RESEARCH ARTICLE

WILEY

The effect of IFRS adoption on bank internationalisation

Vincent Tawiah[1] | **Babajide Oyewo**[2]

[1]Dublin City University, DCU Business School, Dublin, Ireland

[2]Essex Business School, University of Essex, Colchester, UK

Correspondence
Vincent Tawiah, Dublin City University, DCU Business School, Dublin, Ireland.
Email: vincent.tawiah@dcu.ie

Abstract

Banking is one of the highly regulated industries, where a single set of global standards is likely to play a significant role in eliminating double reporting and reducing information asymmetry. Accordingly, we use data on 98 countries over 9 years to examine whether the use of International Financial Reporting Standard (IFRS) drives bank internationalisation. The results show that the use of IFRS is positively and significantly associated with an increase in foreign investment in the banking sector by easing regulatory compliance. However, in developing countries, the benefit of IFRS increasing foreign investment banks is associated with both easing regulatory compliance and reducing information asymmetry between banks and their clients. Our results are consistent across different sub-samplings, including EU versus non-EU, high versus low absence, and divergence between domestic standard and IFRS. These results provide reassurance and clear evidence of how IFRS facilitates the global flow of capital, even in a highly regulated industry such as banks. The results are robust to alternative measurements of variables and endogeneity tests using the Two-Stage Least Square, Two-step System Generalised Method of Moments and Propensity Score Matching.

KEYWORDS

accounting regulations, bank internationalisation, foreign investment in banks, IFRS, psychic distance, regulatory compliance

1 | INTRODUCTION

Due to the high level of public interest involved, banking is one of the most highly regulated sectors (Buch, 2003; Freixas & Rochet, 2008); hence specific country-level reporting system is a major pull factor for foreign investment in the banking sector (Howcroft et al., 2010). Accordingly, Johanson and Vahlne's (1977) analytical framework on internationalisation suggests that the regulatory environment, including the financial reporting system, is a major determinant of a bank's entry into a country. Banks with foreign operations will wish to have a common set of regulations worldwide that provide legal certainty and a level playing field for global, regional, and local banks (Ichiue & Lambert, 2016). Unlike other businesses, banks benefit from a common set of regulations as both preparers and users. As preparers, a common set of reporting standards eliminates the challenges of double reporting hence reducing the psychic distance between countries. As users, banks benefit from common standards because it reduces the information asymmetry between the bank and their customers (mostly firms). More importantly foreign banks operate in different countries hence

common standards ensure comparability of performance of customers from different countries.

Johanson and Vahlne's (1977) process theory of internationalisation suggests that cross-border investment is driven by the psychic distance between countries based on the differences in the regulatory and economic factors. We argue that IFRS, as a single set of high-quality global regulations, can reduce the psychic distance between countries and positively influence the flow of investment in the banking industry, at least in two ways. First, IFRS can eliminate the problem of double reporting associated with compliance with different standards in different countries, making it easy for investors to engage in cross-border investment in banks. Second, IFRS can improve the transparency and comparability of financial statements of customers of the bank, thereby reducing the information asymmetry between foreign banks and their local customers.

Given the significance of the financial reporting environment to the banking sector, we use data on 98 developing and developed countries over 9 years to provide empirical evidence on how IFRS adoption affects foreign investment in the banking sector. Foreign investment in the banking sector is measured as bank assets controlled by foreigners to total banking assets in a country and the number of foreign banks as an alternative measurement. We use three different measurements of IFRS adoption: IFRS adoption by banks, IFRS adoption by non-banks, and IFRS adoption by both banks and non-banks. Our empirical results show that the benefit of IFRS increasing foreign investment in banks is only positive and significant if the IFRS is mandatory for banks in the host country. These results suggest that IFRS eases regulatory compliance of banking through the elimination of double reporting. This benefit of easing regulatory compliance is similar in both developed and developing countries. However, developing countries benefit more from IFRS in attracting foreign investments in banks by improving the financial reporting quality of potential banks' clients. That is to say, the benefit of IFRS improving the comparability and the transparency of financial information of banking customers is relevant to developing countries rather than developed countries. These results are robust to endogeneity (using the Two-stage Least Squares, Two-step System Generalised Method of Moments and Propensity Score Matching) alternative measurement of variables and the effect of the global financial crisis.

Our article is distinctively different and hence makes incremental contributions to the literature on both determinants of foreign investments in banks and the macroeconomic consequences of IFRS. First, the literature on foreign investment in banks and regulations (Barth et al., 2004; Beck et al., 2006; Claessens & van Horen, 2014a, 2014b; Demirgüç-Kunt et al., 2008; Pasiouras et al., 2006, 2009) has paid little attention to the reporting environment of the host country, a significant pull factor given the regulatory demands of banking. Therefore, we contribute to this stream of literature by providing evidence on how the adoption of a common set of accounting standards serves as a pull factor for domestic banks to attract foreign investment.

Second, in the accounting literature, contrary to prior studies that are based on the relationship between IFRS adoption and overall foreign direct investment to a country, we focus on how IFRS benefits a particular sector where a single set of global standards is necessary. Third, we show that the benefit of global standards differs between developed and developing countries. As evident in our results, besides IFRS easing compliance with regulations across different countries, it also signals an improvement in the financial reporting quality of developing countries, which is not the case for developed countries.

Although there are some studies on IFRS adoption and cross-border investments (Beneish et al., 2015; Florou et al., 2017; Gordon et al., 2012; Nnadi & Soobaroyen, 2015), they are limited in explaining how IFRS adoption affects cross-border investment (Brüggemann et al., 2013). This is because the above studies use one generic measure of adoption, which assumes that all sectors apply IFRS in an adopting country, which is not the case. For example, Germany and France adopted IFRS since 2005. However, according to the 2011 Bank Regulation and Supervision Survey (BRSS) by the World Bank, IFRS is not applicable to the individual financial statements of banks in these countries. Other countries have also mandated IFRS for only banks but are yet to adopt IFRS for the broader group of firms (e.g., Angola and Indonesia). Further, most adopting countries still allow foreign firms (other than banks) to report per their respective home country standards. Hence the existing literature does not provide compelling evidence on how IFRS affects foreign direct investment. By focusing on a specific sector such as banking, we are able to show how IFRS affect cross-border investment either by improving financial reporting quality or eliminating double reporting.

We argue that the banking industry is very unique and demands common reporting standards compared to other industries. First, banking is a highly regulated industry where the difference in reporting systems can be a significant challenge to foreign investment. A survey of banks from advanced countries such as Canada, the UK, Germany, and China indicates the significant influence of common regulations on the decision to invest abroad

(Álvarez et al., 2016). Foreign firms other than banks can report based on their home country's laws; hence the use of IFRS in the host country might not be relevant. Contrarily, due to the numerous regulations in the banking sector, every foreign investor in banks will have to report by the host country's local standards at least to the central bank. Hence the expected outcome of IFRS in improving comparability and eliminating double reporting is more likely to be beneficial to foreign investment in banks than in other areas examined in the literature (Beneish et al., 2015; Florou et al., 2017; Gordon et al., 2012; Nnadi & Soobaroyen, 2015).

Second, unlike other sectors, banking products are more information-intensive and are based on trust and access to information (Tschoegl, 1987). Therefore, a common set of high-quality standards that improve the client's financial statements' transparency and comparability is more likely to be a significant factor to foreign banks than any other foreign investment. Third, foreign banks[1] are the major drivers of the domestic banking sectors in both developed and developing countries (Claessens & van Horen, 2014a, 2015). For example, Claessens and van Horen (2014b) report that the average foreign investment in banks increased from 20% to 34% between 1995 and 2009. However, there is substantial heterogeneity in terms of the host country's characteristics, specifically in regulations (Claessens & van Horen, 2014a). Nonetheless, the growth of foreign investment in the banking sector, which is higher than foreign investments in most industries, indicates the significant role of foreign investors in the financial system of a country (Claessens & van Horen, 2014b), hence the need to understand the factors that influence their decision to invest in a particular country.

Collectively, by documenting the positive impact of IFRS on foreign investment in banks, we provide evidence to policymakers on the importance of adopting IFRS to attract foreign investors to the banking industry. Further, we show that accounting standards are not only beneficial at the firm level, as projected by many studies. Using a common set of accounting standards such as IFRS benefits a country's economic development by attracting foreign investors, especially in an industry where regulations matter.

The remainder of the article proceeds as follows. In Section 2, we present the two hypotheses underlying our empirical study. In developing the hypotheses, we provide a brief review of the relevant literature. In Section 3, we present the research design and sample used for testing the two hypotheses. We present the results and discuss the findings of the study in Section 4. Concluding comments, limitations, and suggestions for potential future research are provided in Section 5.

2 | LITERATURE REVIEW, THEORY AND HYPOTHESIS DEVELOPMENT

Given the high public interest and accountability obligations in the banking sector, financial statements play a significant role in the efficient operations and profitability of a bank (Barth et al., 2004; Beck et al., 2006; Demirgüç-Kunt et al., 2008; Marton & Runesson, 2017; Pasiouras et al., 2006, 2009). Regulators use financial reporting to ensure that banks act in the public interest, especially in safeguarding their customers' monies (Beck et al., 2006). Banks themselves also need financial statements from their clients to make an informed decision on the allocation of credit (Beatty, 2008). These two significant roles of financial statements in the life of banks mean that foreign banks (the major foreign investors in the banking sector) are likely to benefit from the adoption of a common set of financial reporting standards such as IFRS through the easing of regulatory compliance and reduction in information asymmetry between the bank and their clients. Consequently, we provide two basic arguments on how IFRS affect foreign investment in the banking sectors.

2.1 | IFRS adoption eliminates double reporting and eases regulatory compliance of bank

The process theory of internationalisation by Johanson and Vahlne (1977) states that investors invest in other countries where the psychic distance is close. Psychic distance is a behavioural concept defined as the subjectively perceived distance between the home country and a foreign country in terms of differences in social and economic factors (Johanson & Vahlne, 2016). Unlike other businesses, banking is a highly regulated industry; hence differences in reporting standards between countries increase the psychic distance, discouraging foreign investment (Álvarez et al., 2016). Therefore, the process theory of internationalisation suggests that foreign banks will invest in host countries that have common reporting standards.

Accordingly, the adoption of IFRS, a single set of high-quality global standards, will reduce the psychic distance between countries and therefore facilitate the flow of investment to the banking sector. Girbina et al. (2012) suggest that IFRS-adopting countries are more likely to attract more cross-border investment because it eliminates the cost of a double reporting system. Given that banking operations are closely tied to compliance with numerous domestic standards, the possible elimination

of double financial reporting through adopting IFRS is vital for operating foreign banks in different countries (Ichiue & Lambert, 2016). Access to quality financial information not only attracts foreign investment in banks but also harnesses the benefits of foreign banks to a host country. Claessens and van Horen (2014a) find that foreign banks have negative impact on host countries where credit information is limitedly available due to poor financial reporting systems.

2.2 | IFRS adoption reduces information asymmetry between banks and their clients

Besides easing the regulatory compliance burden of foreign banks, IFRS is likely to facilitate foreign investment in banks by improving the financial reporting quality of potential customers of foreign banks. Beneish et al. (2015) argue that IFRS adoption as an informational change could reduce information friction between foreign investors and domestic clients, especially in the areas of uncertainty about the quality of financial reporting and uncertainty about the distribution of future cash flows. The uniqueness of banking of been both B2B (business to business) and B2C (business to consumer) operations makes financial statements a major monitoring tool for mitigating potential agency problems with clients (Jensen & Meckling, 1976; Smith & Warner, 1979).

Foreign investors and banks, in particular, are likely to find difficulties interpreting and accessing the reporting quality of their domestic clients when the financial statements are prepared per different national standards (Ball, 2006; Gehrig, 1993). Hence familiarity with the host country's accounting standards is very important in mitigating the problem of moral hazard in both pre and post-contracting loan periods. This is especially true in the case of foreign banks that might lack local knowledge and hence may not have any alternative means of assessing information. Consistent with the familiarity assumption, Amiram (2012) argues that an increase in foreign investors' confidence resulting from operating in a familiar accounting-based environment, such as IFRS adopting country leads to more foreign investment in the host country.

Daske et al. (2013) argue that comparability is fundamental to investor decision-making. Accordingly, Tweedie and Seidenstein (2005) claim that the global adoption of IFRS could facilitate cross-border investments by increasing the comparability of financial statements between countries (see Caban-Garcia et al., 2020). The significance of the comparability of financial statements in the banking sector cannot be overstated. Unlike other

businesses, banking largely depends on the financial statements of clients in assessing performance and making an informed decision on funds allocation. Specifically, foreign banks will be dealing with firms across different industries and countries; therefore, comparability of financial statements is vital for smooth operations in host countries. In line with the comparability argument, Covrig et al. (2007) find that IFRS firms attract large foreign mutual funds compared to firms using domestic standards. Beneish et al. (2015) argue that financial statements based on different local standards can be a major challenge for monitoring debt across different countries and therefore hinder the efficient flow of global capital. Hence the use of international standards is imperative for easy monitoring and comparison of financial performance (Ball, 2006, 2016).

Empirically, at the firm level, there is plentiful and almost unanimous evidence that IFRS improve the comparability and transparency of financial reporting (Agostino et al., 2011; Alali & Foote, 2012; Armstrong et al., 2010; Barth et al., 2008; Daske et al., 2013; Daske & Gebhardt, 2006; Elbakry et al., 2017; Hail et al., 2010; Houqe et al., 2012; Iatridis & Rouvolis, 2010; Lee et al., 2018; Miah et al., 2021; Tawiah & Gyapong, 2021). In a literature review, Houqe (2018) reports that IFRS adoption positively influences the capital market via a reduction in information asymmetry, improvement in transparency, and comparability of financial statements. Iatridis (2010) argue that implementing IFRS reinforces accounting quality; thus, IFRS reduces earnings management leading to the value relevance of accounting measures. Armstrong et al. (2010) report that IFRS improves financial reporting by discouraging earnings manipulation. Within the banking sector, Agostino et al. (2011) find that IFRS increases the reporting quality of earnings and book values by banks.

All the firm-level evidence shows that the adoption of IFRS by a country increases disclosures of financial information and reduces manipulations of earnings by opportunistic management. Hence, adopting IFRS signals to foreign banks that their potential clients' financial statements can be reliable and credible, an important aspect of banking, especially for foreign banks, which may be at a disadvantage in getting local information on their clients. Gordon et al. (2012) argue that in addition to IFRS reducing the asymmetric information between firms and foreign investors, it also reduces the processing costs associated with investments in foreign countries through the comparability of IFRS financial statements.

In sum, we argue that the benefits of IFRS eliminating double reporting, which eases regulatory compliance, increases transparency and comparability of potential customers of the foreign bank in a host country, should, ceteris paribus, increase foreign investment in the

banking sector of IFRS adopting country. We, therefore, hypothesise that:

H1. IFRS adoption is associated with an increase in foreign investment in the banking sector.

The survival of a bank is concomitant to the quality of institutions in the country. This is because banks need strong institutions to enforce contracts and ensure that firms (potential bank customers) disclose the right information. The adoption of IFRS is expected to improve financial reporting, which is part of the quality institutions of the country. In line with this argument, some studies find IFRS as a new rule that instils discipline in financial reporting, especially in countries with weak institutional environments (Cai et al., 2014; Houqe & Monem, 2016). Gordon et al. (2012) suggest that the benefit of IFRS in attracting foreign direct investment is much stronger in countries with weak institutions because countries with high-quality institutions also had sophisticated domestic accounting standards before adopting IFRS. Similarly, Chamisa (2000) provides evidence that IFRS benefits countries with weaker institutional settings. According to Djatej et al. (2011), IFRS is comparatively more beneficial to Eastern European countries than Western European countries because the former has weak institutional structures than the latter. Arguably, the incremental benefits of IFRS increasing comparability and transparency of financial statements of potential foreign bank customers are more likely to be relevant in countries with weak institutions.

Notwithstanding the above arguments, IFRS as a principle based-standard is criticised for being too flexible in allowing opportunistic management to abuse the discretional reporting requirement, especially in a weak institutional environment (Ball et al., 2015; Schipper, 2005). This potential downside of the IFRS been abuse could lead to low financial reporting quality in the country. As argued by Gebhardt and Novotny-Farkas (2011), the quality of the institutions in a country is very important in shaping the financial reporting outcome even after adopting high-quality standards such as IFRS. Consistently, Manganaris et al. (2016) find that the value relevance of IFRS to the banking sector is more pronounced in countries with quality enforcement environments. Similarly, Houqe (2018) finds that the positive effects of IFRS are associated with countries with quality institutions. Within the IFRS-international business literature, Beneish et al. (2015) provide empirical evidence that IFRS is beneficial in attracting foreign equity if there are strong governance institutions. In the same vein, Shima and Gordon (2011) report that IFRS is associated with increasing USA outward investment in countries with

high institutional quality. Therefore, these studies suggest that the perceived benefit of IFRS of improving transparency and comparability is less likely to materialise in countries with weak institutional structures.

H2. All other things being equal, the relationship between IFRS and an increased foreign direct investment in the banking sector is stronger as the country's institutional quality increases.

3 | RESEARCH METHODS

3.1 | Data and sample period

We begin the sample selection from the countries disclosed in the IFAC (2019) report. We exclude countries with missing data, resulting in a sample of 98 countries. Our sample period covers 9 years between 2008 and 2016. We begin in 2008 and end in 2016 because it is the most recent annual data on the dependent available in Bank Regulations and Supervision database. The Bank Regulation and Supervision database by the World Bank is a unique source of comparable worldwide data on how banks are regulated and supervised (World Bank, 2012).

3.2 | Measurement of variables

3.2.1 | Foreign investment in the banking sector (FDIB)

We use the percentage of foreign bank assets among total bank assets to measure foreign investment in the banking sector. The data is sourced from the World Bank database on Bank Regulations and Supervision.[2] This database is widely used in the banking literature (Barth et al., 2004; Beck et al., 2006; Demirgüç-Kunt et al., 2008; Pasiouras et al., 2006, 2009). The recent data covers up to 2016. Although there are other sources, such as the Global Financial Development database, it is limited to 2013. Furthermore, the data is only based on the foreign assets of large commercial banks (Claessens & van Horen, 2014a). Notwithstanding these limitations, we use it for robustness checks and verification of the primary source of data.

3.2.2 | IFRS adoption status (IFRS)

Contrary to prior studies that use a simple country's IFRS adoption label, we use three different measurements of

IFRS adoption. As stated in the introduction, the simple country adoption label does not necessarily mean IFRS applies to all sectors, especially banks. Our three measurements of IFRS adoption are (1) the use of IFRS by banks, (2) the use of IFRS by non-banks, and (3) the use of IFRS by both banks and non-banks.

Bank adoption is a binary variable equal to 1 if banks in the country apply IFRS or 0 otherwise. The focus is on whether banks must file IFRS statements with the banking regulator and not just IFRS consolidated financial statements. For example, banks in Germany can prepare IFRS consolidated financial statements but are not allowed to file IFRS separate financial statements. Hence Germany is classified as a non-adopter for bank adoption purposes. We use information from Bank Regulations and Supervision data[3] to generate this variable. The *Bank adoption* status is used to test whether the benefit of IFRS adoption in easing banks' regulatory compliance influences foreign investment in the banking sector.

Non-banks adoption: As stated in the literature section, banks also benefit from IFRS adoption via transparent reporting of their customers. Therefore, it is likely that foreign banks may invest in IFRS-adopting countries, even if IFRS does not apply to banks. We argue that such investment is made because the use of IFRS by non-financial firms (the potential customers of the banks) will increase the financial reporting and hence reduce information asymmetry. To establish how the improvement of financial reporting quality of potential customers of banks due to IFRS influences foreign investment in the banking sector, we generate *Non-banks adoption* variable equal to 1 if IFRS applies to other firms, but it is not used by banks and 0 otherwise. Here we focus on countries that have mandatory adopted IFRS. We use the information provided in the member's report on the adoption and implementation of IFRS at the International Federation of Accountants (IFAC) and IFRS Foundation website to determine the IFRS adoption status of a country.

All firms, the third measurement of IFRS adoption is equal to 1 if IFRS is applicable to banks and all other firms and 0 if IFRS applies either to only banks or other firms. This measurement captures all countries that require IFRS for banks and those that have adopted IFRS for other firms.

3.2.3 | Institutional quality

Following recent accounting and finance literature (Elamer et al., 2017; Karolyi & Taboada, 2015; Tunyi et al., 2020), we develop the institutional quality index from the six Worldwide Governance (WGI) Indicators by Kaufmann and Kraay (2018). The WGI covers six areas:

government effectiveness; political stability and absence of violence; regulatory quality; rule of law; voice and accountability; control of corruption. These six indicators reflect the three important areas of governance: (1) the respect of citizens and the state for the institutions that govern economic and social interactions among them (control of corruption and rule of law); (2) the process by which governments are selected, monitored and replaced (voice and accountability; political stability and absence of violence); (3) the capacity of the government to effectively formulate and implement sound policies (government effectiveness and regulatory quality) (Kaufmann et al., 2011). Individually, each indicator captures different aspects of the institutional environment. However, they collectively signal the quality of the overall institutional framework of the country. There is a high correlation among the six indicators; hence, including them in one equation as single variables will cause multicollinearity issues and potentially bias the results. Therefore, consistent with prior studies (Banna et al., 2021; Elamer et al., 2017; Konara & Shirodkar, 2018; Tawiah et al., 2022; Tunyi et al., 2020), we use the Principal Component Analysis (PCA) technique to derive a single index from all six indicators. Consistent with priors studies (Ahamed & Mallick, 2019; Banna et al., 2021) we classify the countries into high institutional-quality as those with a higher than the sample mean of *institutional quality*. Countries are coded as 1 if the institutional quality is above the sample mean.

3.3 | Control variables

3.3.1 | Country-level variables

Following the general literature on determinants of foreign direct investment (Gordon et al., 2012; Habib & Zurawicki, 2002; Nnadi & Soobaroyen, 2015), we use gross domestic product per capita to control for the impact of economic development. Prior studies suggest a positive and significant relationship between the level of economic development and foreign business. Similarly, we control for economic growth with the annual growth of gross domestic product. A growing country requires more capital to finance its industrial operations. In addition, high growth indicates greater expansion of the consumer markets, hence high demand for financial products (Claessens & van Horen, 2014a). We also use the labour force to control the estimated market size of the country. Arguably, a large labour force indicates a high level of financial development and a possible bigger banking market. Prior studies claim that foreign banks follow their clients to foreign countries (Buch, 2000). Therefore, the amount of foreign direct investment and

international trade are significant drivers for a bank to invest abroad. Accordingly, we use foreign direct investment as a percentage of gross domestic product and trade openness to control for the effect of banks following their clients. Trade openness is measured by the sum of export and import as a percentage of the gross domestic product.

3.3.2 | Specific banking market-related factors

As a unique and highly regulated industry, the determinants of foreign investment in banks go beyond the generic economic characteristic of the host country. Temesvary (2014) argues that the banking market's characteristics better explain the evolving trends of foreign investment in banks. Therefore, additional factors such as the type of bank regulations, performance, competition, depth, and crisis in the banking sector of the host country are also important determinants of cross-border investment in banks. Consequently, we use the type of Basel regulations (be it Basel I, II, III) to control the effect of regulation on foreign investment in the banking sector. We measure Basel regulation on an ordinal scale of 0–3. 0—the country does not comply with Basel regulation. 1—Compliance with Basel I; 2—Compliance with Basel II; 3—Compliance with Basel III.

Regarding the banking sector performance, we use the average return on equity of the banking sector. Arguably, a high-performing banking sector will attract more foreign investment. Related to performance is the level of competition within the banking sector; hence we use the market share of the largest three commercial banks to control competition. Countries with high bank deposit to GDP ratio indicate a high depth of banking and possible large banking market (Mulder & Westerhuis, 2015). Therefore, bank deposits to GDP is use to control the depth of the banking sector. The banking industry is one of the few industries that are likely to create crises and suffer from crises. Therefore, the financial stability and soundness of the banking sector are very important factors for a foreign investor in determining the sustainability of its investment. We account for financial stability by including banking crisis; a dummy variable that takes either 1 for the years if the country suffered a banking crisis or 0 otherwise. The sources of variables are presented in Table 1.

3.4 | Econometric modelling

Although we control for relevant factors that influence foreign investment in banks, we do not aim to control all factors. Hence we propose parsimonious models that account for the three different channels of IFRS adoption.

In the first model, we examine the relationship between the adoption of IFRS by banks and foreign investment in the banking sector.

$$FDIB_{it} = a + \beta_1 Bank\ adoption_{it} + \beta(Controls)_{it} + \varepsilon_{it}. \quad (1)$$

In the second model, we focus on the effect of IFRS in reducing information asymmetry to attract foreign investment in banks. So we replace the *Bank adoption* with *Non-banks* adoption.

$$FDIB_{it} = a + \beta_1 Nonbanks\ adoption_{it} + \beta(Controls)_{it} + \varepsilon_{it}. \quad (2)$$

In the third model, we use the adoption by *All firms* to estimate the benefit of IFRS as a mechanism for both eliminating double reporting and reducing information asymmetry for foreign investment in the banking sector.

$$FDIB_{it} = a + \beta_1 All\ firms_{it} + \beta(Controls)_{it} + \varepsilon_{it}. \quad (3)$$

where, *it* represented country and time respectively, and ε_{it} is the associated error. All other variables are defined in Table 1.

4 | RESULTS AND DISCUSSIONS

4.1 | Univariate results

To ensure our results are not driven by outliers, we winsorise all continuous variables at the 1st and 99th percentile. The descriptive statistics, including the mean, 25th percentile, median, 95th percentile, and standard deviation of the variables, are presented in Table 2. The mean of *FDIB* is 44.35% indicating high foreign ownership in the banking sector of the sample country. However, the median of 35.69% and a high standard deviation of 32.59% suggest heterogeneity of foreign investments in banks across the sample countries. Claessens and van Horen (2014a) observed a similar trend of heterogeneity in the banking sector of many countries. The average value of *Bank adoption* is 0.696, higher than *Non-banks adoption*, showing the high use of IFRS by banks than non-banking firms over the 9 years. Nonetheless, there are still some IFRS-adopting countries where IFRS is not applicable to banks. In absolute numbers, IFRS applies to banks in 77 countries, but 11 have not mandatorily adopted IFRS for other firms. The mean, median, and standard deviation of the institutional quality highlight

TABLE 1 Description and sources of variables.

Variable	Description	Sources
Foreign investment in banks (FDIB)	Percentage of the total banking assets that are controlled by foreign investors	Bank Regulations and Supervision Database
IFRS adoption status		
Bank adoption	A binary variable equal to either 1 if IFRS is applicable to banks or 0, otherwise	Bank Regulations and Supervision Database
Non-banks adoption	A binary variable equal to either 1 if IFRS is applicable to other firms, but it is not used by banks or 0, otherwise	Bank Regulations and Supervision database IFAC website IFRS Foundation
All firms' adoption	A binary variable equal to 1 if IFRS is applicable to banks and all other firms and 0 if IFRS is applicable either to only banks or other firms	Bank Regulations and Supervision database IFAC website IFRS Foundation
Institutional quality	Principal Component Analysis of the six World Governance indicators	Worldwide Governance Indicators (2018)
Country-level control variables		
Economic growth	The annualised growth rate of gross domestic product	World Development Indicators (2020)
Economic development	Log of gross domestic product per capita	World Development Indicators (2020)
Labour force	Labour force participation rate, total (% of total population ages 15–64)	World Development Indicators (2020)
Trade openness	The sum of the value of import and export as a percentage of gross domestic product	World Development Indicators (2020)
Foreign business	The net inflow foreign direct investment as a percentage of gross domestic product	World Development Indicators (2020)
Banking market control variables		
Basel regulation	Measured on scale of 0–3 for the type of Basel regulation that the country complies with. 0—the country does not comply with any Basel regulation; 1—Compliance with Basel I; 2—Compliance with Basel II; 3—Compliance with Basel III	Bank Regulations and Supervision database Periodic Progress Report on Basel Implementation by BIS
Return on equity	The average return on equity in the banking sector	Bank Regulations and Supervision database
Bank competition	Assets of the three largest commercial banks as a share of total commercial banking assets	Global Financial Development Database (2019)
Bank deposit	The total value of demand, time and saving deposits at domestic deposit money banks as a share of gross domestic product	Global Financial Development Database (2019)
Banking crisis	Dummy variable for the presence of a banking crisis (1 = banking crisis, 0 = none)	Global Financial Development Database (2019)

the variations of the institutional environment, hence the necessity to examine its moderating effect on the relationship between IFRS adoption and foreign investments in the bank.

We use Pearson's pairwise correlation matrix to examine the correlation and potential multicollinearity among the independent variables. As displayed in Table 3, the results show that none of the correlation coefficients is large enough to pose multicollinearity problems (Tabachnick & Fidell, 2013).

4.2 | Multivariate analysis

Following prior studies on the country-level consequences of IFRS adoption (Houqe & Monem, 2016; Nnadi & Soobaroyen, 2015), we use the ordinary least squares to execute our models. We include country and year effects to account for unobserved heterogeneity across individual firms. Further, we cluster standard errors by country to deal with unexplained country effects and serial correlation.

TABLE 2 Descriptive statistics.

Variables	Mean	p25	Median	p95	Std.Dv
1. FDIB	44.35	15.81	35.69	99	32.59
2. Bank adoption	0.696	0	1	1	0.460
3. Non-banks adoption	0.188	0	0	1	0.391
4. All firms' adoption	0.694	0	1	1	0.461
5. Institutional quality	0.00498	−1.687	−0.472	4.123	2.249
6. Economic growth	3.055	1.279	3.134	8.791	3.778
7. Economic development	8.952	8.077	8.908	11.19	1.364
8. Labour force	61.77	56.20	61.37	78.47	8.659
9. Trade openness	88.35	55.06	79.33	165.4	51.14
10. Foreign business	9.001	1.483	3.029	27.47	29.96
11. Basel regulations	1.629	1	2	3	0.641
12. Return on equity	10.81	5.580	11.70	29	12.21
13. Bank competition	65.01	49.84	63.18	100	19.27
14. Bank deposit	57.29	30.44	47.34	121.4	42.70
15. Banking crisis	0.0939	0	0	1	0.292

Note: This table present the mean, median 25th percentile, 95th percentile and standard deviation of variable used in the study. The descriptive statistics is based on all observations.

TABLE 3 Correlation matrix.

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1. Bank adoption	1											
2. All firms' adoption	0.86^	1										
3. Institutional quality	0.02	0.01	1									
4. Economic growth	0.03	0.07*	−0.02	1								
5. Economic development	0.02	0.03	0.45^	−0.02	1							
6. Labour force	0.01	0.04	−0.02	0.25^	−0.01^	1						
7. Trade openness	0.14^	0.18^	−0.01	0.01	0.03	−0.15^	1					
8. Foreign business	0.12*	0.12*	0.02	−0.1	0	−0.02	0.07^	1				
9. Return on equity	−0.01	0.02	−0.02	0.36	−0.05	0.28^	−0.14^	−0.17	1			
10. Bank competition	0.03	0.08	0.02	−0.07	0.02	0.18	0.09	0.16	0.08^	1		
11. Bank deposit	0.12^	0.13	−0.01	−0.19^	0.04	−0.15^	0.54^	0.42	−0.21	0.01	1	
12. Banking crisis	−0.08*	−0.08*	0	−0.32	0.02^	−0.14	0.16^	0.1	−0.41	−0.07	0.27	1

Note: This table presents the Pearson pairwise correlation matrix of the variable used in the main estimation.
^1% significant level.
*5% significant level.

The results of the first hypothesis are presented in Table 4. The positive and significant coefficient of *Bank adoption* (11.85**) in column 1 indicates that the use of IFRS by banks is positively and significantly associated with increased foreign investment in the banking sector. The results, therefore, suggest that the benefit of IFRS as a single set of global standards that eliminates double reporting eases the regulatory compliance by banks; hence it makes it more attractive for banks to engage in cross-border investment. IFRS, which is now used by over 100 countries (International Federation of Accountants, 2019), reduces the psychic distance between countries, especially in regulations, a major determinant of foreign investment in the banking sector. As a single set of high-quality global standards, IFRS eliminates the double reporting requirement, which is likely to be a hurdle for foreign banks operating in different host countries. Eliminating or reducing double reporting reduces the overall regulatory requirements a foreign investor must comply with, encouraging more cross-border investments.

TABLE 4 Estimation results for hypothesis 1.

Variables	(1) FDIB	(2) FDIB	(3) FDIB
Bank IFRS adoption	11.85**		
	(5.04)		
Nonbanks IFRS adoption		−7.68	
		(4.92)	
All firms' IFRS adoption			11.44**
			(4.89)
Economic growth	−1.64***	−1.77***	−1.84***
	(0.42)	(0.50)	(0.49)
Economic development	−0.31	−0.51	−0.44
	(0.52)	(0.61)	(0.61)
Labour force	−0.16	−0.03	−0.02
	(0.31)	(0.36)	(0.35)
Trade openness	0.30***	0.32***	0.30***
	(0.07)	(0.08)	(0.07)
Foreign business	0.09***	0.11***	0.08***
	(0.008)	(0.008)	(0.008)
Basel regulations	−11.85**	−10.11**	−10.62**
	(4.53)	(4.99)	(4.86)
Return on equity	0.20	0.26	0.24
	(0.17)	(0.17)	(0.18)
Bank competition	0.08	0.04	0.02
	(0.13)	(0.15)	(0.15)
Bank deposit	−0.14*	−0.20**	−0.15
	(0.09)	(0.10)	(0.09)
Bank crisis	−10.64*	−10.87*	−12.25**
	(5.69)	(5.62)	(5.71)
Constant	47.99*	54.32*	47.32
	(24.18)	(27.90)	(28.50)
Country effect	Yes	Yes	Yes
Year effect	Yes	Yes	Yes
Observations	842	661	652
R-squared	0.27	0.30	0.31

Note: This table present the regression estimation for Hypothesis 1; Result 1 in column is where IFRS adoption is measured by adoption by Bank only (Bank adoption). In column 2, IFRS adoption is measured as adoption by firms other than financial institutions (Non-Bank adoption). In column 3 IFRS adoption is measured as adoption by all firms (All firms' adoption). The dependent variable for the three columns is FDIB measured as a percentage of bank assets controlled by foreigners. See Table 1 for variable description. Standard errors are clustered by countries. Robust standard errors in parentheses.

***$p < 0.01$; **$p < 0.05$; *$p < 0.1$.

Contrarily to the results on bank adoption, the coefficient of *Non-bank adoption* (−7.68) is not significant in the overall sample in column 2, indicating that a country is less likely to attract foreign investment in banks if it adopts IFRS but excludes banks from using it. Thus the benefit of IFRS reducing information asymmetry between banks and their customers does not influence foreign investment in the banking sector.

The coefficient of *All firms* (11.44***) is positive and significant, indicating that countries that adopt IFRS for all firms, including banks, benefit more from increased foreign investment into the banking sector than firms that only mandate IFRS for non-banks. In effect, the results in Table 4 provide evidence that IFRS adoption increases foreign investment in the banking sector by easing the regulatory compliance of banks and also reducing information asymmetry in developing countries.

The results of the control variables are consistent with standard assumptions and expectations in many cases. For example, the results of trade openness and foreign businesses are consistent with 'following your client' argument of bank internationalisation. Similarly, the banking crisis, which destabilises the financial system and the soundness of the banking sector, discourages foreign investments.

4.3 | Moderating effect of institutional quality

The results of the moderating effect of institutional quality are presented in Table 5. Our main variable of interest in each column is the interaction term (*Bank IFRS adoption * Institutional quality NonBank IFRS adoption * Institutional quality; All firms IFRS * Institutional quality*). The coefficient of *Bank adoption* remains positive and significant, the moderating effect of institutional quality is also significant. The results suggest that the benefit of IFRS easing the challenges of regulatory compliance with regard to foreign investment in the banking sector is pronounced in countries with high-institutional quality. Put differently, IFRS is more beneficial in attracting investment in the banking sector, countries with high quality institutions. However, the coefficient of *Non-banks* and the interaction term *NonBank IFRS adoption * Institutional quality* are insignificant. The results, provide evidence that supports the second hypothesis (H2), which states that countries need high-quality institutional structures to harness the benefit of IFRS.

4.4 | Further analyses

4.4.1 | Developed and developing countries

The burgeoning literature on the consequence of IFRS reports that the benefits of IFRS differ between developed

TABLE 5 Moderating effect of institutional quality (H2).

Variables	(1) FDIB	(2) FDIB	(3) FDIB
Bank IFRS adoption	12.55***		
	(4.85)		
Bank IFRS adoption * Institutional quality	3.38*		
	(1.76)		
Nonbanks IFRS		−1.46	
		(9.13)	
Nonbanks IFRS * Institutional quality		−9.16	
		(10.37)	
All firms IFRS			10.91**
			(4.98)
All firms IFRS * Institutional quality			2.54**
			(1.04)
Institutional quality	−0.03	0.26	0.09
	(0.92)	(0.96)	(0.92)
Economic growth	−1.65***	−1.92***	−1.78***
	(0.43)	(0.47)	(0.46)
Economic development	−0.32	−0.80	−0.53
	(1.34)	(1.38)	(1.35)
Labour force	−0.08	0.02	−0.07
	(0.33)	(0.35)	(0.34)
Trade openness	0.28***	0.31***	0.29***
	(0.07)	(0.08)	(0.07)
Foreign business	0.09	0.07	0.07
	(0.07)	(0.06)	(0.06)
Basel regulations	−14.03***	−12.94**	−13.23***
	(4.90)	(5.10)	(4.91)
Return on equity	0.23***	0.22***	0.22***
	(0.08)	(0.08)	(0.07)
Bank competition	0.07	0.07	0.05
	(0.14)	(0.15)	(0.14)
Bank deposit	−0.13	−0.14	−0.13
	(0.08)	(0.09)	(0.08)
Bank crisis	−9.21*	−9.55*	−10.19*
	(5.18)	(5.40)	(5.25)
Constant	48.29	53.29	52.14*
	(30.30)	(32.08)	(31.21)
Country effect	Yes	Yes	Yes
Year effect	Yes	Yes	Yes
Observations	825	648	639
			(Continues)

TABLE 5 (Continued)

Variables	(1) FDIB	(2) FDIB	(3) FDIB
R-squared	0.32	0.33	0.33

Note: This table presents the regression estimation for Hypothesis 2; Results in column 1 is where IFRS adoption is measured by adoption by Bank only (Bank adoption). In column 2, IFRS adoption is measured as adoption by firms other than financial institutions (Non-Bank adoption). In column 3 IFRS adoption is measured as adoption by all firms (All firms' adoption). The dependent variable for the three columns is FDIB measured as a percentage of bank assets controlled by foreigners. Institutional quality is measured as the composite index of the World Governance Indicators. See Table 1 for variable description. Standard errors are clustered by countries. Robust standard errors in parentheses.
***$p < 0.01$; **$p < 0.05$; *$p < 0.1$.

and developing countries. Some scholars argue that IFRS is developed by developed countries for developed economies; hence it is not suitable for developing countries because of their small or less active stock markets (Ahmed et al., 2013; Arnold & Sikka 2001; Bakre, 2008; Ball, 2006; Bova & Pereira, 2012; Chand & White, 2007; Hopper et al., 2017; Hossain & Hammami, 2009; Mantzari et al., 2017). Other scholars such as Chamisa (2000), Gordon et al. (2012), and Houqe and Monem (2016) provide a contrasting view saying that IFRS is more beneficial to developing countries because it improves the credibility of the reporting practices. Further, most domestic standards in developed countries before adopting IFRS were deemed high-quality; hence, there is no incremental difference that will result in incremental benefits to developed countries. Hence in addition to the overall sample, we test our hypothesis along the lines of developed and developing countries.

The results are presented in Table 6. In Panel A, we test whether the effect of IFRS on foreign investment in banks differs between developed and developing countries. The coefficient of *Bank IFRS adoption* in columns 1 and 4 is positive and significant for both developed and developing countries. Similarly, the results for *All firms' adoption* in both developed and developing countries are positive and significant, consistent with the main findings.

Contrary to the other results, the coefficient of *Nonbank* is positive and highly significant for developing countries in column 5 but insignificant for developed countries. The results suggest that IFRS is still beneficial in attracting foreign investment in the banking sector for developing countries when IFRS does not apply to banks. This contradictory result between developed and developing countries on the benefit of IFRS reducing information asymmetry is expected, given that the local standards of most developed countries are perceived to be of high quality, and banks can also get information on their clients from other sources other than financial statements in developed countries (Beneish et al., 2015). In addition

to reducing the regulatory burden of foreign banks, the use of IFRS, which improves transparency and comparability, also increases foreign banks' confidence in the financial statements of their potential clients in developing countries. Foreign banks are likely to be at a disadvantage when obtaining credible information about their clients in developing countries compared to developed countries. Hence, their major source of information will be the clients' financial statements. Therefore, the use of globally accepted standards such as IFRS assures foreign banks some level of credibility in the client's financial statements.

Panel B contains the results of the moderating effect of institutional quality on IFRS and foreign investment in the banking sector for developed and developing countries. The coefficient of the moderating variable is significant for the three different measurements of IFRS adoption except for *Nonbanks* in developed countries. These results are consistent with the main findings that institutional quality significantly moderate the relationship between IFRS adoption and foreign investment in the banking sector.

4.4.2 | EU and non-EU countries

Given that the European Union uniformly determines most accounting and banking regulations for its members, it is likely that our results may differ for EU members. Therefore, in this section, we employ the sub-sampling technique to run separate analyses for three groups: Eurozone, EU, and Non-EU countries. The results are presented in Table 7. The *Bank IFRS adoption* and *All firms IFRS adoption* are consistently positive and significant for all three groups. Similarly, *Nonbank IFRS adoption* remains insignificant for the three groups. These results are qualitatively similar to the main results, confirming that our findings of the significant positive association between IFRS adoption and foreign investment in the banking sector are not sensitive.

TABLE 6 (A) Developed and developing countries. (B) Developed and developing with institutional quality.

Variables	Developed countries			Developing countries		
	(1)	(2)	(3)	(4)	(5)	(6)
	FDIB	FDIB	FDIB	FDIB	FDIB	FDIB
Panel A						
Bank IFRS adoption	15.06**			9.36**		
	(5.63)			(3.88)		
Nonbanks IFRS adoption		−15.09			3.29***	
		(15.46)			(1.24)	
All firms' IFRS adoption			14.63**			8.95**
			(6.27)			(4.72)
Constant	30.19	78.23	54.57	39.95	47.88*	44.35
	(95.02)	(106.69)	(128.95)	(24.20)	(26.24)	(27.36)
Control included	Yes	Yes	Yes	Yes	Yes	Yes
Country effect	Yes	Yes	Yes	Yes	Yes	Yes
Year effect	Yes	Yes	Yes	Yes	Yes	Yes
Observations	248	239	230	603	422	422
R-squared	0.50	0.49	0.48	0.30	0.31	0.33
Panel B						
Bank IFRS adoption	15.11***			9.31**		
	(5.49)			(4.31)		
Bank adoption IFRS * Instit. quality	9.19***			11.17**		
	(2.70)			(6.13)		
Nonbanks IFRS		27.76			9.96***	
		(22.93)			(2.14)	
Nonbanks IFRS * Instit. quality		12.20			17.22**	
		(13.52)			(7.87)	
All firms IFRS			9.91**			8.89**
			(4.39)			(2.37)
All firms IFRS * Institutional quality			6.31**			9.30**
			(2.89)			(4.44)
Institutional quality	12.96**	1.55**	4.69**	0.58**	5.74**	5.23***
	(5.85)	(0.74)	(1.86)	(0.26)	(2.26)	(1.44)
Constant	−7.09	−17.41	−6.10	43.35	44.85	46.25
	(15.00)	(10.39)	(11.61)	(10.18)	(18.30)	(18.15)
Control included	Yes	Yes	Yes	Yes	Yes	Yes
Country effect	Yes	Yes	Yes	Yes	Yes	Yes
Year effect	Yes	Yes	Yes	Yes	Yes	Yes
Observations	236	236	236	422	404	422
R-squared	0.47	0.49	0.48	0.37	0.36	0.36

Note: Panel A: This table presents the regression estimation for developed and developing countries; Results for developed countries are presented in columns 1–3 and results for developing countries are contained in columns 4–6. Results in columns 1 and 4 is where IFRS adoption is measured by adoption by Bank only (Bank adoption). In columns 2 and 5, IFRS adoption is measured as adoption by firms other than financial institutions (Non-Bank adoption). In columns 3 and 6 IFRS adoption is measured as adoption by all firms (All firms' adoption). The dependent variable for the three columns is FDIB measured as a percentage of bank assets controlled by foreigners. Institutional quality is measured as the composite index of the World Governance Indicators. For brevity, the control variables are suppressed. Panel B: This table presents the regression estimation testing the moderating effect of institutional quality for developed and developing countries; Results for developed countries are presented in columns 1–3 and results for developing countries are contained in columns 4–6. Results in columns 1 and 4 is where IFRS adoption is measured by adoption by Bank only (Bank adoption). In columns 2 and 5, IFRS adoption is measured as adoption by firms other than financial institutions (Non-Bank adoption). In columns 3 and 6 IFRS adoption is measured as adoption by all firms (All firms' adoption). The dependent variable for the three columns is FDIB measured as a percentage of bank assets controlled by foreigners. Institutional quality is measured as the composite index of the World Governance Indicators. For brevity, the control variables are suppressed. See Table 1 for variable description. Standard errors are clustered by countries. Robust standard errors in parentheses.
***$p < 0.01$; **$p < 0.05$; *$p < 0.1$.

TABLE 7 EU and non-EU countries.

Variables	Eurozone countries			EU countries			Non-EU countries		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	FDIB	FDIB	FDIB	FDIB	FDIB	FDIB	FDIB	FDIB	FDIB
Bank IFRS adoption	12.18*			15.01**			10.81*		
	(6.36)			(7.08)			(5.84)		
Nonbanks IFRS adoption		−11.74			−9.03			−9.00	
		(9.41)			(7.71)			(5.71)	
All firms' IFRS adoption			11.74*			10.42**			13.15**
			(6.41)			(4.72)			(5.58)
Constant	73.36	79.64	67.90	184.53*	194.22*	188.50	46.87*	57.43**	50.31*
	(105.02)	(105.49)	(105.84)	(101.86)	(109.48)	(110.41)	(24.80)	(28.14)	(29.63)
Control included	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	154	153	153	198	189	189	644	472	463
R-squared	0.68	0.67	0.67	0.59	0.56	0.56	0.25	0.29	0.30

Note: This table presents the regression estimation grouping countries into Eurozone, EU and non-EU. Results for Eurozone countries are presented in columns 1–3; results for EU countries are contained in columns 4–6 and results for non-EU countries are in columns 7–9. Results in columns 1, 4 and 7 is where IFRS adoption is measured by adoption by Bank only (Bank adoption). In columns 2, 5 and 8, IFRS adoption is measured as adoption by firms other than financial institutions (Non-Bank adoption). In columns 3, 6 and 9 IFRS adoption is measured as adoption by all firms (All firms' adoption). The dependent variable for the three columns is FDIB measured as a percentage of bank assets controlled by foreigners. For brevity, the control variables are suppressed. See Table 1 for variable description. Standard errors are clustered by countries. Robust standard errors in parentheses.
***$p < 0.01$; **$p < 0.05$; *$p < 0.1$.

4.4.3 | Difference between domestic GAAP and IFRS

Prior studies suggest that the consequence of IFRS adoption in a country depends on how different the existing local GAAP is from IFRS (Capkun et al., 2016; Ding et al., 2007). Therefore, in this section, we test the effect of IFRS adoption on foreign investment in the banking sector based on the absence and divergence of items in a country's prior local GAAP compared with IFRS. To do this proposition, we follow Capkun et al. (2016) to employ the absence and divergence score of Ding et al. (2007) in partitioning our sample into high and low absence or divergence countries[4] based on the sample median value.

The results for the absence are presented in Table 8. The results are qualitatively similar to the main findings for high and low absence countries. However, by the significant level, the relationship between IFRS adoption and foreign investment in the banking sector appears to be stronger for low absence countries.

The results for divergence are presented in Table 9. Consistently, the results are qualitatively similar to the main findings that the adoption of IFRS is associated with an increase in foreign investment in the banking

sector. However, contrary to the absence of results, by the significant level, we find that the relationship between IFRS and foreign investment is more pronounced in countries that had high divergence from IFRS.

4.5 | Sensitivity and robustness test

We perform different robustness tests to check the accuracy of our results. These include alternative measurements of the variables and accounting for the global financial crisis.

4.5.1 | An alternative measurement of variables

We begin by checking whether our results are sensitivity to the measurement of the dependent variable. To do that, we employ two alternative variables. First, we consider the number of foreign banks in the country as the dependent variable. If our results of a positive relationship between IFRS adoption and bank internationalisation hold, we expect IFRS-adopting countries to

TABLE 8 High and low absence from IFRS.

	High absence			Low absence		
	(1)	(2)	(3)	(4)	(5)	(6)
Variables	FDIB	FDIB	FDIB	FDIB	FDIB	FDIB
Bank IFRS adoption	12.05**			13.88***		
	(5.57)			(4.20)		
Nonbanks IFRS adoption		−6.33			−8.80	
		(5.50)			(4.91)	
All firms' IFRS adoption			10.68*			7.72**
			(5.35)			(4.00)
Constant	45.26*	47.46	40.56	23.90	127.01***	112.93**
	(25.37)	(28.62)	(29.45)	(36.56)	(31.33)	(36.73)
Control included	Yes	Yes	Yes	Yes	Yes	Yes
Country effect	Yes	Yes	Yes	Yes	Yes	Yes
Year effect	Yes	Yes	Yes	Yes	Yes	Yes
Observations	759	587	578	83	74	74
R-squared	0.27	0.30	0.30	0.57	0.70	0.68

Note: In this table, we examine the effect of IFRS adoption on foreign investment in the banking sector for subsamples in high and low absence. The measurement of absence is based on Ding et al. (2007) score. Results for high absence countries are presented in columns 1–3 and results for low absence countries are contained in columns 4–6. Results in columns 1 and 4 is where IFRS adoption is measured by adoption by Bank only (Bank adoption). In columns 2 and 5, IFRS adoption is measured as adoption by firms other than financial institutions (Non-Bank adoption). In columns 3 and 6 IFRS adoption is measured as adoption by all firms (All firms' adoption). The dependent variable for the three columns is FDIB measured as a percentage of bank assets controlled by foreigners. For brevity, the control variables are suppressed. See Table 1 for variable description. Standard errors are clustered by countries. Robust standard errors in parentheses.

***$p < 0.01$; **$p < 0.05$; *$p < 0.1$.

experience an increase in the number of foreign banks over the sample period. The results are presented in columns 1–3 of Table 10. The coefficient of the new dependent variable is positive and significant, confirming our main findings. Second, we use data on foreign bank ownership from the Global Financial Development database as an alternative measurement. This measurement is also frequently used in international banking literature (Beck et al., 2018; Claessens & van Horen, 2014a, 2015; Karolyi & Taboada, 2015; Leon, 2015). However, it is limited to 2013 and does not cover all countries used in the main results. As presented in columns 4–6 of Table 10, the results are not qualitatively different from those in Table 4, indicating that our results are robust to alternative measurements of the dependent variable. The results of both variables confirm that our findings are not sensitivity to the measurement of the dependent variable.

4.5.2 | Accounting for global financial crisis

Claessens and van Horen (2015) reports that the global financial crisis significantly impacted banks both their operations to enter the foreign market and their performance as foreign banks in host countries. Therefore, we account for the effect of the global financial crisis with a binary variable, *Global crisis*, which takes on 1 for 2008 and 2009 and 0 for all other years. The results, which are presented in columns 7–9 of Table 10, are qualitatively similar to the main results in Table 4. We also use a sub-sampling approach where 2008 and 2009 were excluded to test the impact of the global financial crisis (for brevity, the results are un-tabulated).

Overall, all the different robustness checks using alternative measurements of the variables, and accounting for the effect of the global financial crisis, are qualitatively similar to the main results in Table 4, confirming that our results are not sensitive to alternative measurements of variables and the global financial crisis.

4.6 | Endogeneity test

Although, by including different sets of control variables, we have mitigated potential endogeneity problems from omitted variables. There could be possible endogeneity problems due to the following. First is reverse causality

	High divergence			Low divergence		
	(1)	(2)	(3)	(4)	(5)	(6)
Variables	**FDIB**	**FDIB**	**FDIB**	**FDIB**	**FDIB**	**FDIB**
Bank IFRS adoption	12.30**			7.36*		
	(5.62)			(4.47)		
Nonbanks IFRS adoption		−8.87			−2.47	
		(5.50)			(9.90)	
All firms' IFRS adoption			13.48**			1.98*
			(5.29)			(1.15)
Constant	42.51	48.87	43.21	55.03	100.22	−12.57
	(26.33)	(30.06)	(29.98)	(47.54)	(69.92)	(16.96)
Control included	Yes	Yes	Yes	Yes	Yes	Yes
Country effect	Yes	Yes	Yes	Yes	Yes	Yes
Year effect	Yes	Yes	Yes	Yes	Yes	Yes
Observations	753	590	590	89	71	62
R-squared	0.26	0.29	0.30	0.34	0.44	0.42

TABLE 9 High and low divergence from IFRS.

Note: In this table, we examine the effect of IFRS adoption on foreign investment in the banking sector for subsamples in high and low divergence. The measurement of divergence is based on Ding et al. (2007) score. Results for high divergence countries are presented in columns 1–3 and results for low divergence countries are contained in columns 4–6. Results in columns 1 and 4 is where IFRS adoption is measured by adoption by Bank only (Bank adoption). In columns 2 and 5, IFRS adoption is measured as adoption by firms other than financial institutions (Non-Bank adoption). In columns 3 and 6 IFRS adoption is measured as adoption by all firms (All firms' adoption). The dependent variable for the three columns is FDIB measured as a percentage of bank assets controlled by foreigners. For brevity, the control variables are suppressed. See Table 1 for variable description. Standard errors are clustered by countries. Robust standard errors in parentheses.

***$p < 0.01$; **$p < 0.05$; *$p < 0.1$.

between foreign investment in the banking sector and IFRS adoption. Second, the decision of foreign investors to invest in the current year may depend on previous years' investment in the banking sector (Gordon et al., 2012). IFRS adoption could be endogenous because prior studies have found that the overall flow of foreign direct investment, which includes that of the banking sector, is a significant determinant of a country's IFRS adoption decision (Ben Othman & Kossentini, 2015; Boolaky et al., 2020). Gordon et al. (2012) further argue that foreign direct investment as a potential determinant of IFRS adoption is likely to cause IFRS adoption to be correlated with the error term, making IFRS adoption endogenous. Accordingly, we use three econometric estimation techniques to address these potential endogeneity problems. First, we follow prior studies (Gordon et al., 2012; Nnadi & Soobaroyen, 2015) using the Two-Stage Least Squares Instrumental variable analysis. To identify an appropriate instrument, we lookout for factors that have influenced IFRS adoption but are less likely to influence foreign investments in banks. Our lookout from the literature indicates that the legal origin and the issuance of the Report on Observance of Standards and Code—

Accounting and Auditing (ROSC AA) (Ben Othman & Kossentini, 2015; Boolaky et al., 2020) were appropriate instruments for the IV analysis. Legal origin is measured by a dummy variable equal to 1 for English common law countries and 0 for others. The ROSC (AA) variable is measured by the number of ROSC AA reports issued in a country before 2017. The results of 2SLS IV are presented in columns 1–3 of Table 11. The results are similar to the main results in Table 4, confirming that our results are not sensitive to possible endogeneity problems. We perform different post-estimation tests to check the validity of our instruments. The highly significant *p*-value of the Durbin score confirms that IFRS adoption is endogenous. The insignificant *p*-value of the Sargan test shows that our selected instrumental variables are not over-identified. In a post-estimation test for the weakness of the instruments, the results show that the eigenvalue is significantly larger than all the critical values, suggesting that our selected instruments are not weak.

Next consistent (Tawiah et al., 2022) we employ the Two-step System GMM. The results are presented in columns 3–6 of Table 11. The results are similar to the main findings, confirming that our findings are robust to

TABLE 10 Robustness—alternative measurement and global crisis.

Variables	Number of foreign banks			Alternative measurement of FDIB			Accounting global crisis		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	No.FB	No.FB	No.FB	FDIB	FDIB	FDIB	FDIB	FDIB	FDIB
Bank IFRS adoption	1.07**			10.01**			11.85**		
	(5.01)			(4.97)			(5.04)		
Nonbanks IFRS adoption		−0.47			−4.15			−7.68	
		(4.63)			(4.60)			(4.92)	
All firms' IFRS adoption			0.62**			6.48***			11.44**
			(0.31)			(2.25)			(4.89)
Global crisis							−5.77	−6.55	−1.83
							(4.75)	(5.02)	(4.86)
Constant	4.28*	2.79	3.55	42.10*	44.20	37.98	53.76**	60.88**	49.15
	(2.40)	(2.68)	(2.66)	(24.35)	(27.32)	(27.44)	(25.20)	(29.29)	(29.72)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	552	432	356	485	396	391	842	661	652
R-squared	0.19	0.13	0.17	0.29	0.31	0.31	0.28	0.30	0.31

Note: In this table, we check the robustness of our findings to alternative measurement of the dependent variable and accounting for the global financial crisis. Alternative measurement is sourced for financial development database. Results for alternative measurement are presented in columns 1–6 and results for global financial crisis are contained in columns 6–9. Results in columns 1 and 4 is where IFRS adoption is measured by adoption by Bank only (Bank adoption). In columns 2 and 5, IFRS adoption is measured as adoption by firms other than financial institutions (Non-Bank adoption). In columns 3 and 6 IFRS adoption is measured as adoption by all firms (All firms' adoption). The dependent variable for the three columns is FDIB measured as a percentage of bank assets controlled by foreigners. For brevity, the control variables are suppressed. See Table 1 for variable description. Standard errors are clustered by countries. Robust standard errors in parentheses.

***$p < 0.01$; **$p < 0.05$; *$p < 0.1$.

potential endogeneity problems. The post-estimation results including AR (1), AR (2) and the Hansen test show the appropriateness of the model. For instance, AR (2) and Hansen test is insignificant indicating the robustness of estimations.

Although the 2SLS IV and Two-step System GMM are robust techniques for testing endogeneity, the results may not always be robust due to the difficulty of finding perfect instrumental or exogenous variables. Therefore, we use Propensity Score Matching (PSM) as an additional check to correct endogeneity. Given that our independent variables are dummies, we label adopting countries as the treatment group and non-adopting countries as the control group. The results, which are presented in columns 4–6 of Table 11, provide further confirmation of the main results in Table 4.

5 | CONCLUSION

We have used data from 98 developed and developing countries over 9 years to examine whether the benefit of

IFRS in attracting foreign direct investment to the banking sector is either easing regulatory compliance for foreign banks or reducing the information asymmetry between banks and their potential clients, or both. Following Johanson and Vahlne's (1977) process theory of internationalisation, we argue that adopting IFRS reduces the psychic distance between countries, especially in regulatory compliance. We also argue that IFRS, as a single set of high-quality standards, reduces information asymmetry between foreign banks and their clients (mostly firms) in the host country. Foreign investment in the banking sector is defined as the percentage of foreign bank assets to the total bank assets of a country, and data was collected from the Banking Regulations and Supervision database hosted by the World Bank. We use three unique channels of IFRS adoption, namely, Bank adoption, Non-bank adoption, and All firms' adoption.

Consistent with Johanson and Vahlne's (1977) process theory of internationalisation, we find that adopting IFRS increases the amount of foreign investment in the banking sector in a country because using a common set of standards reduces the psychic distance between a

TABLE 11 Endogeneity test.

Variables	Two stage least square			System generalised method of moments			Propensity score matching		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
	FDIB	FDIB	FDIB	FDIB	FDIB	FDIB	FDIB	FDIB	FDIB
Bank IFRS adoption	36.94*			1.78***			11.51***		
	(21.20)			(0.0.49)			(3.27)		
Nonbanks IFRS adoption		−30.46			−1.50			−10.64	
		(23.43)			(1.65)			(8.32)	
All firms' IFRS adoption			30.47**			1.09***			13.80***
			(14.32)			(0.31)			(3.07)
Lag of dependent variable				1.01***	−0.90				
				(0.02)	(0.96)				
Constant	42.59*	63.35*	41.19		1.15	3.41			
	(23.04)	(32.82)	(27.91)		(2.98)	(1.75)			
Controls included	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Durbin score (*p*-value)	0.00	0.00	0.01						
Over identification (*p*-value)	0.30	0.27	0.38						
AR (1)				0.001	0.001	0.001			
AR (2)				0.712	0.559	0.519			
Hansen test				0.811	0.466	0.810			
Country effect	Yes	Yes	Yes						
Year effect	Yes	Yes	Yes						
Number of instruments				30	30	30			
Number of groups				96	72	74			
Observations	842	661	652	842	661	652	800	287	624
R-squared	0.15	0.21	0.23						

Note: In this table, we check the robustness of our findings to potential endogeneity problems using three robust econometric identification strategies; Two stage least square (2SLS), Two-step System Generalised Method of Moments (S-GMM) and Propensity Score Matching. In 2SLS the instrumental or exogenous variables are legal origin and ROSC (AA). The results of the 2SLS are presented in columns 1–3 and that of S-GMM are presented in columns 3–5. Results in columns 1 4, 4, & 6 is where IFRS adoption is measured by adoption by Bank only (Bank adoption). In columns 2, 5 & 7 IFRS adoption is measured as adoption by firms other than financial institutions (Non-Bank adoption). In columns 3, 6 & 9 is IFRS adoption is measured as adoption by all firms (All firms' adoption). The dependent variable in all columns is FDIB measured as a percentage of bank assets controlled by foreigners. For brevity, the control variables are suppressed. See Table 1 for variable description. Standard errors are clustered by countries. Robust standard errors in parentheses.
***$p < 0.01$; **$p < 0.05$; *$p < 0.1$.

home and a host country. Specifically, we find that the benefit of IFRS easing regulatory compliance is associated with increased foreign investment in banks in developed and developing countries. However, the benefit of IFRS reducing the information asymmetry between the bank and its client is associated with foreign investments in banks only in developing countries. Moreover, the relationship between IFRS and foreign investment in banks is more pronounced in countries where IFRS applies to all firms. We use 2SLS IV analysis, Two-step System Two-step System Generalised Method of Moments and PSM to account for potential endogeneity problems. Finally, we checked the robustness of the results using an alternative measurement of the dependent variable, estimating the effect of the global financial crisis, and sub-sampling into EU and non-EU countries.

Although there are existing studies on IFRS and foreign direct investment, this current paper differs and makes incremental contributions to the literature by focusing on how IFRS facilitates foreign investment in banks. Banking, the business of providing debts to firms, makes banks one of the major consumers of financial statements; hence, adopting a single set of reporting standards should be relevant to foreign banks whose major source of credible information about potential customers is a set of financial statements. Accordingly, this study on

the effect of IFRS on foreign investments in banks provides reassurance on the benefits of adopting IFRS in attracting foreign investment, particularly in a highly regulated market where a common standard is a necessity. Further, we extend the literature on the determinants of foreign investments in the banking sector to include the relevance of a common set of accounting standards in reducing the psychic distance between two countries. Finally, as the first study focused on the impact of IFRS on cross-border investment in a specific sector, we open doors for future research on the impact of IFRS on other sectors, such as international leasing.

Our study also has some policy implications. First, the findings indicate that adopting a common set of global standards is a significant driver of capital flow across national to even highly regulated sectors. Hence non-IFRS-adopting countries, particularly emerging economies, should consider adopting IFRS to boost their banking sector. Although adopting for a specific sector, such as banks, is beneficial, adopting for all firms brings out higher benefits in attracting foreign investment. Second, our findings provide more evidence of the policy relevance of accounting standards to economic growth. Our study implies that the benefit of accounting regulations goes beyond the firm level to significantly impact national development. Adopting a common set of accounting standards also reduces national barriers to cross-border investment.

Our study also offers managerial implications. Banking officers and management particularly those in emerging countries should consider implementing IFRS effectively. Arguably the preparation financial statements in IFRS makes it easy for foreign investors to understand the operations of the bank. Bank managers and directors can enhance their chances of securing foreign investment adopting IFRS. The findings also highlight the managerial benefits of easy comparison among banks by adopting IFRS.

Following Zeff and Nobes' (2010) concerns about the several methods jurisdictions are using to implement IFRS, we admit that our classification of a country's adoption status can be contested. However, we are confident that, given the available information, we have used a comprehensive approach, and our classification is very close to accurate. It could also be more plausible to estimate the effect of the home country's IFRS adoption status on the benefit of IFRS to the host country. However, given the aggregate nature of available data, it is nearly impossible to undertake such an exercise. We hope future studies can take it on as more details on the sources of bank internationalisation emerge.

DATA AVAILABILITY STATEMENT
The data that support the findings of this study are openly available respective references stated in the text.

ORCID
Vincent Tawiah https://orcid.org/0000-0003-1679-387X

ENDNOTES
[1] Foreign banks are the major investors in the banking sectors (Claessens & van Horen, 2014a), therefore most of arguments are centred on foreign banks as the potential investors.

[2] The Bank Regulation and Supervision survey have a specific question 'What percent of the banking system's assets was in banks that were foreign-controlled (i.e., where foreigners owned 50% or more equity) at the end of …?'

[3] The Bank Regulation and Supervision survey have a specific question which ask the bank governing authority of a country whether IFRS is applicable to banks (specific question from 2011 survey. Are applicable accounting standards for banks in your country prepared in accordance with IFRS?).

[4] Data is available only for few countries so the sample is limited to countries that are included in Ding et al. (2007).

REFERENCES

Agostino, M., Drago, D., & Silipo, D. B. (2011). The value relevance of IFRS in the European banking industry. *Review of Quantitative Finance and Accounting*, 36(3), 437–457. https://doi.org/10.1007/s11156-010-0184-1

Ahmed, A. S., Neel, M., & Wang, D. (2013). Does mandatory adoption of IFRS improve accounting quality? Preliminary evidence. *Contemporary Accounting Research*, 30(4), 1344–1372. https://doi.org/10.1111/j.1911-3846.2012.01193.x

Ahamed, M. M., & Mallick, S. K. (2019). Is financial inclusion good for bank stability? International evidence. *Journal of Economic Behavior & Organization*, 157, 403–427. https://doi.org/10.1016/j.jebo.2017.07.027

Alali, F. A., & Foote, P. S. (2012). The value relevance of international financial reporting standards: Empirical evidence in an emerging market. *The International Journal of Accounting*, 47(1), 85–108. https://doi.org/10.1016/j.intacc.2011.12.005

Álvarez, J. M., García, J. P., & Gouveia, O. (2016). *The globalisation of banking: How is regulation affecting global banks?* (p. 19). Global Economic Watch, BBVA. https://www.bbvaresearch.com/wp-content/uploads/2016/08/The-globalisation-of-banking.pdf

Amiram, D. (2012). Financial information globalization and foreign investment decisions. *Journal of International Accounting Research*, 11(2), 57–81. https://doi.org/10.2308/jiar-50282

Armstrong, C. S., Barth, M. E., Jagolinzer, A. D., & Riedl, E. J. (2010). Market reaction to the adoption of IFRS in Europe. The accounting review. *JSTOR*, *85*(1), 31–61.

Arnold, P. J., & Sikka, P. (2001). Globalization and the state–profession relationship: The case the bank of credit and commerce international. *Accounting, Organizations and Society*, *26*(6), 475–499. https://doi.org/10.1016/S0361-3682(01)00009-5

Bakre, O. M. (2008). Financial reporting as technology that supports and sustains imperial expansion, maintenance and control in the colonial and post-colonial globalisation: The case of the Jamaican economy. *Critical Perspectives on Accounting*, *19*(4), 487–522. https://doi.org/10.1016/j.cpa.2006.09.002

Ball, R. (2006). International financial reporting standards (IFRS): Pros and cons for investors. *Accounting and Business Research*, *36*(sup1), 5–27. https://doi.org/10.1080/00014788.2006.9730040

Ball, R. (2016). IFRS—10 years later. *Accounting and Business Research*, *46*(5), 545–571. https://doi.org/10.1080/00014788.2016.1182710

Ball, R., Li, X., & Shivakumar, L. (2015). Contractibility and transparency of financial statement information prepared under IFRS: Evidence from debt contracts around IFRS adoption. *Journal of Accounting Research*, *53*(5), 915–963. https://doi.org/10.1111/1475-679X.12095

Banna, H., Kabir Hassan, M., & Rashid, M. (2021). Fintech-based financial inclusion and bank risk-taking: Evidence from OIC countries. *Journal of International Financial Markets, Institutions and Money*, *75*, 101447. https://doi.org/10.1016/j.intfin.2021.101447

Barth, J. R., Caprio, G., & Levine, R. (2004). Bank regulation and supervision: What works best? *Journal of Financial Intermediation*, *13*(2), 205–248. https://doi.org/10.1016/j.jfi.2003.06.002

Barth, M. E., Landsman, W. R., & Lang, M. H. (2008). International accounting standards and accounting quality. *Journal of Accounting Research: JSTOR*, *46*(3), 467–498.

Beatty, A. (2008). Discussion of the debt-contracting value of accounting information and loan syndicate structure. *Journal of Accounting Research: JSTOR*, *46*(2), 289–295.

Beck, T., Degryse, H., De Haas, R., & van Horen, N. (2018). When arm's length is too far: Relationship banking over the credit cycle. *Journal of Financial Economics*, *127*(1), 174–196. https://doi.org/10.1016/j.jfineco.2017.11.007

Beck, T., Demirgüç-Kunt, A., & Levine, R. (2006). Bank supervision and corruption in lending. *Journal of Monetary Economics*, *53*(8), 2131–2163. https://doi.org/10.1016/j.jmoneco.2005.10.014

Ben Othman, H., & Kossentini, A. (2015). IFRS adoption strategies and theories of economic development: Effects on the development of emerging stock markets. *Journal of Accounting in Emerging Economies*, *5*(1), 70–121. https://doi.org/10.1108/JAEE-02-2012-0006

Beneish, M. D., Miller, B. P., & Yohn, T. L. (2015). Macroeconomic evidence on the impact of mandatory IFRS adoption on equity and debt markets. *Journal of Accounting and Public Policy*, *34*(1), 1–27. https://doi.org/10.1016/j.jaccpubpol.2014.10.002

Boolaky, P., Tawiah, V., & Soobaroyen, T. (2020). Why do African countries adopt IFRS? An institutional perspective. *The International Journal of Accounting*, *55*(1), 2050005. https://doi.org/10.1142/S1094406020500055

Bova, F., & Pereira, R. 2012. The determinants and consequences of heterogeneous IFRS compliance levels following mandatory IFRS adoption: Evidence from a developing country. *Journal of International Accounting Research* *11*(1), 83–111. https://doi.org/10.2308/jiar-10211.

Brüggemann, U., Hitz, J.-M., & Sellhorn, T. (2013). Intended and unintended consequences of mandatory IFRS adoption: A review of extant evidence and suggestions for future research. *European Accounting Review*, *22*(1), 1–37. https://doi.org/10.1080/09638180.2012.718487

Buch, C. M. (2000). Why do banks go abroad?—Evidence from German data. *Financial Markets, Institutions & Instruments*, *9*(1), 33–67. https://doi.org/10.1111/1468-0416.00035

Buch, C. M. (2003). Information or regulation: What drives the international activities of commercial banks? *Journal of Money, Credit and Banking: JSTOR*, *35*(6), 851–869.

Caban-Garcia, M. T., Choi, H., & Kim, M. (2020). The effects of operating cash flow disclosure on earnings comparability, analysts' forecasts, and firms' investment decisions during the pre-IFRS era. *The British Accounting Review*, *52*(4), 100883. https://doi.org/10.1016/j.bar.2020.100883

Cai, L., Rahman, A., & Courtenay, S. (2014). The effect of IFRS adoption conditional upon the level of pre-adoption divergence. *The International Journal of Accounting*, *49*(2), 147–178. https://doi.org/10.1016/j.intacc.2014.04.004

Capkun, V., Collins, D., & Jeanjean, T. (2016). The effect of IAS/IFRS adoption on earnings management (smoothing): A closer look at competing explanations. *Journal of Accounting and Public Policy*, *35*(4), 352–394. https://doi.org/10.1016/j.jaccpubpol.2016.04.002

Chamisa, E. E. (2000). The relevance and observance of the IASC standards in developing countries and the particular case of Zimbabwe. *The International Journal of Accounting*, *35*(2), 267–286. https://doi.org/10.1016/S0020-7063(00)00049-2

Chand, P., & White, M. (2007). A critique of the influence of globalization and convergence of accounting standards in Fiji. *Critical Perspectives on Accounting*, *18*(5), 605–622. https://doi.org/10.1016/j.cpa.2006.05.006

Claessens, S., & van Horen, N. (2014a). Foreign banks: Trends and impact. *Journal of Money, Credit and Banking*, *46*(s1), 295–326. https://doi.org/10.1111/jmcb.12092

Claessens, S., & van Horen, N. (2014b). Location decisions of foreign banks and competitor remoteness. *Journal of Money, Credit and Banking*, *46*(1), 145–170. https://doi.org/10.1111/jmcb.12100

Claessens, S., & van Horen, N. (2015). The impact of the global financial crisis on banking globalization. *IMF Economic Review*, *63*(4), 868–918. https://doi.org/10.1057/imfer.2015.38

Covrig, V. M., Defond, M. L., & Hung, M. (2007). Home bias, foreign mutual fund holdings, and the voluntary adoption of international accounting standards. *Journal of Accounting Research*, *45*(1), 41–70. https://doi.org/10.1111/j.1475-679X.2007.00226.x

Daske, H., & Gebhardt, G. (2006). International financial reporting standards and experts' perceptions of disclosure quality. *Abacus*, *42*(3–4), 461–498. https://doi.org/10.1111/j.1467-6281.2006.00211.x

Daske, H., Hail, L., Leuz, C., & Verdi, R. (2013). Adopting a label: Heterogeneity in the economic consequences around IAS/IFRS

adoptions. *Journal of Accounting Research*, *51*(3), 495–547. https://doi.org/10.1111/1475-679X.12005

Demirgüç-Kunt, A., Detragiache, E., & Tressel, T. (2008). Banking on the principles: Compliance with Basel Core principles and bank soundness. *Journal of Financial Intermediation*, *17*(4), 511–542. https://doi.org/10.1016/j.jfi.2007.10.003

Ding, Y., Hope, O.-K., Jeanjean, T., & Stolowy, H. (2007). Differences between domestic accounting standards and IAS: Measurement, determinants and implications. *Journal of Accounting and Public Policy*, *26*(1), 1–38. https://doi.org/10.1016/j.jaccpubpol.2006.11.001

Djatej, A., Gao, G., Sarikas, R. H. S., & Senteney, D. L. (2011). Eastern and Western European firms public and private information quality: The comparative impact of degree of implementation of IFRS. *Emerging Markets Review*, *12*(2), 111–129. https://doi.org/10.1016/j.ememar.2011.02.001

Elamer, A. A., Ntim, C. G., & Abdou, H. A. (2017). Islamic governance, national governance, and bank risk management and disclosure in MENA countries. *Business & Society*, *59*, 914–955. https://doi.org/10.1177/0007650317746108

Elbakry, A. E., Nwachukwu, J. C., Abdou, H. A., & Elshandidy, T. (2017). Comparative evidence on the value relevance of IFRS-based accounting information in Germany and the UK. *Journal of International Accounting, Auditing and Taxation*, *28*, 10–30. https://doi.org/10.1016/j.intaccaudtax.2016.12.002

Florou, A., Kosi, U., & Pope, P. F. (2017). Are international accounting standards more credit relevant than domestic standards? *Accounting and Business Research*, *47*(1), 1–29. https://doi.org/10.1080/00014788.2016.1224968

Freixas, X., & Rochet, J.-C. (2008). *Microeconomics of banking*. MIT Press.

Gebhardt, G., & Novotny-Farkas, Z. (2011). Mandatory IFRS adoption and accounting quality of European banks. *Journal of Business Finance & Accounting*, *38*(3–4), 289–333. https://doi.org/10.1111/j.1468-5957.2011.02242.x

Gehrig, T. (1993). An information based explanation of the domestic bias in international equity investment. *The Scandinavian Journal of Economics: JSTOR*, *95*(1), 97–109. https://doi.org/10.2307/3440137

Girbina, M., Minu, M., Bunea, S., & Sacarin, M. (2012). Perceptions of preparers from Romanian banks regarding IFRS application. *Journal of Accounting and Management Information Systems*, *11*(2), 191–208.

Gordon, L. A., Loeb, M. P., & Zhu, W. (2012). The impact of IFRS adoption on foreign direct investment. *Journal of Accounting and Public Policy*, *31*(4), 374–398. https://doi.org/10.1016/j.jaccpubpol.2012.06.001

Habib, M., & Zurawicki, L. (2002). Corruption and foreign direct investment. *Journal of International Business Studies*, *33*(2), 291–307. https://doi.org/10.1057/palgrave.jibs.8491017

Hail, L., Leuz, C., & Wysocki, P. (2010). Global accounting convergence and the potential adoption of IFRS by the U.S. (part I): Conceptual underpinnings and economic analysis. *Accounting Horizons*, *24*(3), 355–394. https://doi.org/10.2308/acch.2010.24.3.355

Hopper, T., Lassou, P., & Soobaroyen, T. (2017). Globalisation, accounting and developing Countries. *Critical Perspectives on Accounting*, *43*, 125–148. https://doi.org/10.1016/j.cpa.2016.06.003

Hossain, M., & Hammami, H. (2009). Voluntary disclosure in the annual reports of an emerging country: The case of Qatar. *Advances in Accounting*, *25*(2), 255–265. https://doi.org/10.1016/j.adiac.2009.08.002

Houqe, M. N., & Monem, R. M. (2016). IFRS adoption, extent of disclosure, and perceived corruption: A cross-country study. *The International Journal of Accounting*, *51*(3), 363–378. https://doi.org/10.1016/j.intacc.2016.07.002

Houqe, M. N., van Zijl, T., Dunstan, K., & Karim, A. K. M. W. (2012). The effect of IFRS adoption and investor protection on earnings quality around the world. *The International Journal of Accounting*, *47*(3), 333–355. https://doi.org/10.1016/j.intacc.2012.07.003

Houqe, N. (2018). A review of the current debate on the determinants and consequences of mandatory IFRS adoption. *International Journal of Accounting & Information Management*, *26*(3), 413–442. https://doi.org/10.1108/IJAIM-03-2017-0034

Howcroft, J. B., Ul-Haq, R., & Hammerton, R. (2010). Bank regulation and the process of internationalisation: A study of Japanese bank entry into London. *The Service Industries Journal*, *30*(8), 1359–1375. https://doi.org/10.1080/02642060802613533

Iatridis, G. (2010). International financial reporting standards and the quality of financial statement information. *International Review of Financial Analysis*, *19*(3), 193–204. https://doi.org/10.1016/j.irfa.2010.02.004

Iatridis, G., & Rouvolis, S. (2010). The post-adoption effects of the implementation of international financial reporting standards in Greece. *Journal of International Accounting, Auditing and Taxation*, *19*(1), 55–65. https://doi.org/10.1016/j.intaccaudtax.2009.12.004

Ichiue, H., & Lambert, F. (2016). *Post-crisis international banking: An analysis with new regulatory survey data* (Working Paper 16/88) (p. 35). IMF. https://www.imf.org/en/Publications/WP/Issues/2016/12/31/Post-crisis-International-Banking-An-Analysis-with-New-Regulatory-Survey-Data-43861

International Federation of Accountants. (2019). *International standards: 2019 global status report*. https://www.ifac.org/knowledge-gateway/supporting-international-standards/discussion/international-standards-2019-global-status-report

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, *3*(4), 305–360. https://doi.org/10.1016/0304-405X(76)90026-X

Johanson, J., & Vahlne, J.-E. (1977). The internationalization process of the firm—A model of knowledge development and increasing foreign market commitments. *Journal of International Business Studies*, *8*(1), 23–32. https://doi.org/10.1057/palgrave.jibs.8490676

Johanson, J., & Vahlne, J.-E. (2016). Psychic distance. In M. Augier & D. J. Teece (Eds.), *The Palgrave encyclopedia of strategic management* (pp. 1–4). Palgrave Macmillan UK. https://doi.org/10.1057/978-1-349-94848-2_228-1

Karolyi, G. A., & Taboada, A. G. (2015). Regulatory arbitrage and cross-border bank acquisitions. *The Journal of Finance*, *70*(6), 2395–2450. https://doi.org/10.1111/jofi.12262

Kaufmann, D., & Kraay, A. (2018). *The worldwide governance indicators*. The World Bank. https://info.worldbank.org/governance/wgi/

Kaufmann, D., Kraay, A., & Mastruzzi, M. (2011). The worldwide governance indicators: Methodology and analytical issues. *Hague Journal on the Rule of Law*, *3*(2), 220–246. https://doi.org/10.1017/S1876404511200046

Konara, P., & Shirodkar, V. (2018). Regulatory institutional distance and MNCs' subsidiary performance: Climbing up vs. climbing down the institutional ladder. *Journal of International Management*, *24*(4), 333–347. https://doi.org/10.1016/j.intman.2018.04.004

Lee, H. D., Oh, F. D., & Park, J. (2018). The impact of mandatory K-IFRS adoption on IPO underpricing. *International Journal of Finance & Economics*, *27*, 1101–1119. https://doi.org/10.1002/ijfe.2203

Leon, F. (2015). Does bank competition alleviate credit constraints in developing countries? *Journal of Banking & Finance*, *57*, 130–142. https://doi.org/10.1016/j.jbankfin.2015.04.005

Manganaris, P., Spathis, C., & Dasilas, A. (2016). How institutional factors and IFRS affect the value relevance of conservative and non-conservative banks. *Journal of Applied Accounting Research*, *17*(2), 211–236. https://doi.org/10.1108/JAAR-09-2014-0094

Mantzari, E., Sigalas, C., & Hines, T. (2017). Adoption of the international financial reporting standards by Greek non-listed companies: The role of coercive and hegemonic pressures. *Accounting Forum*, *41*(3), 185–205. https://doi.org/10.1016/j.accfor.2017.04.003

Marton, J., & Runesson, E. (2017). The predictive ability of loan loss provisions in banks—Effects of accounting standards, enforcement and incentives. *The British Accounting Review*, *49*(2), 162–180. https://doi.org/10.1016/j.bar.2016.09.003

Miah, M. S., Jiang, H., Rahman, A., & Stent, W. (2021). The impact of IFRS complexity on analyst forecast properties: The moderating role of high quality audit. *International Journal of Finance & Economics*, *28*, 902–928. https://doi.org/10.1002/ijfe.2456

Mulder, A., & Westerhuis, G. (2015). The determinants of bank internationalisation in times of financial globalisation: Evidence from the world's largest banks, 1980–2007. *Business History*, *57*(1), 122–155. https://doi.org/10.1080/00076791.2014.977874

Nnadi, M., & Soobaroyen, T. (2015). International financial reporting standards and foreign direct investment: The case of Africa. *Advances in Accounting*, *31*(2), 228–238. https://doi.org/10.1016/j.adiac.2015.09.007

Pasiouras, F., Gaganis, C., & Zopounidis, C. (2006). The impact of bank regulations, supervision, market structure, and bank characteristics on individual bank ratings: A cross-country analysis. *Review of Quantitative Finance and Accounting*, *27*(4), 403–438. https://doi.org/10.1007/s11156-006-0045-0

Pasiouras, F., Tanna, S., & Zopounidis, C. (2009). The impact of banking regulations on banks' cost and profit efficiency: Cross-country evidence. *International Review of Financial Analysis*, *18*(5), 294–302. https://doi.org/10.1016/j.irfa.2009.07.003

Schipper, K. (2005). The introduction of international accounting standards in Europe: Implications for international convergence. *European Accounting Review*, *14*(1), 101–126. https://doi.org/10.1080/0963818042000338013

Shima, K. M., & Gordon, E. A. (2011). IFRS and the regulatory environment: The case of U.S. investor allocation choice. *Journal of Accounting and Public Policy*, *30*(5), 481–500. https://doi.org/10.1016/j.jaccpubpol.2011.07.001

Smith, C. W., & Warner, J. B. (1979). On financial contracting: An analysis of bond covenants. *Journal of Financial Economics*, *7*(2), 117–161. https://doi.org/10.1016/0304-405X(79)90011-4

Tabachnick, B. G., & Fidell, L. S. (2013). *Using multivariate statistics*. Pearson Education.

Tawiah, V., & Gyapong, E. (2021). International financial reporting standards, domestic debt finance and institutional quality: Evidence from developing countries. *International Journal of Finance & Economics*, *28*, 2915–2936. https://doi.org/10.1002/ijfe.2575

Tawiah, V., Kebede, J., & Kyiu, A. (2022). Corruption, Chinese investment, and trade: Evidence from Africa. *Journal of Emerging Market Finance*, *21*(2), 123–151. https://doi.org/10.1177/09726527221073981

Temesvary, J. (2014). The determinants of U.S. banks' international activities. *Journal of Banking & Finance*, *44*, 233–247. https://doi.org/10.1016/j.jbankfin.2014.04.014

Tschoegl, A. E. (1987). International retail banking as a strategy: An assessment. *Journal of International Business Studies*, *18*(2), 67–88. https://doi.org/10.1057/palgrave.jibs.8490407

Tunyi, A. A., Ehalaiye, D., Gyapong, E., & Ntim, C. G. (2020). The value of discretion in Africa: Evidence from acquired intangible assets under IFRS 3. *The International Journal of Accounting*, *2*, 050008. https://doi.org/10.1142/S1094406020500080

Tweedie, D., & Seidenstein, T. (2005). Setting a global standard: The case for accounting convergence. *Northwestern Journal of International Law & Business*, *25*(3), 589.

World Bank (Ed.). (2012). *Rethinking the role of the state in finance*. World Bank.

Zeff, S. A., & Nobes, C. W. (2010). Commentary: Has Australia (or any other jurisdiction) 'adopted' IFRS? *Australian Accounting Review*, *20*(2), 178–184. https://doi.org/10.1111/j.1835-2561.2010.00089.x

---

> **How to cite this article:** Tawiah, V., & Oyewo, B. (2024). The effect of IFRS adoption on bank internationalisation. *International Journal of Finance & Economics*, 1–24. https://doi.org/10.1002/ijfe.2932

APPENDIX A: LIST OF COUNTRIES AND ADOPTION STATUS AS OF 2016

Country	Adoption status	Banks adoption	Country	Adoption status	Banks adoption	Country	Adoption status	Banks adoption
Angola	No	No	Ghana	Yes	Yes	Nicaragua	Ye	No
Argentina	No	Yes	Greece	Yes	Yes	Nigeria	Yes	Yes
Armenia	Yes	Yes	Guatemala	No	Yes	Norway	Yes	Yes
Australia	Yes	No	Guyana	Yes	Yes	Oman	Yes	Yes
Austria	Yes	Yes	Honduras	Yes	Yes	Pakistan	No	Yes
Bangladesh	Yes	Yes	Hungary	Yes	Yes	Panama	Yes	Yes
Belarus	No	No	India	No	No	Paraguay	No	No
Belgium	Yes	Yes	Indonesia	No	Yes	Peru	Yes	No
Belize	No	Yes	Ireland	Yes	Yes	Philippines	Yes	Yes
Bhutan	No	Yes	Israel	Yes	Yes	Poland	Yes	Yes
Bosnia and Herzegovina	No	Yes	Japan Jordan	No Yes	No Yes	Portugal	Yes	Yes
Botswana	Yes	No	Kenya	Yes	Yes	Qatar	Yes	Yes
Brazil	Yes	Yes	Korea	Yes	Yes	Romania	Yes	Yes
Bulgaria	No	Yes	Kyrgyzstan	Yes	Yes	Russia	Yes	Yes
Burundi	No	Yes	Latvia	Yes	Yes	Serbia	Yes	Yes
Canada	Yes	Yes	Lesotho	Yes	Yes	Slovakia	Yes	Yes
Chile	Yes	Yes	Lithuania	Yes	Yes	Slovenia	Yes	Yes
China	No	No	Luxembourg	Yes	Yes	South Africa	Yes	Yes
Colombia	Yes	No	Macao	No	Yes	Spain	Yes	Yes
Costa Rica	Yes	No	Malawi	Yes	Yes	Sri Lanka	Yes	Yes
Côte d'Ivoire	Yes	Yes	Malaysia	Yes	Yes	Suriname	No	No
Croatia	Yes	Yes	Maldives	Yes	Yes	Switzerland	No	No
Cyprus	Yes	No	Malta	Yes	Yes	Tanzania	Yes	Yes
Dominican Republic	Yes	No	Mauritius	Yes	Yes	Thailand	No	Yes
Ecuador	No	No	Mexico	Yes	No	Trinidad and Tobago	Yes	Yes
El Salvador	No	Yes	Moldova	Yes	Yes	Tunisia	No	Yes
Estonia	Yes	Yes	Montenegro	Yes	Yes	Turkey	Yes	Yes
Fiji	Yes	Yes	Morocco	Yes	No	Uganda	Yes	Yes
Finland	Yes	No	Mozambique	Yes	Yes	Ukraine	Yes	Yes
France	Yes	Yes	Namibia	Yes	Yes	United Kingdom	Yes	Yes
Gambia	No	No	Netherlands	Yes	Yes	Uruguay	Yes	Yes
Germany	Yes	No	New Zealand	Yes	Yes	USA Zimbabwe	No Yes	No Yes

APPENDIX B: PRINCIPAL COMPONENT ANALYSIS (PCA) STATISTICS

Variables	1	2	3	4	5	6
Panel A: Correlation						
1. Government effectiveness	1					
2. Political stability	0.71	1				
3. regulatory quality	0.94	0.69	1			
4. Rule of law	0.94	0.73	0.92	1		
5. Voice and accountability	0.79	0.64	0.8	0.81	1	
6. Control of corruption	0.92	0.75	0.89	0.95	0.8	1

Component	Eigenvalue	Difference	Proportion	Cumulative
Panel B: Eigenvalue				
Comp1	5.11323	4.7085	0.8522	0.8522
Comp2	0.404731	0.134828	0.0675	0.9197
Comp3	0.269903	0.150226	0.045	0.9646
Comp4	0.119677	0.0676374	0.0199	0.9846
Comp5	0.0520397	0.011624	0.0087	0.9933
Comp6	0.0404157		0.0067	1