Accounting quality, governance standards, and syndicated loan contracts

Evidence from emerging markets

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Abstract

Purpose – The purpose of this paper is to examine how firms' accounting quality affects bank loan contracting in seven emerging markets and whether these relationships are affected by borrowers' governance standards.

Design/methodology/approach – The study sample period is 1999-2007 because the syndicated loan market was severely affected by the East Asian financial crisis of 1998 and the US financial crisis of 2008. The final sample includes 719 loan observations for 75 firms in seven emerging markets.

Findings – The authors find that syndicated lenders provide loans with more favorable terms such as larger amounts, longer maturity and lower interest spread to borrowers in emerging markets with higher accounting quality. The authors also find that the influences of accounting quality on syndicated loan contracting for borrowers in emerging markets exist only with higher country- and firm-level governance rankings. The results of this paper suggest that lenders place more value on accounting numbers generated by borrowers in emerging markets with stronger internal and country governance frameworks.

Originality/value – Overall, this research provides new insights about how accounting quality affects the contract design. Specifically, the extant literature has demonstrated the effects of accounting quality on financial contracts in developed countries (e.g. Bharath *et al.*, 2008). The authors extend this analysis to borrowers in emerging markets and confirm a similar result. Most notably, the authors explore whether the relationship between accounting quality and syndicated loan contracts is influenced by borrowers' country- and firm-level governance, and find that accounting quality matters only when accompanied by high-quality governance. This research provides new insights about how accounting quality and governance standards affect the terms of borrowing contracts in emerging markets.

Keywords Emerging market, Bank loan contracting, Accounting quality, Governance standards

Paper type Research paper

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1. Introduction

The importance of accounting quality in equity and bond markets has been examined extensively (Sloan, 1996; Xie, 2001). However, academics have paid little attention to the effects of credible accounting information in the bank debt market (Sloan, 2001), especially in emerging markets[1]. In this paper, we contribute to the existing literature by examining how borrowers' accounting quality affects syndicated loan contracting in seven emerging markets and whether these relationships are affected by borrowers' governance standards. Bank debt financing dominates equity and bond financing in emerging markets, giving economic significance to this question (Godlewski and Weill, 2008). Because of the large variation of country- and firm-level governance standards (Doidge *et al.*, 2007; Francis *et al.*, 2013), emerging countries provide an excellent testing ground to investigate how such governance standards influence the effects of accounting quality on syndicated loan contracts.

We focus on borrowers' accounting quality because financial statements provide important information in the whole contracting process (Holthausen and Leftwich, 1983; Leftwich, 1983). We utilize three widely accepted indices related to discretionary total accruals, discretionary revenues and discretionary total current accruals to construct a variable measuring accounting quality. Large discretionary total accruals, discretionary revenues or discretionary total current accruals indicate unexpected deviations between cash flow and earnings, or poor accounting quality. Poor accounting quality makes it more difficult for lenders to predict borrowers' future ability to generate cash flow and service the loan (Bharath *et al.*, 2008). This suggests that syndicated lenders would potentially reward borrowers in emerging markets, demonstrating higher accounting quality with more favorable loan terms. A key question, however, is whether a firm operating in an emerging market can rely on improved accounting quality alone to secure more favorable lending terms. We explore the interaction of accounting quality with country- and firm-level governance standards to provide a clearer understanding of how accounting quality affects syndicated loan contracting in emerging markets.

Using data from seven emerging markets, we find that lenders provide syndicated loans with larger amounts, longer maturity and lower interest spread to borrowers with higher accounting quality. We also find the influences of higher accounting quality on syndicated loan contracting are only significant for borrowers with stronger country- and firm-level governance benchmark rankings. Our results suggest that lenders place value on financial statements generated only by borrowers with a stronger governance framework.

Overall, our research advances the literature in several key ways. First, Bharath *et al.* (2008) demonstrate that US borrowers with superior accounting quality obtain more favorable loans. We extend this analysis to borrowers in emerging markets and confirm a similar result. Second, Chen *et al.* (2011) show the positive effects of accounting quality on firms' investment efficiency in emerging markets. Our paper investigates how accounting quality affects syndicated loan contracts in emerging markets. Thus, we provide a more comprehensive picture about the effects of accounting quality in developing countries.

Finally, recent studies (Bae and Goyal, 2009; Francis *et al.*, 2012; Qian and Strahan, 2007) find that borrowers with stronger country- and firm-level governance obtain more favorable syndicated loan contracts. We show that borrowers' accounting quality also

has a significant effect on syndicated loan contracts in emerging markets. Most notably, we explore whether the relationship between accounting quality and syndicated loan contracts is influenced by borrowers' country- and firm-level governance and find that accounting quality matters only when accompanied by high-quality governance. Our research provides new insights about how accounting quality and governance standards affect the terms of borrowing contracts in emerging markets. Therefore, we present a more complete view about the syndicated loan contracting process.

The remainder of this paper is organized as follows: Section 2 reviews the literature and develops hypotheses. Section 3 presents the data. Section 4 describes the research design and results from our analysis. Section 5 presents our conclusion.

2. Hypothesis development

2.1 Accounting quality and syndicated loan contracts

One important function of reported accounting numbers is to facilitate capital allocation (Chen *et al.*, 2011). Lenders value information obtained from financial statements at the time of loan origination (Bharath *et al.*, 2008) and write a contract based on numbers generated directly or indirectly by generally accepted accounting principles (Holthausen and Leftwich, 1983; Leftwich, 1983). Poor accounting quality is usually defined as large discretionary total accruals, discretionary revenues or discretionary total current accruals (Chen *et al.*, 2011). Large discretionary total accruals, discretionary revenues or discretionary total current accruals suggest unexpected deviations between cash flow and earnings, making it more difficult for banks to predict borrowers' future ability to generate cash flow and service loans (Bharath *et al.*, 2008). Thus, lenders would be expected to reward borrowers with higher accounting quality by providing loans with more favorable terms.

Empirically, interesting evidence exists regarding the influences of borrowers' accounting quality in the US debt market. For instance, Francis *et al.* (2005) find that firms with superior accounting quality have lower aggregate interest cost. Bharath *et al.* (2008) show that borrowers with higher accounting quality obtain more favorable syndicated loan contracts. Beatty *et al.* (2002) find that bank loan interest spread is higher for borrowers with higher accounting flexibility.

In other less developed countries, Abu-Nassar and Rutherford (1996) find that institutional shareholders and bank loan officers depend on the financial information obtained from the firm to make financial decisions in Jordan. Mirshekary and Saudagaran (2005) and Al-Razeen and Karbhari (2007) find the same results in Iran and Saudi Arabia. In our paper, we examine the importance of accounting quality from the perspective of the syndicated loan contracting process in emerging markets:

H1. Lenders provide syndicated loans with more favorable terms such as larger amounts, longer maturity and lower interest spread to borrowers in emerging markets with higher accounting quality.

2.2 Accounting quality, governance and syndicated loan contracts

The individual effects of accounting quality and governance on bank loan contracts have been confirmed. Prior studies suggest that syndicated lenders provide more favorable loan contracts to borrowers with superior accounting quality (Bharath *et al.*, 2008) and superior firm-level corporate governance (Francis *et al.*, 2012). Bae and Goyal

(2009) and Qian and Strahan (2007) show that borrowers in a country with higher levels of investor protection obtain better syndicated loan contracts.

However, how accounting quality and governance interact to affect lending contracts is an unanswered question. Accounting numbers are generated in a framework subject to both firm- and country-level governance. Companies with poor internal governance mechanisms and/or poor government regulation and oversight may produce financial statements with poor accounting quality. For example, Beasley (1996) and Xie *et al.* (2003) find that better firm-level governance can reduce earnings management behaviors and accounting fraud. This finding was further supported in one study utilizing sample data from the public sector. Specifically, Chun *et al.* (2010) concluded that better firm-level internal governance can increase the quality of accounting information for Hong Kong public hospitals. At the regulatory level, Ball *et al.* (2000) find that superior country-level governance can increase the quality of earnings. In this paper, we examine whether lenders are concerned about the credibility of accounting information generated by a firm with poor country- and firm-level governance mechanisms, or, conversely, favorably view firms with higher governance rankings. We focus on the interaction between accounting quality and governance on syndicated loan contracts in emerging markets:

H2. The influences of higher accounting quality on syndicated loan contracts are only significant for borrowers in emerging markets with higher governance benchmark rankings.

3. Data

3.1 Variable construction

The data to construct firm characteristics are generated from the Worldscope database. To measure borrowers' accounting quality, we utilize the proxies for financial reporting quality used by Chen *et al.* (2011). The first proxy is performance-adjusted discretionary total accruals (Kothari *et al.*, 2005). Specifically, in each industry with more than 16 observations for each country, we estimate performance-adjusted discretionary accruals as:

$$\begin{aligned} TotalAccruals_t/TotalAssets_{t-1} = {} & \alpha + \beta_1(1/TotalAssets_{t-1}) \\ & + \beta_2(Revenue_t - Revenue_{t-1}/TotalAssets_{t-1} \\ & + \beta_3 PPE_t/TotalAssets_{t-1} + ROA_t + \varepsilon_t \end{aligned} \quad (1)$$

where *Total Accruals* is measured as total accruals, defined as the change in a firm's non-cash current assets less the change in its current non-interest-bearing liabilities, less its depreciation and amortization expense. *Total Assets* is defined as a firm's total assets. *Revenue* is measured as a firm's revenue. *PPE* is defined as a firm's property, plant and equipment. *ROA* is measured as a firm's return on assets. We use the residual from the estimation to measure discretionary total accruals. The absolute value of the residual multiplied by -1 is our first proxy, *AQ_Proxy1*.

The second proxy is discretionary revenues (McNichols and Stubben, 2008; Stubben, 2010). Specifically, in each industry with more than eight observations for each country, we estimate the discretionary revenues as:

$$(AccountsReceivable_t\_AccountsReceivable_{t-1})/TotalAssets_{t-1} = \alpha + \beta_1(Revenue_t\_Revenue_{t-1}) + \varepsilon_t \quad (2)$$

where *Accounts Receivable* is measured as a firm's accounts receivable. We use the residual from the estimation to measure discretionary revenues. The absolute value of the residual multiplied by −1 is our second proxy, *AQ_Proxy2*.

The third proxy is calculated based on the models developed by Dechow and Dichev (2002), McNichols (2002) and Francis *et al.* (2005). Specifically, in each industry with more than 16 observations for each country, we estimate discretionary total current accruals as:

$$\begin{aligned} TotalcurrentAccruals_t/TotalAssets_{t-1} = {} & \alpha + \beta_1 (OperatingCashFlow_t/TotalAssets_{t-1}) \\ & + \beta_2 (OperatingCashFlow_{t+1}/TotalAssets_{t-1}) \\ & + \beta_3 (Revenue_t\_Revenue_{t-1}/TotalAssets_{t-1} \\ & + \beta_4 PPE_t/TotalAssets_{t-1} + \varepsilon_t \end{aligned} \quad (3)$$

where *TotalCurrentAccruals* is defined as the change in a firm's non-cash current assets less the change in its current non-interest-bearing liabilities. *OperatingCashFlow* is measured as the sum of a firm's net income, its depreciation and amortization and the change in its current liabilities, less the change in its current assets, scaled by its lagged total assets. We again use the residual from the estimation to measure discretionary total current accruals. The absolute value of the residual multiplied by −1 is our third proxy, *AQ_Proxy3*.

The higher values of *AQ_Proxy1*, *AQ_Proxy2* and *AQ_Proxy3* indicate higher accounting quality because they are defined as the absolute value of the residuals of equations (1)–(3) multiplied by −1. The absolute value of the residuals indicates the magnitude of discretionary total accruals, discretionary revenues or discretionary total current accruals. Large discretionary total accruals, discretionary revenues or discretionary total current accruals suggest unexpected deviations between cash flows and earnings, making it more difficult for lenders to predict borrowers' future ability to generate cash flow and service the loan (Bharath *et al.*, 2008). Following Biddle *et al.* (2009), we perform a normalization of these three proxies and take the average to construct our main measure of borrowers' accounting quality, which is the variable *Accounting Quality*. We aggregate these three measures because an aggregate proxy may reduce measurement errors (Chen *et al.*, 2011).

Data obtained from the Worldscope database are also used to construct our remaining borrower characteristics variables. Specifically, the variable *Size* is measured as the logarithm of a firm's total assets. The variable *Leverage* is constructed as a firm's total debt scaled by its total assets. The variable *Profitability* is measured as a firm's net income divided by its total assets. The variable *Tangibility* is defined as a firm's property plant and equipment scaled by its total assets.

Next, data obtained from the Dealscan database are used to construct our loan variables. Specifically, the variable *Relationship with Banks* is defined as the logarithm of the sum between one and the number of previous bank lending relationships. The variable *Bank Loan Amount* is defined as the amount of the loan in millions of dollars. The variable *Bank Loan Maturity* is constructed as the maturity of the loan in months.

The variable *Bank Loan Spread* is measured as the spread of the loan in basis points. The variable *Loan Type Dummy* is constructed as a series of dummy variables, which equals one if a loan is a specific type such as a term loan, etc.

Lastly, we construct two governance variables and a growth variable. The variable *Country Level Governance* is measured as the average value of the six indices in the world governance index from the World Bank (i.e. control of corruption, regulatory quality, political stability and lack of violence, government effectiveness, rule of law and voice and accountability). The variable *Firm Level Governance* is defined as the sum of answers to questions in six categories (i.e. disclosure, management discipline, responsibility, fairness, independence and accountability) scaled by the total number of the questions in a survey performed by Credit Lyonnais Securities Asia. The variable *Growth in GDP* is the percentage change in a country's gross domestic product (GDP) growth.

3.2 Sample and summary statistics

Our sample period is 1999-2007 because the syndicated loan market was severely affected by the East Asian financial crisis of 1998 and the US financial crisis of 2008. The final sample includes 719 loan observations for 75 firms in seven emerging markets. These countries include Chile, India, Malaysia, the Philippines, Thailand, South Africa and Brazil. Table I presents the summary statistics for the whole sample.

4. Results

4.1 Univariate analysis

First, a univariate analysis is conducted to explore the effects of borrowers' accounting quality on syndicated loan contracts. Specifically, we construct the two subsamples. In one subsample, borrowers' accounting quality is lower than the median value. In the other one, borrowers' accounting quality is higher than the median value. We then compare the mean values of the variables *Bank Loan Amount*, *Bank Loan Maturity* and *Bank Loan Spread* between these two subsamples. As shown in Table II, the absolute values of the differences in terms of the mean value of the loan size, maturity and spread

Variables	Mean	SD	25th percentile	50th percentile	75th percentile
Accounting Quality	−0.03	0.79	−0.57	−0.02	0.49
Country Level Governance	58.08	13.49	45.41	58.23	62.58
Growth in GDP (%)	4.12	1.34	2.94	3.85	5.14
Size	17.12	2.43	15.61	17.07	18.23
Leverage	0.54	0.17	0.41	0.53	0.71
Profitability	0.39	0.28	0.20	0.30	0.55
Tangibility	0.59	0.25	0.48	0.67	0.77
Relationship with Banks	0.97	0.67	0.69	1.10	1.61
Firm Level Governance	54.28	14.58	49.84	54.84	63.22
Bank Loan Amount ($ millions)	118.59	22.15	101.31	117.33	134.35
Bank Loan Maturity (months)	56.37	14.16	46.00	55.00	66.00
Bank Loan Spread (basis points)	136.43	24.31	119.50	143.50	154.00

Note: Table I presents summary statistics

Table I.
Summary statistics

between these two subsamples are $21.65 million, 19.44 months and 25.52 basis points, respectively. Each difference is statistically significant. These results imply that lenders write more favorable syndicated loan contracts with larger amounts, longer maturity and lower interest spread for borrowers with higher accounting quality, supporting *H1*.

4.2 Multivariate analysis

4.2.1 H1. To further investigate the influences of accounting quality on syndicated loan contracting terms in emerging markets (*H1*), we estimate the following equation:

$$\begin{aligned} \text{Loan contracting variables} = {} & \alpha + \beta_1 \, Accounting\ Quality \\ & + \beta_2 \, Country\ Level\ Governance \\ & + \beta_3 \, Firm\ Level\ Governance + \beta_4 \, Control\ variables \\ & + Industry\ effects + Year\ effects + \varepsilon \end{aligned} \tag{4}$$

where, loan contracting variables include the logarithm of *Bank Loan Amount*, *Bank Loan Maturity* and *Bank Loan Spread*. Our primary interest is the variable *Accounting Quality*. According to *H1*, we expect that it has a positive effect on the logarithm of *Bank Loan Amount* or the logarithm of *Bank Loan Maturity* ($\beta_1 > 0$). We expect that it has a negative influence on the logarithm of *Bank Loan Spread* ($\beta_1 < 0$).

We also include the variables *Country Level Governance* and *Firm Level Governance*. Bae and Goyal (2009), Francis *et al.* (2012) and Qian and Strahan (2007) find that lenders provide better syndicated loan terms to borrowers with superior governance because stronger governance benchmarks can reduce borrowers' agency problems. Thus, we expect that the governance variables have a positive effect on the logarithm of *Bank Loan Amount* or the logarithm of *Bank Loan Maturity,* and have a negative influence on the logarithm of *Bank Loan Spread*.

We also control for the variables *Size, Leverage, Profitability, Tangibility, Relationships with Banks, Growth in GDP* and *Loan Type Dummy*. Strahan (1999) finds that lenders provide more favorable syndicated loan contacts to borrowers with larger size, lower leverage, higher profitability, higher tangibility and more previous lending relationships because these firm characteristics are associated with lower credit risk. Thus, we expect that larger firm size, lower leverage, higher profitability, higher tangibility and more previous lending relationships with banks are associated with better syndicated loan terms. We also expect that lenders provide better syndicated loan terms to borrowers in emerging markets with higher GDP growth because these borrowers are less likely to default (Qian and Strahan, 2007). Finally, we include

Variables	Accounting quality		
	Low	High	Low-High
Bank Loan Amount ($ millions)	118.59	129.43	−21.65***
Bank Loan Maturity (months)	46.66	66.10	−19.44***
Bank Loan Spread (basis points)	154.82	129.30	25.52***

Table II.
Univariate analysis for loan contracts

Notes: Table II present a univariate analysis for loan contracting terms; we present the definitions of all the variables in appendix; *** significance at the 1% levels

industry and year effects and calculate the *t*-statistics using standard errors corrected for firm-level clustering.

The estimations based on equation (4) are presented in Tables III–V. As presented in Table III, the dependent variable is the logarithm of *Bank Loan Amount*. The coefficients of the variable *Accounting Quality* are always positive and statistically significant. We also find that borrowers' size, tangibility and previous relationship have significant positive impact, as expected. As shown in Column 3, the coefficient of the variable *Accounting Quality* is 0.0841. It suggests that if the variable *Accounting Quality* increases by a one standard deviation (0.79), it increases the loan size by 6.64 per cent (0.0841 × 0.79), which is about $7.87 million (118.59 × 6.64 per cent) given the mean value of the sample ($118.59 million).

Next, as presented in Table IV, the dependent variable is the logarithm of *Bank Loan Maturity*. The coefficients of the variable *Accounting Quality* are always positive and statistically significant. We also find that borrowers' size and previous relationship have a significant positive impact, as expected. As shown in Column 3, the coefficient of the variable *Accounting Quality* is 0.1920. It suggests that if the variable *Accounting Quality* increases by a one standard deviation (0.79), it increases the loan maturity by 15.17 per cent (0.1920 × 0.79), which is about 8.55 months (56.37 × 15.17 per cent) given the mean value of the sample (56.37 months).

Finally, as presented in Table V, the dependent variable is the logarithm of *Bank Loan Spread*. The coefficients of the variable *Accounting Quality* are always negative and statistically significant. We also find that the country-level governance and firm tangibility have significant negative impact, as expected. As shown in Column 3, the coefficient of the variable *Accounting Quality* is −0.1623. It suggests that if the variable

Variables	Dependent variable = Log (*Bank Loan Amount*) (1)	(2)	(3)
Accounting Quality	0.1313*** (0.0337)	0.0967*** (0.0247)	0.0841*** (0.0146)
Country Level Governance		0.0031 (0.0019)	0.0016** (0.0008)
Size			0.0068* (0.0034)
Leverage			−0.0146 (0.0455)
Profitability			−0.0038 (0.0390)
Tangibility			0.0817** (0.0325)
Firm Level Governance	0.0005 (0.0020)	0.0017 (0.0018)	0.0035*** (0.0006)
Relationship with Banks	0.0759*** (0.0258)	0.0902*** (0.0239)	0.0275** (0.0122)
Growth in GDP	−0.0064 (0.0128)	−0.0088 (0.0120)	−0.0014 (0.0079)
Including			
Loan Type Dummy	Yes	Yes	Yes
Industry fixed effect	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes
Observations	719	719	315
R-squared	0.5673	0.5846	0.8215

Notes: We report the variable definitions in the appendix; borrower-level clustering is included when we calculate standard errors; we report coefficients with standard errors; we indicate significance at the 10, 5 and 1% levels by *, ** and ***, respectively

Table III. Effects of *Accounting Quality* on log of *Bank Loan Amount*

Variables	Dependent variable = Log (*Bank Loan Maturity*) (1)	(2)	(3)
Accounting Quality	0.2486*** (0.0309)	0.2375*** (0.0355)	0.1920*** (0.0392)
Country Level Governance		0.0010 (0.0013)	0.0003 (0.0014)
Size			0.0310*** (0.0049)
Leverage			−0.0795 (0.0501)
Profitability			0.0485 (0.0450)
Tangibility			−0.0177 (0.0471)
Firm Level Governance	−0.0005 (0.0015)	−0.0001 (0.0017)	0.0035* (0.0018)
Relationship with Banks	0.0772*** (0.0255)	0.0818*** (0.0262)	0.0688** (0.0273)
Growth in GDP	−0.0070 (0.0103)	−0.0077 (0.0098)	0.0166* (0.0090)
Including			
Loan Type Dummy	Yes	Yes	Yes
Industry fixed effect	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes
Observations	719	719	315
R-squared	0.7049	0.7054	0.7691

Table IV.
Effects of *Accounting quality* on log of *Bank loan maturity*

Notes: We report the variable definitions in the appendix; borrower-level clustering is included when we calculate standard errors; we report coefficients with standard errors; we indicate significance at the 10, 5 and 1% levels by *, ** and ***, respectively

Variables	Dependent variable = Log (*Bank Loan Spread*) (1)	(2)	(3)
Accounting Quality	−0.2677*** (0.0279)	−0.2058*** (0.0352)	−0.1623*** (0.0247)
Country Level Governance		−0.0035** (0.0016)	−0.0052*** (0.0013)
Size			0.0016 (0.0082)
Leverage			0.0928 (0.0800)
Profitability			−0.0561 (0.0907)
Tangibility			−0.2135** (0.0937)
Firm Level Governance	0.0019 (0.0026)	0.0006 (0.0024)	−0.0038* (0.0019)
Relationship with Banks	−0.0311 (0.0236)	−0.0381** (0.0174)	−0.0002 (0.0172)
Growth in GDP	−0.0074 (0.0127)	0.0003 (0.0077)	−0.0284** (0.0106)
Including			
Loan Type Dummy	Yes	Yes	Yes
Industry fixed effect	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes
Observations	136	136	108
R-squared	0.8594	0.8817	0.9575

Table V.
Effects of *Accounting quality* on log of *Bank Loan Spread*

Notes: We report the variable definitions in the appendix; borrower-level clustering is included when we calculate standard errors; we report coefficients with standard errors; we indicate significance at the 10, 5 and 1% levels by *, ** and ***, respectively

Accounting Quality increases by a one standard deviation (0.79), it reduces the loan spread by 12.82 per cent (−0.1623 × 0.79), which is about 17.49 basis points (136.43 × 12.82 per cent) given the mean value of the sample (136.43 basis points).

In summary, we find that syndicated lenders provide more favorable loan terms such as larger amounts, longer maturity and lower spread to borrowers in emerging markets with higher accounting quality. These results suggest that as borrowers' accounting quality improves, banks are better able to predict borrowers' future cash flows, which will be used to service the debt. Banks value borrowers' higher accounting quality in emerging markets, which supports *H1*.

4.2.2 H2. To investigate the interaction between accounting quality and governance standards on syndicated loan contracts (*H2*), we estimate the following equations:

$$\begin{aligned}\text{Loan contracting variables} = {} & \alpha + \beta_1 \textit{Accounting Quality} \times \textit{Country Level Governance} \\ & + \beta_2 \textit{Accounting Quality} + \beta_3 \textit{Country Level Governance} \\ & + \beta_4 \textit{Firm Level Governance} + \beta_5 \textit{Control variables} \\ & + \textit{Industry effects} + \textit{Year effects} + \varepsilon \end{aligned} \tag{5}$$

$$\begin{aligned}\text{Loan contracting variables} = {} & \alpha + \beta_1 \textit{Accounting Quality} \times \textit{Firm Level Governance} \\ & + \beta_2 \textit{Accounting Quality} + \beta_3 \textit{Country Level Governance} \\ & + \beta_4 \textit{Firm Level Governance} + \beta_5 \textit{Control variables} \\ & + \textit{Industry effects} + \textit{Year effects} + \varepsilon \end{aligned} \tag{6}$$

The estimations based on equations (5) and (6) are presented in Tables VI and VII, respectively. In each column of Tables VI and VII, the dependent variable is one of the three loan contracting terms. The interaction term is between *Accounting Quality* and *Country Level Governance* in Table VI, and between *Accounting Quality* and *Firm Level Governance* in Table VII. In each instance, we find that the coefficient of the interaction term is positive and statistically significant when the dependent variable is the logarithm of *Bank Loan Amount* or the logarithm of *Bank Loan Maturity*. The influences of the variable *Accounting Quality* on the variable *Amount of Loan* are equal to (0.0031 × *Country Level Governance*) and (0.0015 × *Firm Level Governance*). The influences of the variable *Accounting Quality* on the logarithm of *Bank Loan Maturity* are equal to (0.0025 × *Country Level Governance*) and (0.0021 × *Firm Level Governance*).

Likewise, in each instance, the coefficient of the interaction term is negative and statistically significant when the dependent variable is the logarithm of *Bank Loan Spread*. The effects of the variable *Accounting Quality* on the logarithm of *Bank Loan Spread* are equal to (−0.0037 × *Country Level Governance*) and (−0.0083 × *Firm Level Governance*).

The estimated coefficients for the variable *Accounting Quality* alone, however, in both Tables VI and VII, are statistically insignificant. This is a notable finding in support of *H2* in that it suggests that firms in emerging markets cannot rely on higher accounting quality alone to secure more favorable terms within a syndicated loan contract. Rather, higher accounting quality must be accompanied by high governance benchmark rankings in order to secure such terms.

Variables	Dependent variable Log (Bank loan amount) (1)	Log (Bank loan maturity) (2)	Log (Bank loan spread) (3)
Accounting Quality × Country Level Governance	0.0031*** (0.0011)	0.0025* (0.0014)	−0.0037** (0.0016)
Accounting Quality	−0.0959 (0.0623)	0.0446 (0.0754)	0.0675 (0.0937)
Country Level Governance	0.0008 (0.0008)	−0.0004 (0.0017)	−0.0022 (0.0021)
Size	−0.0029 (0.0039)	0.0231*** (0.0050)	0.0061 (0.0068)
Leverage	0.0812 (0.0524)	−0.0011 (0.0799)	−0.0395 (0.1270)
Profitability	−0.0120 (0.0312)	0.0418 (0.0407)	−0.0681 (0.0688)
Tangibility	0.0960*** (0.0309)	−0.0060 (0.0513)	−0.2075** (0.0838)
Firm Level Governance	0.0035*** (0.0006)	0.0035** (0.0017)	−0.0042** (0.0017)
Relationship with Banks	0.0441*** (0.0130)	0.0824*** (0.0273)	−0.0207* (0.0116)
Growth in GDP	0.0033 (0.0076)	0.0205* (0.0107)	−0.0480*** (0.0099)
Including			
Loan Type Dummy	Yes	Yes	Yes
Industry fixed effect	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes
Observations	315	315	108
R-squared	0.8332	0.7717	0.9626

Table VI. Effects of the interaction between *Accounting quality* and *Country Level Governance* on loan contracts

Notes: We report the variable definitions in the appendix; borrower-level clustering is included when we calculate standard errors; we report coefficients with standard errors; we indicate significance at the 10, 5 and 1% levels by *, ** and ***, respectively

5. Conclusion

Syndicated loan financing is growing dramatically in emerging markets. (Godlewski and Weill, 2008). In this research, we examine the importance of accounting quality on syndicated loan contracts in emerging markets. Our findings suggest that lenders provide syndicated loans with better terms such as larger amounts, longer maturity and lower interest spread to borrowers in emerging markets with higher accounting quality. In addition, we show that the influences of accounting quality on favorable syndicated loan contracting terms are only significant for borrowers in emerging markets with better governance standards. This suggests that higher accounting quality matters only when accompanied by high governance rankings.

Our findings provide incentive for firms within emerging markets seeking syndicated loan contract financing to not only improve its accounting quality but to also focus on enhancing internal governance mechanisms and supporting government-level controls. Our findings also have important policy implications. To increase a firm's access to external financing and ability to secure more favorable borrowing terms, it is important for policymakers and regulators in emerging markets to improve governance standards. This is consistent with the recent trend to switch from local accounting standards to International Financial Reporting Standards (IFRS) in emerging markets. Indeed, our research suggests that enhanced firm- and country-level governance is needed for any improvement in accounting quality to result in lenders rewarding borrowers in emerging markets with more favorable syndicated loan contracts.

Variables	Dependent variable Log (*Bank Loan Amount*) (1)	Log (*Bank Loan Maturity*) (2)	Log (*Bank Loan Spread*) (3)
Accounting Quality × Firm Level Governance	0.0015** (0.0007)	0.0021** (0.0010)	−0.0083** (0.0034)
Accounting Quality	0.0057 (0.0350)	0.0769 (0.0832)	0.3227 (0.1878)
Country Level Governance	0.0018** (0.0008)	0.0005 (0.0014)	−0.0047*** (0.0011)
Size	0.0050 (0.0036)	0.0283*** (0.0042)	−0.0024 (0.0076)
Leverage	0.0028 (0.0400)	−0.0540 (0.0417)	0.0742 (0.0744)
Profitability	−0.0286 (0.0334)	0.0121 (0.0535)	0.0359 (0.0501)
Tangibility	0.0694** (0.0278)	−0.0357 (0.0486)	−0.2670*** (0.0809)
Firm Level Governance	0.0042*** (0.0007)	0.0045* (0.0022)	−0.0040* (0.0020)
Relationship with Banks	0.0332*** (0.0108)	0.0771** (0.0284)	0.0002 (0.0133)
Growth in GDP	−0.0035 (0.0071)	0.0135 (0.0090)	0.0086 (0.0212)
Including			
Loan Type Dummy	Yes	Yes	Yes
Industry fixed effect	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes
Observations	315	315	108
R-squared	0.8277	0.7744	0.9641

Notes: We report the variable definitions in the appendix; borrower-level clustering is included when we calculate standard errors; we report coefficients with standard errors; we indicate significance at the 10, 5 and 1% levels by *, ** and ***, respectively

Table VII. Effects of the interaction between *Accounting quality* and *Firm level Governance* on loan contracts

Note

1. Bharath *et al.* (2008) use US data and find that borrowers with superior accounting quality obtain syndicated loans with lower interest spread, longer maturity and less collateral requirements.

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Appendix

Variables	Description
Accounting Quality	The aggregate measure of the three proxies calculated in equations (1)–(3). These three proxies are defined as the absolute value of the residual of equation (1)–(3) multiplied by −1
Firm Level Governance	The sum of the answers to the questions in the six categories (i.e., independence, management discipline, disclosure, accountability, fairness and responsibility) of the CLSA survey scaled by the total number of the questions
Size	Log (total assets)
Leverage	Total debt/total assets
Profitability	Net income/total assets
Tangibility	Property plant and equipment/total assets
Relationship with Banks	Log (1 + the number of previous bank lending relationships)
Country Level Governance	The average value of the six indices in world governance index (i.e., control of corruption, regulatory quality, political stability and lack of violence, government effectiveness, rule of law and voice and accountability)
Growth in GDP	(GDP per capita$_t$- GDP per capita$_{t-1}$)/GDP per capita$_{t-1}$.
Bank Loan Amount	The amount of the loan in millions of dollars
Bank Loan Maturity	The maturity of the loan in months
Bank Loan Spread	The spread of the loan in basis points
Loan Type Dummy	A series of dummy variables, which equals one if a loan is a specific type such as a term loan, etc.

Note: We report the variable definitions in the appendix

Table AI.
Variable definitions

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