations have significant effects on four of the five monetary policy channels. These channels are the interest rate, credit, asset price and expectations channel. On the other hand, the nonlinear effects do not impact the exchange rate channel. This finding aligns with publication 1, meaning that exchange rate transmission is not only weak in Africa but also in Nigeria. After drafting the paper, it was submitted to Economies for review. The two anonymous reviewers pointed out that the paper's theoretical arguments and its contribution to the literature were weak. To resolve that, I aligned my arguments and emphasised the paper's theoretical contribution, taking it beyond an empirical exercise. After the first revisions, the paper was accepted by the journal within 2 months and published in July 2024. To date, the paper has garnered 29 citations (see Table 2) and is well cited on studies examining financial development and the monetary transmission mechanism in recent years.

A limitation of the paper is that Nigeria experienced profoundly different monetary and financial environments over the period 1986 to 2023, including financial liberalisation, banking consolidation, the global financial crisis, oil-price shocks, COVID-19, exchange-rate regime changes, and substantial FinTech expansion. While the positive and negative ARDL analysis helps separate the effects of financial developments and monetary policy on the transmission of monetary policy, it does not distinguish among different development episodes within the identified economic and financial landscape. Therefore, future research should move from asymmetry towards regime dependence, using Markov-Switching models, Threshold VAR, TVP-

VAR, or Local Projections with state dependence. For instance, future research could examine whether financial development strengthens monetary policy transmission differently during high-inflation, low-inflation, financially stressed, and relatively stable periods.

Publication 3 is another paper that examines the effects of financial development, but now on monetary policy effectiveness. As a result, the study focuses on the effects of financial development on the outcome or target variables of monetary policy, which are output, prices and investments in Nigeria. As already established in the literature, financial development can directly affect the channels of monetary policy transmission (Publication 2) and monetary policy target variables (Publication 3). Therefore, this publication is also an addendum to Publication 2, since it focuses on the outcome variables (output, prices and investments) rather than the intermediate channels through which monetary policy and financial development affect an economy. To empirically examine this, the study employed the feasible quasi-generalised least squares (FQGLS) method.

The study makes several contributions to the literature. First, the study ascertained the joint effects of financial development and monetary policy on the effectiveness of monetary policy operations. Additionally, the study employed the FQGLS method, an innovation in contextualising financial system and monetary policy studies in the literature. Furthermore, the study employed eight separate financial indicators to ascertain their effects on monetary policy effectiveness in Nigeria. The rationale for undertaking this study was that Nigeria experienced significant financial sector changes over the past 40 years, and assessing how these developments have strengthened monetary policy effectiveness can help shape future financial sector policies and provide comparative insights for other developing countries needing to strengthen their monetary policy effectiveness.

The study's findings showed that improved progress in the financial system weakens the effectiveness of monetary policy operations on output, investment, and inflation in Nigeria. As a result, this publication has been central in demonstrating how monetary policy operations can be effective and in strengthening the link between financial system developments, monetary policy effectiveness, and economic outcomes. After the manuscript was fully drafted, it was submitted to Financial Innovation in June 2023. It underwent six separate reviews by ten anonymous reviewers before it was accepted and published on the 9th of January 2026. A few of the reviewers' criticisms were that the paper did not explicitly showcase its theoretical contributions, critically analyse the strengths and weaknesses of the adopted theory, and justify why it was employed. Another critical point mentioned is the justification for employing FQGLS and why it is ideally suited to the study. Consequently, these points were taken on board and worked upon to strengthen the manuscript. These reviews strengthened the manuscript's arguments, and the journal eventually accepted it.

A major limitation of the study is its external validity or generalizability to other EMDEs or African countries. Because the analysis is specific to Nigeria, the findings may not necessarily apply to other emerging-market economies with different financial and economic structures. Moreover, another limitation is that conventional financial development indicators do not adequately capture

contemporary digital finance indicators and their effects on monetary policy effectiveness. In the future, I will undertake a study examining digital financial services and FinTech, and conduct comparative studies across emerging markets or regions to understand how digital finance affects the effectiveness of monetary policy.

Publication 4 is another paper that helps contextualise the effects of financial system developments on the monetary transmission mechanism. However, this time around, it specifically examines the interest rate channel and the pass-through effects of financial development and monetary policy on interest rate operations to ascertain whether interest rate pass-through is complete, incomplete, or overshooting. The reason for conducting a specific study on interest rate pass-through is that Publication 1 established it as the dominant monetary policy channel for output. Therefore, the study sought to ascertain the strength or weakness of interest rate pass-through in Nigeria through the banking system.

To examine the interest rate pass-through process, the study employed asymmetric ARDL methods and asymmetric mean adjustment lags, and used PCA to construct an index of financial development. The reasons these methods were employed were that the nonlinear ARDL is ideal for capturing asymmetric effects. Furthermore, the error correction terms (ECT) within the models were used to compute the positive and negative ECTs, which are crucial for estimating the asymmetric mean adjustment lags within the model to capture how long it takes for a monetary policy shift to trickle down to the interbank market, as well as retail lending markets. The study findings showed that interest rate pass-through is incomplete and imperfect in Nigeria, especially in the short term. In the long term, however, it has a stronger pass-through but remains incomplete. Moreover, the findings further accentuated the role of financial systems in weakening the effects of monetary policy through the interest rate channel. At the same time, the evaluation of the mean adjustment lags showed that any adjustment to the policy rate is immediately conveyed to the deposit and lending rates within the year in which the interest rate changes occur.

Following the complete draft of the manuscript in February 2023, it was submitted to Cogent Economics and Finance on the 6th of February 2023. It underwent a single-phase peer review by two anonymous reviewers and the editor, and was published on the 8th of May, 2023. One of the main criticisms of the paper from reviewers is that it solely focused on the interest rate transmission channel and did not incorporate the credit channel. However, I was able to justify this based on the fact that another study of mine already focuses on the 5 monetary policy channels (Publication 2), while Publication 1 already provided evidence that the interest rate channel is the strongest channel influencing economic growth, and it was critical to focus the objective on this channel. My justification was accepted, and the manuscript was published after its first review. Ever since its publication, the paper has garnered 30 citations on Google Scholar.

Therefore, the main contribution of this study was to analyse the roles that financial development and monetary policy play in the interest rate pass-through across the interbank and retail markets in Nigeria. Its uniqueness lies in its ability to determine whether the interest rate pass-through is

complete, incomplete, or overshooting, and the time it takes for commercial banks to adjust their lending and deposit rates in response to a monetary policy change. A major limitation of the study is its focus on Nigeria alone, as the results may not generalise to economies with different banking structures and monetary regimes. Therefore, an area I am proposing to deepen my knowledge in is undertaking a bank-level investigation of lending and deposit rates to assess the effectiveness of interest rate pass-through at the micro/bank level in Africa or EMDEs.

Publication 5 focuses on answering the critical question of whether the monetary targeting instruments adopted by the Central Bank of Nigeria (CBN) are the most appropriate monetary policy tools for the Nigerian economy, or whether an inflation targeting strategy should be adopted given the persistent inflationary problems the country has encountered over the years. Therefore, the paper's critical objectives were to test the determinants of the income velocity of money and to assess its stability. The aim was to determine whether money velocity is stable, as its stability provides information on which monetary policy tool the CBN should adopt, thereby contributing to the literature in this regard. Another contribution of the paper was to incorporate structural breaks within the methodological framework to ascertain whether these events have had any implications on the stability or otherwise of the velocity of money in Nigeria over time. When the velocity of money is stable, it is a precondition to adopt monetary targeting policies. However, an unstable velocity of money is a precondition for adopting an inflation targeting strategy.

Using the quantile ARDL method, the study finds that the velocity of money is unstable in Nigeria, suggesting that the CBN should adopt an inflation-targeting strategy. Interestingly, in March 2026, the CBN provided a framework for switching to an explicit inflation-targeting strategy in the second half of 2026. One piece of feedback from a reviewer on the manuscript was that the literature review was not organised thematically at the time of submission, grouping studies by their findings on the determinants of velocity, the stability of velocity, and the role of financial development. Another critical feedback was that the study did not provide a future direction for research in this area. I addressed these comments by thematically analysing the literature review. Based on this feedback, a limitation of the study was that it did not consider the role of digital finance or FinTechs and address their role in the stability or otherwise of the velocity of money. As a result, I identified future directions for the paper, including the rising roles of FinTechs and the informal economy in the behaviour and stability of money velocity. As a result of these comments, I am currently undertaking work on the study's future research agendas and developing new insights into the behaviour and stability of money velocity in the presence of FinTech innovations and informal economic activities. Since its publication, the paper has gathered 36 citations on Google Scholar.

Publication 6 examines the influence of banking innovation platforms and financial inclusion on Nigeria's economic performance. The study's contribution was to examine how FinTech and bank innovations, such as POS, ATMs, cheques, Web transactions, and mobile transactions, affect economic performance. Another contribution of the study was to identify the strongest innovation channel on economic performance. The study employed the ARDL and MIDAS framework due to

the nature of the data, as the MIDAS framework provided grounds for no data loss. As a result, the MIDAS framework allows us to use data at mixed frequencies and retain the original data to obtain the results. A rationale for using the MIDAS framework is that it helps us retain the original data information without any compromise in converting data to another level of frequency.

The paper's findings showed that the POS channel exerted the strongest influence on economic growth in Nigeria, followed by the ATM channel. Mobile and web channels followed consecutively, while cheques provided no support for economic growth in Nigeria. Furthermore, the findings suggest that financial inclusion positively influences economic growth. One of the critical reviews received from the reviewers was the choice of methods used to achieve the study's objective. To account for this, I demonstrated that the stationarity properties informed the choice of methods for the datasets. Since the datasets were a mixture of I(0) and I(1) variables, and they were cointegrated, it was easy to adopt the selected methods. Another reviewer suggested I strengthen the paper by identifying the limitations of the methods used and by clarifying its contribution to theory, which I eventually did. Since the publication of the paper, mobile and web channels have increasingly dominated the payment and FinTech spaces, not just in Nigeria but across the globe, and limiting the study's findings to Nigeria may not capture the effects of these FinTech and banking innovation channels on broader African contexts or EMDEs. As a result, I intend to undertake a future study of these payment channels and contextualise their contributions to global economic activity. Since its publication, the paper has gathered 45 citations on Google Scholar.

Publication 7 examines the macroeconomic determinants of exchange rate volatility in Nigeria and analyses their effect on economic performance. The paper’s contribution was to help understand the variables that spur exchange rate volatility in the Nigerian economy. Another contribution was that it also examined how currency fluctuations affect economic performance. These objectives were achieved by employing the novel dynamic ARDL method. The rationale for working on this project was the very volatile nature of Nigeria’s exchange rate, which depreciated by more than 300% between 2021 and 2024. The findings showed that exchange rate volatility exacerbates worsening macroeconomic conditions in Nigeria, while its stability can promote economic growth, price stability and a favourable current account position. A few critiques of the paper during the review stage were that it did not clearly explain the specific innovation the adopted method introduced. In response to the review, I noted that the major benefit of the approach is its ability to forecast, simulate, and plot probabilistic forecasts of the dependent variable given a single explanatory variable, while maintaining the constancy of the independent variables.

Another critical review of the paper was that the results were not sufficiently discussed in terms of practical implications, and they were not positioned within the existing literature on the topic. In response to these comments, I created a separate discussion section. I discussed the results extensively, explaining the implications of exchange rate volatility for policymakers and why its stability is essential to promoting a stable financial system and a resilient economy. Based on this, I identified that a limitation of the study was that while it examines the effect of currency

volatilities on economic performance, it does not provide evidence on the threshold level beyond which currency depreciation becomes inimical for economic performance. In terms of future research, I noted that future endeavours may focus on how to manage exchange rate depreciation to prevent continuous volatility from exacerbating worsening economic conditions. As a result, I embarked on a subsequent project to examine the threshold effects of exchange rate depreciation beyond which depreciation worsens economic stability. I aimed to fully understand the critical threshold levels at which a currency can depreciate without affecting economic performance and stability in Nigeria. This is because the threshold analysis not only shows the effects of exchange rate depreciation on economic activity but also determines the threshold level beyond which depreciation becomes inimical to growth and price stability. Since its publication, the paper has gathered 22 citations on Google Scholar.

Publication 8 examined whether the West African countries are ready for a monetary union. The study's broad objective was to determine the suitability of West African countries in forming a monetary union by testing their convergence through supply-side, demand-side, and monetary shocks. While some previous research has examined the potential for regional economic integration, this study is unique in extending the previous two shock models, which included aggregate demand and supply shocks, by incorporating three distinct four-shock models. The shocks considered consist of a global supply shock, a global demand shock, a global monetary shock, and a regional shock, against a domestic supply shock in the first model, a domestic demand shock in the second model, and a domestic monetary shock in the third model. The SVAR method was used to achieve these objectives. Furthermore, the SVAR model residuals were used to compute correlation coefficients and test for economic convergence via a pairwise correlation analysis.

The findings showed that the region is not yet ready to form a monetary union based on the SVAR analysis and the correlation of shock coefficients; however, the study advised adopting a piecemeal approach, with countries that already meet the convergence criteria forming an economic and monetary union first. Afterwards, the others may join them when they meet the criteria. A major critique of the paper from one of the reviewers was the need to justify the choice of SVAR over a conventional VAR model. I responded by stating clearly that the SVAR is superior to VAR models because it helps us understand and identify the theoretical and structural economic relationships, and interpret economic shocks within the model.

A major limitation of the paper was that using pairwise shock correlations may not necessarily establish dynamic convergence. Therefore, a future study within this area will incorporate club convergence, network or dynamic-factor methods to establish convergence. Moreover, discussions on monetary integration have now evolved and broadened to address the economic implications of the African Continental Free Trade Area (AfCFTA) agreement across African countries. Therefore, future studies are now focusing on how AfCFTA affects trade formation, financial integration, exchange rate coordination, and macroeconomic stability among African nations. These conditions are crucial for promoting economic integration and sustainable inter-African

trade across the continent, and I intend to conduct studies in this regard. Since its publication, the paper has gathered 24 citations on Google Scholar.

Table 1: Paper Portfolio

S/N	Titles	Publishers
1	Oyadeyi, O.O. (2026): Financial development, financial inclusion and the effectiveness of monetary policy transmission mechanism on economic activities in Africa	Borsa Istanbul Review. Elsevier Publications. https://doi.org/10.1016/j.bir.2025.10.016.
2	Oyadeyi, O.O. (2024): Financial development, monetary policy and monetary transmission mechanism: an asymmetric ARDL analysis	Economies, 12(8), 191. MDPI Publications. https://doi.org/10.3390/economies12080191.
3	Oyadeyi, O.O. (2026): Financial development and monetary policy effectiveness on the Nigerian economy	Financial Innovation, 12(5), 1–31. Springer Publications. https://doi.org/10.1186/s40854-025-00798-5.
4	Oyadeyi, O.O. (2023): Financial development, interest rate pass-through and the interest rate channel of monetary policy	Cogent Economics & Finance. 11(1), 1–29. Taylor & Francis Publications. https://doi.org/10.1080/23322039.2023.2209952 .
5	Oyadeyi, O.O. (2024): The velocity of money and lessons for monetary policy in Nigeria: an application of the quantile ARDL approach	Journal of the Knowledge Economy, 16(2), 8249–8285. Springer Publications. https://doi.org/10.1007/s13132-024-02201-7.
6	Oyadeyi, O.O. (2024): Banking innovations, financial inclusion and economic growth in Nigeria	Journal of the Knowledge Economy. 15(2), 7014–7043. Springer Publications. https://doi.org/10.1007/s13132-023-01396-5.
7	Oyadeyi, O.O. (2026): The macroeconomic determinants of exchange rate volatility and the impact of currency volatility on the performance of the Nigerian economy	Foreign Trade Review, 61(1), 79–108. Sage Publications. https://doi.org/10.1177/00157325241295884.
8	Oyadeyi, O.O. (2024): Monetary integration across West Africa: Is the region ripe for a monetary union?	SageOpen, 14(2), 1–21. Sage Publications. https://doi.org/10.1177/21582440241242958.
9	Oyadeyi, O.O. (2024): Macroeconomic uncertainty and sectoral output in Nigeria	Economies, 12(11), 304. MDPI Publications. https://doi.org/10.3390/economies12110304.
10	Oyadeyi, O.O. (2024): Testing the J-curve, Marshall–Lerner condition and Thirlwall hypothesis: empirical evidence from Nigeria	International Journal of Business and Emerging Markets. 16(3), 313-334. Inderscience Publications. https://doi.org/10.1504/IJBEM.2024.10062439.

Source: https://scholar.google.com/citations?user=si6tYG0AAAAJ&hl=en

Chapter Four: Critical Analysis of the Contributions of The Submitted Works

4.1. Introduction

The quality of the scientific articles for the publications was assessed using both quantitative and qualitative methods. The chapter, therefore, evaluates the scientific contributions of the submitted publications using three fundamental academic indicators: journal quality, citations, and qualitative assessments.

4.2. Citations

A citation serves as a universally recognised metric for assessing the quality of academic papers and technical works. Despite this, there have been cases where new, high-quality publications receive fewer citations for several reasons, including niche articles, lower readership, and others. Consequently, Table 2 presents a compilation of submitted works, their respective years of publication, and citation counts across the Google Scholar, Scopus, and Web of Science databases.

Table 2: Citations of Submitted Publications

Publication Reference	Year of Publication	Google Scholar Citations	Scopus Citations	Web of Science Citations
Financial Development and Monetary Transmission Mechanism				
Publication 1	2026	3	2	2
Publication 2	2024	29	16	11
Publication 3	2026	1	0	0
Publication 4	2023	30	17	13
Financial Innovation and the Evolving Monetary Landscape				
Publication 5	2024	36	10	8
Publication 6	2024	45	19	12
Publication 7	2026	22	8	5
Macroeconomic performance - Calibration, Exchange Rates and Uncertainty				
Publication 8	2024	24	18	13
Publication 9	2024	16	9	5
Publication 10	2024	12	6	2

Source 20/07/2026:
Google Scholar: https://scholar.google.com/citations?user=si6tYG0AAAAJ&hl=en
Scopus: https://www.scopus.com/authid/detail.uri?authorId=58243976000
Web of Science: https://www.webofscience.com/wos/author/record/GYQ-4994-2022

4.3. Quality of the Journals

The quality of the journals is another useful metric for understanding the quality of the published articles within their fields. As a result, several bodies have provided information on the quality of journals within their fields. The prominent ones in the UK include the Chartered Association of Business Schools ABS Journal rankings (ABS, [see http://charteredabs.org/]) and the Australian

Business Schools Dean's List (ABDC List). In other parts of the world, however, the Web of Science and Scopus lists are also highly prominent indicators of a journal's quality. As a result, the submitted papers are all published by, or selected from, these quality providers (ABS, ABDC, Scopus, or Web of Science). The specific ranking and quality of each published work are presented in Table 3.

In terms of the rankings of these journals, the ABS list grades them from 4* to 1 (see https://charteredabs.org/academic-journal-guide). ABDC, on the other hand, follows a grading system in which the highest-ranked journals receive an A* ranking, while the least-ranked journals receive a C ranking. On the other hand, ranking platforms such as Scopus use a four-quadrant system, with the most prestigious journals ranked Q1 and the least prestigious ranked Q4. Finally, under the Web of Science system, the premier journals are ranked in the Enhanced Social Science Citation Index (ESSCI), followed by the Social Science Citation Index (SSCI) and the Emerging Science Citation Index (ESCI), in that order. Based on the ranking systems of these institutions, it can be inferred that the proposed publications have appeared in highly esteemed sources, as indicated by the ABS, ABDC, Scopus, and Web of Science ranking metrics as displayed in Table 3. Most importantly, these articles were published in prominent journals from Elsevier, Springer, Taylor & Francis, Sage, MDPI, and Inderscience.

Table 3: Submitted Works and Journal Ratings

Publications	Journal Rankings	Journal Ratings
Publication 1	Borsa Istanbul Review, Elsevier Publications	Scopus (Q1), WoS (SSCI), ABDC B
Publication 2	Economies, MDPI Publications.	Scopus (Q2), WoS (ESCI), ABS 1, ABDC C
Publication 3	Financial Innovation, Springer Publications.	Scopus (Q1), WoS (SSCI), ABS 2, ABDC B
Publication 4	Cogent Economics & Finance, Taylor & Francis Publications.	Scopus (Q2), WoS (ESCI), ABS 1, ABDC B
Publication 5	Journal of the Knowledge Economy, Springer Publications.	Scopus (Q2), WoS (ESCI), ABS 1, ABDC C
Publication 6	Journal of the Knowledge Economy, Springer Publications.	Scopus (Q2), WoS (ESCI), ABS 1, ABDC C
Publication 7	Foreign Trade Review, Sage Publications.	Scopus (Q2), WoS (ESCI), ABS 1, ABDC B
Publication 8	SageOpen, Sage Publications.	Scopus (Q1), WoS (SSCI)
Publication 9	Economies, MDPI Publications.	Scopus (Q2), WoS (ESCI), ABS 1, ABDC C
Publication 10	International Journal of Business and Emerging Markets, Inderscience Publications.	Scopus (Q3), ABS 1, ABDC C

Source: Author, 2026.

4.4. Qualitative Commentary and Policy Relevance

The goal of applied and empirical research is to provide analysis and insights that inform policy formulation and implementation, through rigorous research to improve decision-making, well-being, and other economic or financial phenomena. To achieve this, the combined portfolio of studies has been adopted across different phases of the economy, including monetary policy operations, financial system developments, exchange rate management frameworks, financial innovations, monetary policy transmission mechanisms, economic growth, inflation, and investments in African economies, especially Nigeria.

The body of published articles presented in this thesis reflects a progressive and evolving research strategy that focuses on the vital roles of financial system developments and the effectiveness of monetary policy transmission in sustaining macroeconomic performance. The studies demonstrate a clear contribution to the frontier of knowledge by providing solutions to overarching country-specific macroeconomic and regional issues, including strengthening monetary transmission channels, enhancing monetary policy effectiveness, stabilising prices, and fostering sustainable economic growth.

The first set of works within the research agenda (in publications 1–4), particularly those evolving around interest rate pass-through and the interest rate channel of monetary policy, provided rich insights into the degree to which the changes in monetary policy decisions are transmitted to the banking sector interest rates, including the lending and deposit interest rates. These studies identified fundamental issues, including asymmetric information, interest rate rigidity, and bank switching costs, that are crucial to strengthening interest rate transmission and provide an impetus for future research in this area. On the other hand, other studies suggest that financial system developments weaken the effects of monetary policy on economic activity. In contrast, advanced financial systems can strengthen monetary policy transmission in African economies, especially in Nigeria.

Building on this foundation, the subsequent studies (publications 5–7) focused on financial innovation within the ever-evolving monetary landscape. These studies better quantified these relationships using newer and more sophisticated econometric and statistical methods, including nonlinear ARDL analysis, quantile ARDL analysis, and the novel dynamic ARDL analysis. For instance, the evaluation of the income velocity of money and the effectiveness of monetary policy operations showed that financial innovation and financial inclusion are central to sustainable economic growth and the demand for money. These studies also advocate for efficient monitoring and the implementation of robust monetary policy operations to guarantee a stable and predictable velocity of money function in Nigeria, thereby challenging many traditional assumptions in the field of monetary economics.

In addition, the study on velocity of money found that money velocity is unstable and unpredictable in Nigeria, paving the way for the adoption of an inflation-targeting monetary policy strategy. This discussion is not new. In 2009, the Central Bank announced it would switch to an inflation-

targeting strategy. However, since then, it has yet to fully adopt the strategy. However, in March 2026, it announced that it would fully adopt the inflation-targeting strategy and provided a framework for its implementation from the second half of 2026. This suggests that the publication on the velocity of money has been influential in the Central Bank's decision to adopt an inflation-targeting strategy for Nigeria.

The final strand of studies within this thesis (publications 8–10) extends these discussions to fundamental issues in exchange rates, since the exchange rate channel is weak in monetary policy operations in Nigeria and across Africa. Therefore, the research in this section focuses on external sector dynamics, macroeconomic uncertainty, and stability issues by examining the factors that determine exchange rate fluctuations, macroeconomic uncertainty, and trade policy adjustments, including the J-Curve, Marshall-Lerner conditions, and the Thirlwall hypothesis. These studies contributed to the corpus of knowledge by contextualising monetary policy operations within a broader open-economy framework, thereby emphasising the roles that external shocks and uncertainties play in shaping policy outcomes in Nigeria and Africa. Additionally, the investigation examines monetary integration across West Africa and whether the region is ready for a monetary union. By undertaking this investigation, the study advanced the frontier of knowledge on how external shocks affect monetary policy decisions across the region and why the region is not yet ready for regional convergence and a common monetary policy framework.

In summary, the corpus of work provides three key contributions to the literature. First, it provides robust, substantial empirical evidence on the effectiveness of monetary policy, the monetary transmission mechanism, and the roles that financial systems play in this process. Second, it advances knowledge on monetary policy transmission and macroeconomic policy decisions by using recent, advanced methodological approaches to analyse monetary policy transmission and effectiveness across Africa, especially in Nigeria. Finally, it provides relevant policy insights for central banks and monetary authorities across Africa, especially in Nigeria, on how to strengthen banking sector reforms, monetary policy operations, central bank coordination, and macroeconomic stabilisation initiatives.

Chapter Five: Summary and Concluding Remarks

The thesis makes a contribution to knowledge by advancing an integrated understanding of how financial development, financial inclusion, and financial innovation shape the effectiveness of monetary policy, its transmission and its effects on macroeconomic performance in Nigeria and across Africa. The commentary offers a critical appraisal of ten publications included in peer-reviewed journals. It positioned the peer-reviewed articles within the literature on banking, finance, and economics.

As a collective, the publications provide evidence that monetary policy effectiveness goes well beyond analysing changes in interest rates, extending to evaluating the depth, efficiency, inclusiveness, technological innovations, and sophistication of the financial system, which help transmit policy decisions into economic activities. The portfolio of studies connected the various themes within the thesis and highlighted their importance in achieving macroeconomic outcomes. Furthermore, it established that monetary policy effectiveness is heterogeneous across Africa and depends on the level of sophistication of financial systems, financial technologies, institutional strengths, and exchange rate dynamics within the continent.

In the case of Nigeria, the thesis provided evidence that strengthening the banking sector and implementing capital market reforms and innovations are crucial for enhancing monetary policy effectiveness, deepening interest rate pass-through, and promoting sustainable macroeconomic performance. Based on the foregoing, the thesis portfolio offers a fresh macro-financial perspective that helps academics and decision-makers comprehend the conditions under which monetary policy transmission and its efficacy promote price stability and long-term sustainable economic growth.

Despite these contributions, the thesis has a few limitations, including cross-country heterogeneity and data availability on FinTech innovations across the African continent. It was difficult getting data on FinTech, for instance, web payments, mobile money payments, and POS payments across the entire continent, which restricted our analysis of FinTech innovations on monetary policy effectiveness. Furthermore, other limitations include measurement challenges related to financial development, which is itself very broad and has different measurements and dimensions. Consequently, the study's findings must be bounded by the identified limitations and contextual boundaries. In essence, these identified limitations provide evidence for future research directions.

Future research can consider firm- or household-level data on the distributional effects of the monetary transmission mechanism and FinTech innovations on household or firm-level wellbeing or performance, as well as their implications for monetary policy transmission. Additionally, as Africa strengthens its AfCFTA agenda, future research can provide evidence on whether the implementation of AfCFTA has strengthened monetary policy effectiveness and monetary transmission mechanisms, and on their role in supporting macroeconomic outcomes in Africa.

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