



**Asset quality, earnings management and bank stability
under IFRS 9: A cross-country examination**

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Asset quality, earnings management and bank stability under IFRS 9: A cross-country examination

Abstract

Purpose: This study examines the impact of IFRS 9 adoption on bank stability in Africa, with a special focus on the role asset and earnings quality play on bank stability following its adoption in 2018.

Methodology: The study utilises panel data drawn from 554 banks in 43 African countries over the period 2014-2021. Various econometric analyses are performed using two sample tests and two-step GMM regression for data comprising 3,510 firm-year observations.

Findings: The findings, which are robust for endogeneity and the adverse effects of Covid-19 pandemic on bank stability reveal potential cross-country heterogeneity relating to the effects of IFRS 9 adoption, asset and earnings quality on bank stability. There seems to be limited influence of IFRS 9 adoption on the stability of banks in Africa. The results reveal that declines in asset quality negatively impact bank stability, while improved earnings quality is effective in promoting bank stability. Increases in non-performing loans are associated with increased bank risk, which is cushioned through improved earnings quality following IFRS 9 adoption, thereby boosting bank stability.

Implications: The study argues that since the IFRS 9 adoption was more of a conciliator between the interest of both bank regulators and accounting enforcement agencies, the adoption of the standard is likely to contribute to a relatively stronger financial services sector, especially in developing economies. The study cautions regulators not to employ a “straight-jacket” approach in implementing the standard and its consequent pronouncements.

Practical implications: The study is useful in informing accounting regulators, bank managers, auditors and financial reporting managers of banks as to the implications of IFRS 9 adoption.

Originality: This is perhaps one of the few studies to examine a large dataset illustrating the implications of the mandatory adoption of IFRS 9 in developing and emerging economies.

Key words: Earnings quality, asset quality, IFRS 9, bank capital, Africa

1. Introduction

In a market-based economy, the stability of banks is important since it guarantees continued credit for economic growth and development (Riahi, 2020). When banks are stable, financial inclusion is improved, and firms can access credit at competitive prices for growth and operations. However, major economic disruptions such as financial crises, pandemics and wars often threaten the survival of banks (D'Onza et al., 2022). Over time, regulators have continually developed and implemented mechanisms such as Basel III to protect and cushion banks from failure.¹ Basel III has implications on discretionary loan loss provisioning, and it is designed to strengthen micro prudential regulation and supervision by adding macroprudential overlay that includes capital buffers (Ozili & Outa, 2017). However, the implementation of Basel III is only a necessary but not sufficient condition for enhanced bank stability as argued by Byres (2012). Byres (2012) and World Bank Group (2022) call for fuller, timely and consistent implementation of regulatory standards aimed at restoring banks' financial health, for enhanced stability.

Despite the regulatory interventions, banks continue to fail, with some relying on the exchequer for bailouts owing to their systemic influence. One of the far-reaching interventions from a measurement and reporting of a bank's key asset has been the International Financial Reporting Standard (IFRS) 9. IFRS 9 was implemented in 2018 with a view to improve the timely recognition of loan losses and improve transparency in reporting bank loans. This has been through the expected credit loss (ECL) model for recognising loan loss provisions (LLP). IFRS 9, which replaced IAS 39, aims to improve the quality of bank earnings by recognizing loan losses proactively and reporting them early.

IFRS 9 gives managers more discretion over LLPs, which affects bank earnings quality, as shown by Ozili and Outa (2017). This means limiting opportunistic earnings management by bank managers and regulating the loan loss provisioning practices can be useful in improving bank stability (Dal Maso et al., 2018). This can be achieved through the implementation of a stricter, and proactive accounting standard such as the IFRS 9. The higher loan loss reserve acts as a buffer in times of financial crises, thereby averting immanent bank failures. A higher

¹ Basel III framework includes 3 pillars, together with liquidity requirements for all banks with additional requirements for systematically important banks. Pillar 1 includes capital, risk coverage and ways of containing leverage in banks. Pillar 2 contains requirements on risk management and supervision while pillar 3 covers market discipline. It is important to note that the "twin peak" prudential regulation adopted by bank regulators say in the United Kingdom, South Africa and other nations aims to capture both financial system stability and market conduct together with consumer protection (Godwin, Howse, & Ramsay, 2017).

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3 loan loss reserve provides the much-needed cover against shocks, especially when crises arise.
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5 This is because it has a relation with the quality of loan portfolio of a bank – a significant
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7 increase in credit risk is likely to be associated with higher loan loss reserve and vice versa.
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9 Similarly, and despite initial challenges, [Awuye and Taylor \(2024\)](#) and [Kyi and Tawiah \(2023\)](#) find that IFRS 9 reduces bank risk by lowering stock return volatility through its
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11 expected credit loss (ECL) requirements. However, [Ng and Roychowdhury \(2014\)](#) argue that
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13 adding loan loss reserves back as regulatory capital affects bank risk in ways not explained by
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15 accounting or economic principles. This therefore elicits the questions, does the
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17 implementation of targeted financial reporting standards influence the loan loss reserves
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19 leading to reduced bank risk hence higher stability?
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22 [Dal Maso et al. \(2018\)](#) posit that bank and accounting regulators emphasise the use of higher
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24 loan loss reserves in the post crises periods to improve bank stability. **Since managers prepare**
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26 **financial statements, agency conflicts with shareholders may arise, warranting regulatory**
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28 **oversight.** This is because, depending on how banks recognise their loan losses, bank stability
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30 might be positively or negatively impacted. The discretionary nature of LLPs might lead bank
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32 managers to obfuscate the actual bank performance, and this further exacerbates banking crises.
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34 Since regulators prioritize financial market stability over financial reporting transparency ([Dal](#)
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36 [Maso et al., 2018](#)), how LLPs are measured and reported becomes crucial.

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37 IFRS 9 aims to bridge the gap between bank regulators' focus on conservatism and accounting
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39 regulators' emphasis on transparent, faithful representation ([Ozili & Outa, 2017](#); [Dal Maso et](#)
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41 [al., 2018](#)). When bank stability is promoted, this helps investors owing to the reliability of the
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43 banking system. Investors are more concerned about the longer-term survival of an entity
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45 compared to short-term profits ([Agrawal & Chatterjee, 2015](#); [Manzaneque, Priego, & Merino,](#)
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47 [2016](#)). Policymakers can use IFRS 9 to curb opportunistic earnings management through
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49 stricter regulation, stronger enforcement, or both.

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50 However, empirical evidence on the impact of strict regulatory enforcement has yielded
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52 inconclusive impacts. For example, [Bhattacharya et al. \(2000\)](#) and [Delis and Staikouras \(2011\)](#)
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54 show that stricter regulatory enforcement reduces bank risk-taking, especially during unstable
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56 periods. [Barth et al. \(2008\)](#) find that stricter bank supervision does not lead to banking
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58 instability. [Čihák and Tieman \(2007\)](#) argue that the differential regulatory impacts are due to
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60 the quality of regulation across countries. This implies that the IFRS 9 might have dual benefits:
in terms of supporting and informing prudential regulation ([Kyi & Tawiah, 2023](#)) and that of

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3 timely loss recognition leading to improved asset quality measurement. This might be through
4 striking a balance between sufficient LLPs sought by bank regulators and transparent LLPs
5 required by accounting enforcement agencies (Ozili & Outa, 2017). Awuye and Taylor (2024)
6 identify a third possible benefit of IFRS 9 adoption: that of enhancing market discipline and
7 transparency.
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12 Sadaa, Ganesan and Ahmed (2023) link financial instability with low earning quality of Iraqi
13 banks with management and ownership not improving the situation. This suggests that further
14 efforts, such as stricter bank regulation and accounting requirements on LLPs and earnings
15 reporting, are needed to promote bank stability. Part of the accounting enforcement requires a
16 review on the asset quality and risk reporting by banks. Depending on management's
17 assumptions and models for reporting LLPs, the bank's financial position may be inflated or
18 deflated. A bank's risks are primarily concentrated on the statement of financial position, and
19 bank capital is useful in mitigating against systemic risks (Altunbas et. al., 2022; Gazali et al.,
20 2023). This means that the manner in which bank assets and liabilities are measured and
21 reported can lead to financial stability or not (Laux, 2012). Abor, Mensah, Kusi and Mathuva
22 (2022) argue that regulatory failure, non-performing loans (NPLs), poor risk management
23 practices are some of the causes of bank failures in Africa.
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34 Whereas regulatory reforms are useful in reducing bank failures, the application of ineffective
35 regulatory tools and mechanisms might be counterproductive (Barth et al., 2013). This requires
36 a careful consideration of the tools and mechanisms being used for effective banking
37 supervision. Ozili and Outa (2017) note that interactions between LLPs and various
38 frameworks: prudential, accounting, institutional, cultural, tax, religious, and fiscal, help
39 ensure banking sector stability. This study aims to determine if IFRS 9 has promoted bank
40 stability in Africa through improved earnings quality and asset quality.
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47 The purpose of this paper is to examine the implications of IFRS 9 on bank asset and earnings
48 quality, and consequently on bank stability in African banks for the period 2014-2021. The
49 impact of IFRS 9 is largely under-explored, particularly in developing economies, which this
50 study aims to address. Given the systemic banking crises and underdeveloped credit markets
51 in developing economies, this study aims to link IFRS adoption with sector stability, providing
52 insights to help strengthen the sector. To address these gaps, I first highlight the implications
53 of IFRS 9 adoption on earnings quality, for both IFRS-adopters and non-adopters. Second, I
54 examine the potential implications of IFRS 9 adoption on asset quality and consequently bank
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3 stability. Finally, I examine the impact of IFRS 9 adoption on earnings quality and its
4 consequent effects on bank stability. While recognizing the differing objectives of bank
5 regulators and accounting agencies in measuring impairment losses, I argue that IFRS 9 helped
6 align their interests, promoting bank stability. The results reveal a negative impact of asset
7 quality on bank stability across the three proxies, and this result is reversed following the
8 adoption of IFRS 9.
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11 I further find a positive influence of bank earnings quality on bank stability proxied by risk
12 adjusted ROA, which is enhanced following the adoption of IFRS 9. Other bank-specific
13 variables useful in predicting bank stability include regulatory capital, net interest margin, bank
14 size and the size of bank profits. The study suggests that IFRS 9, by reconciling the interests
15 of bank regulators and accounting agencies, is likely to strengthen the financial services sector,
16 especially in developing regions. The findings are relevant to bank regulators and accounting
17 agencies as they adopt the new standard, with a caution against a rigid approach in its
18 implementation.
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21 The study contributes to the ongoing debate on the implications of IFRS 9 adoption in
22 developing and emerging economies, with specific reference to bank stability. Most of these
23 economies are market -based and rely heavily on the banking sector to promote economic
24 growth and development. This requires a careful review of IFRS 9's implications, with efforts
25 focused on how it can help banks in developing economies report higher-quality numbers.
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28 The remainder of the paper is structured as follows. Section 2 presents a contextual discussion
29 on banking failures in Africa and the role of financial reporting standards. Section 3 presents
30 literature review and hypotheses for the study. Section 4 presents the empirical strategy and
31 modelling employed in the study. Section 5 presents the study's results and discussion. Finally,
32 section 6 concludes the paper and presents areas of future research.
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2. Banking failures in Africa and the role of financial reporting standards

Ozili (2018) observe that the frequent banking crises in African countries in the last few
decades have exposed the fragility of the financial services sector. Bank failures can be
systemic and cause harm to financial and economic systems as well as the operators in these
systems (Kerstein and Kozberg, 2013). The failures lead to loss of investor confidence,
increased cost of finance, and low economic and real sector outputs (Bordo, Meissner &
Stuckler, 2010; Levine, Lin & Xie, 2016). Given the dependence on oil and commodity imports
by African countries accompanied by exchange rate volatility, any banking failures weaken the

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3 efficacy of bank's risk management practices (Beck & Cull, 2013). According to Abor,
4 Mensah, Kusi and Mathuva (2022), banks fail due to unfavourable economic conditions, poor
5 corporate governance practices and mismanagement, poor asset quality, poor risk management
6 and regulatory failure.
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11 When banks fail, economies bear the consequences, and these could be severe where the
12 economies are primarily market-based such as those in the African continent. These could
13 manifest in terms of lack of confidence in banking systems (Osili & Paulson, 2008), loss of
14 employment (Ma et al., 2022), downgrading of financial and economic systems (Kerstein and
15 Kozberg, 2013), increased cost of finance (Diallo, 2015), slowdown in economic activities
16 (Bordo, Meissner and Stuckler, 2010), and undue pressure on fiscal and monetary policies
17 (Turrini, Roger and Szekely, 2012; Nakatani, 2016). Table 1 provides a summary of select
18 financial sector indicators for top 10 economies highlighting the prevalence of financial
19 institutions compared to capital markets in Africa. Table 1 shows that commercial banks and
20 other emerging financial services providers are the main providers of capital, with capital
21 marks being largely illiquid.
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30 *Table 1 About Here*
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33 Between 1970-2016, 42 systematic banking crises have been experienced in Africa (Abor,
34 Mensah, Kusi & Mathuva, 2022). This comprises of 27.8 percent of the global bank failures in
35 the same period. The surge in banking crises has been cited to emanate from a mismatch in
36 bank assets and liabilities, inadequate capital and/or LLPs and weaknesses in accounting,
37 disclosure and legal framework (Daumont, Le Gall, & Leroux, 2004).
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43 In response to the banking failures, efforts have been made by regulators and other stakeholders
44 to implement significant banking reforms such as Basel III among other interventions.
45 Mlambo, Kasekende and Murinde (2012) observe that these measures have sought to improve
46 bank's capital quality and risk management. A reduction in the role of state-owned banks and
47 a focus on running banks profitably has also been useful in reducing bank failures (Abor,
48 Mensah, Kusi & Mathuva, 2022). It is on this basis that the present study seeks to establish
49 whether the adoption of IFRS 9 has had any implications on bank stability leading to a
50 reduction in the fragility of the financial service sector in Africa.
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57 As I pursue this, I note the implementation challenges associated with IFRS 9 dispensation,
58 which might affect the precision of our analyses as argued by Awuye and Taylor (2024).
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60 Accounting standards are typically designed to guide the measurement and reporting of

financial statement elements, adhering to conservatism as much as possible. To achieve the study's objective, I focus on IFRS 9's impact on the quality and transparency of earnings, asset quality, and ultimately, bank stability in Africa. This is because earnings and asset quality together with accounting, disclosure and legal framework have been cited as some of the aspects that lead to the failure of banks (Daumont, Le Gall, & Leroux, 2004; Abor, Mensah, Kusi & Mathuva, 2022). Further, Nier (2005) find that transparency is useful in reducing severe banking problems thus enhancing overall financial stability. The need to perform a cross-country examination of IFRS 9 adoption is also echoed by Awuye and Taylor (2024) who observe cross-country heterogeneity in reporting quality following the mandatory IFRS 9 adoption.

3. Literature review and hypotheses development

3.1. Theory and implications of bank regulation, IFRS adoption and bank stability

The study is guided by the institutional theory and the isomorphic forces that shape a bank's management and disclosure decisions as argued by Kanagaretnam, Lim and Lobo (2014). Institutional theory has been utilised prevalently to explain how the pressures and constraints of the institutional environment shape a firm's disclosure decisions (Meyer & Rowan, 1977; Dimaggio & Powell, 1983; Ozili, 2017; Agana, Zamore & Domeher, 2023). In this case, a bank's disclosure and compliance decisions are influenced by the institutionalised rules, norms and procedures that they have to constantly adjust and conform to (Agana, Zamore & Domeher, 2023). The global adoption of IFRS 9 is driven by institutional forces, as accounting and economic principles alone don't explain the impact of loan loss reserves on bank stability (Ng & Roychowdhury, 2014). Given the discretionary nature of bank asset and earnings quality, this study explores how the implementation of IFRS 9, required in all IFRS-adopting economies, is linked to bank stability. I posit that this might have contributed toward an improvement in asset and earnings quality, and consequently, the stability of banks in Africa.

With effect from 1 January 2018, IFRS 9: *Financial Instruments* introduced the ECL model aimed at timely credit loss recognition. The standard replaced IAS 39 which received heavy criticism following the global financial crisis of mid 2007 to early 2009 over its delayed loan loss recognition under the incurred credit loss (ICL) approach (Financial Crisis Advisory Group, 2009; Financial Stability Forum, 2009). The objective was to reflect credit risk on bank assets from a forward-looking perspective. Çollaku, Ahmeti and Aliu (2021) argue that the transition phases of IFRS 9 adoption might be characterised by reduced financial stability of

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3 banks. However, this could pose a challenge to analysts due to its forward-looking nature and
4 can create incentives for bank managers to manipulate reported earnings using estimates. This
5 is due to increased impairments and a reduction in bank equity. The study finds that the
6 transition to IFRS 9 causes instability in banks and thereby a reconsolidation of capital and this
7 is useful in averting large and sudden losses in the long run.
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12 The adoption of IFRS 9 was occasioned by a substantial change in the impairment methodology
13 for credit losses. The shift from IAS 39 to IFRS 9 led to a “cliff effect” due to the sudden
14 increases in impairments. IFRS 9 was meant to proactively recognize ECLs over the lifetime
15 of the loan, but [Kund and Rugilo \(2023\)](#) argue this comes at the cost of “front loading”
16 impairments and earlier recognition of loan losses which reduces bank capital thereby affecting
17 its resilience. [Kund and Rugilo \(2023\)](#) find a weakened “cliff-effect” following IFRS 9
18 adoption, which could enhance financial stability in the future. The study finds a reduction in
19 procyclicality of impairments, which is beneficial in terms of financial stability. [Ma et al.](#)
20 [\(2022\)](#) observe that accounting quality and IFRS adoption has implications on banking sector
21 efficiency. The study establishes improvements in banking sector efficiency following
22 improvements in accounting quality as a result of IFRS adoption. [Hafeez, Kabir and Tripe](#)
23 [\(2022\)](#) find improvements in the predictive ability of forward-looking bank stability measure
24 (the z-score) after the Dodd-Frank Act of 2010 in large banks. This is because of the economic
25 consequences of strengthened bank regulation and transparency. [Kund and Rugilo \(2023\)](#) argue
26 that loan impairments pose stronger influence on financial stability when examined from a
27 probability of default and z-score lenses.
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41 The adoption of global and high-quality accounting standards has been cited as useful in
42 protecting financial and capital markets. For instance, [Cristensen et al. \(2013\)](#) and [Daske et al.](#)
43 [\(2013\)](#) find that the adoption of IFRS results in a greater impact on capital markets, together
44 with greater protection of investors. **Prior studies** such as [Naranjo, Saavedra and Verdi \(2020\)](#)
45 and [Beneish et al. \(2015\)](#) identify positive implications of IFRS adoption, with improved
46 performance and access to credit from banks ([dos Santos, Fávero, & Distadio, 2016](#)). However,
47 [dos Santos, Fávero, and Distadio, \(2016\)](#) argue that the impacts of IFRS adoption are
48 heterogeneous and vary among companies and countries. This is largely due to differences in
49 the strength of legal, regulatory, and accounting enforcement ([Dal Maso et al., 2018](#)), investor
50 safety and quality of corporate governance and accounting audits.
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3 Novotny-Farkas (2016) examine the interaction between IFRS 9 and supervisory rules and its
4 implications on financial stability in the European Union. The study argues that the IFRS 9's
5 ECL is more closely aligned with regulatory expected credit loss since it incorporates earlier
6 and larger impairment allowances. The ability of the ECL model to recognise credit losses on
7 a timely basis is useful in reducing loss overhangs and overstatement of bank's regulatory
8 capital. Further, Novotny-Farkas (2016) posit that the extended disclosure requirements
9 associated with IFRS 9 are important for effective market discipline and these might enhance
10 financial stability. The study however cautions the reliance on point-in-time estimates of main
11 input parameters into the ECL model such as the probability of default and loss given default.
12 The estimation provides room for managerial discretion, an aspect that might be
13 opportunistically exploited by bank managers. This weakness might counter the regulatory aim
14 of ensuring banks report their earnings with a better level of precision. The reliance on
15 estimates might also increase the volatility of earnings and consequently the regulatory capital
16 for the banks, which links to bank stability (Gazali et al., 2023). A proper and consistent
17 application of IFRS 9 across jurisdictions is useful to achieving the intended benefits. Based
18 on this line of reasoning, I formulate the first hypothesis as follows:

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32 *H₁: The adoption of IFRS 9 positively impacted bank stability in IFRS-adopting countries.*

3.2. Asset quality and bank stability

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36 Novotny-Farkas (2016) link IFRS 9 scope with Basel III pillars on minimum capital adequacy
37 requirements (pillar 1), supervisory review (pillar 2) and market discipline (pillar 3). Nier
38 (2005) observes that the aim of Pillar 3 was to provide incentives for banks to manage their
39 risks more prudently. The LLPs, which are reflective of asset quality by projecting future
40 losses, are a useful input in regulatory capital adjustments. To assess the adequacy of the LLPs,
41 banks utilise internal credit risk management systems, which are subject to regulatory review
42 and evaluation. Next, there is a nexus between loan loss provisioning and the timeliness and
43 transparency of bank's financial statements, and this has implications for market discipline
44 (Bushman & Williams, 2012). The level of loan loss provisioning reflects the quality of bank's
45 asset portfolio and this in turn affects bank performance and stability (Riahi, 2020). It is
46 anticipated that the implementation of IFRS 9 allows bank managers some freedom to allocate
47 high provisions early if they anticipate future credit risk (or loan losses) (BIS, 2023). Such
48 early anticipation of loan losses and the setting aside of sufficient LLPs prior to the occurrence
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of such loan loss event is what makes banks more stable (Ozili & Outa, 2017). These associations explain the nexus among IFRS 9, asset quality (LLP) and bank stability.

A higher level of NPLs held by a bank, which is indicative of reduced asset quality might have implications for bank stability (Riahi, 2020). For instance, banks with higher NPLs might experience difficulties in collecting or recovering the defaulted loans and this has been one of the cited causes of bank failures (Daumont, Le Gall, & Leroux, 2004; Khediri et al., 2015; Abor, Mensah, Kusi & Mathuva, 2022). A growing level of NPLs in an economy is an indicator of struggling banks and bank customers, who might be facing difficulties in repaying loans owing to economic downturns and difficult operating environment.

A continued deteriorating asset quality is likely to stir a financial crisis, albeit a localised one. This therefore means that the implementation of forward-looking accounting standards such as IFRS 9 might be useful in averting large loan losses in the future and deteriorating asset quality levels. This might lead to more stable banks. This is because IFRS 9 encourages early provisioning thereby reflecting the quality of loan portfolio much better (Bholat et al., 2018). The early provisioning is useful in predicting significant increase in credit risk with higher precision due to its anticipation of future default. However, the caveat here is that IFRS 9 might also lead to over(under) estimation of credit risks due to potential managerial manipulation in the ECL model (Oberson, 2021). Based on these arguments, I develop the second hypothesis as follows:

H₂: The adoption of IFRS 9 improved bank asset quality and consequently bank stability.

3.3. Bank earnings quality and bank stability

Various studies have utilised the abnormal LLP as a measure of earnings quality and established mixed findings (Kanagaretnam et al., 2004; Kwal et al., 2009; Riahi, 2020). Ismail and Shahimi (2003) illustrate the use of loan loss provisioning by bank managers in capital and earnings management. In their study, banks can boost capital ratios by reducing financing portfolios, and relying more on their core capital. Sadaa, Ganesan and Ahmed (2023) find limited evidence on the association between earnings quality and bank continuity. According to Leventis et al. (2011), when bank managers are faced with insolvency or potential withdrawal risk, they resort to aggressive earnings management through loan loss provisioning. Certain pressures such as banking crises might compel bank managers to aggressively manage earnings (Kanagaretnam et al., 2014; Mathuva & Nzuki, 2022).

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3 Bank earnings quality is as a result of managerial choices when it comes to the amount of LLPs
4 to recognise. Banks that have adopted good corporate governance mechanisms, with adequate
5 checks on loan loss recognition might reduce opportunistic behaviour through aggressive
6 earnings management (Leventis & Dimitropoulos, 2012). Kanagaretnam et al. (2004) support
7 this view by arguing that US banks use the discretionary loan loss provisioning (DLLP) (the
8 subjective element of LLPs) to manage capital and the volatility of bank earnings. However,
9 the earnings' smoothing practice is harmful to the investors, who aim to maximise their wealth.
10 Bank managers opt to pursue earnings volatility-reducing mechanisms to attract external
11 finance and capital gains in securities (Riahi, 2020). Kwal et al. (2009) establish a positive
12 association between DLLP and external financing needs, which affects bank stability in the
13 longer run.
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23 A study such as DuCharme et al. (2004) find that bank managers use earnings management to
24 boost share price and consequently managers' wealth. Hamdi and Zarai (2012) highlight that
25 this leads to information asymmetry between bank managers and stakeholders, thereby
26 reducing bank stability. Aggressive earnings management practice affects the safety of a bank,
27 and this can become systemic during recession or some crisis (López-Espinosa, Ormazabal &
28 Sakasai, 2021; Altunbas et al., 2022), if left uncontrolled at regulatory and accounting oversight
29 levels (Riahi, 2020). These arguments motivate our next hypothesis that attempts to link
30 earnings quality with bank stability. In this case, I expect the proactive and more timely loss
31 recognition occasioned by the adoption of IFRS 9 to lead to higher quality earnings by banks.
32 This due to the proactive nature of IFRS 9, which requires banks to anticipate the expected
33 credit losses in the future and illustrate their effects on bank earnings in the present. This has
34 the effect of enhancing bank stability through the disclosure and recognition of timely earnings
35 reflective of the true economic fundamentals of the bank. This reasoning motivates the third
36 hypothesis thus:
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48 *H₃: The adoption of IFRS 9 improved bank earnings quality and consequently bank stability.*
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50 **4. Empirical strategy**

51 **4.1. Sample and data**

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54 Most of the bank-level and structural data for the study are obtained from the BankFocus
55 (formerly BankScope) database spanning the period 2014-2021. Additional data on the
56 macroeconomic variables and some structural variables are obtained from World Bank
57 database and Central Bank websites of the respective countries. The non-consolidated, bank-
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level data are derived from 12-month audited annual reports of the banks in the sample. The final sample comprises of **an unbalanced panel dataset with** 3,510 firm-year observations drawn from 554 banks operating in 43 countries over the period 2014-2021. The period covers four years before the adoption of IFRS 9 (2014-2017; 2,077 observations) and four years after the adoption of IFRS 9 (2018-2021; 1,433 observations). Following Dal Maso et al. (2020), I exclude any country with less than five-firm year observations. The final sample is depicted in Tables 2A and 2B. According to Table 2B, the top five countries with the highest number of firm-year observations are, Kenya (273), Ghana (217), Nigeria (217), South Africa (214) and Egypt (208). This ranking illustrates the level of development of the financial sector in East Africa (Kenya), West Africa (Ghana and Nigeria), South Africa and North Africa (Egypt).² Further country-specific financial sector development indicators are provided in an earlier section in this paper (see section 2, Table 1 for more stylised facts on each economy).

[Table 2A About Here](#)

[Table 2B About Here](#)

4.2. Empirical modelling

Consistent with Segoviano and Goodhart (2009), Ozili (2018), Riahi (2020) and Chand, Kumar, and Stauvermann (2021), three measures of bank stability are examined. These include the traditional z-score, the risk-adjusted ROA and the risk adjusted ratio of equity to assets. The z-score is a bank stability measure which accounts for bank performance as measured by ROA, leverage as well as the volatility of ROA (Nier, 2005; Azmi, et al., 2019; Goetz, 2018; Bayar, Borozan, & Gavriletea, 2020; Chand, Kumar, & Stauvermann, 2021; Cheema, Rashid, & Rizwan, 2023). It reflects a bank's solidity, solvency, soundness and risk regardless of the risk strategy adopted by the bank (Riahi, 2020). The use of the z-score helps estimate a bank's probability of future insolvency and risk. It is considered superior compared to other methods such as asset quality, earnings, liquidity, and management ratings (e.g., using CAMELS) (Riahi, 2020).³ The z-score is derived as:

² I further note that the top five countries comprise the largest economies in terms of real GDP and GDP growth rate as of 2022 – Kenya (US\$ 265 billion; 4.8 percent), Ghana (US\$ 72.24 billion; 3.3 percent), Nigeria (US\$ 477.4 billion; 3.10 percent), South Africa (US\$ 807 billion; 2 percent) and Egypt (US\$ 1,348; 6.6 percent) (World Bank and other internet sources). I further note that a number of the bottom five countries have experienced sustained polycrises especially political instability, which partially explain their level of financial sector development.

³ Contrary to the approach taken by Ozili (2018) and Riahi (2020), I was unable to compute the natural logarithm of the z-score since some of the values obtained using the formula are negative. I therefore utilise the absolute winsorised z-score values at the 1 percent and 99 percent in our subsequent analyses.

$$Z_Score (B_Stability)_{i,t} = \left[\frac{ROA_{i,t} + \frac{Equity_{i,t}}{Assets_{i,t}}}{\sigma ROA_{i,p}} \right]$$

Where Bank stability (*B_Stability*) is denoted by *Z_Score* of bank *i* in time *t*, ROA it is the return on assets of bank *i*, in time *t*. $Equity_{it}/Assets_{it}$ is the equity to asset ratio and σROA_{it} is the standard deviation of ROA of bank *i* in time *t* over the sample period (Ali & Pua, 2018; Riahi, 2020). According to the World Bank, the z-score measures the probability of default in banking. It compares the buffer of the bank's returns (measured by ROA) and capitalisation (measured by equity to assets ratio) with the volatility of the returns.⁴ I also utilise two other dependent variables, the first being the risk-adjusted ROA and the risk-adjusted equity to assets ratio. The risk-adjusted ROA is measured as follows:

$$raROA (B_Stability)_{i,t} = \left[\frac{ROA_{i,t}}{\sigma ROA_{i,p}} \right]$$

Whereas the risk-adjusted equity to assets ratio is as follows:

$$raEQUITY_ASSETS (B_Stability)_{i,t} = \left[\frac{EQUITY_ASSETS_{i,t}}{\sigma ROA_{i,p}} \right]$$

Using the three bank stability measures, I formulate three empirical models guided by the following generalised method of moments model adapted from Uhde and Heimeshoff (2009), Ozili (2020), Riahi (2020) and Gazali et al. (2023):

$$B_Stability_{i,t} = \beta_0 + \delta_i Bank_Factors_{i,t} + \partial_i Structural_Factors_{i,t} + \gamma_i Macro_Factors_{i,t} + \beta_j FE_Controls_{i,t} + \varepsilon_t$$

Where *Bank_Factors* include net interest margin, earnings, size of profits, leverage, regulatory capital and loan loss allowance. *Structural_Factors* include bank tier and listing status. *Macro_Factors* include growth in gross domestic product, inflation and the covid-19 pandemic (Elnahass, Trinh & Li, 2021). The *FE_Controls* include controls for loan categories, and fixed effects controls for bank specialisation, country, and firm years. In all model, the instrumented variables consisted other variables likely to influence the endogenous variables in the study,

⁴ The World Bank calculates the z-score using at least 5-year bank level observations. The present study utilises a similar approach.

but were not directly related to bank stability measures (Ayadi et al., 2025). All variable definitions are presented in Table 3.

Table 3 About Here

To establish the earnings quality of banks in the sample, I follow Dal Maso et al. (2018) and estimate the LLP using the model:⁵

$$LLP_{i,t} = \beta_0 + \beta_1 beg_LLA_{i,t} + \beta_2 NCO_{i,t} + \beta_3 Loans_{i,t} + \beta_4 \Delta Loans_{i,t} + \beta_5 NPL_{i,t} + \beta_6 \Delta NPL_{i,t} \\ + \beta_7 LoanControls_i + \beta_8 SpecialisationControls_{i,t} \\ + \beta_9 CountryControls_{i,t} + \beta_{10} Firm_YearControls_{i,t} + \varepsilon_t$$

Table 4 summarises the variable definitions for the variables utilised in the LLP model.

Table 4 About Here

To establish the earnings quality, I utilise the abnormal LLP derived from the residuals in the LLP model. This is consistent with studies such as Kanagaretnam et al. (2004), Kwal et al. (2009), Dal Maso et al. (2018) and Riahi (2020) who utilise that discretionary part of the LLP that is subject to management discretion. Following Dal Maso et al. (2018), I obtain the absolute value of the residuals using the following equation.

$$absLLP_{i,t} = |LLP_{i,t} - \widehat{LLP}_{i,t}|$$

The excess absolute abnormal LLP is then used as proxy for earnings management by banks in the sample. A lower value for *absLLP* implies that banks are managing their earnings toward the actual LLP, and this results in higher earnings quality (Dal Maso et al., 2018; Mathuva & Nzuki, 2022). A large absolute value for LLP implies that banks are managing their earnings away from the actual LLP, leading to reduced quality and informativeness of the earnings and this has implications for bank stability (Riahi, 2020).

5. Results and discussion

5.1. Descriptive analysis

Table 5 reports the results of the descriptive statistics for the variables in the study. Consistent with Dal Maso et al. (2018) and Riahi (2020), the figures for continuous variables have been

⁵ Basu, Vitanza and Wang (2020) argue that future studies examining LLPs should either include net loan charge-offs or model explicitly the asymmetry introduced by omitting them. Failure to account for NCOs leads to excessive rejections rates in favour of positive abnormal LLPs, leading to incorrect inferences.

winsorised at the 1 percent and 99 percent levels. In terms of the bank stability variables, the mean (median) z-score is 24.1612(16.2502) which is lower than the z-score reported by Riahi (2020) for Gulf Cooperation Council (GCC) countries (natural log of 3.18 versus 3.82). similar observations are made in the case of risk adjusted ROA and risk adjusted equity to assets. This implies that the bank stability of African banks is relatively lower compared to those in more established markets such as the GCC countries. The findings show that over half of the observations (>63.79 percent) include banks in IFRS-adopting economies. This highlights the significant extent of IFRS adoption in Africa, promoting harmonized financial reporting and improved earnings comparability across countries. The average (median) level of NPLs in the sampled banks is lower (3.90 percent) compared to that in GCC countries of 13.8 percent as per Riahi (2020). This implies relatively improved asset quality for banks in Africa compared to those in the GCC region.

Next, I find that the mean absolute abnormal LLP is 0.0159 compared to that in GCC countries which is 0.579 (in absolute terms). This implies that the earnings quality of banks in Africa is higher than that in GCC countries. The descriptive statistics on the other variables are reported in Table 5 and they show that African banks are relatively heterogeneous in terms of performance, size, capital thresholds, and funding structure. This provides insights in terms of the potential differential impacts of IFRS 9 adoption, given the various structural as well as macro-economic factors. I also note the relatively small number of listed banks in the sample, providing further evidence that firms in the African region rely on financial markets for their funding needs.

Table 5 About Here

5.2. Two-sample tests

Table 6 presents two sample test results to assess whether there are significant differences in asset quality (H2), bank earnings (H3), and select variables between the IFRS 9 pre- and post-adoption periods. I find limited statistically significant differences between the pre- and post-IFRS 9 adoption periods with the exception of asset quality (H2), earnings quality (H3) and regulatory capital, all at the 5 percent level of significance. This finding points to potential influence of IFRS 9 implementation on asset quality and bank earnings. I do not find any statistically significant difference in the bank stability measures, providing preliminary evidence that the adoption of IFRS 9 might have has muted influences on bank stability contrary to what was advanced by a prior study by Kund and Rugilo (2023). It appears that the

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3 adoption of IFRS 9 led to stark differences in asset quality and management due to the timely
4 loan loss recognition. Although bank performance seems to have remained relatively the same
5 post IFRS 9 adoption, I establish some significant impacts on regulatory capital.
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9 *Table 6 About Here*
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11 **5.3. Correlation analysis**

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13 In terms of spearman correlations, the results in Table 7 shows that bank stability has
14 differential associations with the variables being studied. This highlights potential difference
15 in the focus of each of the bank stability measures, and this seems to be influenced differently
16 by the various predictor variables. For instance, bank stability measured by the z-score is
17 positively and significantly associated with bank size, bank earnings, leverage, and regulatory
18 capital. It is negatively associated with IFRS adoption, NPLs (H2), net interest margin, bank's
19 funding structure, allowance, peer grouping and the 3 macroeconomic variables. Similar
20 heterogeneity in the factors influencing bank stability as measured by the risk-adjusted
21 variables is also observable. Interestingly, none of the bank stability measures are significantly
22 correlated with IFRS 9 adoption (H1) and bank earnings quality (H3). This points to possible
23 muted impact of IFRS 9 adoption and earnings quality on bank stability. This proposition is
24 however tested further in the next section. I note that the VIFs are below 5, implying that
25 multicollinearity is not a significant problem among the variables in the study.
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37 *Table 7 About Here*
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41 **5.4. Estimation results**

42 **5.4.1. IFRS 9 adoption and bank stability**

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44 In Table 8, I study the implications of IFRS 9 adoption on bank stability for both IFRS-adopters
45 and non-adopters. This in pursuit of the proposition argued under hypothesis H₁ where a
46 positive influence of IFRS 9 adoption on bank stability is envisaged. Contrary to expectation,
47 I find limited influence of IFRS 9 adoption on bank stability. This is depicted by the positive
48 and significant coefficient on the *post* variable and bank stability using risk-adjusted ROA in
49 model 2 (coefficient = 0.6430, z-value = 2.49) at the 5 percent level. The muted impact of IFRS
50 9 adoption on the other two bank stability proxies (z-score and risk-adjusted equity to assets
51 ratio) might be explained by the relatively short period under study as argued by Çollaku,
52 Skender and Ahmeti (2021). It appears that banks are gradually adjusting to the new IFRS 9,
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3 and its benefits (or otherwise) are yet to fully manifest. This illustrates that the isomorphic
4 forces that could compel banks to implement IFRS 9 are not as prevalent as envisaged by
5 Agana, Zamore and Domeher (2023). However, it could also point out to varied influence of
6 IFRS 9 adoption on bank stability.
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10 This finding mirrors the argument by Ozili (2018) that the drivers of stability are dependent on
11 the bank stability proxy employed. For instance, the drivers of bank stability as measured by
12 z-score might be slightly different from those of risk-adjusted ROA or risk-adjusted equity to
13 assets ratio. The significant and positive coefficient on the *post* variable and bank stability as
14 proxied by risk-adjusted ROA implies that the adoption of IFRS 9 seems to have improved the
15 stability and predictability of bank's financial performance. The forward-looking recognition
16 of loan losses proposed in IFRS 9 might have contributed to more realistic and timely earnings
17 leading to reduced volatility of bank performance, hence improved stability as argued by Kund
18 and Rugilo (2023). This proposition is partially confirmed by the negative coefficient of
19 *post_ifrs* in models 1 and 2. The negative coefficient implies that the adoption of IFRS 9 by
20 IFRS-adopting countries reduced bank stability measured using z-score and risk-adjusted
21 ROA. This finding is in support of studies such as Beneish et al. (2015) and Naranjo, Saavedra
22 and Verdi (2020) who establish positive benefits of IFRS adoption. This however comes with
23 a caveat: that the benefits of IFRS 9 on bank stability are heterogeneous and might vary across
24 countries as posited by Novotny-Farkas (2016).
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37 In terms of the other predictor variables, the results demonstrate consistently the importance of
38 bank size, net interest margin, the nature of bank earnings, deposits, regulatory capital, peer
39 group, listing status, growth in the economy and inflation on bank stability. For instance, I find
40 a highly significant influence of bank size on the three bank stability measures. This finding is
41 consistent with the positive and highly significant association between a bank's peer group and
42 stability. This seems to support D'Onza et al. (2022)'s view that relatively smaller financial
43 institutions face exacerbated financial difficulties when faced by systemic crises. I further
44 establish a heterogeneous and highly significant association between net interest margin and
45 the three bank stability proxies, at the 1 percent level. The negative association between net
46 interest margin and bank stability as measured by the z-score seems to denote the volatile nature
47 of the net interest margin, and its propensity to influence bank stability. This observation is
48 consistent with the negative and significant coefficient on the earnings before tax and LLP and
49 bank stability as measured by the z-score. These finding are consistent with Chand, Kumar and
50 Stauvermann (2021) and emphasises the importance of prudently managing the main income
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3 source for enhanced stability of the bank. The results seem to depict that any volatility in a
4 bank's main income source is likely to affect its stability.

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7 The results demonstrate a negative and significant influence of bank deposits on bank stability
8 as measured by the z-score and the risk adjusted equity to assets ratio. **This means that an**
9 **increase in bank deposits influences a bank's asset-to-liability ratio, and this has implications**
10 **on its stability.** This might be because of the increase in liability position, which needs to be
11 carefully managed **to avert any liquidity or disruptions in bank business.** Interestingly, a banks
12 leverage position seems to be positively associated with bank stability, and this is significant
13 at the 1 percent level. It also appears that larger banks are more likely to be stable, and this in
14 support of **the study by Köhler (2015) that argues** a case of larger banks being able to spread
15 their risks through revenue diversification. As argued by Köhler (2015), larger banks tend to
16 have an investment-oriented business model and are more stable if they diversify into other
17 income sources. **Likewise, Ayadi et al. (2025) argue that during instability, a bank's business**
18 **model is important in dealing with systemic risks.** According to the findings in the present
19 study, the growth in the economy has a positive influence on bank stability. This is consistent
20 with the finding that higher inflation is associated with less stability in the banking sector. A
21 thriving economy is beneficial to the banking system, and higher interest rates tend to make
22 lending cheaper, with borrowers opting elsewhere, and this affects bank performance and
23 stability (Jokipii & Monnin, 2013).
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37 *Table 8 About Here*

38 39 **5.4.2. Implications of IFRS 9 adoption on asset quality and bank stability**

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42 Table 9 presents the results examining whether the second hypothesis (H₂) holds in terms of
43 the influence of asset quality, measured by NPLs and bank stability. The results reveal a
44 consistent and negative association between NPLs ratio and bank stability at the 5 percent level
45 with regard to z-score and risk-adjusted ROA proxy for bank stability. This means that as the
46 level of NPLs rise, bank risk increases resulting into a decline in bank stability. This finding is
47 consistent with Riahi (2020) and Khediri et al. (2015) who argue that higher NPLs imply that
48 the bank is experiencing difficulties in recovering loan defaults, and this puts it a risk of failure.
49 I do not find a significant impact of NPLs on bank stability following the adoption of IFRS 9.
50 **This might be due to the relatively shorter time window following IFRS 9 implementation.** The
51 findings on the other significant predictor variables are similar to those presented in earlier
52 sections.
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Table 9 About Here

5.4.3. Implications of IFRS 9 adoption on earnings quality and bank stability

Finally, and in testing the third hypothesis (H_3), I utilise the absolute abnormal LLPs as proxy for earnings management. Table 10 reports the first-stage estimation results of the abnormal LLP, which has been estimated in line with the approach by Dal Maso et al. (2018) and subsequently by Mathuva and Nzuki (2022). These results are utilised in the derivation of the absolute excess LLPs as a measure of earnings quality, which is then linked to bank stability. The first stage estimation results yield a model with a high explanatory power since the adjusted r-squared is 93.05 percent.

Table 10 About Here

Using the results generated in Table 10, I run estimations to establish whether the adoption of IFRS 9 improved the earnings quality of banks and consequently, bank stability (H_3). According to the results, there is a negative and significant association between the *abs_allp* variable and bank stability with regard to the risk-adjusted ROA (coefficient = -17.6332, z-value = -4.19). This implies that banks reporting higher quality earnings are more likely to cushion themselves from future risks, hence being more stable, an argument which is consistent with Riahi (2020). This finding points to potential benefits of IFRS 9 adoption to more established banks with better systems and mechanisms for estimating the ECLs on their loan portfolios.

However, the enhanced influence of the adoption of IFRS 9 and earnings quality is only manifested when earnings quality is measured using the risk-adjusted ROA. In this case, I establish a negative and significant association between *post_absallp* variable, and risk adjusted ROA (coefficient = -12.4653, z-value = -2.56) at the 5 percent level. This implies that the adoption of IFRS 9 might have led to higher quality earnings, hence improving the stability of banks in the longer run. In line with the institutional theory, this can be construed as a benefit of IFRS 9 adoption, since it appears to have been instrumental in minimising the opportunistic behaviour of bank managers (Novotny-Farkas, 2016). The results on the other predictor variables are consistent and similar in direction and significance of the coefficients across the three stability measures as discussed in earlier sections.

Table 11 About Here

5.4.4. Robustness – estimation results without covid-19 effect

Following the global outbreak of Covid-19, the banking sector was adversely affected across various indicators including both accounting- and market-based performance measures and stability (Elnahass, Trinh & Li, 2021). Whereas I included a control for the effects of Covid-19 in the previous estimation results, a further robustness check is performed to confirm whether the results discussed in the previous sections are not influenced by the adverse effects of Covid-19. The findings, which are reported in Table 12, confirm most of the earlier results. I observe that some coefficients, such as asset quality (measured by NPLs), became more significant after excluding the effects of COVID-19, suggesting that the impact of asset quality on bank stability remains relatively consistent, even during crises.

Table 12 About Here

6. Conclusion

In this paper, I examine the impact of IFRS 9 adoption on bank stability, with a special focus on the role of asset and earnings quality on bank stability following its adoption in 2018. I attempt to empirically investigate whether the implementation of IFRS 9 has produced any visible benefits in financial services through improvements in bank stability. The study is motivated by the rationale for implementing IFRS 9 in terms of proactively recognizing loan losses through the ECL approach, which might better reflect a bank's economic fundamentals in terms of asset, earnings quality and consequently, bank capital. Using data drawn from 554 banks in 43 African countries over the period 2014-2021, the study finds heterogeneity on the implications of IFRS 9 adoption on bank stability. The heterogeneity might be due to the relatively short time covered in the study. This might not have been fully effective in investigating the real consequences of implementing a new standard on bank stability. It appears that banks are still re-adjusting to the new standard, and this is yet to yield any implications for bank stability.

More specifically, and contrary to findings by Kyiu and Taiwah (2023), there seems to be limited influence of IFRS 9 adoption on the stability of banks in Africa. The results reveal that declines in asset quality negatively impact bank stability, while improved earnings quality is effective in promoting bank stability. Increases in non-performing loans are associated with increased bank risk, which is cushioned through improved earnings quality following IFRS 9 adoption, thereby boosting bank stability. The study provides initial and empirical evidence of some potential benefits of IFRS 9 adoption in terms of enhancing bank stability. This helps

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3 inform bank customers and investors about the need for banks to comply with IFRS 9 for better
4 performance and position reporting
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8 The study argues that since the IFRS 9 adoption was more of a conciliator between bank
9 regulators and accounting enforcement agencies, the adoption of the standard is likely to
10 contribute to a relatively stable financial services sector, especially in a developing region. The
11 findings in this study should therefore be of benefit to bank regulators and accounting
12 enforcement agencies as they continue to encourage banks to fully embrace the relatively new
13 standard and its potential benefits. Bank customers and investors can use this study to assess
14 the stability of their financial service providers. I however find some observable heterogeneity
15 in the benefits associated with IFRS 9, as depicted by the varied significance when different
16 bank stability proxies are considered. This implies a cautious implementation strategy and the
17 shift from a “straight-jacket” enforcement of the new standard and its related pronouncements
18 and implementation guidelines.
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27 The study is not without limitations. First, the volatility of bank stability measures is restricted
28 to the period 2014-2021, and this may obfuscate the implications of the new standard post
29 2021. In some cases, data for the post-IFRS 9 adoption period is less than the pre-adoption
30 period, resulting in an unbalanced panel dataset, which has its own limitations. Second, various
31 types of banks are included in the sample, including Islamic and conventional banks in various
32 countries. Some countries have more concentrated Islamic banks, while other countries may
33 have very few, if any Islamic banks. Given the heterogeneity established following IFRS 9
34 adoption (Awuye & Taylor, 2024), this might bring some distortion in the results as highlighted
35 by Riahi (2020). However, bank specialisation controls are implemented to minimise the
36 distortion in interpreting the LLP and asset quality measures.
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45 Further analyses could be performed to reveal if there are any structural differences in bank
46 stability as a result of adopting IFRS 9. I further note that the bank regulatory strength variable
47 is omitted in the analyses, owing to missing data points for most of the 43 countries covered in
48 the sample.⁶ Mathuva and Nzuki (2022) find the regulatory strength in various jurisdictions
49 important when studying bank earnings quality, and this might have yielded more insights.
50 Future studies could also examine whether the forward-looking z-score is likely to yield
51 different results in the longer run as argued by Hafeez, Li, Kabir and Tripe (2022). Finally,
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59 ⁶ The author was wary of the reduction in sample size and therefore decided to omit the strength of bank regulatory
60 enforcement variable provided by World Bank Banking Surveys.

banks are not subject to the same regulations and exogenous shocks, and this calls for a further inclusion of more variables that could influence the associations investigated in this study. The usual disclaimer applies.

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List of Tables

Table 1: Select financial services indicators.

Country	Number of:		Net domestic credit (US\$ 'million)*	Commercial banks and other lending (current US\$ '000)	Market capitalization of listed domestic companies (current US\$ '000)	Domestic credit to private sector by banks (% of GDP)
	Licensed commercial banks	Listed domestic companies				
Algeria	21	5		22,198		
Egypt	37	240	160,812	3,729,170	371,419	21.43
Ethiopia	30	*NA	265,146	-	41,351,180	30.85
Ghana	147	31	2,993	538,235	NA*	17.64
Kenya	42	60	14,241	156,321	9,247,430	11.25
Morocco	19	75	41,894	-	21,398,330	31.51
Nigeria	60	177	157,842	256,432	65,574,810	62.56
South Africa	31	264	76,356	83,142	56,569,030	12.94
Tanzania	62	22	255,434	-	1,051,528,630	58.59
Tunisia	23	80	53	1,302,067	6,481,980	12.36
			8,405,016	-	8,571,710	63.49
*Planned for 2024						

Source: World Bank database and other internet sources, 2008-2022 datasets

Source: Author's own work

Table 2A: Derivation of final sample

Description	# of observations
All observations available in BankFocus on African banks (1986-2021)	31,084
Less: Consolidated observations (1986-2021)	(8,298)
Less: Non-12 -month financial statements (1986-2021)	(18,068)
12-month financial statements (2014-2021)	4,718
Less: Central Banks	(196)
Bank-holding companies, development banks	(77)
Missing observations	(276)
Duplicate entries	(513)
Countries with less than 5 firm-year observations	(146)
Final sample	3,510

Source: Author's own work

Table 2B: Sample distribution per country – 2014-2021

Sn	Country	2014	2015	2016	2017	2018	2019	2020	2021	Total
1	Algeria	16	16	16	16	16	15	14	0	109
2	Angola	18	26	25	22	20	19	15	1	146
3	Benin	2	2	3	3	3	3	1	0	17
4	Botswana	12	12	12	12	11	8	8	2	77
5	Burkina Faso	5	4	6	6	6	6	4	0	37
6	Burundi	4	4	4	4	4	4	4	0	28
7	Cameroon	6	6	6	5	4	4	2	1	34
8	Cape Verde	2	2	2	2	2	2	1	0	13
9	Chad	2	2	2	2	1	1	1	0	11
10	Congo, democratic republic of the	11	11	11	8	5	5	3	0	54
11	Cote d'Ivoire	11	9	9	10	9	10	8	0	66
12	Djibouti	1	1	1	1	1	0	0	0	5
13	Egypt	28	28	28	28	28	27	25	16	208
14	Equatorial Guinea	1	1	1	1	1	1	0	0	6
15	Eswatini	5	5	5	5	4	2	1	0	27
16	Ethiopia	16	15	15	16	16	16	15	12	121
17	Gabon	6	6	6	5	3	3	2	0	31
18	Gambia	2	2	2	3	3	2	2	0	16
19	Ghana	33	30	33	33	27	25	24	12	217
20	Guinea	1	3	3	6	7	7	6	0	33
21	Kenya	41	41	42	37	36	35	33	8	273
22	Lesotho	4	4	4	4	4	4	4	0	28
23	Liberia	3	3	3	3	3	3	3	0	21
24	Libya	11	12	12	13	13	11	8	1	81
25	Malawi	7	7	7	7	6	6	6	0	46

<i>Sn</i>	<i>Country</i>	<i>2014</i>	<i>2015</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>	<i>Total</i>
26	Mali	7	6	6	6	6	6	2	0	39
27	Mauritania	12	11	12	15	15	11	7	1	84
28	Mauritius	6	6	7	9	9	9	9	6	61
29	Morocco	21	21	20	19	18	17	17	3	136
30	Mozambique	14	13	13	14	14	13	13	0	94
31	Namibia	6	5	5	6	6	6	5	4	43
32	Niger	2	1	1	1	2	2	1	0	10
33	Nigeria	31	32	30	30	29	30	28	7	217
34	Rwanda	7	7	7	7	8	8	8	0	52
35	Senegal	9	9	9	9	6	5	6	1	54
36	South Africa	28	31	31	31	27	26	24	16	214
37	Sudan	12	12	13	11	9	8	5	0	70
38	Tanzania, united republic of	28	30	31	31	25	26	22	5	198
39	Togo	7	6	5	5	5	5	5	0	38
40	Tunisia	27	27	27	26	26	26	24	13	196
41	Uganda	25	26	26	25	23	23	17	0	165
42	Zambia	13	13	12	9	8	6	5	0	66
43	Zimbabwe	12	12	12	11	10	7	4	0	68
	<i>Total</i>	<i>515</i>	<i>520</i>	<i>525</i>	<i>517</i>	<i>479</i>	<i>453</i>	<i>392</i>	<i>109</i>	<i>3,510</i>

Source: Author's own work

Table 3: Variable definitions for variables in the main models

Variable abbrev.	Description	Definition	Source
<i>Bank stability measures</i>			
<i>z_score</i>	The z-score of bank i in time t	$= (\text{ROA} + [\text{Equity to Assets}]_t) / \sigma \text{ROA}_t$	Ozili (2018); Riahi (2020); Chand, Kumar, and Stauvermann (2021)
<i>raroa</i>	The risk-adjusted ROA	$= (\text{ROA})_t / \sigma \text{ROA}_t$	Chand, Kumar, and Stauvermann (2021)
<i>ra_equity_assets</i>	The risk adjusted equity to assets ratio	$= (\text{Equity to Assets})_{it} / \sigma \text{ROA}_t$	Chand, Kumar, and Stauvermann (2021)
<i>Test variables</i>			
<i>post</i>	IFRS 9 adoption dummy	= 1 from 2018 – 2021, 0 otherwise	Own derivation
<i>ifrs</i>	IFRS adopters' dummy	= 1 for IFRS adopting countries, 0 otherwise	Fitch data; Dal Maso et al. (2018); Riahi (2020)
<i>npls</i>	Asset quality measure – NPLs ratio	$= \text{Impaired Loans}_t / \text{TA}_{t-1}$	Dal Maso et al. (2018)
<i>abs_allp</i>	Earnings quality measure	= absolute residuals from the LLP estimation model.	Dal Maso et al. (2018); Riahi (2020)
<i>Bank-Factors</i>			
<i>ln_assets</i>	Bank size	$= \ln \text{TotalAssets}_{t-1}$	Dal Maso et al. (2018); Ozili (2018); Riahi (2020); Chand, Kumar, and Stauvermann (2021)
<i>nim</i>	Net interest margin	$= (\text{Interest on loans} - \text{interest expense})_t / \text{TotalAssets}_t$	Ozili (2018); Chand, Kumar, and Stauvermann (2021)

<i>Variable abbrev.</i>	<i>Description</i>	<i>Definition</i>	<i>Source</i>
<i>pllp</i>	profit before tax and LLPs	= $PBT_t + LLP_t$	Dal Maso et al. (2018)
<i>ebt_llp</i>	Earnings before tax and LLP ratio	= $pllp_t / TotalAssets_{t-1}$	Dal Maso et al. (2018)
<i>ch_earnings</i>	Change in earnings	= $(pllp_t - pllp_{t-1}) / TotalAssets_{t-1}$	Dal Maso et al. (2018)
<i>deposit</i>	Bank deposit level (bank's funding structure)	= $Total\ deposits_t / TotalAssets_{t-1}$	Riahi (2020); Chand, Kumar, and Stauvermann (2021)
<i>loss_av</i>	Size of bank profits	= 1 if the bank's net income is between (0 and 0.005), 0 otherwise	Dal Maso et al. (2018)
<i>lev</i>	Leverage	= $TotalEquity_t / TotalAssets_t$	Dal Maso et al. (2018)
<i>loss</i>	Negative net income	= 1 if the bank reported a loss, and 0 if otherwise.	Dal Maso et al. (2018)
<i>reg_cap</i>	Regulatory capital ratio	= $Total\ regulatory\ capital_t / Risk\ -\ weighted\ assets_t$	Dal Maso et al. (2018); Ozili (2018)
<i>allowance</i>	Loan loss reserve ratio	= $LLR_t / TotalAssets_{t-1}$	Dal Maso et al. (2018)
<i>Structural Factors</i>			
<i>tier_peergroup</i>	Bank's peer group (tier)	= 1 if bank assets > US\$ 2.1 billion, 2 if bank assets are US\$500 million \leq bank assets \leq 2.1 billion and 3 if bank assets are < US\$500 million	Gartner; Riahi (2020)
<i>big4_aud</i>	The type of bank auditors	= 1 if the auditor is among the Big 4 audit firms, 0 if otherwise.	
<i>listed</i>	A bank's listing status	= 1 if the bank is publicly held, 0 otherwise	Fitch data; Riahi (2020)
<i>Macro-Economic Factors</i>			
<i>gdp</i>	The growth rate in gross domestic product	= year on year change in GDP	World Bank; Ozili (2018); Riahi (2020); Chand, Kumar,

<i>Variable abbrev.</i>	<i>Description</i>	<i>Definition</i>	<i>Source</i>
			and Stauvermann (2021)
<i>inflation</i>	Inflation rate	= reported inflation rate in a particular country each year	World Bank; Ozili (2018); Riahi (2020); Chand, Kumar, and Stauvermann (2021)
<i>fdi</i>	Foreign direct investment	= the ratio of FDI to GDP each year	World Bank
<i>covid</i>	Covid-19 pandemic	= 1 if the period is between 2020 and 2021, 0 otherwise	Own derivation

Source: Author's own work

Table 4: Variable definitions for the LLP model

<i>Variable abbrev.</i>	<i>Description</i>	<i>Definition</i>	<i>Source</i>
<i>Outcome variable</i>			
<i>LLP</i>	The loan loss provisioning	= $LLP_t / TotalAssets_{t-1}$	Dal Maso et al. (2018)
<i>Predictor variables</i>			
<i>beg_LLA</i>	Prior period loan loss allowance (reserve)	= $LLR_{t-1} / TotalAssets_{t-1}$	Dal Maso et al. (2018)
<i>NCO</i>	Net loan charge offs	= $(Gross\ loan\ chargeoff - recoveries)_t / TotalAssets_{t-1}$	Dal Maso et al. (2018); Riahi (2020)
<i>Loans</i>	Gross loan portfolio ratio	$Loans_t / TotalAssets_{t-1}$	Dal Maso et al. (2018); Riahi (2020)
$\Delta Loans$	Change in loans	$(Loans_t - Loans_{t-1}) / TotalAssets_{t-1}$	Dal Maso et al. (2018); Riahi (2020)
<i>NPL</i>	Non-performing loans ratio	$Impaired\ loans_t / TotalAssets_{t-1}$	Dal Maso et al. (2018)
ΔNPL	Change in non- performing loans	$(NPL_t - NPL_{t-1}) / TotalAssets_{t-1}$	Dal Maso et al. (2018); Riahi (2020)

Source: Author's own work

Table 5: Descriptive statistics for all variables

Variable abbrev.	Count	Mean	Median	StDev	Min.	1%	25%	75%	99%	Max.	Skew.	Kurt.
<i>Bank stability measures</i>												
<i>z_score</i>	3,510	24.1612	16.2502	27.8526	-0.3100	-0.3091	8.9845	29.2022	192.7730	193.1700	3.51	15.97
<i>raroa</i>	3,510	2.7391	2.1952	3.0721	-2.4300	-2.4257	0.6645	4.1121	15.4007	15.4100	1.34	2.84
<i>ra_equitys_assets</i>	3,510	8.5804	6.3547	8.1926	-1.1300	0.2254	3.8073	10.4948	54.9576	54.9800	2.98	12.07
<i>Test variables</i>												
<i>post</i>	3,510	0.4083	0.0000	0.4916	0.0000	0.0000	0.0000	1.0000	1.0000	1.0000	0.37	-1.86
<i>ifrs</i>	3,510	0.6379	1.0000	0.4807	0.0000	0.0000	0.0000	1.0000	1.0000	1.0000	-0.57	-1.67
<i>npls</i>	3,510	0.0390	0.0192	0.0576	0.0000	0.0000	0.0000	0.0513	0.3244	0.3245	2.58	8.01
<i>abs_allp</i>	3,510	0.0159	0.0097	0.0215	0.0003	0.0003	0.0051	0.0175	0.1332	0.1332	3.45	13.47
<i>Bank-Factors</i>												
<i>ln_assets</i>	3,510	6.2573	6.1763	1.7216	2.2605	2.2608	5.0623	7.3975	10.6542	10.6572	0.21	-0.19
<i>nim</i>	3,510	0.0522	0.0428	0.0475	-0.0011	-0.0011	0.0279	0.0621	0.3012	0.3013	2.85	10.57
<i>pll</i>	3,510	111.9345	20.4820	331.0308	-475.0465	-10.0965	5.4772	75.8547	1655.5248	4827.4770	7.14	65.82
<i>ebt_llp</i>	3,510	0.0547	0.0457	0.0568	-0.0640	-0.0640	0.0236	0.0713	0.3412	0.3416	2.31	8.63
<i>ch_earnings</i>	3,510	0.0037	0.0023	0.0371	-0.1449	-0.1444	-0.0071	0.0131	0.1866	0.1867	0.70	8.78
<i>deposit</i>	3,510	0.7472	0.7945	0.3491	0.0000	0.0000	0.6053	0.9321	2.0587	2.0617	0.07	1.94
<i>loss_av</i>	3,510	0.0858	0.0000	0.2800	0.0000	0.0000	0.0000	0.0000	1.0000	1.0000	2.96	6.77
<i>lev</i>	3,510	0.1959	0.1437	0.1777	0.0098	0.0099	0.0985	0.2136	1.0390	1.0391	2.73	8.43
<i>loss</i>	3,510	0.8672	1.0000	0.3394	0.0000	0.0000	1.0000	1.0000	1.0000	1.0000	-2.17	2.69

Variable abbrev.	Count	Mean	Median	StDev	Min.	1%	25%	75%	99%	Max.	Skew.	Kurt.
<i>reg_cap</i>	3,510	0.8463	0.2473	2.3848	0.0203	0.0203	0.1679	0.4890	18.0060	18.0314	5.73	34.92
<i>allowance</i>	3,510	0.0310	0.0040	0.0818	0.0000	0.0000	0.0003	0.0197	0.5669	0.5704	4.68	24.41
<i>Structural Factors</i>												
<i>tier_peergroup</i>	3,510	2.2766	2.0000	0.8030	1.0000	1.0000	2.0000	3.0000	3.0000	3.0000	-0.54	-1.25
<i>big4_aud</i>	3,510	0.4863	0.0000	0.4999	0.0000	0.0000	0.0000	1.0000	1.0000	1.0000	0.05	-2.00
<i>listed</i>	3,510	0.1031	0.0000	0.3042	0.0000	0.0000	0.0000	0.0000	1.0000	1.0000	2.61	4.82
<i>Macro-Economic Factors</i>												
<i>gdp</i>	3,510	0.0311	0.0374	0.0459	-0.2979	-0.1120	0.0131	0.0555	0.1030	0.3249	-0.99	15.37
<i>inflation</i>	3,510	0.0758	0.0540	0.0736	-0.0216	-0.0180	0.0298	0.0957	0.3691	0.3691	1.82	3.64
<i>fdi</i>	3,510	0.0280	0.0193	0.0437	-0.1095	-0.0830	0.0090	0.0316	0.2425	0.2822	2.49	12.26
<i>covid</i>	3,510	0.0972	0.0000	0.2962	0.0000	0.0000	0.0000	0.0000	1.0000	1.0000	2.72	5.41

Source: Author's own work

Table 6: Two-sample tests

Variable	pre-IFRS 9 adoption (n=2,077)			post-IFRS 9 adoption (n=1,433)			2-sample tests	
	Mean	Median	St.Dev	Mean	Median	St.Dev	t-value	p-value
<i>Dependent variables</i>								
<i>z_score</i>	24.5879	16.1476	28.85	23.5516	16.5528	26.34	1.10	0.271
<i>raroa</i>	2.7287	2.1907	3.11	2.7550	2.1953	3.02	-0.25	0.802
<i>ra_equity_assets</i>	8.7423	6.3148	8.36	8.3498	6.3585	7.94	1.41	0.159
<i>Test variables</i>								
<i>npls</i>	0.0373	0.0178	0.06	0.0414	0.0207	0.06	-2.06	0.040
<i>abs_allp</i>	0.0152	0.0089	0.02	0.0387	0.0194	0.12	-2.32	0.021
<i>llp_assets</i>	0.0379	0.0157	0.27	0.0169	0.0108	0.02	-0.12	0.904
<i>roa</i>	0.0194	0.0187	0.05	0.0201	0.0190	0.07	-0.32	0.750
<i>reg_cap</i>	0.7709	0.2507	2.21	0.9555	0.2391	2.62	-2.19	0.029

Source: Author's own work

Table 7: Spearman's correlation matrix

Variable	z_score	rarao	ra_equity		ifrs	npls	abs_allp	lnAssets	nim	ebt_llp	chcashfl				tier_peer				gdp	inflation	fdi	covid			
			assets	post							deposit	loss_av	lev	loss	reg_cap	allowance	group	big4_aud	listed						
rarao	0.7256																								
ra_equity_assets	0.4857	0.4102																							
post	0.0022	0.0097	-0.0169																						
ifrs	-0.1668	-0.1550	-0.0122	0.0457																					
npls	-0.0665	-0.1139	0.0211	0.0351	0.1204																				
abs_allp	0.0167	-0.0045	0.0134	0.1027	0.0643	0.1660																			
lnAssets	0.2496	0.3297	0.1941	0.0771	-0.2526	0.0539	-0.0469																		
nim	-0.0695	0.0342	0.1270	-0.0190	0.3918	0.1765	0.0986	-0.2634																	
ebt_llp	0.0835	0.3249	0.1531	0.0858	-0.0439	0.3081	0.1290	0.0388	0.2351																
chcashflow	0.0252	0.1393	-0.0236	0.0308	0.0124	0.1057	0.0399	-0.0537	0.0725	0.3731															
deposit	-0.1262	0.0843	-0.1418	0.0360	-0.1342	0.0294	0.0319	0.0687	-0.1654	0.0183	0.2271														
loss_av	-0.0736	-0.2781	-0.0603	-0.0039	-0.0402	0.0260	-0.0201	0.0184	-0.1298	-0.1861	-0.0468	0.0194													
lev	0.2001	0.0102	0.1623	0.0214	0.2396	-0.0759	0.0601	-0.4169	0.2651	0.2429	0.1766	-0.2229	-0.0904												
loss	0.3318	0.4541	0.2532	0.0021	-0.0782	-0.0853	-0.0877	0.2807	0.0204	0.1552	-0.1874	0.0266	-0.0991	-0.0543											
reg_cap	0.0789	-0.0583	0.0114	-0.0040	0.0129	-0.3680	-0.1069	-0.2664	-0.0184	-0.0249	-0.0002	-0.2873	-0.0147	0.5231	-0.0445										
allowance	-0.2008	-0.2444	-0.1060	-0.0393	0.1442	0.5034	0.0985	-0.4394	0.2591	0.3725	0.1115	-0.0557	-0.0070	0.1448	-0.1803	-0.0788									
tier_peer_p	-0.2050	-0.3021	-0.1646	-0.1030	0.2034	-0.0583	0.0104	-0.7938	0.2128	-0.0916	-0.0243	-0.1418	-0.0194	0.3022	-0.2138	0.2444	0.4090								
big4_aud	-0.0372	-0.0021	0.0835	0.0152	0.2966	0.1919	0.0325	0.1245	0.2479	0.0628	0.0323	-0.0589	-0.0272	0.0489	-0.0023	-0.1246	0.0781	-0.1276							
listed	0.0056	0.0486	0.0785	0.0271	0.2555	0.0562	0.0324	0.1009	0.2368	0.0837	-0.0017	-0.0880	-0.0303	0.0768	0.0416	-0.0520	-0.0417	-0.1295	0.2004						
gdp	-0.0055	0.0231	0.0429	-0.1356	0.0077	0.0253	0.0177	-0.1228	0.0492	-0.0862	0.0827	0.1674	0.0076	0.0001	-0.0374	-0.0911	-0.0010	0.1026	-0.0480	-0.0303					
inflation	-0.0746	0.0562	-0.0986	-0.0758	0.2498	0.0191	-0.0441	0.0397	0.2179	0.1327	0.0064	-0.0597	-0.0714	0.0700	0.0311	0.0132	0.1068	-0.0660	0.0927	0.1369	-0.1289				
fdi	-0.0708	-0.0170	-0.0184	-0.1299	-0.0481	-0.0621	0.0139	-0.1702	0.0586	-0.0122	-0.0212	0.0949	0.0186	-0.0308	-0.0083	-0.0392	0.0669	0.1525	-0.0352	-0.1212	0.3459	-0.0575			
covid	-0.0509	-0.0562	-0.0121	0.3949	0.2472	0.0385	0.0632	0.0116	0.0543	-0.0005	-0.0491	-0.0230	0.0267	0.0437	-0.0162	-0.0081	-0.0022	-0.0304	0.0888	0.0975	-0.2477	0.0607	-0.1107		
VIF					1.24	1.48	1.35	1.27	6.12	1.61	2.01	1.46	1.38	1.04	1.64	1.34	1.27	1.55	4.70	1.21	1.17	1.14	1.09	1.10	0.75
1/VIF					0.81	0.67	0.74	0.79	0.16	0.62	0.50	0.68	0.73	0.96	0.61	0.75	0.79	0.64	0.21	0.83	0.85	0.88	0.92	0.91	

Note: The values in bold are significant at the 1 percent level, while those in italics are significant at the 5 percent level.

Source: Author's own work

Table 8: Impact of IFRS 9 adoption on bank stability

Dependent variable	Bank Stability		
	[1]	[2]	[3]
Model	<i>z</i> score	<i>r</i> aroa	<i>ra</i> equity assets
<i>Intercept</i>	397.3996 (0.44)	188.0246* (1.86)	7.7528 (0.03)
<i>post</i>	3.1011 (1.34)	0.6430** (2.49)	-0.4152 (-0.66)
<i>ifrs</i>	-5.2069*** (-4.03)	-0.6435*** (-4.44)	-0.0078 (-0.02)
<i>post_ifrs</i>	-5.0508*** (-2.65)	-0.5555** (-2.46)	-0.3436 (-0.64)
<i>lnAssets</i>	2.8874*** (4.42)	0.3590*** (11.38)	1.6237*** (8.80)
<i>nim</i>	-37.3904*** (-4.62)	5.3866*** (5.46)	20.8637*** (4.91)
<i>ebt_llp</i>	-20.6905** (-2.54)	9.4504*** (8.42)	
<i>chcashflow</i>		3.9461*** (3.03)	-9.9815** (-2.05)
<i>deposit</i>	-10.9964*** (-6.20)		-1.8882*** (-4.29)
<i>loss_av</i>	-4.2008** (-2.49)	-2.1662*** (-21.00)	-0.6110 (-1.54)
<i>lev</i>	35.5301*** (8.12)		16.7149*** (10.62)
<i>loss</i>			2.2733*** (5.66)
<i>reg_cap</i>	-1.0935*** (-5.03)	-0.0976*** (-4.80)	0.1076 (0.99)
<i>allowance</i>	-9.1145 (-1.52)	-6.3935*** (-9.91)	
<i>tier_peergroup</i>	3.5950*** (3.02)		1.0241*** (3.17)
<i>big4_aud</i>	-1.8927** (-2.20)	-0.1634* (-1.66)	-0.1349 (-0.55)
<i>listed</i>	3.3337** (2.16)	0.3498** (2.19)	
<i>gdp</i>	19.7882*** (2.75)	5.2138*** (5.22)	11.0212*** (4.78)
<i>inflation</i>	-26.2320*** (-5.16)		-11.7957*** (-6.56)
<i>fdi</i>	-22.3611*** (-3.01)	-1.0049 (-1.16)	-3.1174 (-1.29)
<i>covid</i>	1.3124 (0.87)	0.2225 (1.23)	0.7237 (1.35)
Other controls			
<i>Loan categories</i>	Yes	Yes	Yes
<i>Specialisation FE</i>	Yes	Yes	Yes
<i>Country FE</i>	Yes	Yes	Yes
<i>Year FE</i>	Yes	Yes	Yes
Specification tests			
Wald χ^2 (Prob > χ^2)	499.36***	1,226.32***	1,156.72***

Dependent variable	Bank Stability		
	[1] z_score	[2] raroa	[3] ra_equity_assets
R-squared	25.76%	20.57%	25.80%
Root MSE	23.9920	2.7373	7.0545
Observations	3,510	3,510	3,510
# of groups	554	554	554

Note: ***, ** and * denote significance at the 1, 5 and 10 percent levels respectively. The figures in parentheses are z-values. I use differential predictor variables in each model owing to the pre-established level of significance when each dependent variable is considered. This is to improve the model's explanatory power and utilise those predictor variables that have a higher significance level with each bank stability proxy.

Source: Author's own work

Table 9: Impact of IFRS 9 adoption on asset quality and bank stability

Dependent variable Model	Bank Stability		
	[1] z score	[2] raroa.	[3] ra equity assets
<i>intercept</i>	-571.9256 (-0.64)	65.6281 (0.67)	-4.6790 (-0.02)
<i>post</i>	-1.3694 (-0.78)	0.2631 (1.35)	-0.3791 (-0.69)
<i>npls</i>	-38.4445*** (-4.35)	-12.1629*** (-9.35)	3.1540 (0.97)
<i>post_npls</i>	-0.8224 (-0.06)	-2.9310* (-1.75)	-6.5439 (-1.53)
<i>lnAssets</i>	3.2578*** (4.92)	0.4074*** (13.57)	1.6336*** (8.86)
<i>nim</i>	-54.7183*** (-6.25)	1.9760** (1.93)	20.5980*** (4.93)
<i>ebt_llp</i>	-0.8275 (-0.10)	14.7311*** (12.14)	
<i>chcashflow</i>		2.9020** (2.16)	-10.1411** (-2.08)
<i>deposit</i>	-11.5476*** (-6.38)		-1.9039*** (-4.31)
<i>loss_av</i>	-3.2568** (-1.93)	-1.8894*** (-18.32)	-0.6039 (-1.53)
<i>loss</i>			2.2494*** (5.46)
<i>lev</i>	33.7381*** (7.60)		16.7302*** (10.63)
<i>reg_cap</i>	-1.1540*** (-5.16)	-0.1399*** (-6.61)	0.1074 (0.98)
<i>allowance</i>	-4.3408 (-0.71)	-4.8669*** (-7.39)	
<i>tier_peergroup</i>	3.4466*** (2.86)		1.0216*** (3.16)
<i>big4_aud</i>	-3.0629*** (-3.43)	-0.2268** (-2.37)	-0.1738 (-0.71)
<i>listed</i>	1.6072 (1.08)	0.1167 (0.78)	
<i>gdp</i>	15.1064** (2.08)	4.9027*** (4.93)	10.9488*** (4.79)
<i>inflation</i>	-35.2261*** (-6.79)		-11.9241*** (-6.57)
<i>fdi</i>	-22.6289*** (-3.00)	-1.4440* (-1.69)	-3.0547 (-1.27)
<i>covid</i>	-2.9391** (-2.07)	-0.2544 (-1.57)	0.5848 (1.23)
<i>Other controls</i>			
<i>Loan categories</i>	Yes	Yes	Yes
<i>Specialisation FE</i>	Yes	Yes	Yes

Dependent variable Model	<i>Bank Stability</i>		
	[1] <i>z score</i>	[2] <i>raroa.</i>	[3] <i>ra equity assets</i>
Variables			
<i>Country FE</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
<i>Year FE</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
Specification tests			
Wald χ^2 (Prob > χ^2)	493.21***	1,694.7***	1,042.39***
R-squared	25.18%	24.38%	25.84%
Root MSE	24.086	2.6708	7.0527
Observations	3,510	3,510	3,510
# of groups	554	554	554

Note: ***, ** and * denote significance at the 1, 5 and 10 percent levels respectively. The figures in parentheses are z-values. I use differential predictor variables in each model owing to the pre-established level of significance when each dependent variable is considered. This is to improve the model's explanatory power and utilise those predictor variables that have a higher significance level with each bank stability proxy.

Source: Author's own work

Table 10: First stage estimation of abnormal LLP

Dependent variable	<i>llp_assets</i>				
Predictors	<i>Coefficient</i>	<i>Std. err.</i>	<i>t</i>	<i>P>t</i>	
Intercept	-1.4679	0.9514		-1.54	0.12
<i>beg_llp</i>	0.6902***	0.0146		47.33	0.00
<i>NCO</i>	0.0410	0.0570		0.72	0.47
<i>gross_loans</i>	0.0113***	0.0006		20.06	0.00
<i>loan_grow</i>	-0.0013***	0.0004		-3.39	0.00
<i>npls</i>	0.0272	0.0260		1.05	0.30
<i>npls_grow</i>	0.2297***	0.0248		9.28	0.00
Fixed effects					
<i>loan controls</i>		Yes			
<i>Year FE</i>		Yes			
<i>Specialisation FE</i>		Yes			
<i>Country FE</i>		Yes			
Specification tests					
Adjusted r-squared	93.05%				
f-statistic	334.55***				
Observations	3,510				
# of banks	554				

Note: ***, ** and * denote significance at the 1, 5 and 10 percent levels respectively. The figures in parentheses are t-values.

Source: Author's own work

Table 11: Impact of IFRS 9 adoption on earnings quality and bank stability

Dependent variable	Bank Stability			
	Model	[1]	[2]	[3]
Variables	<i>z</i> score	<i>r</i> aroa.	<i>ra</i> equity assets	
<i>intercept</i>	-369.2803 (-0.41)	105.3145 (1.06)	-18.1065 (-0.07)	
<i>post</i>	-0.9323 (-0.52)	0.4233** (2.09)	-0.4883 (-0.89)	
<i>abs_allp</i>	-41.4260 (-1.21)	-17.6332*** (-4.19)	5.1582 (0.46)	
<i>post_absallp</i>	-7.9014 (-0.17)	-12.4653** (-2.56)	-10.5330 (-0.64)	
<i>lnAssets</i>	3.2802*** (4.98)	0.4076*** (13.38)	1.6325*** (8.84)	
<i>nim</i>	-50.9252*** (-5.87)	2.5959** (2.61)	20.6584*** (4.94)	
<i>ebt_llp</i>	-10.1892 (-1.18)	12.6982*** (11.29)		
<i>chcashflow</i>		2.9375** (2.24)	-10.0105** (-2.05)	
<i>deposit</i>	-10.8859*** (-6.12)		-1.8969*** (-4.29)	
<i>loss_av</i>	-3.8471** (-2.28)	-2.1036*** (-20.70)	-0.6068 (-1.53)	
<i>loss</i>			2.2630*** (5.53)	
<i>lev</i>	35.5674*** (8.08)		16.6673*** (10.57)	
<i>reg_cap</i>	-1.0814*** (-4.88)	-0.1058*** (-5.31)	0.1094 (1.00)	
<i>allowance</i>	-5.5518 (-0.87)	-4.9824*** (-7.98)		
<i>tier_peergroup</i>	3.3113*** (2.76)		1.0161*** (3.14)	
<i>big4_aud</i>	-3.4415*** (-3.80)	-0.3525*** (-3.54)	-0.1659 (-0.68)	
<i>listed</i>	1.5230 (1.02)	0.1325 (0.84)		
<i>gdp</i>	15.1636** (2.08)	5.0186*** (5.08)	10.8602*** (4.75)	
<i>inflation</i>	-33.4244*** (-6.42)		-11.9346*** (-6.60)	
<i>fdi</i>	-20.3507*** (-2.66)	-0.7311 (-0.83)	-3.0799 (-1.27)	
<i>covid</i>	-2.9407** (-2.07)	-0.2718 (-1.60)	0.5607 (1.18)	
<i>Other controls</i>				
<i>Loan categories</i>	Yes	Yes	Yes	

Dependent variable	Bank Stability		
	[1]	[2]	[3]
Model	<i>z_score</i>	<i>raroa.</i>	<i>ra_equity_assets</i>
Variables			
<i>Specialisation FE</i>	Yes	Yes	Yes
<i>Country FE</i>	Yes	Yes	Yes
<i>Year FE</i>	Yes	Yes	Yes
Specification tests			
Wald χ^2 (Prob > χ^2)	458.38***	1,330.42***	1,100.28***
R-squared	24.75%	20.78%	25.81%
Root MSE	24.1550	2.7337	7.0543
Observations	3,510	3,510	3,510
# of groups	554	554	554

Note: ***, ** and * denote significance at the 1, 5 and 10 percent levels respectively. The figures in parentheses are z-values. I use differential predictor variables in each model owing to the pre-established level of significance when each dependent variable is considered. This is to improve the model's explanatory power and utilise those predictor variables that have a higher significance level with each bank stability proxy.

Source: Author's own work

Table 12: Robustness – estimation results without covid-19 effect

<i>Dependent variable</i> <i>Variable</i> <i>Model</i>	<i>Bank_Stability</i>								
	<i>z_score</i> <i>[1]</i>	<i>raroa</i> <i>[2]</i>	<i>ra_equity_assets</i> <i>[3]</i>	<i>z_score</i> <i>[4]</i>	<i>raroa</i> <i>[5]</i>	<i>ra_equity_assets</i> <i>[6]</i>	<i>z_score</i> <i>[7]</i>	<i>raroa</i> <i>[8]</i>	<i>ra_equity_assets</i> <i>[9]</i>
<i>post</i>	2.013 (0.78)	0.614** (2.03)	-0.403 (-0.54)	-1.444 (-0.66)	0.254 (1.03)	-0.583 (-0.86)	-0.963 (-0.46)	0.542** (2.19)	-0.562 (-0.84)
<i>ifrs</i>	-4.848*** (-3.28)	-0.400** (-2.27)	-0.230 (-0.55)						
<i>post_ifrs</i>	-4.046* (-1.72)	-0.537* (-1.87)	-0.398 (0.56)						
<i>npls</i>				-53.112*** (-5.42)	-15.529*** (-11.03)	3.019 (0.85)			
<i>post_npls</i>				-1.288 (-0.08)	-2.509 (-1.29)	-1.765 (-0.33)			
<i>abs_allp</i>							-23.989 (-0.59)	-14.390*** (-2.63)	6.127 (0.53)
<i>post_absallp</i>							-0.991 (-0.02)	-16.991** (-2.37)	-7.016 (-0.40)
<i>Controls?</i>	<i>Included</i>	<i>Included</i>	<i>Included</i>	<i>Included</i>	<i>Included</i>	<i>Included</i>	<i>Included</i>	<i>Included</i>	<i>Included</i>
<i>Other controls</i>									
<i>Loan categories</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
<i>Specialisation FE</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
<i>Country FE</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
<i>Year FE</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
<i>Specification tests</i>									
<i>Wald χ^2 (Prob > χ^2)</i>	500.35***	1206.67***	681.54***	506.34***	1390.51***	701.89***	473.08***	1172.41***	707.99***
<i>R-squared</i>	23.22%	21.17%	22.18%	23.28%	22.66%	22.17%	22.60%	21.62%	22.16%

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<i>Dependent variable</i>	<i>Bank_Stability</i>								
	<i>z_score</i>	<i>raroa</i>	<i>ra_equity_assets</i>	<i>z_score</i>	<i>raroa</i>	<i>ra_equity_assets</i>	<i>z_score</i>	<i>raroa</i>	<i>ra_equity_assets</i>
<i>Variable</i>	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
<i>Model</i>									
<i>Root MSE</i>	28.329	3.349	8.448	28.318	3.253	8.449	28.443	3.340	8.449
<i>Observations</i>	3,009	3,009	3,009	3,009	3,009	3,009	3,009	3,009	3,009

*Note: ***, ** and * denote significance at the 1, 5 and 10 percent levels respectively. The figures in parentheses are z-values. I use differential predictor variables in each model owing to the pre-established level of significance when each dependent variable is considered. This is to improve the model’s explanatory power and utilise those predictor variables that have a higher signityance level with each bank stability proxy.*

Source: Author’s own work

Response to reviewer comments

12th May 2025

Dear Dr. Orthodoxia Kyriacou

I am grateful for the opportunity granted by the Journal of Applied Accounting Research to revise our **Manuscript ID JAAR-11-2024-0455** entitled “**Asset quality, earnings management and bank stability under IFRS 9: A cross-country examination**” which we had submitted to JAAR. All corrections are highlighted in **yellow**. We have taken time and all due regard to the comments provided by the reviewers and the AE and hereby outline our response to each comment. We hope the revision meets the expectations of the journal.

Response to reviewer comments

Reviewer: 1 - Recommendation: Minor Revision

<i>Sn</i>	<i>Comment</i>	<i>Our response</i>
1.	Good piece of work and study is relevant to current interest in the field of accounting. Please check on consistency use of terms, and format of citation and references.	Many thanks for the feedback – we really appreciate. We have rechecked and corrected the consistency, use of terms, and format of citation and references
2.	Originality: Does the paper contain new and significant information adequate to justify publication?: This paper contains new and significant information adequate to justify publication. The paper timely discussed the implications of IFRS 9 adoption including the bank assets and earning quality and consequences on bank stability in African banks.	Thank you very much for your compliment. This is very much appreciated.
3.	Relationship to Literature: Does the paper demonstrate an adequate understanding of the relevant literature in the field and cite an appropriate range of literature sources? Is any significant work ignored?: The author(s) has great understanding on the accounting standards and relevant past research in similar area of study. Current literature are also included in analysis and justification of research gaps.	Thank you very much for your compliment. This is very much appreciated.
4.	Methodology: Is the paper's argument built on an appropriate base of theory, concepts, or other ideas? Has the research or equivalent intellectual work on which the paper is based been well designed? Are the methods employed appropriate?: I am unable to comment much on the methodology because my expertise is in qualitative research method. However, the findings and explanation are interesting and provided a different perspective to new ideas and concepts.	Thank you very much for your compliment – this is noted. This is very much appreciated.

<i>Sn</i>	<i>Comment</i>	<i>Our response</i>
5.	Results: Are results presented clearly and analysed appropriately? Do the conclusions adequately tie together the other elements of the paper?: Even though this study mainly studied on period 2014-2021 but the impact due to pandemic and its adverse effects of pandemic on bank stability were included.	Thank you very much for your compliment. This is very much appreciated.
6.	Implications for research, practice and/or society: Does the paper identify clearly any implications for research, practice and/or society? Does the paper bridge the gap between theory and practice? How can the research be used in practice (economic and commercial impact), in teaching, to influence public policy, in research (contributing to the body of knowledge)? What is the impact upon society (influencing public attitudes, affecting quality of life)? Are these implications consistent with the findings and conclusions of the paper?: The findings from this study is relevant to bankers and practitioners as well as addition to the body of knowledge.	Thank you very much for your compliment. This is very much appreciated.
7.	Quality of Communication: Does the paper clearly express its case, measured against the technical language of the field and the expected knowledge of the journal's readership? Has attention been paid to the clarity of expression and readability, such as sentence structure, jargon use, acronyms, etc.: Noted that "I" is stated in paper and unsure whether it is the work of one or more than one authors, please review. Noted inconsistencies in citation and references format, please check. Please check on use of term "studies" and "study" in its relevant use. Please further proof-read the paper before submission.	The work is carried out by one author, hence the use of "I". All references have been checked and updated to ensure consistency throughout. I have checked and corrected the use of the words "studies" and "study" as appropriate.

Reviewer: 2 - Recommendation: Minor Revision

<i>Sn</i>	<i>Comment</i>	<i>Our response</i>
1.	Comments: Other comments are included in the attached file.	Thank you – I have taken note of the comments and responded to each of them in detail and as guided.
2.	Originality: Does the paper contain new and significant information adequate to justify publication?: This manuscript provides a novel and significant contribution to the literature on financial reporting, regulatory compliance, and banking stability by examining the implications of IFRS 9 adoption within the underexplored context of African banking systems. Drawing on a comprehensive panel dataset of 554 banks across 43	Thank you very much for the compliment and observation. I am quite grateful. Indeed, the work had gone through conference presentations and seminars and got useful feedback which helped improve it to the version you

Sn	Comment	Our response
	<p>African countries over 2014–2021, the study rigorously analyzes how asset quality and earnings quality mediate the relationship between IFRS 9 implementation and bank stability. Employing two-step system GMM estimations and robustness tests excluding COVID-19 periods, the study addresses potential endogeneity concerns and validates the consistency of the findings.</p> <p>Beyond the empirical rigor, the paper enriches theoretical understanding by applying Institutional Theory to explain the gradual and institutionally contingent impact of IFRS 9 reforms in emerging markets. The findings offer important insights for policymakers, bank regulators, auditors, and financial reporting standard-setters, suggesting that effective IFRS 9 adoption requires not only technical compliance but also complementary governance and supervisory reforms. Given the scarcity of large-scale, cross-country research on IFRS 9's effects in Africa, the manuscript offers fresh empirical evidence, practical recommendations, and theoretical refinement, making it highly relevant to both academic and policy audiences.</p>	<p>reviewed. I am really grateful.</p>
3.	<p>Relationship to Literature: Does the paper demonstrate an adequate understanding of the relevant literature in the field and cite an appropriate range of literature sources? Is any significant work ignored?: The manuscript demonstrates a strong understanding of the relevant literature, cites a wide and appropriate range of sources, and does not ignore any major significant work.</p> <p>To strengthen it further, you could integrate 2–3 very recent studies (post-2022) related to IFRS 9, earnings quality, or African financial sector resilience. E.g: (Altunbas et al. 2022; D'Onza et al. 2022; Zeb et al. 2023; World Bank Group, Africa Financial Sector Brief, 2022; Rashid et al. 2023).</p>	<p>Thank you for the observation and feedback provided.</p> <p>We have incorporated the references suggested and are grateful.</p> <p>Altunbas, Y., Marques-Ibanez, D., Van Leuvensteijn, M. and Zhao, T. (2022), “Market power and bank systemic risk: Role of securitization and bank capital”, <i>Journal of Banking & Finance</i>, Vol. 138, p.106451.</p> <p>D'Onza, G., Formisano, V., Landi, A. and Modina, M. (2022), “Il credito cooperativo: modello di business, governance e sostenibilità”, position paper, Italian Academy of Business Economics, Syracuse, Italy, pp.1-30.</p>

<i>Sn</i>	<i>Comment</i>	<i>Our response</i>
		<p>Gazali, S., Zeb, S., Shahzad, A. and Shafique, A. (2023), “Does Capital and Funding Liquidity Risk Affect Risk-Taking and Monetary Policy?”, <i>Journal of Development Policy Research & Practice (JoDPRP)</i>, Vol. 7, pp.31-47.</p> <p>World Bank Group (2022), “South Africa Financial Sector Assessment”, World Bank Group, Washington, DC, USA.</p> <p>Cheema, A.S., Rashid, A. and Rizwan, F. (2023), “The Impact of Islamic and Conventional Banking Competition on Financial Stability”, <i>Global Economics Review</i>, Vol. 8 No. 2, pp. 115 – 128.</p> <p><i>Additional reference:</i></p> <p>Laux, C. (2012), “Financial instruments, financial reporting, and financial stability”, <i>Accounting and business research</i>, Vol. 42 No. 3, pp.239-260.</p> <p>Ayadi, R., Bongini, P., Casu, B. and Cucinelli, D. (2025), “The origin of financial instability and systemic risk: Do bank business models matter?”, <i>Journal of Financial Stability</i>, Vol. 78, p.101403.</p> <p>Bholat, D., Lastra, R.M., Markose, S.M., Miglionico, A. and Sen, K. (2018), “Non-performing loans at the dawn of IFRS 9: regulatory and accounting treatment of asset quality”, <i>Journal of banking</i></p>

Sn	Comment	Our response
		<p><i>regulation</i>, Vol. 19, pp.33-54.</p> <p>Oberson, R. (2021), “The credit-risk relevance of loan impairments under IFRS 9 for CDS pricing: early evidence”, <i>European Accounting Review</i>, Vol. 30 No. 5, pp.959-987.</p> <p>Bushman, R.M. and Williams, C.D. (2012), “Accounting discretion, loan loss provisioning, and discipline of banks’ risk-taking”, <i>Journal of accounting and economics</i>, Vol. 54 No. 1, pp.1-18.</p>
4.	<p>Methodology: Is the paper's argument built on an appropriate base of theory, concepts, or other ideas? Has the research or equivalent intellectual work on which the paper is based been well designed? Are the methods employed appropriate?: Yes, the paper’s argument is built on an appropriate theoretical base, the research is thoughtfully designed, and the methods employed are suitable and competently executed.</p> <p>Only minor improvements are needed: deeper integration of theory into results interpretation and a brief discussion of GMM instrumentation issues.</p>	<p>Thank you for the observation and feedback.</p> <p>I have integrated the theoretical positioning into the results interpretation.</p> <p>A brief discussion of GMM instrumentation issues has also been incorporated.</p>
5.	<p>Results: Are results presented clearly and analysed appropriately? Do the conclusions adequately tie together the other elements of the paper?: Yes, the results are clearly presented, appropriately analysed, and tied together through the conclusions, making the paper coherent and well-rounded.</p>	<p>Thank you for the observation. I really appreciate it very much.</p>
6.	<p>Implications for research, practice and/or society: Does the paper identify clearly any implications for research, practice and/or society? Does the paper bridge the gap between theory and practice? How can the research be used in practice (economic and commercial impact), in teaching, to influence public policy, in research (contributing to the body of knowledge)? What is the impact upon society (influencing public attitudes, affecting quality of life)? Are these implications consistent with the</p>	<p>Thank you for the observation. I really appreciate it very much.</p> <p>I have added a slightly sharper focus on societal impact as advised.</p>

<i>Sn</i>	<i>Comment</i>	<i>Our response</i>
	findings and conclusions of the paper?: Yes, the paper provides clear, appropriate, and consistent implications for research, practice, policy, and society, although a slightly sharper focus on societal impact would further strengthen it.	
7.	Quality of Communication: Does the paper clearly express its case, measured against the technical language of the field and the expected knowledge of the journal's readership? Has attention been paid to the clarity of expression and readability, such as sentence structure, jargon use, acronyms, etc.: Yes - the paper clearly expresses its case, appropriately uses technical language, and maintains good clarity and readability suitable for the journal's readership. Minor polishing would make the flow even smoother.	Thank you for the observation and feedback. I got to proofread the paper once more and edit any minor issues identified.

Associate Editor

Comments to Author:

<i>Sn</i>	<i>Comment</i>	<i>Our response</i>
1.	This is a timely and well-executed study that addresses an important gap in the literature on IFRS 9 in emerging African markets. The findings are valuable and mostly robust. With minor revisions focused on interpretation, theoretical integration, and policy elaboration, this paper will make a strong contribution.	Thank you. I have made adjustments to theoretical integration and policy elaboration as advised.

Additional comments and responses

These are additional comments by reviewer 2:

<i>Header</i>	<i>Details</i>	<i>Response</i>
General	The tone is academic and professional, but long sentences and redundant phrases slightly reduce clarity. In the manuscript, sometimes you use 'we' and sometimes 'I'. Please ensure the consistent use of pronouns.	I have changed the writeup to read "I" instead of we. Long sentences have been reduced and redundancy checked and corrected.
Title:	Appropriate	Thank you.
Abstract	Acceptable <input type="checkbox"/> The abstract covers all major sections: purpose, methodology, findings, implications, and originality. This	Thank you. I have revised the methodology and explained more on the econometrics.

<i>Header</i>	<i>Details</i>	<i>Response</i>
	<p>coverage is good and aligns with journal standards.</p> <p>□ The methodology should be more precise, stating what types of econometric analysis are run</p>	
<p>Introduction & Research Issue</p>	<p>The problem statement is present but buried deep. It could be stated earlier and more explicitly.</p> <p>Pg 1, Line 43 - Please explain how discretion over LLPs limits opportunistic behaviour.</p> <p>Pg 1, Line 48 - Is the higher loan loss reserve an earnings management mechanism? Please explain.</p> <p>Pg 2, Line 7 – ECL, please state it in full.</p> <p>Pg 2, line 14 – The relation between FR standards and loan reserve is not made clear.</p> <p>Pg 2, Line 30- "Since the focus.....great importance". The sentence is not clear.</p> <p>Pg 2. Line 36- "The IRFS 9.....fair accounting performance". The sentence is not clear.</p> <p>Pg 3, Para 1- Please provide industry statistics.</p> <p>Pg 3, Line 28- replace 'balance sheet' with 'statement of financial position'</p> <p>Pg 4, Line 20- "The study argues.....developing region". The sentence is not clear.</p> <p>The paper did not sufficiently introduce and review items of previous research in the area. The paper also falls short of indicating a gap in the previous research, raising a question about it, or extending previous knowledge in some way.</p>	<p>The problem statement has been rephrased for clarity and brought out better.</p> <p>The identified corrections in the various lines have been updated/implemented.</p> <p>The gap being filled has been highlighted more in pages 3.</p>
<p>Banking failures in Africa and the role of financial reporting standards</p>	<p>While facts are well-presented, the section mainly describes events without deeper analytical insights (e.g., how African regulatory environments differ from developed markets).</p> <p>Pg 5, Para 4. Explain the role of accounting standards</p>	<p>Thank you.</p> <p>The role of accounting standards has been incorporated.</p>

Header	Details	Response
<p>Literature Review (LR) and Hypotheses Development</p>	<p>While the benefits and drawbacks of IFRS 9 are mentioned, the critical tension (managerial discretion vs regulatory aims) could be more deeply explored.</p> <p>3.2 Asset quality and bank stability</p> <p>It's clear that NPLs signal poor asset quality and that IFRS 9 encourages early provisioning, but the mechanism could be explained more precisely.</p> <p>The section assumes that IFRS 9 will improve asset quality without discussing potential challenges (e.g., overestimation/underestimation risks, managerial manipulation)</p> <p>3.3 Bank earnings quality and bank stability</p> <p>Pg 8, line 49 – Please cite "Next, there is a nexusmarket discipline"</p> <p>Please explain the results of Ismail and Shahimi (2003)</p>	<p>The feedback has been noted and updated in the revised paper.</p> <p>Below are the additional references as a result of addressing the valuable comments herein:</p> <ul style="list-style-type: none"> • Ayadi, R., Bongini, P., Casu, B. and Cucinelli, D. (2025), "The origin of financial instability and systemic risk: Do bank business models matter?", <i>Journal of Financial Stability</i>, Vol. 78, p.101403. • Bholat, D., Lastra, R.M., Markose, S.M., Miglionico, A. and Sen, K. (2018), "Non-performing loans at the dawn of IFRS 9: regulatory and accounting treatment of asset quality", <i>Journal of banking regulation</i>, Vol. 19, pp.33-54. • Oberson, R. (2021), "The credit-risk relevance of loan impairments under IFRS 9 for CDS

Header	Details	Response
		<p>pricing: early evidence”, <i>European Accounting Review</i>, Vol. 30 No. 5, pp.959-987.</p> <ul style="list-style-type: none"> • Bushman, R.M. and Williams, C.D. (2012), “Accounting discretion, loan loss provisioning, and discipline of banks’ risk-taking”, <i>Journal of accounting and economics</i>, Vol. 54 No. 1, pp.1-18. <p>The references have been included in the revised paper.</p>
Research Method & Design	The section mentions unbalanced panels, but could be more upfront here in the Sample and Data section itself (rather than only later in the paper).	The mention of unbalanced panels has been incorporated under section 4.1: Sample and data.
Results	<p><i>Descriptive statistics</i></p> <p>Basic interpretations are reasonable but could go deeper into explaining what the statistics suggest for later hypothesis testing.</p> <p><i>Two-sample test</i></p> <p>The results relate to H1, H2, and H3, but this connection could be made more explicit.</p> <p><i>Correlation analysis</i></p> <p>Main findings are stated, but deeper interpretation of what these correlations</p>	The interpretations and explanations of the results have been improved further.

<i>Header</i>	<i>Details</i>	<i>Response</i>
	<p>imply for the hypotheses or later models is limited.</p> <p>Correlations could be linked more explicitly to the hypotheses (e.g., H1, H2, H3).</p> <p>Estimation results</p> <p>5.4.1 IFRS 9 adoption and bank stability</p> <p>Findings are described, but deeper theoretical and practical implications are not fully explored.</p> <p>Pg 15, Line 41 – please explain the findings "The finding mirrors.....employed".</p> <p>Pg 15, Line 53 - please explain the findings "The negative.....risk-adjusted ROA".</p> <p>5.4.2. Implications of IFRS 9 adoption on asset quality and bank stability</p> <p>This section describes what happens but does not deeply explore why IFRS 9 failed to moderate asset quality effects.</p>	<p>Linkage of the findings with theory has been done.</p>
	<p>5.4.3. Implications of IFRS 9 adoption on earnings quality and bank stability</p> <p>The results are described, but richer critical reflection on theoretical and practical meaning would improve the section.</p> <p>5.4.4 Robustness – estimation results without COVID-19 effect could better explain why some coefficients became stronger after excluding COVID-19.</p>	<p>A reflection of the theoretical and practical meaning on the findings has been added.</p> <p>Some detail has been added to the robustness tests.</p>

<i>Header</i>	<i>Details</i>	<i>Response</i>
Conclusion	The conclusion could be made slightly more powerful and assertive by sharpening the final takeaway messages.	The conclusion has been improved with the takeaway message clearly articulated.
Reference	Some improper and inconsistent style of citations	All references have been updated for consistency.

I want to thank JAAR and its reviewers for their great insights towards the improvement of the paper and look forward to your feedback on the resubmission.

Sincerely yours

Corresponding author.