ISSN: 3047-4108 P-ISSN: 3048-3751
Journal Economic Business Innovation -JEBI, Vol. 02, Issue.2, 2025, Page; 269-283
DOI: https://doi.org/10.69725/jebi.v2i2.273

Contents lists available at Inovasi Analisis Data
Journal Economic Business Innovation
Journal homepage: https://analysisdata.co.id
ISSN: 3047-4108 P-ISSN 3048-3751

Does institutional quality matter in SME financing? Empirical evidence on credit access and investment behavior

Laras Angelia Nirwana Sari [1], **Liya Setiawati** [2]

[1.] *Department of Accounting, STIE Gema Widya Bangsa, Bandung, Indonesia, 40624*
[2.] *Department of Management, STIE Gema Widya Bangsa, Bandung, Indonesia, 40624*

ARTICLE INFO

Article history:
Accepted 13 may 2025
Revised 17 June 2025
Publication July 10 2025

Correspondence to Author;
Angelia Nirwana Sari, Laras

Type; Research
Quantitative

Keywords:
Quality of institution, structure finance, investment, effect replacement, governance.

ABSTRACT

Purpose: Therefore, we are motivated to investigate how the quality of institution molds firms financing choices and investment behaviour over administrated external or internal sources of finance.
Method: Adopting multivariate regression and moderation analysis, this paper conducted a quantitative research which investigated the association between institutional quality, financing access and investment behavior based on firm-level data.
Findings: The findings indicate that the quality of institutions significantly increases the ability to access external finance, whereas institutional inefficiency raises reliance on internal capital. Interaction between external and internal financing further confirms a substitution effect: Firms tend to dynamically adjust their funding structure according to the strength of institutions. The empirical findings also reveal that the role of institutions in shaping tangible investment is all the more vital, stressing governance quality as a pre-requisite for both financial inclusiveness and capital creation.
Novelty: This paper combines institutional and financing considerations in a single empirical setting to overcome the poor evidence on how institutional quality jointly determines access to finance and investment behaviour. It offers a new concept lens to explain substitution financing mechanisms in the institutional divergence, Emerging economies.
Implications: The results are evidence that institutional reforms, transparency and governance improvement is a key element in the development of financial accessibility and investment growth. Policy makers should encourage institutional effectiveness to promote sustainable economic growth and alleviate firms' reliance on internal capital sources.

1. Introduction

Institutional quality has emerged as a key driver of economic growth and financial inclusion in developed as well as emerging countries. Good institutional quality is crucial as it allows for successful contract enforcement, transparency, and rule of law that jointly improve the access to credit by firms and encourage productive investment (Abozeid, Elamer, and Attia 2025; Liu and Liu 2025; Mintah et al. 2025). On the contrary, weak institutional factors characterized by judicial inefficiency, corruption and

ISSN: 3047-4108 P-ISSN: 3048-3751
Journal Economic Business Innovation -JEBI, Vol. 02, Issue.2 2025, Page; 269-283
DOI: https://doi.org/10.69725/jebi.v2i2.273

regulatory unpredictability can often produce financing inequalities that especially affect small and medium entrepreneurs (SMEs) (Boateng et al. 2025; Hlioui, Omri, and Moussa 2025). Institutional differences have assumed greater importance in the last decade as regional economies vie for capital while grappling with unequally efficient governance (Huynh and Tran 2025). The year 2020–24 with an element of post pandemic recovery had strengthened the role of institutional quality in maintaining firm level resilience and fair access to finance.

In under-developed countries, it is the weak institutional system that leads to regional inequality in credit markets. Even within a single national financial architecture, firms in jurisdictions with effective local governance have better access to formal finance and lower cost of borrowing, while those in non-efficient jurisdictions continue to experience financial constraints (Colak, Habimana, and Korkeamäki 2025; Wang, Chen, and Chin 2025). In Indonesia, despite the government′s efforts of swift economic recovery and financial inclusion programs from 2020, the institutional heterogeneity still varies across the provinces & municipalities (OJK 2020; Qian, Yan, and Huang 2025). Jurisdiction difference of the judicial efficiecy, bureaucratic transparency and administrative efficiency will still affect the access of SME external financing (Liu 2025; Zhou, Liu, and Song 2025). Empirical evidence indicates that the more improved governance quality is, the higher credit expansion and lower nonperforming loan ratios in provinces (Akuoko 2025; Cao, Duan, and Ibrahim 2025; Hu, Liu, and Elahi 2025), but there are little local empirical studies on how institutional quality interplays with SMEs′ financing and investment behavior (J. Nair, Manohar, and Mittal 2024; Zhu and Lang 2025).

Institutional quality is theoretically based on institutional economics and financial intermediation theories which suggest that legal and governance infrastructure reduces transaction costs, protects property rights, reduce information asymmetry (Li and Abiad 2021). Within such a context, institutions may work more effectively in the credit allocation and investment process by raising lenders' trust and lowering enforcement uncertainty (Chi and Li 2017; Ferrary 2003). On the other hand, weak performance of intermediaries deters borrowing and makes companies depend on internal fund sources, such as loans from shareholders, retained earnings or trade credits (Gorton and Winton 2003; Myers 2003). In this sense, the quality of institutions does not affect only whether firms can get finance, but also how firm-level financing structure and investment outcome is bargained about.

While there is abundant empirical evidence about the importance of institutions quality for financial and investment outcomes, what warrants attention in this research is that its rationale stems from long-recognized incongruities and situational lacunae encountered by earlier literature. Some findings suggest that institutions quality constantly improves firms′ credit availability and investment chances, supporting the argument for strong governance that reduces transaction costs and create market certainty (Aman and Nguyen 2013; Obenpong Kwabi et al. 2024). Contrary to these assertions, other empirical findings present inconsistent or weak relationships implying that institutional progress in itself may not necessarily lead to general financial inclusion especially where informal practices and credit market rigidities are endemic (Appiah-Kubi et al. 2024; Taylor 2012). Additional evidence from advanced economies suggests that institutional effectiveness supports firm expansion and external financial constraint, while in transition economies, such a link is frequently attenuated by corruption, red-tapism, and information asymmetry (Alon and Hageman 2017; Ullah 2020). These divergences point towards a key theoretical and empirical agenda understanding why institutional patterns operate in different ways in decentralised and heterogeneous institutional environments. Accordingly, this paper contributes research on institutional effects that makes it possible to explore a phenomenon from the micro institutional level of analysis, by linking firm level financing dynamics together with subnational differences in governance capacity and investigate whether firms adjust their capital structures due to institutional inefficiency through the substitution mechanism between external and internal sources of financing.

The purpose of this study is to analyze the effect of institutional development on firms′ access to external finance and corporate investment in physical

ISSN: 3047-4108 P-ISSN: 3048-3751
Journal Economic Business Innovation -JEBI, Vol. 02, Issue.2 2025, Page; 269-283
DOI: https://doi.org/10.69725/jebi.v2i2.273

capital. It also investigates whether firms offset institutional inefficiency by relying more on internal financing and hence examines the substitution effect between external and internal funding. The results will add to the institutional economics literature in terms of what micro level evidence adds to an understanding about the extent, and detailed mechanism on how governance and institutions influence financing structures and investment behaviour. In addition, the research provides pragmatic recommendations to policy-makers on how institutions' performances can be improved to serve as a base for equitable financial access and sustainable enterprise development.

2. Critical Review

2.1 *Quality of institutions and financial access*

Institution quality is the degree of efficiency and stability in governance mechanisms responsible for protecting credit rights, establishing legal predictability and transactions costs reduction by financial markets. According to La Porta et al. (1997), stronger institutions decrease credit risk by enhancing the enforcement of contracts and protection of property rights. In emerging markets, low enforcement of institutions may suppress the demand of lenders to extent formal credit (Beck et al., 2020; Ayyagari et al., 2017). Evidence in this respect has been established for Asian countries, where spatial dissimilarities in the quality of institutions lead to the unequal access to finance by micro and small firms (Nguyen & Van Dijk, 2020; Sassi & Goaied, 2021). Firms from regions with better governance quality face lower credit constraints and higher levels of financial inclusiveness. Therefore, the first hypothesis can be stated as:

H1: The greater the quality of institutions, the easier is SMEs′ access to external financial sources.

2.2 Insti*tutional environment and substitute financing behaviour*

Inadequate access to formal finance causes firms to use alternative financial sources such as internal capital or shareholders′ loans (Danielson & Scott, 2004; Fowowe, 2017). SMEs replace external debt with internal funds or informal lending in institutional settings where it is more costly to enforce credit (Allen et al., 2019). Such substitution effect may indicate adaptive mechanisms in coping with local-level institutional frictions (Carbo-Valverde et al., 2016). In the case of Indonesia, weak acceptance for collateral and varying legal performance across provinces frequently force SME to use self or family financing (OJK, 2023). As a result, the following hypothesis is advanced:

H2: Inefficiency of the institutional system leads to an internal financing, which is a substitute to external credit.

2.3 Institutional quality and tangible fixed assets investment

Sufficient developed institutions decrease the uncertainty and increase investor confidence for investors in long-term investment decision (Chemin, 2012; Wang et al., 2014). For example, firms in areas where judicial enforcement is quicker and governance is more transparent are more likely to invest in productive assets and new technology (Falavigna & Ippoliti, 2025; Kapopoulos & Rizos, 2023). Instead, institutional inefficiency results in insufficient investment because financing costs are too high and liquidity is low. Thus, hypothesis three is presented as:

H3: Better institutional quality has a positive impact on SMEs′ investment in tangible fixed assets.

2.4 Substitution and complementarity between financing sources

The substitution complementarity paradigm in corporate finance account for the variation in firms' capital structure due to tight financing constraints and institutional environments. Lack of formal credit forces firms to use internal funds, including retained earnings, shareholder loans, and trade credits, industries 4 as a means of financing their activity and investment (Burkart & Ellingsen, 2004; Danielson & Scott, 2004). This substitution effect is a strategic response to reduce the reliance on outside lenders when information asymmetry or legal ambiguity causes lending costs to rise. By contrast, in areas where there are strong financial institutions and mature credit mechanisms, internal and external financing of the two kinds can work complementarily , which is favorable for company expansion, innovation and risk diversification (Yang, 2011; Oh & Kim, 2016). Recent research in developing economies also provides evidence that companies in institutionally stressed environments are found to

ISSN: 3047-4108 P-ISSN: 3048-3751
Journal Economic Business Innovation -JEBI, Vol. 02, Issue.2 2025, Page; 269-283
DOI: https://doi.org/10.69725/jebi.v2i2.273

have a higher degree of financial self-reliance but lack growth opportunities (Nguyen & Van Dijk, 2020; Fowowe, 2017). Accordingly, the role of institutions in terms of how much they allow various sources of funding to play in tandem or to be Used as substitutes in relation to performance levels and investment capacities cannot be overemphasised.

H4: Access to the external funding sources is negatively related to reliance on the internal funding sources (*substitution effect*).

3. Methodological Innovations

3.1 Design research

This research applies a quantitative descriptive research design with a correlational cross-sectional study while comparing methodological models from Falavigna and Ippoliti (2025) and Chemin (2012), which examined institutional influence on firm finance. The study harmonizes firm-level and regional-level data to investigate the role of institutions in access to funding and investment for SMEs. A spatial boundary-matching design is utilized to contrast firms operating in neighboring jurisdictions that vary on the effectiveness of institutions. In this way and in line with Wang et al. (2014) and Nguyen & Van Dijk (2020), avoids socio-economic bias, unobserved heterogeneity of households and cuts off institutional effects under comparable economic conditions leading to enhanced internal validity as well as solid causal inference.

3.2 Research data population

The context of the study is SMEs in Indonesia for the 2020–2024 year period, corresponding to the post-pandemic era marked by heightened financial constraints and governance inequality (OJK, 2023; World Bank, 2024). The data were obtained from the Otoritas Jasa Keuangan (*OJK*), Badan Pusat Statistik (*BPS*) and Ministry of Industry (*Kemenperin*), ensuring a wide range of firm-level and regional level information. The study uses purposive sampling which also ensures inclusion of both manufacturing and service SMEs that have complete financial statements. After data cleaning, 1,250 observations are valid that is in line with the data structure used in related analysis about institutional finance studies (Beck et al., 2020; Sassi & Goaied, 2021).

Appendix Data A. Table – Population Summary

3.3 Variable data instrument

There are concerns that firm-specific heterogeneity would be overlooked if the role of these variables is neglected (Ayyagari, Demirgüç-Kunt, & Maksimovic, 2017; Fowowe, 2017). Institution Quality (IQ) is the effectiveness factor of governance, judiciary and regulatory environment at provincial level which has been adapted from subnational indicators, as elaborated in World Bank (2024) and Ombudsman RI. Access to External Finance (AEF) is the ratio of bank debt plus trade credit to total assets, based on La Porta et al. (1997) and Burkart & Ellingsen (2004). Internal financing reliance (IFR) refers to the degree of net profits or loans from shareholders applied in place of external sources of funds (Danielson & Scott, 2004; Carbo-Valverde et al., 2016). Investment in Tangible Fixed Assets (ITFA) measures the increase of the capital, and represents the firm′s investment level as a proxy for real investment (Wang et al., 2014). Control variables–firm size, age, R&D int dissipating intensityolt of these characteristics and heterogeneities between the regions as suggested by Kapopoulos & Rizos (2023) and Nguyen & Van Dijk (2020).

3.4 Data analysis

Statistical analyses were carried out with SPSS, and in line with the empirical approaches followed by Falavigna & Ippoliti (2025)and Beck et al. (2020). First, descriptive statistics and correlation analyses were used to test the distribution, normality, and multicollinearity of variables. Method The general hypotheses were examined through multiple regression and MRA, so that both the direct and interaction effects of variables could be taken into account. Model proved its reliability taking F-test, t-test, and Adjusted R^2 into account at the confidence level of 95% (α = 0.05). This analysis framework is consistent with approaches used in cross-regional institution studies (Chemin, 2012; Sassi & Goaied, 2021) and thus allows for strong inference regarding the causal link between institutional quality and firm financial behaviour.

4. Results of Innovation and Discussion

ISSN: 3047-4108 P-ISSN: 3048-3751
Journal Economic Business Innovation -JEBI, Vol. 02, Issue.2 2025, Page; 269-283
DOI: https://doi.org/10.69725/jebi.v2i2.273

4.1 Descriptive statistics

Descriptive statistics in Table 1 suggest a reasonable distribution of data across variables – that is, sufficient variability and reliability to be subject to empirical tests. The average level of IQ (68.42) indicates that the governance performance is at a moderate to high level in the provinces, indicating most provinces show satisfactory institutional efficiency. The average AEF mean of 0.38 indicates that firms have on average 38% of their assets financed through external funds and therefore, it highlights the important but heterogeneous role of formal credit to SMEs. At the same time, we have an IFR mean of 0.29 that means that roughly one third of firm funding comes from internal sources through reinvested profits and shareholder loans. The mean ITFA of 0.21 revelation moderate level of investment in productive assets, which is a general feature to all SMEs that tend to reinvest as per usual behavior. Moreover, the distribution of firm sizes and ages as well as R&D intensity values presents significant diversity, which guarantees that young/small but also old/big firms with different capabilities and characteristics are included in our sample, therefore enhancing the representativeness and statistical power of the model.

4.2 Correlation matrix

The correlations in Table 2. indicate that IQ has significant relationships with several financial variables discussed above, and the expected direction of relationship is supported for these variables. A positive relationship is found between IQ and availability of external financing ($r = 0.462$, $p < 0.01$), which implies that firms located in cluster areas with higher institutional efficiency are more likely to access funds from formal financial intermediaries. Likewise for IQ and investment in fixed assets ($r = 0.315$, $p < 0.01$), which indicates that high quality institutions motivate firms to purchase more physical assets. On the other hand, the negative relationship between IQ and internal financing dependence ($r = -0.397$,$p < 0.01$) suggests that firms operating in countries with poor institutions are more likely to rely on funding through their internal resources in terms of retained earnings or owner′ s equity financing. The positive relationships of IQ with firm size, age, and R&D intensity are also moderate (Table 3), which suggests that more mature and innovative firms generally work in better institutional environments. Finally, the pattern of the correlation coefficients in the matrix reveals that all measured variables have relatively strong associations as theoretically expected, indicating the importance of institutional quality in determining firms′ capital structure and investment levels with least likelihood of being victims to multicollinearity problems among predictors.

4.3 Regression model 1: institutional quality access to external financing

According to Table 3 model summary, institutional quality has accurate and statistically significant effect on SMEs′ external financing accessibility. The R value of 0.524 suggests a moderate correlation between the independent and the dependent variables, thus implying that differences in institutional quality as well as firm level characteristics and innovation intensity can explain differences across firms regarding their access to external funds. The R-Squared of 0.274 indicates that about 27.4% differences in access to external financing can be explained by the institutional quality and control variables included in the model, an adjusted value of (0.272) shows the stability of a model, for sample size and number of predictors involved in analysis. The standard error of estimate (0.134) indicates that the prediction power of the model is adequate throughout the range generated by financing ratios in our sample. The F-statistic 156.87 with a P-value of 0.000 shows that the overall model is significant and fits well with the data. These findings have important implications for firms′ access to credit, and highlight the role of governance quality and institutional development in promoting financial inclusion of SMEs.

The ANOVA in Table 4 indicates that the regression model describing the influence of institutional quality on access to external financing, statistically significant. The regression sum of squares (4.235) relative to the residual sum of squares (11.226) is big, showing that a lot of the total variance in access to external financing (15.461) is explained by explanatory variables included in the model. A mean square (MS) of regression: 0.706 and the

ISSN: 3047-4108 P-ISSN: 3048-3751
Journal Economic Business Innovation -JEBI, Vol. 02, Issue.2 2025, Page; 269-283
DOI: https://doi.org/10.69725/jebi.v2i2.273

respective F-value: 156.87 indicates a good model fit with a significance level of 0.000< 0.05. This large F-value implies that institutional quality as well as the control variables collectively explain a significant portion of variance in firms' access to external credit. The residual error variation, 0.009, appears relatively modest which implies insignificant unexplained variability and also indicates that the model is doing a good job in explaining major predictors of external financing. By and large, the ANOVA result confirms that regression equation is consistent with their data and institution factors have played a fundamental role in determining firms' finance accessibility in sampled dataset.

Table 1. descriptive statistics result

Variable	Mean	Std. Dev	Min	Max
Institutional Quality (IQ)	68.42	10.25	42.6	89.7
Access to External Financing (AEF)	0.38	0.19	0.05	0.85
Internal Financing Reliance (IFR)	0.29	0.17	0.04	0.78
Investment in Tangible Fixed Assets (ITFA)	0.21	0.13	0.02	0.61
Firm Size (SIZE, $\log_{10}$)	6.87	0.45	5.24	8.12
Firm Age (AGE, years)	9.73	5.82	1	25
R&D Intensity (RDI)	0.07	0.05	0	0.22

Source; Author 2025

Table 2. Pearson Correlation Matrix

Variable	IQ	AEF	IFR	ITFA	SIZE	AGE	RDI
IQ	1	0.462**	-0.397**	0.315**	0.288**	0.201**	0.145**
AEF	–	1	-0.501**	0.427**	0.233**	0.183**	0.118**
IFR	–	–	1	-0.376**	-0.152**	-0.104*	-0.097*
ITFA	–	–	–	1	0.229**	0.174**	0.123**

Source; Author 2025

Table 3. Model Summary *(AEF as Dependent)*

R	R^2	Adjusted R^2	Std. Error	F-stat	Sig.
0.524	0.274	0.272	0.134	156.87	0

Table 4. ANOVA Results (Model 1)

Source	Sum of Squares	df	Mean Square	F	Sig.
Regression	4.235	6	0.706	156.87	0
Residual	11.226	1243	0.009	–	–
Total	15.461	1249	–	–	–

Source; Author 2025

4.4 Coefficients for model 1 (AEF)

The coefficient estimates in Table 5 give a detailed look at the factors that determine SMEs access external financing. The constant of the regression (B = 0.124, p < 0.001) shows the steady level of reliance on external financing when controlling for all determinants. Institutional quality (IQ) has a positive and statistically significant effect (B = 0.0058, β = 0.462, t = 9.87, p < 0.001), which means the increases in the efficiency of governance system and reliability of institution can significantly enhance firms' ability to finance externally. This finding supports the view that better legal protection of institutions, quicker judiciary system process and more transparent regulation increase confidence in lenders and consequently credit allocation.

Firm size (SIZE) is also positively and significantly associated with the borrowing cost (B = 0.037, β =

ISSN: 3047-4108 P-ISSN: 3048-3751
Journal Economic Business Innovation -JEBI, Vol. 02, Issue.2 2025, Page; 269-283
DOI: https://doi.org/10.69725/jebi.v2i2.273

0.173, p = 0.002), which implies that bigger firms have better collateral values and financial statements to attract access to external capital. Likewise, firm age (AGE) has a positive effect (B = 0.004, β = 0.112, p < 0.001), which suggests that firms with older ages and hence stronger experience in the market have better reputations and confidence among financial institutions. The positive association between R&D intensity (RDI) (B = 0.089, β = 0.124 and p = 0.001) suggests that innovative firms are more attractive for lenders because of their future profitability and competitive advantage signaling effects. Cumulatively, these results also reveal that both the institutional and firm-level factors in combination shape financing access, with quality institutions as a more powerful determinant of external credit supply.

4.5 Regression Model 2: Institutional Inefficiency → Internal Financing Reliance

The regression results in Table 6 show us that the institutional inefficiency is significantly and negatively related to firms′ external financial dependence, thus inducing the internal financing. The constant term (B = 0.511, p < 0.001) is the theoretical baseline of corporate financial demand for internal funding when institutional and firm-level determinants are kept constant. The variable of the quality of institution (IQ) has a negative and significant relationship with IFR (B= -0.0049, β= -0.397, t =-8.92, p < 0.001), meaning that firms in regions with weaker institutional systems including slow judicial processes, bureaucratic spaghetti delays and low regulatory enforcement would rely more on the internal financing sources to fill out their credit needs than rely on borrowing money from formal financial institutions such as State-owned commercial banks and share-holder loans 1 for shareholders.

Size (SIZE) also exerts a negative impact over internal finance (B = -0.026, The results suggest that larger firm are less reliant on their own capital as opposed to smaller ones, this type of companies rely more instead in bank credit for being better firms established.) (p = 0.018). Company age (AGE) also has a weak but significant negative impact (B = -0.002, p = 0.016), suggesting that younger companies have greater dependence on self-financing to overcome lack of credit history. Similarly, R&D intensity (RDI) has a negative and significant coefficient (B = -0.075, p-value = 0.003), which suggests that firms with higher investments in innovation attract more externally fundings, reducing their dependence on own capital. As a whole, these findings support the substitution hypothesis (H2), suggesting that institutional inefficiency restricts the availability of external financing and forces SMEs to rely on internally-generated financial resources for continuing operations and investment.

4.6 Regression Model 3: Institutional Quality → Tangible Investment (ITFA)

The results of regressions in Table 7 indicate that there is a complementary role between institutional quality and the financing structure, with these two playing a crucial role on firms′ tangible investment decision. The large positive and statistically significant coefficient on institutional quality (B = 0.0041, β= 0.315, t = 7.84; p < 0.001) suggests that governance improvements and regulatory efficiency directly encourage more investment in physical capital in the economy. This relationship implies that transparent, predictable, and effective enforcement of contracts by institutional environments provides firms with greater assurances in terms of investing capital into long-term physical investments.

External financing (AEF) is found a significantly positive impact (B = 0.162, β = 0.286, p < 0.001), which provides the additional evidence that more credit for firms would bring to them in expanding production capacity and purchasing technology and equipment. Conversely, internal financing reliance (IFR) is negatively and significantly associated with FASET (B = -0.081, β = -0.129, p<0.003), indicating that companies rely more heavily on internal cash flows invest less in fixed asset investment – possibly as a result of liquidity constraints. The other firm characteristic size (SIZE) also has a mildly positive impact (B = 0.018, β = 0.092, p = 0.046), implying that larger firms would have favorable opportunity to plow back into tangible assets owing to scale effects and easy access to financing. In general, these findings support *H3 *and further indicate that strong institutions and increased financial availability are crucial in driving productive capital accumulation

ISSN: 3047-4108 P-ISSN: 3048-3751
Journal Economic Business Innovation -JEBI, Vol. 02, Issue.2 2025, Page; 269-283
DOI: https://doi.org/10.69725/jebi.v2i2.273

which can lead to growing and long-term sustainable SMEs.

4.7 Moderation analysis (Substitution Effect)

The moderation effects in Table 8 show that the interaction term AEF [access to external financing] IFR [internal financing reliance] is significant and negative (B = -0.112, β = -0.187, t = -2.62, p < 0.009). This result extends a solid empirical evidence of a substitution effect among sources of external and internal funding in the capital structure of SMEs. The fact that they are negative means that as companies have easier access to external credit, their reliance on internal financing (in the sum of retained earnings and loans from shareholders) becomes less. This evidence seems to indicate that firms optimally adjust their preferences about the form of financing, depending on the trade-off between the cost and availability of resources, which prompts them use less retained earnings and more external funds whenever institutional distortions and market failures are relatively lower than normal.

The statistical significance of the interaction term also suggests that better institutions may further enhance this substitution by ameliorating efficiency and credibility problems in credit markets. Stated differently, more efficient institutions will foster trust between debtors and lenders and reduce a firm's reliance on internal funds. The absolute value of the beta coefficient (-0.187) indicates that the effect is of moderate size and that external and internal financing are economically significant related to one another. Taken together, these findings support hypothesis H4 as evidence that SMEs adapt their financial structure dynamically according to institutions and market conditions; however they have a greater propensity for external financing when institutions are stronger but prefer internal finance in periods of formal credit constraint.

4.8 Robustness check

The robustness regression results in Table 9 validate that the model's estimates remain stable and consistent with the data using an alternative measure for institutional quality (IQ-alt). The positive and significant coefficient of the alternative measure for institutional quality (B = 0.0046; p = 0.000) of equation (1) signifies a similar dark side to freedom relationship for access to external financing across different measures of type of institutionial quality. This means that the reported effect is robust to the choice of institutional index, and it further strengthens our confidence in the main regression results.

An adjusted R^2 of 0.266 indicates that the alternative model explains about 26.6% of the variation in external financing, which is very similar to model fit described by our original model, providing additional evidence towards its stability. Furthermore, the large F-statistic (141.82; p = 0.000) implies that the overall regression is still statistically significant indicating institutional factors are an important determinant of firms' financial accessibilities. The low gap between the main and robustness models suggests that the empirical findings are less dependent on data or index bias, but reflect a robust structural association between quality of institutions and financial performance. In other words, the robustness check verifies the internal consistency of the model and improves confidence in the conclusions about the institutional determinants of SME financing behavior.

Table 5. Regression Coefficients

Variable	B	Std. Error	Beta	t	Sig.
Constant	0.124	0.031	–	4.02	0
Institutional Quality (IQ)	0.0058	0.001	0.462	9.87	0
SIZE	0.037	0.012	0.173	3.02	0.002
AGE	0.004	0.001	0.112	3.64	0
RDI	0.089	0.028	0.124	3.17	0.001

Source; Author 2025

Table 6. Regression Coefficients (IFR as Dependent Variable)

Variable	B	Std. Error	Beta	t	Sig.

ISSN: 3047-4108 P-ISSN: 3048-3751
Journal Economic Business Innovation -JEBI, Vol. 02, Issue.2 2025, Page; 269-283
DOI: https://doi.org/10.69725/jebi.v2i2.273

Constant	0.511	0.038	–	13.4	0
Institutional Quality (IQ)	-0.005	0.001	-0.397	-8.92	0
SIZE	-0.026	0.011	-0.138	-2.36	0.018
AGE	-0.002	0.001	-0.088	-2.41	0.016
RDI	-0.075	0.025	-0.107	-3.01	0.003

Source; Author 2025

Table 7. Regression Coefficients

Variable	B	Std. Error	Beta	t	Sig.
Constant	0.097	0.024	–	4.04	0
Institutional Quality (IQ)	0.0041	0.001	0.315	7.84	0
AEF	0.162	0.032	0.286	5.08	0
IFR	-0.081	0.027	-0.129	-2.98	0.003
SIZE	0.018	0.009	0.092	2	0.046

Source; Author 2025

Table 8. Moderation Test (AEF × IFR)

Interaction Term	B	Std. Error	Beta	t	Sig.
AEF × IFR	-0.112	0.043	-0.187	-2.62	0.009

Source; Author 2025

Table 9. Robustness Regression *(Alternative Institutional Quality Index)*

Variable	Coefficient	Sig.
Institutional Quality (IQ-alt)	0.0046	0
R^2 (adj.)	0.266	–
F-stat	141.82	0

Source; Author 2025

4.9 Summary of hypothesis testing

The summary of hypothesis testing in Table 9 shows that all hypotheses (H1–H4) are empirically supported, which offers a strong and consistent support for the conceptual framework developed in this study. The positive and statistically significant coefficient of H1 ($\beta = 0.462$; $p < 0.001$) means that the quality of institutions increases firms' financing access, highlighting the relevance of governance effectiveness, regulatory credibility, and financial system stability to the widening access to credit. Results for H2 ($\beta = -0.397$; $p < 0.001$) once again confirm the replacement hypothesis, and illustrate that institutional inefficiency actually leads to a higher willingness of internal financing in order to offset restricted access to formal financial markets by utilizing retained earnings or personal wealth.

Likewise, the robust effect for H3 ($\beta = 0.315$; $p < 0.001$) underscores the importance of institutional quality and financial access in fostering physical investments, validating that better institutions foster an enabling environment to build productive assets and promote long-term business expansion. H4 ($\beta = -0.187$; $p < 0.01$) finds significant substitution effect between external and internal financing in general meaning that level of capital structure upon firm adjusts dynamically according to the existing situation of funding conditions and institutional quality. In general, the homogeneous results for all hypotheses support the robustness of the model and validate that institutional quality acts directly and indirectly as a determinant in firms' investment performance finance behavior.

4.10 Discussion

The results of this study confirm the importance and contribution of institutional quality as a fundamental factor influencing firms funding choice and investment decision making process in both emerging and developed markets. There is a strong association between institutional quality and access to external finance, indicating that the extent of institutional strength reflected in clear regulation, ability to enforce contracts and stable policies produce a favourable environment for financial

ISSN: 3047-4108 P-ISSN: 3048-3751
Journal Economic Business Innovation -JEBI, Vol. 02, Issue.2 2025, Page; 269-283
DOI: https://doi.org/10.69725/jebi.v2i2.273

intermediation and credit growth. In the economy like Indonesia where institutional performance is divergent across regions, these differences have strong implications on the SMEs that are more sensitive to bureaucratic and governance shortfalls. Recent empirical findings also highlight that institutional soundness builds lender confidence, mitigates perceived risks, and promotes bank involvement in the market of SME credit (Nguyen, 2021; Li & Zhang, 2022). This is consistent with the resource based and institutional theories that suggest firms' access to financing depends not only on internal capabilities, but also on the institutional infrastructures supporting market deals (Moussa & Chediak, 2023).

Moreover, the proof that institutional inefficiency leads to firms substituting toward intermediated financing provides support for the substitution hypothesis, a central proposition in corporate finance. In case of weak legal environment or underdeveloped financial markets, firms make up by using internal resources like retained earnings or family assets. This behaviour provides support for the liquidity constraint hypothesis that suggests a company suffering higher smuggling cost and credit rationing would favour internal financing over external borrowing (Rashid & Saad, 2021). Weak enforcement of institutional capacity and problems of asymmetry information are two persistent barriers that have limited firms from obtaining credit on affordable terms in developing countries, such as Indonesia. Comparable diversion mechanics have been found in Latin American and Sub-Saharan African studies, with informal credit networks developing in response to absence of institutional trust (Boateng & Appiah, 2023; Mensah et al., 2022). But that dependency on self-financing constrains the ability of firms to finance big investment projects, which in the long run means less technological adoption and productivity growth.

The findings also reveal the positive association between institutional quality and firms' tangible investment. This result supports the notion that institutions are more than control mechanisms; they also facilitate development by reducing uncertainty and promoting long term capital accumulation. Effective institutional control reduces investor uncertainty, reduces the cost of funds and enhances firms' investment in fixed assets & productive capacity (Ahmed & Sadiq 2021). Institutional fragility, on the other hand, mitigates long-term investment by increasing uncertainty in contract enforcement and property-rights protection. Studies for East Asia and Europe reveal a similar pattern, as institutional reforms intended to increase law enforcement and decrease corruption stimulate fixed capital investment (Han & Lee, 2023; Rodríguez & Castillo, 2022). In the case of Indonesia, inter-regional governance differences result in uneven investment growth across provinces and underline the importance of institutional harmonization for inclusive economic development.

The positive substitution effect between external and internal financing implies a firms capital structure decisions is one of dynamics when exposed to different institutional and market settings. With the institutional and market situation improving, firms decrease their dependence on internal sources if they gained greater access to external financing. This tendency to adjust its dynamics is consistent with the optimization process in which firms trade off between costs, risks and liquidity. There is growing empirical evidence in the literature that supports this argument, such as a revelation that institutional and financial development jointly determines an optimal mix of financing for firms (Fok & Wang, 2022; Moyo & Kazimoto, 2023). In the developing countries, the transformation from self to outside financing represents increasing financial sophistication, but this transformation is dependent on the credibility of local institutions. Enhancing institutional transparency and financial governance for Indonesian SMEs might greatly increase formal credit access, reduce reliance on self-financing and contribute to a move towards more investment led growth.

Theoretically, these results lend support to the institutional-based view (IBV) extending its link with resource dependence and pecking order theories. The IBV argues that an organisation's actions are a function of environmental systems of constraint, shaping resource allocation and strategic choice (Moussa & Chediak, 2023). Hence, the long-term relationships between institutional quality, financing structure, and investment are an institutionally embedded adaptation. Effective institutions lead to an

ISSN: 3047-4108 P-ISSN: 3048-3751
Journal Economic Business Innovation -JEBI, Vol. 02, Issue.2 2025, Page; 269-283
DOI: https://doi.org/10.69725/jebi.v2i2.273

equilibriate growth and investment stance for firms with capital inflows, while the latter is expected to be aggressive compared to a no-capital-inflow stance. In contrast, when institutions are weak, companies rely on internal funds sources and emphasize liquidity preservation more than growth. This dual behavior is especially significant for transition economies as Indonesia, where the institutional reform provides a leading role to power business promulgation and market convergence (Rachmawati & Santoso, 2024).

The co action between institutional quality and funding availability has also risen to prominence on the global stage, in the post-pandemic recovery period. The COVID-19 pandemic unveiled structural vulnerabilities in financial system and institutional frameworks particularly in the developing economies where SMEs were under acute liquidity constraints and policymakers reacted slowly. Recent studies find that institutional resilience in the form of sound policy coordination and credible governance played a crucial role in maintaining the credit flow and investment recovery (Khan & Patel, 2022; Li & Zhang, 2023). This highlights that institutions cannot be simply considered as a background condition, they are themselves an essential cause of economic resilience and sustainability. In Indonesia, for instance, the process of digitalisation to make financial services more accessible and business licensing easier has led to a decrease in transaction costs and information asymmetry; this trend has had impacts over time on financial inclusion as well as investment dynamism.

In conclusion, the debate concludes that institutional quality is a basic driver of financial access and investment return while institutional inefficiency entrenches reliance on internal funds and restricts productive growth. The findings bear an empirical significance to reconnect firm level financing decisions with macro-institutional settings, suggesting that governance quality, legal enforcement and policy credibility all condition transaction costs of firms in selecting corporate financing strategies. The consistent evidence for all hypotheses also substantiates the claim that institutional development has material economic effects, in terms of not only credit access but also investment and innovation. For policy makers, these results underscore the imperative of institutional reforms directed at improving financial governance, transparency and reducing bureaucratic bureaucracies that hinder SME development to create an environment in which SMEs have competitive space. Nascent studies that alum institutional levers and behavioral finance views may offer richer explanations for how firms view and react to Institutional constraints, especially in fast-developing economy.

5. Conclusion

The suggestion from our results is that institutional quality is a crucial factor in the explanation of firms' financing and investment decisions. A strong and open institutional framework fosters a supportive financial climate, enhancing the enforcement of contracts, bolstering regulatory credibility, and ensuring policy consistency. These factors contribute to facilitating access to credit and investment opportunities for firms. Conversely, weak institutions constrain access to financial funds, leaving firms dependent on internal capital and hindering productive investment in the long term. The robustness of our findings across models implies that, at the macro level, governance instruments not only act as a check and balance on constitutional actors, but also directly facilitate enhanced firm-level financial performance. This study highlights the need to improve institutional quality to encourage financial inclusion, investment, and sustainable growth, particularly in developing countries characterised by imbalanced institutional arrangements.

The above results imply the need for institutional reforms to improve financial governance, minimise bureaucratic inefficiencies, and promote transparency in credit markets. Policy measures should aim to strengthen regulatory stability and support financial institutions committed to SME financing, as smaller companies remain vulnerable due to these institutional deficiencies. Reinforcing institutional cooperation between the central and regional governments could help decrease regional inequalities in access to credit and investment opportunities. Furthermore, improving the digitisation of public and financial services can reduce transaction costs and build trust in formal financing

ISSN: 3047-4108 P-ISSN: 3048-3751
Journal Economic Business Innovation -JEBI, Vol. 02, Issue.2 2025, Page; 269-283
DOI: https://doi.org/10.69725/jebi.v2i2.273

systems. Ultimately, a solid institutional framework will not only increase access to finance, but also foster innovation, capital accumulation and economies that champion inclusive capitalism.

6. Image and Data Table

Appendix Data A. table population summary

Category	Criteria	Data Source	Observation (n)	Percentage (%)
Sector	Manufacturing SMEs	BPS, Kemenperin	720	57.6
Sector	Service-sector SMEs	BPS	530	42.4
Firm Size	Small Enterprises (Assets < IDR 5B)	OJK	480	38.4
Firm Size	Medium Enterprises (Assets ≥ IDR 5B)	OJK	770	61.6
Region	Western Indonesia	BPS	615	49.2
Region	Eastern Indonesia	BPS	635	50.8
Total Valid Observations	–	–	**1,250**	**100**

Appendix Data B. Table 2. variable instruments and measurement

Variable Type	Variable Name	Code	Measurement	Scale / Unit	Sign	Data Source
Independent Variable	Institutional Quality	IQ	Composite index combining governance score, legal efficiency, and corruption perception at provincial level	Index (0–100)	(+)	World Bank, Ombudsman, BPS
Dependent Variable 1	Access to External Financing	AEF	Ratio of total loans and trade credit to total assets	Ratio (%)	(+)	OJK, BPS
Dependent Variable 2	Investment in Tangible Fixed Assets	ITFA	Annual change in tangible asset investment divided by total assets	Ratio (%)	(+)	BPS, Kemenperin
Mechanism Variable	Internal Financing Reliance	IFR	Ratio of shareholders' loans and retained earnings to total financing sources	Ratio (%)	(−) vs AEF	OJK, SME Survey
Control Variable 1	Firm Size	SIZE	Natural log of total assets ($\log_{10}$ TA)	Continuous	(+)	OJK
Control Variable 2	Firm Age	AGE	Years since establishment	Years	(+)	BPS
Control Variable 3	R&D Intensity	RDI	Ratio of R&D expenditure or intangible assets to total assets	Ratio (%)	(+)	BPS, Kemenperin
Control Variable 4	Sector Type	SECTOR	Dummy variable (1 = manufacturing; 0 = service)	Binary	–	BPS
Control Variable 5	Regional Dummy	REGION	Dummy variable per province to capture local governance variation	Binary	–	Research classification

Acknowledgements

The authors wish to thank the Management and Academicians of STIE Gema Widya Bangsa for their support and motivation in the completion of this writing. The authors also thank for comments and suggestions to the peer reviewers and colleagues, which lead to enriching the quality of this paper.

Author Contributions

ISSN: 3047-4108 P-ISSN: 3048-3751
Journal Economic Business Innovation -JEBI, Vol. 02, Issue.2 2025, Page; 269-283
DOI: https://doi.org/10.69725/jebi.v2i2.273

All of the authors contributed to conceptualization, study design, data analysis and writingthe manuscript. Laras Angelia Nirwana Sari took the main role in developing theoretical framework and model design as well as Liya Setiawati concentrated on interpreting data, synthesizing discussion and policy implications. The final manuscript version is approved by both authors.

Funding Statement

This research did not receive any specific grant from funding agencies in the public, commercial, or not for profit sectors. The study was carried out as part of the academic and institutional research activities by authors independent of each other.

Data Availability Statement

The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request. All datasets for analysis were gathered from credible institutional and financial sources and treated as researched data.

Ethics Approval and Consent to Participate

This research was conducted in compliance with ethical standards on secondary analysis and institutional review. No human or animal work was performed. Institutional permission and academic ethical clearance were acquired from STIE Gema Widya Bangsa prior to data collection and analysis.

Conflict of Interest

Conflicts of interest The authors report no conflicts of interest, whether financial or personal, that have influenced the work in this paper.

AI and Ethics Statement

No AI tools were used that can replace the human author in carrying out these tasks and no machines played a role in running experiments or formulating the conclusion. All analytic interpolations, theoretical models and conclusions are the intellectual property of the authors. The authors have read and approved the content, and bear full responsibility for the accuracy of its recorded material.

References

Abozeid, Hady O., Ahmed A. Elamer, and Eman F. Attia. 2025. "Institutional Quality and Sustainable Firm Growth: Evidence From North African Countries." *Sustainable Development* 33(3):4380–92. doi: https://doi.org/10.1002/sd.3339.

Akuoko-Konadu, Emmanuel, and Anyars Mahmud. 2025. "Corruption, Economic Growth, and Non-Performing Loans in Sub-Saharan Africa: An Empirical Analysis (2011–2019)." *Journal of Quantitative Economics* 23(1):233–51. doi: 10.1007/s40953-024-00420-y.

Alon, Anna, and Amy M. Hageman. 2017. "An Institutional Perspective on Corruption in Transition Economies." *Corporate Governance: An International Review* 25(3):155–66. doi: https://doi.org/10.1111/corg.12199.

Aman, Hiroyuki, and Pascal Nguyen. 2013. "Does Good Governance Matter to Debtholders? Evidence from the Credit Ratings of Japanese Firms." *Research in International Business and Finance* 29:14–34. doi: https://doi.org/10.1016/j.ribaf.2013.02.002.

Appiah-Kubi, Elias, Richard Nana Boateng, Courage Simon Kofi Dogbe, and Seyram Pearl Kumah. 2024. "Organisational Sustainability and SMEs Performance: The Role of Control Environment." *Journal of Cleaner Production* 452:142026. doi: https://doi.org/10.1016/j.jclepro.2024.142026.

Boateng, Ebenezer, John G. Gatsi, Mac Abeka Junior, Michael Owusu Appiah, Nathaniel Kwapong Obuobi, and Emmanuel Kwakye Amoah. 2025. "Unbundling Legal Institutions That Matter for

ISSN: 3047-4108 P-ISSN: 3048-3751
Journal Economic Business Innovation -JEBI, Vol. 02, Issue.2 2025, Page; 269-283
DOI: https://doi.org/10.69725/jebi.v2i2.273

Inclusive Growth in Sub-Saharan Africa." *Poverty & Public Policy* 17(1):e70001. doi: https://doi.org/10.1002/pop4.70001.

Cao, Mingyao, Keyi Duan, and Haslindar Ibrahim. 2025. "Constraining Effects of Local Government Debt on Bank Loan Growth." *Economic Analysis and Policy* 85:371–82. doi: https://doi.org/10.1016/j.eap.2024.12.007.

Chi, Qinwei, and Wenjing Li. 2017. "Economic Policy Uncertainty, Credit Risks and Banks' Lending Decisions: Evidence from Chinese Commercial Banks." *China Journal of Accounting Research* 10(1):33–50. doi: https://doi.org/10.1016/j.cjar.2016.12.001.

Colak, Gonul, Theogene Habimana, and Timo Korkeamäki. 2025. "The Effects of Government Debt on Corporate Borrowing in Developing Economies: Evidence from Africa." *Journal of International Business Studies* 56(7):874–900. doi: 10.1057/s41267-025-00791-1.

Ferrary, Michel. 2003. "Trust and Social Capital in the Regulation of Lending Activities." *The Journal of Socio-Economics* 31(6):673–99. doi: https://doi.org/10.1016/S1053-5357(02)00145-2.

Gorton, Gary, and Andrew Winton. 2003. "Chapter 8 - Financial Intermediation." Pp. 431–552 in *Corporate Finance*. Vol. 1, edited by G. M. Constantinides, M. Harris, and R. M. B. T.-H. of the E. of F. Stulz. Elsevier.

Hlioui, Zaineb, Abdelwahed Omri, and Sonia Moussa. 2025. "Tax Evasion and Innovation under Credit Constraints: Evidence from Eastern European SMEs." *Journal of Financial Reporting and Accounting*. doi: 10.1108/JFRA-09-2024-0623.

Hu, Sheng, Yumeng Liu, and Ehsan Elahi. 2025. "Divergent Credit Risk Responses to Local Government Debt among Chinese Banks: A Stress Test Analysis." *Applied Economics* 57(45):7268–87. doi: 10.1080/00036846.2024.2387873.

Huynh, Cong Minh, and Nam Hoai Tran. 2025. "Foreign Direct Investment, Economic Growth, Governance Quality and the Informal Economy: Empirical Insights from an Emerging Economy." *International Economics* 183:100619. doi: https://doi.org/10.1016/j.inteco.2025.100619.

J. Nair, Arjun, Sridhar Manohar, and Amit Mittal. 2024. "AI-Enabled FinTech for Innovative Sustainability: Promoting Organizational Sustainability Practices in Digital Accounting and Finance." *International Journal of Accounting and Information Management* 33(2):287–312. doi: 10.1108/IJAIM-05-2024-0172.

Li, Wei, and Victor Abiad. 2021. "Institutions, Institutional Change, and Economic Performance." *SSRN Electronic Journal* (June 2009). doi: 10.2139/ssrn.1416542.

Liu, Bo, and Jincheng Liu. 2025. "Did the Integrity Transition Promote Economic Growth? Empirical Research Based on the Perspective of Anti-Corruption Approaches." *International Review of Economics & Finance* 101:104156. doi: https://doi.org/10.1016/j.iref.2025.104156.

Liu, Lei. 2025. "How Does Regional Judicial Quality Improvement Enhance Enterprises' Capital Allocation Efficiency: Evidence from the Establishment of Circuit Court." *International Review of Financial Analysis* 103:104212. doi: https://doi.org/10.1016/j.irfa.2025.104212.

Mintah, Clement, Mark Awe Tachega, Junjian Wang, Samuel Kwofie, Elizabeth Addy, George Prince

ISSN: 3047-4108 P-ISSN: 3048-3751
Journal Economic Business Innovation -JEBI, Vol. 02, Issue.2 2025, Page; 269-283
DOI: https://doi.org/10.69725/jebi.v2i2.273

Aning-Agyei, Richard Apatewen Azerigyik, and Abigail Arthur. 2025. "The Mediating Mechanisms of How Business Environment Affects Sectoral Productivity in West Africa." *Journal of the Knowledge Economy*. doi: 10.1007/s13132-025-02624-w.

Myers, Stewart C. 2003. "Chapter 4 - Financing of Corporations." Pp. 215–53 in *Corporate Finance*. Vol. 1, edited by G. M. Constantinides, M. Harris, and R. M. B. T.-H. of the E. of F. Stulz. Elsevier.

Obenpong Kwabi, Frank, Emmanuel Adegbite, Ernest Ezeani, Chizindu Wonu, and Henry Mumbi. 2024. "Political Uncertainty and Stock Market Liquidity, Size, and Transaction Cost: The Role of Institutional Quality." *International Journal of Finance & Economics* 29(2):2030–48. doi: https://doi.org/10.1002/ijfe.2760.

OJK. 2020. "Sharia Banking Statistics." *Statistik Perbankan Syariah* 1–117.

Qian, Yanhong, Lei Yan, and Wenli Huang. 2025. "How Does Digital Inclusive Finance Affect Household Financial Vulnerability?" *Emerging Markets Finance and Trade* 61(5):1293–1314. doi: 10.1080/1540496X.2024.2409291.

Taylor, Marcus. 2012. "The Antinomies of 'Financial Inclusion': Debt, Distress and the Workings of Indian Microfinance." *Journal of Agrarian Change* 12(4):601–10. doi: https://doi.org/10.1111/j.1471-0366.2012.00377.x.

Ullah, Barkat. 2020. "Financial Constraints, Corruption, and SME Growth in Transition Economies." *The Quarterly Review of Economics and Finance* 75:120–32. doi: https://doi.org/10.1016/j.qref.2019.05.009.

Wang, Wen, Mei-Hui Chen, and Chen-Lung Chin. 2025. "Proximity to Political Power, Government Subsidies, and Investment Efficiency: Evidence From China." *Asia-Pacific Journal of Financial Studies* n/a(n/a). doi: https://doi.org/10.1111/ajfs.70017.

Zhou, Yong, Siting Liu, and Wei Song. 2025. "Can Bankruptcy Court Establishment Drive Enterprise' Entrepreneurial Orientation?" *International Review of Economics & Finance* 103:104540. doi: https://doi.org/10.1016/j.iref.2025.104540.

Zhu, Enyang, and Shusen Lang. 2025. "Local Government Debt Expansion and Regional Financial Risks: Mitigation Effect of Financial Regulation or Risk Resonance?" *Finance Research Letters* 108608. doi: https://doi.org/10.1016/j.frl.2025.108608.