# THE IMPLICATIONS OF IFRS ON THE CREDIT MARKET: EVIDENCE FROM THE EMERGING MARKET

Sinan Salem Kasim Al-Shaikh [*], Hussen Amran Naji Al-Refiay [**], Azher Subhi Abdulhussein [**]

* *Corresponding author*, Accounting Department, Faculty of Management and Economics, Mustansiriyah University, Baghdad, Iraq
Contact details: Accounting Department, Faculty of Management and Economics, Mustansiriyah University, Baghdad, Iraq
** Accounting Department, Faculty of Administration and Economics, University of Karbela, Karbala, Iraq

OPEN ACCESS

**How to cite this paper:** Al-Shaikh, S. S. K., Al-Refiay, H. A. N., & Abdulhussein, A. S. (2023). The implications of IFRS on the credit market: Evidence from the emerging market. *Corporate Governance and Organizational Behavior Review, 7*(1), 29–43.
https://doi.org/10.22495/cgobrv7i1p3



**ISSN Online:** 2521-1889
**ISSN Print:** 2521-1870

**Received:** 09.07.2022
**Accepted:** 16.01.2023

**JEL Classification:** G10, M41, M210
**DOI:** 10.22495/cgobrv7i1p3

## Abstract

Banks are usually assessed credit risk based on borrowers' financial statements to monitor credit risk over the life of the lending contract (Beatty, 2008; Golubeva, 2020). Thus, this research examines the implications of mandatory International Financial Reporting Standards (IFRS) implementation on the rational investment decisions of lenders and borrowers in the emerging market (e.g., the Iraqi credit market). Quantitative data were collected, nearly 137000 credit/loan contracts and 500 debenture contracts of almost 750 individual companies. We separate the dataset into two periods, earlier and later IFRS implementation using interaction variables to extract other economic factors' impact on loan contract stipulation. Even though enhancing the quality of financial statements is the most rational objective of IFRS adoption and implementation, the results show insignificant improvement. IFRS implementation has a limited effect in enhancing financial statements' quality during the conversion period. This finding supports the view that economic advantages do not essentially contribute to the application of IFRS but depend on other considerations and the level of disclosure practices.

**Keywords:** International Financial Reporting Standards (IFRS), Credit Market, Financial Sector, Financial Statements' Quality

**Authors' individual contribution:** Conceptualization — S.S.K.A.-S.; Methodology — S.S.K.A.-S.; Formal Analysis — S.S.K.A.-S. Investigation — S.S.K.A.-S.; Resources — H.A.N.A.-R.; Writing — Original Draft — H.A.N.A.-R.; Writing — Review & Editing — A.S.A.

**Declaration of conflicting interests:** The Authors declare that there is no conflict of interest.

## 1. INTRODUCTION

The main reason for the International Financial Reporting Standards (IFRS) adoption-decision and implementation is to enhance the quality of financial statements (accounting reports) to improve stakeholders' rational investment decisions. That is why IFRS is accepted as a single global business language[1]. The International Accounting Standards Board (IASB) worked with the US Financial Accounting Standards Board to revise the Conceptual Framework issued in March 2018. Qualitative characteristics of useful financial information were the core of the amended conceptual framework. Therefore, financial statements quality (FSQ) is firmly attributed to their ability to enhance investors' rational investment decisions. Accordingly, accounting information significantly influences lenders and borrowers (Beatty, 2008). Banks and other lenders usually assess credit risk based on borrowers' financial statements before making lending decisions and

[1] Around 125 countries require or permit the adoption/implementation of IFRS.

going into the lending process. Then, using the accounting information to monitor credit risk over the life of the lending contract. Hence, to increase our understanding of what extent the mandatory IFRS implementation enhances financial statements' quality, this research investigates credit-risk assessment and loan contract stipulation (e.g., Iraq's financial market).

Many studies document several positive consequences results associated with IFRS adoption/implementation, including increasing comparability (Brochet et al., 2013; Barth, 2013; Callao et al., 2007); reduced equity cost (de Lima, 2011; Tan et al., 2011); increased market liquidity (Agostino et al., 2011); improvements in forecast accuracy (Byard et al., 2011); enhancing value relevance (Chebaane & Othman, 2014; Omokhudu & Ibadin, 2015); reduced internal information asymmetry (Daske et al., 2008); increased inflow of foreign investment (Li, 2010); and the capital market (Ahmed et al., 2013; Grossman et al., 2013). However, previous studies have principally been attentive to the effectiveness of IFRS implementation, with preliminary studies investigating the effectiveness of IFRS implementation to creditors, especially to the credit market in a developing transitional economy like Iraq.

The impact of IFRS implementation on the credit market is significant for many excuses.

*Debt funding* is the principal means for global businesses; indeed, it could be an effective financing source than an equity interest in the capital market. Using Iraq as a case, firms obtained nearly 13.7 trillion Iraqi Dinar (IQD) financing over two years (2018–2019), bank credit was 82% of which, and the rest (18%) was the issuance of equity. Although already-existing debts may be a substantial portion of the loans, businesses indisputably gain access to debt funding more commonly than equity funding.

*Creditors* are susceptible to differences in accounting policies and rules due to their contracting and evaluation performance effects. IFRS implementation brings numerous shifts in accounting practices that affect financial statements and influence creditors' interpretations of financial information. Thus, the credit market may deliver a valuable prospect for examining the impacts of IFRS implementation. Ball et al. (2008) claimed that financial statements are primarily motivated by the credit market instated in the capital market; therefore, it is necessary to appreciate creditors' reactions to accounting rules and policies.

*Shareholders and creditors* have various information demands. Thus, investors will employ accounting information to evaluate their equity of shares and creditors to review their evaluations and contracts (Watts, 2003, 2006; Daske, 2006). Hence, the effects of applying IFRS on the credit market may not necessarily apply to the stock market.

IFRS allowed for different accounting methods, which rose to critical critics regarding the suitability of IFRS for contractual purposes. This perception argued that IFRS adoption/implementation might decrease accounting information reliability and reduce financial statements' quality, especially credit decisions. Moreover, decisions' ambiguities increased the probability of contract contraventions due merely to normative differences.

IFRS literature shows a lengthy debate on whether the IASB pays considerable attention to investors' information on needs to be based on evaluating creditors' concert and contractual requirements (Ball et al., 2015). The discussion on the IFRS's effectiveness on the credit market reveals two different schools of thought. The first vision for IFRS implementation. This vision sees that accounting information's advantageousness to creditors increased due to increased financial statements' quality post-IFRS implementation. IFRS is a principles standard resulting in accounting information becoming further pertinent to evaluating credit risk, reflecting favourable economic implications. Especially applying fair value measurements and encouraging further timely recognition of financial losses and gains. Such mechanisms might support contractual stipulation and decrease monitoring costs. The second vision is *against* IFRS implementation. Scholars who adopted this vision argue that IFRS might impede the advantageousness of accounting information to creditors. Applying fair value measurement is not necessarily led to high-liquidity markets. It depends on subjective evaluations that may increase earnings management and agency costs. Increases and decreases in market value may briefly influence cash flows. Hence, employing the information in the income statement may impede its usefulness, particularly when long-term loans are included (Li, 2010). Therefore, the relevance of financial information in supporting creditors' decisions is a function of their information needs, which are different from equity investors' information requirements (Holthausen & Watts, 2001). Hence, *"one size does not always fit all financial reporting needs for all societies"* (Rodrigues & Craig, 2007, p. 753). Therefore, Hail and Leuz (2007) recommended further investigation into IFRS implementation implications of the credit market.

Moreover, only some studies assessing the relationship between loan contracts and mandatory IFRS adoption produced contradictory results (Wu & Zhang, 2014). Florou et al. (2017) find that IFRS implementation increases credit ratings' sensitivity to financial information. They suggest that IFRS generates further appropriate information for creditors. However, other scholars found that IFRS implementation caused excellent interest rates and quicker maturities (Chen et al., 2013). These contradictions clarify the discrepancies between incentives in firm-specific and country-specific (Daske et al., 2013).

Other previous investigations are restricted in various ways, including the assessment limited to credit operations without discussing the impact of firm-level incentives. General controls are only used for each jurisdiction's institutional aspects, emphasising the evaluation of average country measures. This study focuses on a specific country (Iraq) employing an inclusive sample of bank credit contracts. To the best of our knowledge, this study extends previous literature by addressing IFRS implications in detail through within-country analysis, emphasising the economic impact for debtors and the relevance of financial statements to creditors, considering the probable presence of entity-level incentives. Firstly, we investigate the significance of financial statements to creditors.

Hann et al. (2007) defined relevance as financial statements' ability to clarify corporate credit ratings. We collect credit ratings given by risk evaluation organisations and financial institutions. Furthermore, we examine the diffusion form in credit ratings appointed to the same company employing various financial institutions and risk evaluation organisations. Then, we investigate the impacts of IFRS implementation on the debt contract's cost, for instance, loan amount, collateral requirements, and time to maturity.

Given that IFRS is a function of financial statements' quality, we believe the probability that IFRS implementation has commercial implications for the stipulation of a loan contract. As the most significant financial information users, institutional investors, and financial institutions observe timeliness, IFRS implementation impacts loan contract stipulation (Armstrong et al., 2010). Moreover, we assess the discrepancies in IFRS implementation implications on the bank credit market versus the debenture market. Previous studies argue that financial statements' quality is crucial in funding decisions, primarily when the capital provider cannot mitigate agency costs due to the lack of alternative mechanisms (Biddle & Hilary, 2006; Beatty et al., 2010). Therefore, the debenture market's growth will be highly influenced by the quality of financial statements because investors in the debenture bond are further scattered and less willing to afford high observing costs (Ball, 2006).

The research findings indicate that IFRS implementation increased financial statements' ability to clarify firm credit ratings. However, the impact was restricted to disclosure improvements in the financial statements post-transition. They decrease the diffusion in credit ratings post-IFRS implementation. Moreover, the findings indicate that compulsory IFRS implementation had both desirable and undesirable implications on the credit market for bond and bank credit markets. The improvement in financial statements' quality is related to larger loans, longer maturity, less demand for collateral, and a nominal cost of debt. These developments seem to be more significant for indenture bonds than bank loans. This finding reinforces that depending on financial statements is inevitable with the lack of alternatives to mitigate agency costs (de Lima et al., 2018).

This investigation expands upon previous research in numerous ways, including the study is built on a large number of credit contracts, including nearly all third-party resources, which were aggregated from 1) the Iraqi Credit Information System of the Central Bank of Iraq (CBI), 2) the Iraqi Debenture System (IDS) directed by the Iraqi Association of Finance and Capital Markets (IAFCM). Since the majority of credit contracts are made in the non-public sector, there is no public access to the contract stipulation. This led to the insufficiency of investigation in this field. Therefore, most of the previous literature on credit transactions built on relatively small sample sizes and cross-country investigation (Florou et al., 2017, nearly 20000 contracts for 34 countries; Chen et al., 2013, nearly 21000 deals of 39 countries; Ball et al., 2015, about 3000 contracts of 28 countries; Wu and Zhang, 2014, about 19000 contracts of 18 countries). However, our investigation includes nearly 137000 credit contracts of almost 750 individual companies traded on the stock market. Furthermore, prior literature emphasises investigating the relevance of the financial statements since a credit standpoint has wholly concentrated on external rating bodies (Wu & Zhang, 2014). However, this research assesses the significance of financial statements post-IFRS implementation from financial institutions and external agencies utilising credit ratings appointed by lenders as a proxy for failure to pay the risk.

Iraq constitutes a perfect venue to investigate the implications of compulsory IFRS implementation on the credit market for the following reasons:

1) *Economically*, developing countries incessantly display solid economic growth and carry weight in the global economy. Iraq is an actual state in the capital markets and international economy (Shubber, 2009): a) Iraq's oil reserves are second globally; b) Iraq also has numerous other natural resources, for instance, gas, cement mud, preliminary gypsum, phosphates, kaolin mud, sulfur, and glass silica sands; c) overseas investors have a solid advantage in developing Iraq's infrastructure (Nathan Associates London Ltd, 2011). Consequently, governments and businesses have boosted benefits in Iraq.

2) *Transitional country*. Iraq has moved from a socialist to a capitalist governmental regime and a decentralised free capital market (Hassan et al., 2014).

3) *Literature limitations*. A scarcity of literature reflects the implications of IFRS implementation in Iraq.

This study significantly contributes to the methodology. Dissimilar previous studies employed insufficient proxies to approximate the cost of debt directly from individual loan contracts collected from the databases of the CBI, IDS, and IAFCM. Moreover, our study demonstrates how compulsory IFRS implementation influences the stipulation of debt contracts instead of the cost of debt. An analysis of the entire loan package illustrates how the change to IFRS impacts the cost of debt and additional different structures utilised by creditors at the contracting time. Consequently, the opposite to previous investigations that solely investigate the cost of debt, the current study encompassing four contract stipulations (demand for collateral, amount granted, cost of debt, and maturity) creates a more accurate portrait of the full consequence of IFRS implementation on the credit market.

This paper is structured as follows. Section 2 provides a review of the relevant literature pertaining to the topic and hypothesis development. Section 3 discusses the methodology that has been employed to conduct this research and achieves the study goals. Section 4 details the findings of the study. Section 5 presents the findings, discussions, and Section 6 provides implications of the study, limitations of the study and proposes future research agenda on the topic.

## 2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

The evaluation of the financial information's relevance is built on the belief that credit ratings indicate the financial position of the borrower (Golubeva, 2020). Considering this, financial statements generated under IFRS are further valuable to creditors than financial statements generated under the generally accepted accounting principles (GAAP) (Kund & Rugilo, 2019). Accordingly, we suppose to find a positive association between credit ratings and accounting information post-IFRS implementation at the firm level. Previous investigations have verified meaningful discrepancies between IFRS and national standards due to the differences in measurement methods, earnings recognition, and transparency practices (Lejard et al., 2021).

IFRS implementation is expected to improve financial statements' quality by providing further detailed financial statements, more disclosure, improved recognition measurement and methods, and better comparability (Barth, 2013). Nevertheless, the likely benefit of such enhancement could diminish in credit risk evaluation as risk assessment agencies and banks have privileged access to firm information (Daske et al., 2013).

The Brazilian setting considers a weak institutional environment; however, it has substantial growth opportunities. De Lima et al. (2010), and dos Santos and Cavalcante (2014) examine whether primary incentives impact firms' obedience to the IFRS convergence process and whether IFRS implementation influences market liquidity and companies' cost of equity. Their findings show that incentives have an important role in compliance with IFRS meeting procedures and ensure that companies with more significant financing need and more exposed to international markets. They are also more likely to implement IFRS and modify their accounting practices and policies. Furthermore, their evaluation of the financial consequence illustrates that capital cost does not associate with convergence measures.

Nevertheless, there is a substantial correlation among the variables of market liquidity, demonstrating that firms with greater liquidity and lower trading costs meet the convergence requirements. Their share price fluctuation is not fluence by individual investors. Also, de Almeida and Rodrigues (2017) investigated the consequent voluntary IFRS implementation on the disclosure of Brazilian public firms in the United States of America. Their findings show disclosure incentives and analyst coverage have a considerable positive impact on cross-listed companies. Sampaio et al. (2017), de Lima et al. (2018) assure increasing firm value post-IFRS implementation in Brazil. Also, Malaquias et al. (2016) confirm that the financial market is significantly affected by accounting numbers post-IFRS implementation in Brazilian. Financial statements' quality is enhanced dramatically and become more informative to external users the financial position is more adequately presented.

However, IFRS implementation has an ambiguous effect on creditors. First, since the application of IFRS is designed to capture economic transactions' substance, it may be desirable to apply fair value measurements with potential advantages for creditors. Second, critics claim that fair value measurements do not meet creditors' contractual information and assessment demands. For instance, it may require vast judgments and non-verifiable estimations to assess the firm's assets and liabilities, increasing the risk of earnings management and reducing the reliability of accounting information in financial statements. So, it may lead to the recognition of unrealised gains and temporary gains or losses, theoretically lowering the quality of financial statements (Ball et al., 2015).

The institutional environment confronts the financial advantages connected with IFRS implementation. Still, market forces grant substantial variations in how companies implement it since the various conflicting arguments and inconsistent empirical findings concerning IFRS implementation implications. Thus, hypothesis number one is:

*H1: Adopting IFRS leads to improved loan contracting, as captured by fewer debt covenants, principal load, lower interest rates, less collateral, and longer maturity.*

The financial reporting quality is the mediating variable that mediates the impact of IFRS on bank loan contracting. Typically, companies borrow loans from more than one lender, a bank, or a financial institution. Therefore, it is likely to define risk degree and inconsistency across estimations and over time by examining a company's credit operations with various creditors. We assume that IFRS implementation is exogenous to the risk assessment process, decreases information asymmetry, and reduces the spread of credit ratings related to the same borrower post-IFRS implementation. Thus, we explicitly assess the accounting information on the credit market in reducing the heterogeneity of company credit ratings. So, the second hypothesis is:

*H2: The adoption of IFRS improves loan contracting by increasing financial reporting quality.*

Many scholars indicate the impact of entity-level incentives on the quality of financial statements (Christensen et al., 2015; Gebhardt & Novotny-Farkas, 2011). Significantly, the observation that financial information quality frequently fluctuates between entities employing the same accounting standards and practices and operating in the same economic field is related to variances in incentives at the company level (Daske et al., 2013). To this end, differences in how entities implement IFRS are attributed to discrepancies in motivations at the entity level, which affect the ability of financial statements to explain company credit ratings. Hence, hypothesis number three is:

*H3: Improving the FSQ (financial information) will decrease the dispersion of corporate credit ratings.*

Moreover, previous literature and the IASB argue that IFRS implementation reduces capital (equity costs) by mitigating information asymmetry (Daske et al., 2008; Schmidt, 2013). Nevertheless, the effect of IFRS implementation on debt cost and other economic implications for the credit market is not identified yet. The presence of claims against the capability of IFRS implementation to make financial statements further appropriate to creditors creates inquiries regarding how IFRS changes

the cost of debt and what are the other implications on loan contract stipulations. We can measure the increase in the significance of financial statements to credit market users, for instance, via reducing the diffusion of interest rate, timely and accurate corporate risk evaluations, more excellent credit supply, longer maturity, less demand for collateral, and other positive consequences may be anticipated. Indeed, more trustworthiness of financial statements accessible to creditors combined with IFRS implementation can decrease the requirement for periodic risk reevaluations, with clear economic advantages. Hence, given conflicting indications for the implications of IFRS implementation, the fourth hypothesis is:

*H4: Positive economic implications for loan contract stipulation post-IFRS implementation (more significant loan amounts, decreased cost of debt, less collateral, and extended maturity).*

Since the variation in incentives to advance financial information quality from entity to entity, IFRS implementation is expected to have heterogeneous economic implications, even within the same country. Consequently, from a creditor perspective, the impact of IFRS implementation on loan contract stipulations is contingent on improved financial statement quality. Hypothesis number five is:

*H5: The constructive implications of IFRS implementation on loan contract stipulation are contingent on advancing financial information quality.*

The notion of financial statements quality is essential in the bond market to mitigate agency costs when there are no alternative mechanisms that increase the expectancy of more solid economic consequences. Especially, the economic outcome of IFRS implementation on agreement stipulation in the bond market may be higher than the consequences in the credit market of the banking sector. Hence, hypothesis number six is:

*H6: The positive economic consequences of IFRS implementation on loan contracts in the bond market are higher than the economic consequences in the bank credit market.*

## 3. RESEARCH METHODOLOGY

The data was separated into two intervals before and after IFRS implementation using interaction variables to extract other economic factors' impact on loan contract stipulation. Proper descriptions of all variables are arranged in Appendix, Table A.1. The financial information was retrieved from the website of the CBI[2]. The financial sector includes seventy-seven banks, twenty-four non-bank financial institutions, and seven international financial institutions, see Appendix, Table A.2.

Two methods could be employed to test hypotheses: using the difference-in-differences research design[3] or following Chen et al. (2013) model, and Daske et al. (2013) model, which have been observed. Also, we used reduced discretionary accruals as a proxy to compare earnings before and after IFRS implementation.

We employed three models to measure FSQ, including Barth et al.'s (2006), Jones' (1995) modified, and Kang and Sivaramakrishnan's (1995) models. These models are estimated for five years (2010–2014) before the IFRS implementation decision (2015) and five years after (2016–2020), and FSQ's proxies are estimated for both periods. The estimation of FSQ in Barth's et al. (2006) model is grounded on the discrepancy of the residues. In comparison, the estimate of FSQ in both Jones's (1991) and Kang and Sivaramakrishnan's (1995) models is obtained from the residuals. Next, the entities are ranked for each period and measured by averaging the outcomes of the three models. The ordinary ranking is the accumulated measure of FSQ. Eventually, the variance between the accumulated scores of the two periods was estimated for each entity. A positive variation (classified as "1") refers to the improvement of FSQ, while a negative variance (organised as "0") denotes deteriorated FSQ.

Agency theory indicates that the stipulation of loan contracts can be jointly defined (Smith & Warner, 1979). The independent estimation of each term may raise the simultaneity econometric problem. Previous studies have disregarded the possible interface between nonfinancial and financial loan contract stipulations. Melnik and Plaut (1986) patterned the stipulation of bank credit contracts as a bundle that cannot be separated and agreed upon independently. Typically, each bank offers a pattern of credit contracts with (*n*) measurements, and entities select the extremely desirable pattern provided. Consequently, this approach undertakes four interrelated endogenous variables: *loan amount*, *debt cost*, *maturity*, and *collateral*. We employed the 2-stage least squares (2SLS) estimation technique, estimating the four endogenous variables separately in the first step, then involved them in the primary regression in the second step.

In harmony with loan contracts theory, the instruments defined utilising the resources of loan contracts (type and destination), sector, and trimester. The mean market trend is a decisive factor in negotiating new agreements and indicates the evolution and dynamics of loan contract stipulation. Consisting with previous literature (Ball et al., 2015), we employ period and sector mean values as instrumental variables with the belief that the average market tendency influences the need for credit (Costello & Wittenberg-Moerman, 2011).

Therefore, we re-assessed all the research equations with 2SLS and employed the Durbin-Wu-Hausman test to evaluate endogeneity, the Kleibergen-Paap (Lm) statistic, Shea's adjusted partial ($R^2$), and the Anderson-Rubin Wald test. The importance of the Durbin-Wu-Hausman test is to correct simultaneity bias through instrumental variables. While the importance of the other tests includes 1) demonstrating the relevancy of instruments in explaining the contract stipulation at the regression of the first stage, 2) the hypothesis that the instruments are possibly feeble could be rejected, and 3) ensuring no occurrence under endogenous variables identification. Consequently, *H4* may be rejected; however, *H5* cannot.

[2] https://cbi.iq/page/25

[3] The difference-in-differences research design coupled with the propensity-score matching of the treated sample with the control sample.

### 3.1. Research models: The relevance of financial statements to creditors

First, we employ Model 1 to examine the relationship between corporate credit ratings and accounting information (*H1*):

$$\begin{gathered} PCCR_{(it=1,\ldots,9)} = \varphi(\alpha_0 + \beta_1 RA_{1it} + \beta_2 L_{2it} + \\ \beta_3 IC_{3it} + \beta_4 Post_{4t} + \beta_5 Post_t RA_{it} + \beta_6 Post_t L_{it} + \\ \beta_7 Post_t IC_{it} + \Sigma_{n=1}^{6} \theta CoVa(n)_{it} + \\ \Sigma_{m=1}^{m} \delta_m FixedEffects; Year, Sector + \varepsilon_{it} \end{gathered} \quad (1)$$

Following previous literature that clusters credit risk ratings by category (de Lima et al., 2018), the dependent variable $CCR_{it}$ is the average risk amount appointed to entities, ranging (from 1 to 9). Greater values represent greater-quality credit. We ordered the preference of ratings for external credit from Standard, Moody, or Poor. Also, we utilise a logit model (Petersen, 2009) estimated with white standard errors by maximum-likelihood estimation; $\varphi$ denotes the logistic function. The model includes leverage ($L_{it}$), return on assets ($RA_{it}$), interest coverage ($IC_{it}$), and $Post_t = 1$ if financial statements are provided after the IFRS implementation, 0 otherwise.

We assumed that IFRS implementation would increase the ability of financial statements (accounting indicators) to explain credit ratings; the interactive coefficients return on assets post-IFRS implementation ($Post_t RA_{it}$), leverage post-IFRS ($Post_t L_{it}$), and interest coverage post-IFRS ($Post_t IC_{it}$) are positively linked with credit risk ratings. The variable $CoVa(n)_{it}$ is employed to manage the sensitivity of credit risk to entity size ($S_{it}$), tangibility ($T_{it}$), the impact of external audit ($Aud_{it}$), corporate governance ($CG_{it}$), earnings volatility ($EV_{it}$), and cross-listing ($PEIM_{it}$). Also, the regression involves industry-fixed effects and year. Furthermore, all continuous variables were winsorised to mitigate the influence of outliers. Since entities borrow from various institutions simultaneously, evaluating the impacts of IFRS on the diffusion of credit ratings is essential. Therefore, credit ratings were appointed by more than one financial institution.

Second, we employed Model 2 to estimate *H2* the impact of $Post_t$, $IFRS_i$, and the interaction between $Post_t$ and $IFRS_i$, corporate credit rating dispersion ($CCR_{it}$):

$$\begin{gathered} CCR_{it} = \\ \alpha_0 + \beta_1 Post_{1t} + \beta_2 IFRS_i + \beta_3 Post_t IFRS_i + \\ \beta_4 RA_{it} + \beta_5 L_{it} + \beta_6 IC_{it} + \beta_7 S_{it} + \beta_8 T_{it} + \\ \beta_9 VolatNE_{it} + \Sigma_{n=1}^{3} \theta CoVa(n)_{it} + \\ \Sigma_{m=1}^{m} \delta_m FixedEffects; Year, Sector + \varepsilon_{it} \end{gathered} \quad (2)$$

$CCR_{it}$ is the credit risk ratings' quartile deviation coefficient of entity *i* in *t* period appointed by various financial organisations. $CCR_{it}$ is a continuous variable (unlike the first analysis) estimated using industry-fixed effects and years of panel data. We assumed that IFRS implementation reduces credit risk evaluation asymmetry. Credit ratings are more likely to be homogenous post-IFRS mandatory implementation. Consequently, we anticipate the coefficient $Post_t IFRS_i$ to be significantly negative.

Third, we assess the conditional decrease in credit rating diffusion on current motivations (*H3*); the variable indicating incentives present at the entity level. Following Daske et al. (2013), in Model 2, that was employed as a moderating term in our study. We calculate the incentives related to IFRS implementation as the positive outcomes associated with enhancing the quality of financial statements at transition time. To quantify financial statements' quality ($FSQ_{it}$), we employed metrics indicating the mean estimates of the three models, see Appendix, Table A.3. We deduct the mean FSQ before IFRS implementation from the mean post-IFRS implementation.

### 3.2. Loan contract stipulation

Following de Lima et al. (2018), we make separate regressions for bonds and bank credit contracts and calculate temporal differences in loan contract stipulation post-IFRS implementation via the following estimate model:

$$\begin{gathered} CT_{it} = \alpha_0 + \beta_1 Post_t + \beta_2 IFRS_i + \beta_3 Post_t IFRS_i + \\ \Sigma_{\rho=1}^{\rho} \mu_\rho LSCV(p)_{it} + \Sigma_{q=1}^{q} \varphi_q BSCV_q(q)_{it} + \\ \Sigma_{n=1}^{n} \theta CoVa(n)_{it} + \Sigma_{r=1}^{r} \gamma_r CSRALBRDCS(r)_{it} + \\ \Sigma_{n=1}^{n} \theta CoVa(n)_{it} + \\ \Sigma_{m=1}^{m} \delta_m FixedEffects; Year, Sector + \varepsilon_{it} \end{gathered} \quad (3)$$

The contract term ($CT_{it}$) is a dependent variable of a loan approved. We consider four contract stipulations, including the amount granted ($A_{it}$), maturity ($M_{it}$), demand for collateral ($C_{it}$), and cost of debt ($CD_{it}$). Then, in line with de Lima et al. (2018), we integrate loan, borrower, and lender control variables in the models.

As identified by de Lima et al. (2018), the borrower specific control variables ($BSCV(q)_{it}$) include credit risk, namely, leverage ($L_{it}$), return on asset ($RA_{it}$), interest coverage ($IC_{it}$), tangibility ($T_{it}$), entity size ($S_{it}$), and net earnings volatility ($EV_{it}$). The loan specific control variables ($LSCV(p)_{it}$) comprise the number of loan contracts in one year ($NL_{it}$), the time of relationship ($TR_{it}$), rating of the operation ($RO_{it}$), the type of operation of resources ($TO(x)_{it}$), currency ($Cu_{it}$), and the index of loan remuneration ($Index_{it}$). In order to prevent possible multicollinearity with the rating of the operation ($RO_{it}$), corporate credit rating ($CCR_{it}$) was omitted. Other variables ($CoVa(n)_{it}$) are involved in controlling for the effect of external auditing on FSQ and adherence to the practices of corporate governance ($CG_{it}$). The proportion of capture of directed resources ($PCDR_{it}$) derived from restricted regressions of debentures influences the credit market, debenture stipulation, and access of the sampled companies to data resources. Exposure to more robust institutional settings with further outstanding creditor protection ($PEIM_{it}$).

Every regression encompasses the loan contract stipulation that was not a dependent variable. The control variables $NL_{it}$ and $TR_{it}$ are restricted to bank credit; therefore, they are not involved in regressions of bond debentures. For instance, the regression using $CD_{it}$ as a dependent variable comprised $A_{it}$, $M_{it}$, and $C_{it}$ as explanatory variables. $CSRALBRDCS(r)_{it}$ model includes the following lender control variables: liquidity ($Liq_{it}$), the size of the financial institution ($SFI_{it}$), regulatory capital ($Cap_{it}$),

bank reserve ($BR_{it}$), return on asset of financial institution ($RAFI_{it}$), default ($Def_{it}$), specialisation on the credit market ($SCM_{it}$), and control ($Con_{it}$).

Following Chen et al. (2013), Daske et al. (2008), and Florou et al. (2017), we embrace the existing variable market benchmark ($MB_t$) to eliminate the effect of factors that are not related to IFRS implementation from the coefficients in the regressions, see Appendix, Table A.1. Year fixed effects and sector and continuous variables were comprised in all models, and they were two-tiles Winsorized (1st and 99th percentiles).

When IFRS implementation, the $Post_tIFRS_i$ coefficient is likely to be statistically significant negative including $CD_{it}$ and $C_{it}$, and statistically significant positive in regressions including $A_{it}$ and $M_{it}$ is connected with more significant loan amounts, to a lesser extent demand for collateral, longer maturity, lesser cost of debt, and. Furthermore, we estimate the quality of financial statements (financial information) via the conditional relationship between loan contract stipulation post-IFRS implementation and the incentives to disclose higher-quality accounting information. The metric $FSQ_{it}$ is employed to designate the existence of entity-level incentives.

## 4. RESULTS

### 4.1. Relevance of financial statements to creditors

*Sensitivity of credit ratings.* Following previous literature, three accounting risk indicators ($RA_{it}$, $L_{it}$, and $IC_{it}$) have been assessed to analyse credit ratings appointed by financial institutions. Return on assets ($RA_{it}$) had explanatory power for credit ratings pre-IFRS implementation and yielded a statistically significant coefficient post-IFRS implementation. Furthermore, the interaction coefficients among $Post_tRA_{it}$, $Post_tIC_{it}$, and $Post_tL_{it}$ demonstrate the statistical significance and prove the *H1* that post-IFRS implementation financial statements have become more relevant for creditors. This finding confirms that IFRS offers a more precise variations clarification in business credit risk than GAAP by securing the economic foundations of business more reliably. The control variables show that entities with more significant investments intangible assets ($T_{it}$) and reviewed by external auditors ($Aud_{it}$) achieve superior credit ratings.

Moreover, the leverage ($L_{it}$) and interest coverage ($IC_{it}$) variables are statistically many pre/post-IFRS implementation and indicate that such ratings are vulnerable to these indicators. Nonetheless, the return on assets post-IFRS ($Post_tRA_{it}$) and the leverage post-IFRS ($Post_tL_{it}$) also yield a statistically significant coefficient, indicating that their capability to describe credits ratings enhanced post-IFRS. Conversely, despite the steady encouraging indication, the coefficient of $Post_tIC_{it}$ is not statistically significant. Consistent with prior literature, control variables reveal those more significant entities ($S_{it}$) with lesser net earnings volatility ($EV_{it}$) and reviewed ($Aud_{it}$) be likely to get superior credit ratings from risk evaluation organisations.

In brief, the findings signify those financial statements have turned out to be more appropriate to risk evaluation post-IFRS implementation, irrespective of whether risk assessment agencies or financial institutions appoint the ratings. Therefore, IFRS implementation seems to have benefited financial statement users. Since IFRS are principles-based standards, they seek to obtain the economic substances of transactions rather than legal form via measurement, recognition, and disclosure (Barth et al., 2008) as shown in Table 1 below.

**Table 1.** Descriptive statistics of continuous variables

| *Variables* | *No.* | *Mean* | *St. dev.* | *P1* | *P25* | *Median* | *P75* | *P99* |
|---|---|---|---|---|---|---|---|---|
| *Panel A: Dependent variable — rating* | | | | | | | | |
| Quartile variation coefficient ($QVC_{it}$) | 4.089 | 0.12 | 0.13 | 0.01 | 0.07 | 0.07 | 0.02 | 0.5 |
| *Panel B: Dependent variables — loan contracts* | | | | | | | | |
| Cost of debt ($CD_{it}$). | 112.657 | 2.467 | 4.511 | 0.075 | 1.018 | 1.391 | 1.994 | 25.3 |
| Amount ($A_{it}$) (%) | 110.584 | 0.05 | 0.21 | 0.01 | 0.01 | 0.01 | 0.019 | 0.51 |
| Maturity ($M_{it}$) | 111.008 | 4.15 | 1.12 | 2.15 | 3.52 | 4.12 | 4.35 | 7.02 |
| *Panel C: Dependent variables — corporate debts* | | | | | | | | |
| Cost of debt ($CD_{it}$). | 620 | 1.024 | 0.82 | 0.91 | 1.17 | 1.23 | 1.26 | 1.82 |
| Amount ($A_{it}$) (%) | 619 | 4.22 | 4.31 | 0.16 | 1.41 | 2.81 | 5.32 | 18.3 |
| Maturity ($M_{it}$) | 622 | 7.53 | 0.56 | 5.89 | 7.31 | 7.41 | 7.92 | 8.56 |
| *Panel D: Independent variables — accounting indicators and firm-specific characteristics* | | | | | | | | |
| Size ($S_{it}$) | 4.215 | 16.28 | 1.38 | 13.5 | 15.21 | 16.21 | 17.51 | 19.25 |
| Return on assets ($RA_{it}$) | 4.187 | 0.12 | 0.01 | 0.01 | 0.01 | 0.12 | 0.11 | 0.35 |
| Leverage ($L_{it}$) | 4.201 | 29.52 | 15.28 | 0.01 | 18.27 | 31.59 | 40.98 | 64.89 |
| Interest coverage ($IC_{it}$) | 3.802 | 0.81 | 1.08 | -1.98 | 0.11 | 0.85 | 1.38 | 5.01 |
| Tangibility ($T_{it}$) | 4.207 | 0.38 | 0.37 | 0.01 | 0.06 | 0.34 | 0.49 | 0.88 |
| Earnings volatility ($EV_{it}$) | 4.194 | 12.02 | 1.39 | 8.01 | 11.01 | 12.27 | 13.23 | 14.53 |
| The proportion of capture of directed resources ($PCDR_{it}$) | 3.994 | 0.51 | 0.49 | 0.01 | 0.21 | 0.49 | 0.82 | 1.01 |
| *Panel E: Independent variables — loan-specific characteristics* | | | | | | | | |
| Number of loans ($NL_{it}$) | 117.542 | 5.01 | 1.83 | 0.72 | 3.57 | 6.15 | 6.23 | 7.58 |
| Time of relationship ($TR_{it}$) | 118.012 | 8.21 | 1.13 | 5.26 | 7.77 | 8.51 | 9.02 | 9.39 |
| *Panel F: Independent variables — bank-specific characteristics* | | | | | | | | |
| Regulatory capital ($Cap_{it}$) | 1.565 | 24.21 | 46.32 | 12.01 | 14.51 | 17.30 | 24.10 | 93.90 |
| Size of the financial institution ($SFI_{it}$) | 1.569 | 22.98 | 2.81 | 17.51 | 22.04 | 23.05 | 25.34 | 27.60 |
| Return on asset of financial institution ($RAFI_{it}$) | 1.610 | 3.03 | 13.98 | -10.02 | 0.41 | 1.41 | 3.02 | 24.70 |
| Liquidity ($Liq_{it}$) (%) | 1.569 | 32.28 | 18.60 | 0.20 | 19.00 | 29.60 | 43.02 | 78.80 |
| Bank reserve ($BR_{it}$) (%) | 1.569 | 2.81 | 4.61 | 0.02 | 0.01 | 0.51 | 3.92 | 19.26 |
| Default ($Def_{it}$) (%) | 1.568 | 5.01 | 4.82 | 0.03 | 2.01 | 4.30 | 7.24 | 21.06 |
| Specialisation on the credit market ($SCM_{it}$) (%) | 1.569 | 44.89 | 21.94 | 3.01 | 33.02 | 45.25 | 60.04 | 97.04 |

*Explanatory model for credit ratings' dispersion.* As shown in Table 2 below, none of the variables ($Post_t IFRS_i$, $Post_t$, and $IFRS_i$) related to IFRS implementation has a statistically significant coefficient; hence, *H2* has been rejected. IFRS implementation did not influence the dispersion of credit ratings.

The control variables have statistically significant coefficients and are consistent with previous literature. Entities with higher returns ($RA_{it}$), greater interest coverage ($IC_{it}$), smaller leverage ($L_{it}$), smaller net earnings volatility ($EV_{it}$), and greater tangibility ($T_{it}$) demonstrate lesser dispersal in credit ratings.

The re-estimation of the quartile variation coefficient (the explanatory models) involving the multiplication term representing motivations to enhance financial statements' quality. $Post_t IFRS_i$ coefficient has a positive sign, while the $Post_t IFRS FSQ_i$ coefficient has a negative signal and is significant at 0.01. This result suggests that the effect of IFRS implementation on the contractual association between borrowers and lenders is contingent on entities' endeavours to improve financial statements' quality during the transition period. Entities exhibiting reduced discretionary accruals post-IFRS implementation show to a lesser extent distribution of credit ratings appointed by risk valuation agencies and financial institutions. Overall, notwithstanding have being allocated autonomously by risk valuation organisations and financial institutions, credit ratings were more consistent for these entities. Consequently, *H3* cannot be refused because IFRS implementation improves and decreases information asymmetry between borrowers and lenders merely when the quality of financial statements is improved. The effect of IFRS implementation on the ratings of quartile variation coefficient ($QVC_{it}$) is displayed in Table 2 below.

**Table 2.** Credit ratings' sensitivity

| *Variables* | *Financial institutions* | *Risk assessment agencies* |
|---|---|---|
| ***Independent variables*** | | |
| $RA_{it}$ | 4.254*** | 0.841 |
| $L_{it}$ | 0.318 | -0.802** |
| $IC_{it}$ | 0.924 | 0.107* |
| *Post* | 3.716*** | 4.998*** |
| $Post_t \times RA_{it}$ | 4.979** | 11.768*** |
| $Post_t \times L_{it}$ | -1.159*** | -1.142** |
| $Post_t \times IC_{it}$ | 1.894* | 0.159 |
| ***Control variables*** | | |
| $S_{it}$ | -0.127 | 1.317*** |
| $T_{it}$ | 1.419*** | -1.701* |
| $EV_{it}$ | -0.618 | -0.921*** |
| $Aud_{it}$ | 0.827*** | 1.101** |
| $CG_{it}$ | 0.239 | -0.801 |
| $PEIM_{it}$ | -0.103 | 0.692* |
| Year | Yes | Yes |
| Industry | Yes | Yes |
| Wald test | 269.9 | 239 |
| Prob > $chi^2$ | 0 | 0 |

*Note: *, **, and *** indicate statistical significance at 10%, 5%, and 1% (two-tailed), respectively.*

## 4.2. The implications of IFRS implementation on loan contract stipulation

Furthermore, we examined the interactive term $Post_t IFRS_i$ to detach the impact of IFRS mandatory implementation. The $Post_t$ coefficient is significantly positive, signifying the cost of debt increase in the control group post-IFRS. Also, the $IFRS_i$ coefficient is significantly negative at 0.01, signifying the cost of debt rise post-IFRS mandatory adoption. The coefficient of $Post_t IFRS_i$ is exceptionally positive at 0.01, indicating the cost of debt post-IFRS compulsory adoption increases assessed to the control group. However, no significant coefficients were yielded for the regression of debenture contracts variables ($Post_t IFRSi$, $Post_t$, and $IFRS_i$), signifying the debentures' issuance cost was not affected post-IFRS. Hence, there are no economic benefits for borrowers, unlike the notion that IFRS implementation will result in economic benefits.

IFRS implementation is not related to the maturity of both debentures and bank loans ($Post_t IFRS_i$). Despite $IFRS_i$ and $Post_t$ being considerable in a number of cases, these variables are only controls for changes among the control, interest groups, and pre/post-IFRS implementation periods in the control group. That is, the analysis does not propose longer maturity post-IFRS implementation.

Gaining the view that by implementing IFRS assistance companies get more outstanding loans due to decreased information asymmetry between borrowers and lenders. The coefficient of $Post_t IFRS_i$ is significantly negative in both debentures and bank loans equations. However, after the introduction of IFRS, collaterals upon contracts were extra possible to be required of adopters, where the coefficient of $Post_t IFRS_i$ is significantly positive. Moreover, the regression of debentures demonstrates that the collaborating variable is nonsignificant at normal levels. Partly, our results contest the outcomes of Chen et al. (2013), while the latter maintained obligatory IFRS implementation might cause unwanted financial consequences for loan contracts, such as shorter maturity, additional demand for collateral, and advanced interest rates, see Table 3.

**Table 3.** The implications of IFRS implementation on loan and corporate debt contracts.

| Independent variables | Cost of debt | | Maturity | | Amount | | Collateral | |
|---|---|---|---|---|---|---|---|---|
| | Loan contract | Corporate debt | Loan contract | Corporate debt | Loan contract | Corporate debt | Loan contract | Corporate debt |
| $Post_t$ | 0.417*** | 0.076 | 0.201*** | -0.381** | 0.278*** | 4.127*** | -1.989*** | -1.902** |
| $IFRS_i$ | -0.110*** | 0.029 | 0.015 | -0.382** | -0.002 | 3.591*** | -0.402*** | 0.624 |
| $Post\_IFRS_{it}$ | 0.204*** | 0.003 | 0.002 | 0.199 | -0.101*** | -2.802*** | 0.514*** | 0.403 |
| **Control variables** | -0.061** | -0.041** | -0.021** | -0.203** | -0.021** | -1.009** | -0.071** | -0.802** |
| $CD_{it}$ | - | - | 0.002 | 0.192* | -0.069*** | 2.014 | 0.049*** | 2.017*** |
| $M_{it}$ | 0.031** | 0.071*** | - | - | 0.214*** | 1.261*** | 0.116*** | 0.513** |
| $A_{it}$ | -0.202*** | -0.013 | 0.203*** | 0.055*** | - | - | -0.049*** | 0.049 |
| $C_{it}$ | -0.051** | 0.088** | 0.197*** | 0.286*** | 0.059*** | 0.089 | - | - |
| $TR_{it}$ | -0.036*** | - | 0.003*** | - | 0.009*** | - | -0.095*** | - |
| $NL_{it}$ | 0.004 | - | -0.039*** | - | -0.121*** | - | -0.192*** | - |
| $RA_{it}$ | -0.006 | -0.174 | -0.656*** | 1.519** | -1.474*** | 8.111** | -2.227*** | 2.884 |
| $L_{it}$ | 0.034** | -0.265*** | -0.021** | -0.390* | -0.131*** | -1.396** | 1.121*** | 0.771 |
| $IC_{it}$ | -0.012* | -0.018*** | 0.002*** | -0.018 | 0.016*** | 0.008** | -0.002 | -0.002 |
| $S_{it}$ | -0.095*** | -0.051*** | 0.023*** | 0.204*** | -0.238*** | -1.715*** | -0.259*** | -0.057 |
| $T_{it}$ | 0.561*** | -0.021 | 0.089*** | 0.111 | 0.262*** | 2.627* | -0.115 | 1.044* |
| $EV_{it}$ | -0.101*** | 0.019* | -0.008* | -0.046 | 0.033*** | -0.322 | 0.491*** | 0.223 |
| $PCDR_{it}$ | - | -0.046* | - | -0.121 | - | -0.671 | - | -0.301 |
| $Aud_{it}$ | -0.090*** | -0.033 | -0.158*** | 0.235* | 0.058*** | 1.028* | 0.255*** | 0.325 |
| $CG_{it}$ | -0.021 | -0.044* | 0.127*** | -0.109 | 0.055*** | -0.439 | -0.151*** | -0.126 |
| *CD benchmark* | 0.041 | 0.135** | - | - | - | - | - | - |
| *M benchmark* | - | - | -0.007 | 0.157** | - | - | - | - |
| *A benchmark* | - | - | - | - | 70.108*** | 4.526 | - | - |
| *C benchmark* | - | - | - | - | - | - | 2.458*** | 0.265 |
| Constant | 21.799*** | 1.991*** | 2.817*** | 4.557*** | 5.657*** | 18.564*** | -0.831 | -12.585** |
| Adjusted R-square | 73.91% | 41.45% | 57.89% | 47.78% | 40.55% | 54.28% | 33.97% | 33.81% |

*Note: *, **, and *** indicate statistical significance at 10%, 5%, and 1% (two-tailed), respectively.*

We are examining post-controlling for lender, firm, and loan-specific variables. The estimation of the contract stipulation (maturity, demand for collateral, cost of debt, and amount granted), with the term $FSQ_i$, is involved in Table 4. The coefficient of $Post_t IFRS_i FSQ_i$ was significantly negative, signifying that companies showing better income quality had lesser cost-of-debt post-IFRS. The outcomes show that the cost of debt was reduced (mean reduction: 18.7%). Furthermore, the cost of debenture contracts decreased, and the coefficient is also significantly negative.

Similar to previous literature, IFRS implementation is combined with longer maturity of bank loans and debentures, suggesting improved financial statements' quality. Using $M_{it}$ as the dependent variable, the regressions (at 1% and 5% significance levels) of bank loans and debentures are significantly positive. The coefficient of $Post_t IFRS_i FSQ_i$ of bank loans indicates ~33% longer maturity post-IFRS, and the coefficient of $Post_t IFRS_i FSQ_i$ of debentures demonstrates the improvement in financial statements' quality. The maturity of debentures issued post-IFRS implementation was approximately 84 months (24 month increase and the mean maturity of debentures was 48 months). Furthermore, increasing the amount obtained by borrowers improves the quality of financial statements. The coefficient of $Post_t IFRS_i FSQ_i$ is significantly positive, indicating that the ratio of loan-to-total assets is larger post-IFRS, reflecting the improvement in financial statements' quality. The average loan-to-total-assets percentage in the sample of bank loans rose from 0.05% to 0.07% (0.05% + 0.171/1000) post-IFRS. Also, the coefficient of $Post_t IFRS_i FSQ_i$ in the sample of debentures increased post-IFRS from 5.3% to 8.7% (5.3% + 3.4/100).

Moreover, the coefficient of the collaborating term $Post_t IFRS_i FSQ_i$ is significantly negative (at 1%), implying less demand for collateral associated with IFRS implementation, presenting the improvement in the quality of financial statements. The coefficient shows that collateral was ~38% less probable to be required (exp(-0.62) - 1). In contrast, for the sample of debentures, the coefficient of $Post_t IFRS_i FSQ_i$ is not significant. Thus, it cannot be understood to be distinct from zero. General, the research findings suggest that IFRS implementation had heterogeneous outcomes on the credit market (firm-specific), some negative and others positive, so *H5* was accepted (Table 4).

**Table 4.** Dispersion of corporate credit ratings (IFRS effect on QVC).

| Variables | Base model | Conditional information quality |
|---|---|---|
| $Post_t$ | -0.922 | -1.903** |
| $IFRS_i$ | 0.197 | -0.068 |
| $Post\_IFRS_{it}$ | 0.109 | 1.891** |
| $Aud_i$ | - | -1.996 |
| $Post\_FSQ_i$ | - | 3.011*** |
| $IFRS\_FSQ_i$ | - | 1.948 |
| $Post\_IFRS\_FSQ_i$ | - | -2.999*** |
| $RA_{it}$ | -13.028*** | -16.568*** |
| $L_{it}$ | 2.529* | -2.528* |
| $IC_{it}$ | -2.859** | -3.507*** |
| $S_{it}$ | -0.098 | -0.301 |
| $T_{it}$ | -1.985** | -2.42** |
| $EV_{it}$ | 0.608** | 0.602*** |
| $Aud_{it}$ | 0.32 | 0.407 |
| $CG_{it}$ | -1.354 | -1.205 |
| $PEIM_{it}$ | -0.609 | -0.816* |
| Constant | 7.024 | 9.998** |
| Year | Yes | Yes |
| Sector | Yes | Yes |
| Adjusted R-square | 8.38% | 8.72% |
| Wald test | 281.01 | 297.04 |
| Prob > chi$^2$ | 0 | 0 |
| Hausman test | 20.51 | 20.78 |
| Prob > chi$^2$ | 5.67% | 5.35% |

*Note: *, **, and *** indicate statistical significance at 10%, 5%, and 1% (two-tailed), respectively.*

*The differential influence between the bank credit and bond markets* (*H6*). The analysis was placed on the collaborating term $Post_t IFRS_i FSQ_i$. The impacts of IFRS implementation on the contract stipulation for debentures vs bank loans, later controlling for a firm, loan, and lender-specific variables, are presented below:

*Cost of debt*: The coefficients are significantly negative. IFRS implementation is accompanied by an average decline of 38 and 31 base points for bank loans and debentures.

*Maturity*: The coefficients are significantly positive. IFRS implementation is combined with an average growth in maturity for debentures and bank loans (34 months $(0.25 \times \exp.(4.09) / 31)$ and 45 months $(0.83 \times \exp.(6.82) / 31)$, respectively.

*Amount granted*: The coefficients are significantly positive. IFRS implementation is linked with an increase in loan-to-total-assets ratio from 0.05% to 0.08% for bank loans and from 5.24% to 8.94% for debentures.

*Demand for collateral*: The coefficients are significantly negative. IFRS implementation is correlated with an average decrease in bank debentures and loans (~5.8% and ~32.8%, respectively).

Since the investigation of the implications of IFRS implementation on non-financial and financial contract stipulations signifies those economic advantages, *H6* cannot be rejected. Also, these economic advantages tended to be larger for debentures than bank loans. We also estimated the varied impact between bank and bond credit markets as a robustness check. The magnitude of the effects and direction are presented above (see Table 5).

**Table 5.** Effects of IFRS implementation on corporate debt contracts and loans.

| ***Independent variables*** | ***Cost of debt*** | | ***Maturity*** | | ***Amount*** | | ***Collateral*** | |
|---|---|---|---|---|---|---|---|---|
| | *Loan contract* | *Corporate debt* | *Loan contract* | *Corporate debt* | *Loan contract* | *Corporate debt* | *Loan contract* | *Corporate debt* |
| $Post_t$ | 0.417*** | 0.076 | 0.201*** | -0.381** | 0.278*** | 4.127*** | -1.989*** | -1.902** |
| $IFRS_i$ | -0.110*** | 0.029 | 0.015 | -0.382** | -0.002 | 3.591*** | -0.402*** | 0.624 |
| $Post_t IFRS_i$ | 0.204*** | 0.003 | 0.002 | 0.199 | -0.101*** | -2.802*** | 0.514*** | 0.403 |
| ***Control variables*** | -0.061** | -0.041** | -0.021** | -0.203** | -0.021** | -1.009** | -0.071** | -0.802** |
| $CD_{it}$ | - | - | 0.002 | 0.192* | -0.069*** | 2.014 | 0.049*** | 2.017*** |
| $M_{it}$ | 0.031** | 0.071*** | - | - | 0.214*** | 1.261*** | 0.116*** | 0.513** |
| $A_{it}$ | -0.202*** | -0.013 | 0.203*** | 0.055*** | - | - | -0.049*** | 0.049 |
| $C_{it}$ | -0.051** | 0.088** | 0.197*** | 0.286*** | 0.059*** | 0.089 | - | - |
| $TR_{it}$ | -0.036*** | - | 0.003*** | - | 0.009*** | - | -0.095*** | - |
| $NL_{it}$ | 0.004 | - | −0.039*** | - | −0.121*** | - | -0.192*** | - |
| $RA_{it}$ | -0.006 | -0.174 | -0.656*** | 1.519** | -1.474*** | 8.111** | -2.227*** | 2.884 |
| $L_{it}$ | 0.034** | -0.265*** | -0.021** | -0.390* | -0.131*** | -1.396** | 1.121*** | 0.771 |
| $IC_{it}$ | -0.012* | -0.018*** | 0.002*** | -0.018 | 0.016*** | 0.008** | -0.002 | -0.002 |
| $S_{it}$ | -0.095*** | -0.051*** | 0.023*** | 0.204*** | -0.238*** | -1.715*** | -0.259*** | -0.057 |
| $T_{it}$ | 0.561*** | -0.021 | 0.089*** | 0.111 | 0.262*** | 2.627* | -0.115 | 1.044* |
| $EV_{it}$ | -0.101*** | 0.019* | -0.008* | -0.046 | 0.033*** | -0.322 | 0.491*** | 0.223 |
| $PCDR_{it}$ | | -0.046* | | -0.121 | | -0.671 | | -0.301 |
| $Aud_{it}$ | -0.090*** | -0.033 | -0.158*** | 0.235* | 0.058*** | 1.028* | 0.255*** | 0.325 |
| $CG_{it}$ | -0.021 | -0.044* | 0.127*** | -0.109 | 0.055*** | -0.439 | -0.151*** | -0.126 |
| *CD benchmark* | 0.041 | 0.135** | - | - | - | - | - | - |
| *M benchmark* | - | - | -0.007 | 0.157** | - | - | - | - |
| *A benchmark* | - | - | - | - | 70.108*** | 4.526 | - | - |
| *C benchmark* | - | - | - | - | - | - | 2.458*** | 0.265 |
| Constant | 21.799*** | 1.991*** | 2.817*** | 4.557*** | 5.657*** | 18.564*** | -0.831 | -12.585** |
| Adjusted R-square | 73.91% | 41.45% | 57.89% | 47.78% | 40.55% | 54.28% | 33.97% | 33.81% |

*Note: *, **, and *** indicate statistical significance at 10%, 5%, and 1% (two-tailed), respectively.*

## 5. DISCUSSION

We examine the implications of IFRS implementation on the credit market in the Iraqi financial sector. To the best of our knowledge, even though several papers have been published, this study is the most comprehensive to date to assess the implications of IFRS implementation on 1) non-financial and financial loan contract stipulation, 2) credit risk, and 3) access to global credit markets. Previous investigations on the possible outcomes of IFRS implementation for credit markets have produced contradictory outcomes. Therefore, we performed an examination of a massive sample size of credit transactions and corporate credit ratings in Iraq and controlled for the impact of firm-level incentives on the quality of financial statements.

The findings indicate that post-IFRS, the capability of financial statements to justify corporate credit ratings enhanced. Not surprising that risk evaluation agencies and banks are sensitive to IFRS since they have extremely sophisticated users of financial statements. The dispersion of credit ratings allocated by banks was decreased post-IFRS for companies with enhanced financial statements quality. Also, the results indicate that IFRS implementation may have varied negative and positive outcomes for entities on the credit market based on the existence of incentives.

In debentures and bank loans, entities with incentives to enhance profits quality demonstrate 1) longer maturity, 2) reduced cost of debt, 3) less demand for collateral, and 4) greater loans post-IFRS. Moreover, the effects (1–4) are greater on debentures than on bank credit, the more reliance on financial statements.

Our investigation creates an essential contribution to the literature. Along with evidence provided by previous literature on the capital market (Byard et al., 2011; Brochet et al., 2013; DeFond et al., 2011), our conclusions prove the vital position of company-level incentives in

the assessment of prospective economic advantages of IFRS implementation. The evidence suggests that the financial advantages accompanying IFRS implementation depend on the financial statements and how seriously entities apply recommended disclosure practices and improve interaction with international investors. Furthermore, IFRS implementation should not occur with enforcement mechanisms and not give ample space for adopters' endogenous predilections. Otherwise, the implications of IFRS implementation will lead to varied outcomes, positive and negative, that reduce financial statements' quality (Ernst & Young, 2006). Moreover, the implementation of IFRS was partially and not at the same level for Iraq's financial sector. Indeed, our findings persuasively contradict the idea that adopting government-mandated accounting practices is adequate to guarantee the financial advantages of the credit market, particularly in the lack of company-level incentives to increase information quality.

## 6. CONCLUSION

Since we provide evidence contrary to the view that IFRS-related financial advantages are restricted to jurisdictions with distinct institutional environmental features, this research promotes the argument of the relationship between company-level and country-level inducements from the perspective of IFRS implementation. However, Iraq has been deemed a developing economy with an institutional context challenging the economic advantages associated with IFRS implementation. Actuality, our analyses indicate that in jurisdictions like Iraq, the lack of a robust institutional environmental framework might be compensated by firm-level incentives, banning promoting the emergence of economic advantages associated with IFRS implementation. Usually, cross-country studies cannot acknowledge the economic advantages related to IFRS implementation due in part to 1) challenges in reducing bias from endogeneity, 2) challenges in generating controls to keep continual the institutional environmental features of dissimilar political, legal, economic, and cultural frameworks, 3) insufficient sample size, and 4) the absence of market-specific controls (e.g., the profile of lenders, proportion of subsidised loans).

Finally, IFRS implementation accentuates unique estimation patterns and presents information to the burden of contractibility of the accounting information revealed in the financial statements. Even though accounting information shows an active role in contract making, it is exceedingly significant to rating, credit risk assessment, negotiation, and arrangement, particularly in capital markets where IFRS considers an upgrading over GAAP. Fulfilling the informational demands of varied stakeholders, such as creditors, investors, and lenders, frequently include a trade-off between significance and objectivity. Eventually, the effectiveness of IFRS to creditors is contingent on the capacity of financial statements simultaneously fulfilling contractual needs and performance-evaluating (Ball et al., 2008).

This study has some limitations, as it investigated the implications of IFRS implementation on the credit market. Nevertheless, other factors, such as company regulation and corporate governance, may influence credit markets. Thus, the IFRS and all these enforcements and policies have affected credit markets. This study has not investigated one or more of these additional enforcements and policies. So, future scholars should pay more attention to examine the impact of company regulation and corporate governance post and before IFRS implementation.

## REFERENCES


1. 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
2. Ahmed, K., Chalmers, K., & Khlif, H. (2013). A meta-analysis of IFRS adoption effects. *The International Journal of Accounting, 48*(2), 173–217. https://doi.org/10.1016/j.intacc.2013.04.002
3. Anderson, C. W. (1999). Financial contracting under extreme uncertainty: An analysis of Brazilian corporate debentures. *Journal of Financial Economics, 51*(1), 45–84. https://doi.org/10.1016/S0304-405X(98)00043-9
4. Armstrong, C. S., Guay, W. R., & Weber, J. P. (2010). The role of information and financial reporting in corporate governance and debt contracting. *Journal of Accounting and Economics, 50*(2–3), 179–234. https://doi.org/10.1016/j.jacceco.2010.10.001
5. 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
6. Ball, R., Bushman, R. M., & Vasvari, F. P. (2008). The debt-contracting value of accounting information and loan syndicate structure. *Journal of Accounting Research, 46*(2), 247–287. https://doi.org/10.1111/j.1475-679X.2008.00273.x
7. 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
8. Ball, R., Robin, A., & Sadka, G. (2008). Is financial reporting shaped by equity markets or by debt markets? An international study of timeliness and conservatism. *Review of Accounting Studies, 13*(2–3), 168–205. https://doi.org/10.1007/s11142-007-9064-x
9. Barth, M. E. (2013) Global comparability in financial reporting: What, why, how, and when? *China Journal of Accounting Studies, 1*(1), 2–12. https://doi.org/10.1080/21697221.2013.781765
10. Barth, M. E., Landsman, W. R., & Lang, M. H. (2008). International accounting standards and accounting quality. *Journal of Accounting Research, 46*(3), 467–498. https://doi.org/10.1111/j.1475-679X.2008.00287.x
11. Barth, M. E., Landsman, W. R., Lang, M. H., & Williams, C. D. (2006). *Accounting quality: International accounting standards and US GAAP.* Retrieved from http://public.kenan-flagler.unc.edu/faculty/langm/bllw_0302.pdf
12. Beatty, A. (2008). Discussion of the debt-contracting value of accounting information and loan syndicate structure. *Journal of Accounting Research, 46*(2), 289–296. https://doi.org/10.1111/j.1475-679X.2008.00274.x

13. Beatty, A., Liao, W. S., & Weber, J. (2010). The effect of private information and monitoring on the role of accounting quality in investment decisions. *Contemporary Accounting Research, 27*(1), 17–47. https://doi.org/10.1111/j.1911-3846.2010.01000.x
14. Biddle, G., & Hilary, G. (2006). Accounting quality and firm-level capital investment. *The Accounting Review, 81*(5), 963–982. https://doi.org/10.2308/accr.2006.81.5.963
15. Brochet, F., Jagolinzer, A. D., & Riedl, E. J. (2013). Mandatory IFRS adoption and financial statement comparability. *Contemporary Accounting Research, 30*(4), 1373–1400. https://doi.org/10.1111/1911-3846.12002
16. Byard, D., Li, Y., & Yu, Y. (2011). The effect of mandatory IFRS adoption on financial analysts' information environment. *Journal of Accounting Research, 49*(1), 69–96. https://doi.org/10.1111/j.1475-679X.2010.00390.x
17. Callao, S., Jarne, J. I., & Laínez, J. A. (2007) Adoption of IFRS in Spain: effect on the comparability and relevance of financial reporting. *Journal of International Accounting, Auditing and Taxation, 16*(2), 148–178. https://doi.org/10.1016/j.intaccaudtax.2007.06.002
18. Chebaane, S., & Othman, H. B. (2014). The impact of IFRS adoption on value relevance of earnings and book value of equity: The case of emerging markets in African and Asian regions. *Procedia — Social and Behavioral Sciences, 145*, 70–80. https://doi.org/10.1016/j.sbspro.2014.06.012
19. Chen, T.-Y., Chin, C.-I., Wang, S., & Yao, C. (2013). *The effect of mandatory IFRS adoption on bank loan contracting*. https://doi.org/10.2139/ssrn.2159001
20. Christensen, H. B., Lee, E., Walker, M., & Zeng, C. (2015) Incentives or standards: What determines accounting quality changes around IFRS adoption? *European Accounting Review, 24*(1), 31–61. https://doi.org/10.1080/09638180.2015.1009144
21. Costello, A. M., & Wittenberg-Moerman, R. (2011). The impact of financial reporting quality on debt contracting: Evidence from internal control weakness reports. *Journal of Accounting Research, 49*(1), 97–136. https://doi.org/10.1111/j.1475-679X.2010.00388.x
22. Daske, H. (2006). Economic benefits of adopting IFRS or US-GAAP — Have the expected cost of equity capital really decreased? *Journal of Business Finance & Accounting, 33*(3–4), 329–373. https://doi.org/10.1111/j.1468-5957.2006.00611.x
23. Daske, H., Hail, L., Leuz, C., & Verdi, R. (2008). Mandatory IFRS reporting around the world: Early evidence on the economic consequences. *Journal of Accounting Research, 46*(5), 1085–1142. https://doi.org/10.1111/j.1475-679X.2008.00306.x
24. Daske, H., Hail, L., Leuz, C., & Verdi, R. (2013). Adopting a label: Heterogeneity in the economic consequences around voluntary IAS and IFRS adoptions. *Journal of Accounting Research, 51*(3), 495–547. https://doi.org/10.1111/1475-679X.12005
25. de Almeida, J. E. F., & Rodrigues, H. S. (2017). Effects of IFRS, analysts, and ADR on voluntary disclosure of Brazilian public companies. *Journal of International Accounting Research, 16*(1), 21–35. https://doi.org/10.2308/jiar-51649
26. de Lima, V. S. (2011). *Incentivos no nível da firma e consequências econômicas da convergência ao IFRS no Brasil* (Master's dissertation, Universidade de São Paulo). https://doi.org/10.11606/D.12.2011.tde-19032012-192936
27. de Lima, V. S., de Lima, G. A. S. F., & Gotti, G. (2018). Effects of the adoption of IFRS on the credit market: Evidence from Brazil. *The International Journal of Accounting, 53*(2), 77–101. https://doi.org/10.1016/j.intacc.2018.04.001
28. de Lima, V. S., de Lima, G. A. S. F., Carvalho, L. N. G., & Lima, I. S. (2010). Toward IFRS: Economic consequences of accounting convergence in an emerging economy. In M. Tsamenyi & S. Uddin (Eds.), *Research in accounting in emerging economies* (Vol. 10, pp. 251–295). Emerald Group Publishing Limited. https://doi.org/10.1108/S1479-3563(2010)0000010015
29. DeFond, M., Hu, X., Hung, M., & Li, S. (2011). The impact of mandatory IFRS adoption on foreign mutual fund ownership: The role of comparability. *Journal of Accounting and Economics, 51*(3), 240–258. https://doi.org/10.1016/j.jacceco.2011.02.001
30. dos Santos, M. A. C., & Cavalcante, P. R. N. (2014). Effect of the adoption of IFRS on the information relevance of accounting profits in Brazil. *Revista Contabilidade & Finanças, 25*(66), 228–241. https://doi.org/10.1590/1808-057x201410690
31. Ernst & Young. (2006). *Observations on the implementation of IFRS*. https://www.feicanada.org/files/IFRS_Obs_on_the_Implementation.pdf
32. 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
33. 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
34. Golubeva, O. (2020). Maximising international returns: Impact of IFRS on foreign direct investments. *Journal of Contemporary Accounting & Economics, 16*(2), 100200. https://doi.org/10.1016/j.jcae.2020.100200
35. Grossman, A. M., Smith, L. M., & Tervo, W. (2013). Measuring the impact of international reporting standards on market performance of publicly traded companies. *Advances in Accounting, 29*(2), 343–349. https://doi.org/10.1016/j.adiac.2013.09.001
36. Hail, L., & Leuz, C. (2007). *Capital market effects of mandatory IFRS reporting in the EU: Empirical evidence*. https://doi.org/10.2139/ssrn.1511671
37. 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
38. Hanlon, M., Rajgopal, S., & Shevlin, T. (2003). Are executive stock options associated with future earnings? *Journal of Accounting and Economics, 36*(1–3), 3–43. https://doi.org/10.1016/j.jacceco.2003.10.008
39. Hann, R. N., Heflin, F., & Subramanayam, K. R. (2007). Fair-value pension accounting. *Journal of Accounting and Economics, 44*(3), 328–358. https://doi.org/10.1016/j.jacceco.2007.04.001

40. Hassan, E. A., Rankin, M., & Lu, W. (2014). The development of accounting regulation in Iraq and the IFRS adoption decision: An institutional perspective. *The International Journal of Accounting, 49*(3), 371–390. https://doi.org/10.1016/j.intacc.2014.07.001
41. Holthausen, R. W., & Watts, R. L. (2001). The relevance of the value-relevance literature for financial accounting standard setting. *Journal of Accounting and Economics, 31*(1–3), 3–75. https://doi.org/10.1016/S0165-4101(01)00029-5
42. Jones, J. J. (1991). Earnings management during import relief investigation. *Journal of Accounting Research, 33*(2), 193–228. https://doi.org/10.2307/2491047
43. Kang, S.-H., & Sivaramakrishnan, K. (1995). Issues in testing earnings management and an instrumental variable approach. *Journal of Accounting Research, 33*(2), 353–367. https://doi.org/10.2307/2491492
44. Kund, A.-G., & Rugilo, D. (2019). *Assessing the implications of IFRS 9 on financial stability using bank stress tests.* https://efmaefm.org/0EFMAMEETINGS/EFMA%20ANNUAL%20MEETINGS/2019-Azores/papers/EFMA2019_0308_fullpaper.pdf
45. Lejard, C., Paget-Blanc, E., & Casta, J.-F. (2021). *The effects of the adoption of IFRS 9 on the comparability and the predictive ability of banks' loan loss allowances* (Université Paris-Dauphine Research Paper No. 3782584). https://doi.org/10.2139/ssrn.3782584
46. Li, F. (2010). The information content of forward-looking statements in corporate filings — A naïve Bayesian machine learning approach. *Journal of Accounting Research, 48*(5), 1049–1102. https://doi.org/10.1111/j.1475-679X.2010.00382.x
47. Malaquias, R. F., Cardoso, A. M., & Martins, G. A. (2016). IFRS and stock returns: An empirical analysis in Brazil. *Binus Business Review, 7*(2), 179–184. https://doi.org/10.21512/bbr.v7i2.1593
48. Melnik, A., & Plaut, S. (1986). Loan commitment contracts, terms of lending and credit allocation. *The Journal of Finance, 41*(2), 425–436. https://doi.org/10.1111/j.1540-6261.1986.tb05046.x
49. Nathan Associates London Ltd. (2011). *Private sector development programme for Iraq (PSDP-I). Investment map for Iraq: Project BF/IRQ/08/007.* Private Sector Development Center in Iraq. http://www.psdc-iraq.org/sites/default/files/Investment%20Map%20Sept2011.pdf
50. Omokhudu, O. O., & Ibadin, P. O. (2015). The value relevance of accounting information: Evidence from Nigeria. *Accounting and Finance Research, 4*(3), 1–20. https://doi.org/10.5430/afr.v4n3p20
51. Petersen, M. A. (2009). Estimating standard errors in finance panel data sets: Comparing approaches. *The Review of Financial Studies, 22*(1), 435–480. https://doi.org/10.1093/rfs/hhn053
52. Rodrigues, L. L., & Craig, R. (2007). Assessing international accounting harmonisation using Hegelian dialectic, isomorphism and Foucault. *Critical Perspectives on Accounting, 18*(6), 739-757. https://doi.org/10.1016/j.cpa.2006.02.007
53. Sampaio, J. O., Gallucci Netto, H., & Silva, V. A. B. (2017). *Mandatory IFRS adoption in Brazil and firm value* (EESP Working Paper No. 442).
54. Schmidt, M. (2013) Equity and liabilities — A discussion of IAS 32 and a critique of the classification. *Accounting in Europe, 10*(2), 201–222. https://doi.org/10.1080/17449480.2013.834727
55. Shubber, S. (2009). *The law of investment in Iraq.* Leiden, the Netherlands: Brill. https://doi.org/10.1163/ej.9789004172869.i-247
56. 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
57. Tan, H., Wang, S., & Welker, M. (2011). Analyst following and forecast accuracy after mandated IFRS adoptions. *Journal of Accounting Research, 49*(5), 1307–1357. https://doi.org/10.1111/j.1475-679X.2011.00422.x
58. Watts, R. L. (2003). Conservatism in accounting, part I: Explanations and implications. *Accounting Horizons, 17*(3), 207–221. https://doi.org/10.2308/acch.2003.17.3.207
59. Watts, R. L. (2006). What has the invisible hand achieved? *Accounting and Business Research, 36*(sup1), 51–61. https://doi.org/10.1080/00014788.2006.9730046
60. Wu, J. S., & Zhang, I. X. (2014). The adoption of internationally recognised accounting standards: Implications for the credit markets. *Journal of Accounting, Auditing & Finance, 29*(2), 95–128. https://doi.org/10.1177/0148558X14524420

# APPENDIX

**Table A.1.** Research variables' definitions

| *Variable* | *Symbol* | *Description* |
|---|---|---|
| ***IFRS implementation*** | | |
| IFRS implementation | $IFRS_t$ | 1 = IFRS implementation, 0 = otherwise |
| Post-IFRS implementation | $Post_t$ | 1 = period (2016–2020), 0 = period (2010–2015) |
| ***Dependent variables*** | | |
| *Dimension 1* | | |
| Corporate credit rating | $CCR_{it}$ | Company ratings are stated on a scale from (H = 1) to (AA = 9). |
| Dispersion of corporate credit ratings | $DCCR_{it}$ | Ten observations are required at least for each period |
| *Dimension 2* | | |
| Contract term | $CT_{it}$ | Contract stipulations |
| Cost of debt | $CD_{it}$ | The percentage between the contract interest rate and the introductory of the Iraqi economy interest rate |
| Maturity | $M_{it}$ | The actual logarithm of the days from the loan grant to the final payment date |
| Amount | $A_{it}$ | Loan amount ÷ total assets |
| Collateral | $C_t$ | 1 = collateral required for the contract (regardless of value), otherwise = 0 |
| ***Accounting indicators and entity-specific characteristics*** | | |
| Return on assets | $RA_{it}$ | Net income ÷ the average of total assets |
| Leverage | $L_{it}$ | Total gross debt ÷ total assets |
| Interest coverage | $IC_{it}$ | Natural logarithm of income before tax and interest ÷ gross expenses |
| Size | $S_{it}$ | Natural logarithm of total assets |
| Tangibility | $T_{it}$ | Deferred assets and intangibles ÷ total assets |
| Net earnings volatility | $NEV_{it}$ | The standard deviation of net income |
| ***Loan-specific characteristics*** | | |
| Time of relationship | $TR_{it}$ | Natural logarithm of the number of days from the conclusion of the first contract to the conclusion of the current contract |
| Number of loans | $NL_{it}$ | Natural logarithm of the number of loans in the 12 month |
| Type of operation | $TO(x)_{it}$ | a) operations with receivables, b) working capital, c) working capital turnover, d) foreign trade, e) investment, f) other debentures, g) other destinations |
| Rating of operation | $RO_{it}$ | Using the similar criteria as $CCR_{it}$ but representing the operation credit risk |
| Index | $Index_{it}$ | Reference rate (RR), general market price index (GMPI), long-term interest rate (LTIR), LIB, CDI, Sel, and extended national consumer price index (NCPI) |
| Currency | $Cu_{it}$ | IQD, USD, EUR, and GBP were considered; otherwise = 0 |
| ***Bank-specific characteristics*** | | |
| Capital | $Cap_t$ | Reference equity ÷ assets risk weighted |
| Size of financial institution | $SFI_t$ | Total assets logarithm |
| Liquidity | $Liq_t$ | Sum of assets and marketable securities minus available for sale divided by total assets |
| Bank reserve | $BR_t$ | Credits linked to the CBI divided by total assets |
| Default | $Def_{it}$ | Operations classified E–H ÷ the total credit portfolio |
| Return on assets | $RAFI_{it}$ | Net earnings ÷ the mean of total assets |
| Control | $Con_{it}$ | Publicly traded = 1, private control = 0 |
| Specialisation on the credit market | $SCM_{it}$ | Credit portfolio ÷ and total assets *%100 |
| ***Entity-level incentives*** | | |
| Financial statements' quality | $FSQ_{it}$ | Using Jones' (1991), Barth et al.'s (2006), and Kang and Sivaramakrishnan's (1995) model in the estimation |
| Previous exposure to the international market | $PEIM_{it}$ | Dummy variable = 1; otherwise = 0 |
| ***Other control variables*** | | |
| External audits | $Aud_{it}$ | 1 = Dummy variable; 0 otherwise |
| Corporate governance | $CG_{it}$ | 1 = Corporate governance listing segment; 0 otherwise |
| Domestic risk-free rate | $DRFR_{it}$ | The federal bonds |
| EMBI + RIEDI | $ER_{it}$ | Emerging markets bond index (EMBI) + the weighted return on Iraqi external debt instruments index (RIEDI) |
| Dollar | $D_{it}$ | Closing exchange rate of IQD in relation to USD |
| The proportion of capture of directed resources | $PCDR_{it}$ | The stock of directed credit divided by the total credit portfolio |
| Contemporary variable | $CV_{it}$ | The dependent variable of mandatory IFRS adopters (trimester average) |

**Table A.2.** Research population: Iraqi financial sector

| | ***Details*** | ***No.*** |
|---|---|---|
| **A** | ***Banks*** | **77** |
| 1 | State banks (1 Islamic bank and 6 trade banks) | 7 |
| 2 | Iraq's Islamic banks | 28 |
| 3 | Iraq's trade banks | 24 |
| 4 | Branches of foreign trade banks | 16 |
| 5 | Branches of Islamic foreign banks | 2 |
| **B** | ***Non-banks financial institutions*** | **24** |
| 1 | Financial entities | 15 |
| 2 | Financial investment companies | 7 |
| 3 | Bank guarantees company | 1 |
| 4 | Small and medium projects finance company | 1 |
| **C** | ***International financial institutions*** | **7** |

**Table A.3.** Quantifies financial statements' quality ($FSQ_{it}$)

FSQ post IFRS (Barth et al.'s (2006) model) = $FSQ_{PIFRSBM}$

FSQ before IFRS (Barth et al.'s (2006) model) = $FSQ_{BIFRSBM}$

FSQ post IFRS (Kang and Sivaramakrishnan's (1995) model) = $FSQ_{PIFRSKSM}$

FSQ before IFRS (Kang and Sivaramakrishnan's (1995) model) = $FSQ_{BIFRSKSM}$

FSQ post IFRS (modified Jones' (1991) model) = $FSQ_{PIFRSMJM}$

FSQ before IFRS (modified Jones' (1991) model) = $FSQ_{BIFRSMJM}$

$$FSQ_{it} = mean\begin{pmatrix} FSQPIFRSBM \\ FSQPIFRSKSM \\ FSQPIFRSMJM \end{pmatrix} - mean\begin{pmatrix} FSQBIFRSBM \\ FSQBIFRSKSM \\ FSQBIFRSMJM \end{pmatrix}$$