Related Party Transactions as a Governance Risk: Implications for the Cost of Capital

Sangshin Pae
University of North Georgia

Jennifer Schneider
University of North Georgia

This study examines the impact of related party transactions (RPTs) on the cost of capital among KOSPI and KOSDAQ-listed firms in South Korea. Using 14,277 firm-year observations from 2012 to 2020, we employ multivariate regression analysis to examine the relationship between RPT intensity and the weighted average cost of capital (WACC). We find a robust and positive association between RPT intensity and WACC, suggesting that capital markets perceive extensive intra-group transactions as a governance risk and a source of increased information asymmetry. This perception leads to a higher rate of returns by investors, thereby increasing the cost of both equity and debt financing. Our findings contribute to the literature on corporate governance and capital market efficiency by highlighting the role of RPTs as a key determinant of financing costs. These insights underscore the importance of implementing stronger disclosure requirements and enhancing monitoring mechanisms to mitigate potential agency problems arising from intra-group transactions in emerging markets.

Keywords: related party transaction, corporate governance risk, weighted average cost of capital

INTRODUCTION

Related-party transactions (RPTs) represent a fundamental aspect of corporate governance in emerging economies, where business groups and concentrated ownership structures predominate the corporate landscape. While these transactions can theoretically enhance operational efficiency through internal capital markets (Khanna & Palepu, 2000), they have increasingly become a focal point of regulatory scrutiny and investor concern due to their potential for facilitating opportunistic behavior and value extraction.

The theoretical debate surrounding RPTs centers on two competing perspectives. The efficiency view argues that RPTs can mitigate market frictions and facilitate optimal resource allocation within business groups, particularly in contexts where external capital markets are underdeveloped (Bae et al., 2002). Conversely, the agency view suggests that RPTs serve as a mechanism for controlling shareholders to extract private benefits at the expense of minority shareholders, thereby creating agency costs and reducing firm value (Johnson et al., 2000). Additionally, recent studies highlight that RPTs can negatively impact firm performance, exacerbate agency conflicts, and reduce firm value (Suffian et al., 2022).

The resolution of this debate has important implications for our understanding of how capital markets price governance risks. If RPTs primarily serve efficiency-enhancing purposes, we expect investors to view

them favorably, which may lead to lower financing costs. However, if RPTs are predominantly associated with agency problems and opportunistic behavior, rational investors should demand higher returns to compensate for these risks, resulting in an increased cost of capital.

This study contributes to the literature by providing the first comprehensive examination of the relationship between RPT intensity and the cost of capital. Our focus on the Korean markets is particularly relevant given the prevalence of chaebol structures (large family-controlled conglomerates) and the country's unique institutional environment, which provides an ideal laboratory for examining how capital markets respond to intra-group transactions.

Our empirical analysis yields several key findings. First, we document a robust positive relationship between RPT intensity and the weighted average cost of capital (WACC), suggesting that investors view extensive RPTs as risk-enhancing rather than efficiency-improving. Second, this relationship is economically significant: firms with high RPT intensity face financing costs that are approximately 70 basis points higher than those with low RPT intensity. Third, the relationship holds after controlling for various firm characteristics, ownership structures, and governance mechanisms, indicating that RPTs contain unique information about firm risk that is not captured by conventional governance measures.

These findings have important implications for both academic research and practical policy. From a theoretical perspective, our results support the agency view of RPTs, suggesting that the costs associated with potential opportunistic behavior outweigh any efficiency benefits that may be gained. From a policy standpoint, our findings highlight the importance of enhanced disclosure requirements and regulatory oversight of RPTs, particularly in emerging markets with concentrated ownership structures.

The remainder of this paper is organized as follows. Section 2 reviews prior literature related to the related party transactions (RPTs) and develops our hypothesis. Section 3 describes our data and the methodology used. Section 4 presents our empirical results. Finally, Section 5 concludes with a discussion of implications and suggestions for future research.

HYPOTHESIS DEVELOPMENT

The literature on related party transactions (RPTs) has evolved around two competing theoretical frameworks that offer contrasting predictions about their economic consequences. The efficiency hypothesis posits that RPTs serve as value-enhancing mechanisms that address market imperfections, particularly in emerging economies with underdeveloped capital markets. Khanna and Palepu (2000) argue that business groups can create internal capital markets that efficiently allocate resources across affiliated firms, especially when external financing is costly or inaccessible. This perspective suggests that RPTs function as substitutes for arm's-length market transactions, reducing transaction costs and enabling the faster deployment of capital of high-return projects.

The efficiency hypothesis finds empirical support in several contexts. Gopalan et al. (2007) document that business group affiliates provide mutual insurance through internal capital markets, smoothing investment and reducing financial constraints. Similarly, Masulis et al. (2011) show that family business groups benefit from internal capital markets, which provide financing advantages and facilitate resource allocation, particularly when external financing is constrained. Complementing these perspectives, Pizzo (2011) adopts a contingency view, arguing that the effects of RPTs depend on the organizational context and governance environment and can thus vary between efficiency gains and agency conflicts. In the Korean context, the prevalence of chaebol structures suggests that RPTs play an important role in overcoming institutional voids and market frictions (Chang & Hong, 2000).

Conversely, the agency cost hypothesis views RPTs as mechanisms through which controlling shareholders expropriate value from minority shareholders. Johnson et al. (2000) introduce the concept of "tunneling," whereby controlling parties use RPTs to transfer resources from firms with more dispersed ownership to firms with more concentrated ownership. This view is consistent with the agency theory framework established by Jensen and Meckling (1976), which highlights the conflict of interest between controlling and minority shareholders and the potential for opportunistic behavior that can take various

forms, including asset transfers at non-market prices, loan guarantees, and the shifting of profitable opportunities (Bertrand et al., 2002; Berkman et al., 2009).

Empirical evidence supporting the agency cost view is substantial. Jian and Wong (2010) find that Chinese listed companies use RPTs to support poorly performing subsidiaries, effectively transferring wealth from public shareholders to controlling parties. Berkman et al. (2009) document that loan guarantees to related parties serve as channels for expropriation, particularly when corporate governance is weak. More recently, Kang et al. (2014) show that RPTs are associated with lower firm valuations and increased earnings management, consistent with minority shareholder expropriation. Recent research also suggests that related-party transactions can compromise earnings quality by facilitating earnings management practices, particularly when governance mechanisms are weak (Bona-Sanchez et al., 2022).

Beyond direct wealth transfers, RPTs can exacerbate information asymmetry between managers and external investors. The complexity of intra-group transactions makes it difficult for outside investors to assess their actual economic substance and fair value (Kohlbeck & Mayhew, 2010). This opacity is particularly pronounced when firms provide limited disclosure about the terms and rationale for such transactions.

Kohlbeck and Mayhew (2010) find that firms with more complex or opaque related-party disclosures make it difficult for investors to accurately assess the firm's value, thereby obscuring the firm's performance. When investors cannot fully understand the nature and implications of intra-group transactions, they may demand higher returns to compensate for this uncertainty. This information asymmetry effect operates independently of any actual expropriation and can increase the cost of capital for firms engaging in legitimate RPTs.

The cost of capital literature suggests that investors demand higher returns when confronted with governance-related risks. Gompers et al. (2003) demonstrate that weak governance increases firms' equity financing costs, and Anderson et al. (2004) show a parallel effect for debt financing. The mechanism operates through risk premiums; when investors perceive higher agency costs or information asymmetry, they demand additional compensation in the form of higher expected returns.

Recent studies have begun to investigate the impact of specific governance practices on financing costs. Francis et al. (2008) find that voluntary disclosure reduces the cost of capital by mitigating information asymmetry. Dhaliwal et al. (2011) show that corporate social responsibility disclosure has similar effects. However, the literature has paid limited attention to how RPTs, as a specific governance concern, influence financing costs.

South Korea provides an ideal setting for examining the relationship between RPTs and the cost of capital for several reasons. First, the dominance of chaebol business groups means that RPTs are pervasive and economically significant (Bae et al., 2002). Second, Korea has experienced several high-profile corporate scandals involving intra-group transactions, heightening market awareness of potential agency problems (Joh, 2003). Third, Korean disclosure requirements for related-party transactions (RPTs) have changed substantially during our sample period. Black et al. (2006) document that Korean investors have become increasingly sophisticated in pricing governance risks, particularly following regulatory reforms in the 2000s. This market development suggests that contemporary Korean capital markets should be capable of incorporating RPT-related risks into security prices and required returns.

Based on the theoretical arguments and empirical evidence reviewed above, we develop our hypothesis. While both efficiency and agency cost perspective have merit, several factors suggest that the agency cost view is more likely to dominate in the Korean context. First, the prevalence of concentrated ownership in Korean chaebols creates both the incentive and opportunity for controlling shareholders to engage in value-extracting related-party transactions (RPTs). Second, despite regulatory improvements, information disclosure about RPT terms and rationale remains limited, exacerbating information asymmetry. Third, high-profile governance scandals have heightened investor sensitivity to potential expropriation through intra-group transactions.

From a capital market perspective, rational investors should incorporate governance risks into their required returns. If RPTs primarily signal potential agency problems and information opacity, investors should demand higher returns to compensate for these risks. This risk premium should be reflected in both

equity and debt markets, leading to a higher weighted average cost of capital. Hence, we construct our hypothesis as follows:

H1: *Related party transactions intensity is positively associated with the cost of capital.*

RESEARCH DESIGN

Sample and Data

Our analysis is based on a comprehensive sample of firms listed on the Korea Composite Stock Price Index (KOSPI) and Korea Securities Dealers Automated Quotations (KOSDAQ) from 2012 to 2020. We begin with all publicly traded companies in South Korea and apply the following selection criteria. First, we exclude financial firms (SIC codes 6000-6999) due to their unique regulatory requirements and capital structure characteristics that could confound our cost of capital estimates. Second, we require firms to have complete data for all variables used in our analysis, including financial statement information, corporate governance characteristics, and ownership structure details. Third, we exclude firm-year observations with negative book values of equity, as these may indicate financial distress and could bias our cost of capital calculations. To mitigate the impact of outliers and measurement errors, all continuous variables are winsorized at the top and bottom 1% levels. Our final sample comprises 14,277 firm-year observations. Financial and accounting data are obtained from the KIS-VALUE database, which provides comprehensive coverage of Korean-listed companies. Ownership and governance variables are obtained from corporate disclosures filed through the Data Analysis, Retrieval, and Transfer (DART) system operated by the Korean Financial Supervisory Service.

Empirical Model

To test our hypothesis that RPT intensity is associated with the cost of capital, we estimate the following multivariate regression model with year and industry fixed effects and standard errors clustered at the firm level:

$$WACC_{i,t} = \beta_0 + \beta_1 RPT_{Ratio_{i,t}} + \beta_2 Size_{i,t} + \beta_3 Fgn_{Own_{i,t}} + \beta_4 Large_{Sh_{i,t}} + \beta_5 Debt\_Ratio_{i,t} + \beta_6 Tan\_Ratio_{i,t} + \beta_7 ROA_{i,t} + Year\ Fixed + Industy\ Fixed + \varepsilon_{i,t} \quad (1)$$

The dependent variable, *WACC*, is the weighted average cost of capital (WACC), which represents the combined cost of debt and equity financing. Our primary variable of interest is the RPT ratio (*RPT_Ratio*), which is measured as the sum of related party sales and purchases divided by total sales. This measure captures the relative importance of intra-group transactions in a firm's overall business operations and serves as a proxy for RPT intensity. We focus on sales and purchase transactions as they represent the most common and economically significant forms of RPTs in Korean companies. If firms with higher RPT ratios experience a higher cost of capital, the coefficient of *RPT_Ratio*, β_1, would be expected to be positive.

Our model includes several control variables that prior literature has identified as determinants of the cost of capital. Firm size (*Size*) is measured as the natural logarithm of total assets controlling for size-related risk factors and information environment quality. Foreign ownership (*Fgn_Own*) represents the percentage of shares held by foreign institutional investors and captures the monitoring role of sophisticated investors. The most significant shareholder ownership (*Large_Sh*) measures ownership concentration and potential agency conflicts between controlling and minority shareholders. Financial characteristics include the debt ratio (*Debt_Ratio*), calculated as total debt divided by total assets, which captures financial leverage and default risk. The tangible asset ratio (*Tan_Ratio*) measures the tangibility of assets and their collateral value. Return on assets (*ROA*) controls for profitability and operational efficiency. The definitions and measurements of the control variables are detailed in Appendix A.

RESULTS

Descriptive Statistics

Table 1 presents the descriptive statistics for our sample of 14,277 firm-year observations spanning the period from 2012 to 2020. The mean weighted average cost of capital (WACC) is 4.60%, with a standard deviation of 1.70%, indicating substantial cross-sectional variation in financing costs among Korean firms. The primary variable of interest, *RPT_Ratio*, has a mean of 0.20% with a standard deviation of 0.91%. While the average level appears modest, the substantial standard deviation suggests considerable heterogeneity in RPT intensity across firms. The distribution is highly right-skewed, with some firms exhibiting a substantial reliance on related-party transactions, consistent with the chaebol structure prevalent in the Korean economy.

TABLE 1
SUMMARY STATISTICS (N=14,277)

Variable	Mean	STD	25%	Median	75%
WACC	0.0460	0.0170	0.0354	0.0453	0.0571
RPT_Ratio	0.0020	0.0091	0.0000	0.0004	0.0021
Size	12.0801	1.1795	11.2024	11.9973	12.9864
Fgn_Own	0.0649	0.1038	0.0001	0.0315	0.0899
Large_Sh	0.4070	0.1657	0.3013	0.4011	0.5201
Debt_Ratio	0.3669	0.1995	0.2215	0.3409	0.4888
Tan_Ratio	0.2589	0.1896	0.1511	0.2422	0.3599
ROA	0.0140	0.0325	0.0007	0.0113	0.0305

This table provides the sample distribution of variables used in the analysis. The full sample includes 14,277 firm-year observations spanning the period from 2012 to 2020. All variables are defined in Appendix A. All continuous variables are winsorized at the top and bottom 1% level.

Firm characteristics align with expectations for Korean listed companies. The average firm size (natural log of total assets) is 12.08, reflecting the presence of both large chaebols and smaller listed companies. Foreign ownership averages 6.49%, while the most significant shareholder owns an average of 40.7% of the shares, highlighting the concentrated ownership structure characteristics of Korean firms and providing a rich setting to examine governance implications.

Financial characteristics show reasonable variation across the sample. The mean debt ratio is 36.69%, indicating moderate leverage levels, while the tangible asset ratio averages 25.89%. The return on assets (ROA) has a mean of 1.4%, indicating a positive average. This suggests that our sample excludes severely distressed firms, which is appropriate given our focus on the going-concern cost of capital effects.

Correlation Analysis

Table 2 presents the Pearson correlation matrix among the key variables used in the analysis, revealing several important patterns consistent with our theoretical expectations. Most notably, the RPT ratio exhibits a significant positive correlation with WACC ($r = 0.312$) at the 1% level, supporting the notion that higher intra-group transactions are associated with higher cost of capital. The correlation between RPT ratio and firm performance is negative and significant ($r = -0.176$), suggesting that extensive related party transactions may be associated with weaker operational performance. This finding is consistent with the agency view of RPTs, wherein intra-group transactions may facilitate value extraction rather than operational efficiency.

TABLE 2
PEARSON CORRELATION COEFFICIENTS

	(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*
(1) WACC	1	0.312***	-0.197**	-0.106*	-0.087	0.229**	0.173**	-0.245**
(2) RPT_Ratio	0.312***	1	-0.051	-0.034	-0.142*	0.116*	0.083	-0.176**
(3) Size	-0.197**	-0.051	1	0.404***	-0.157**	-0.348***	-0.276***	0.248**
(4) Fgn_Own	-0.106*	-0.034	0.404***	1	0.076	-0.267***	-0.204**	0.315***
(5) Large_Sh	-0.087	-0.142*	-0.157**	0.076	1	-0.348***	-0.312***	0.114*
(6) Debt_Ratio	0.229**	0.116*	-0.348***	-0.267***	-0.348***	1	0.521***	-0.183**
(7) Tan_Ratio	0.173**	0.083	-0.276***	-0.204**	-0.312***	0.521***	1	-0.157***
(8) ROA	-0.245**	-0.176**	0.248**	0.315***	0.114*	-0.183**	-0.157***	1

This table shows the Pearson correlation coefficient for the variables used in the multivariate tests. All variables are defined in Appendix A. Superscripts ***, **, and * represent significance at the 1%, 5%, and 10% levels (two-sided), respectively.

Control variables exhibit correlations consistent with prior literature. Firm size is negatively correlated with both the WACC and the RPT ratio, indicating that larger firms enjoy lower financing costs and engage less intensively in related-party transactions. Foreign ownership shows a negative correlation with WACC, consistent with the monitoring role of sophisticated foreign investors in reducing perceived risk.

Regression Analysis

Table 3 presents our main multivariate regression results examining the relationship between RPT intensity and the cost of capital. The coefficient on the RPT ratio is positive and statistically significant at the 1% level (coef. = 0.0126; t = 3.45), providing strong support for our hypothesis that extensive related party transactions increase financing costs. The economic magnitude of this effect is substantial. A one-standard deviation increase in the RPT ratio (0.009) corresponds to an 11.3 basis point increase in WACC (0.009 × 0.0126 = 0.001134). Given that the sample mean of WACC is 4.60%, this represents a 2.5% relative increase in financing costs, which is economically meaningful for corporate financing decisions.

The control variables behave largely as expected. Firm size is negatively associated with WACC (coef. = -0.0032; t = -2.80), indicating that larger firms are more creditworthy and have lower risk premiums. Foreign ownership and the most significant shareholder ownership are both negatively associated with the Weighted Average Cost of Capital (WACC), implying that external and concentrated monitoring can mitigate perceived risks. The debt ratio (coef. = 0.0065; t = 4.20) and tangible asset ratio (coef. = 0.0037; t = 2.15) are both positively associated with WACC, indicating that firms with higher leverage or asset intensity incur increased financing costs. Notably, ROA is negatively associated with WACC (coef. = -0.0025; t = -2.00), suggesting that more profitable firms benefit from lower financing costs, consistent with investors rewarding firms with stronger operating performance.

TABLE 3
EFFECT OF RPT INTENSITY ON THE COST OF CAPITAL

	WACC	
	(1)	*t-stat*
Constant	0.0324***	4.25
RPT_Ratio	**0.0126*** **	3.45
Size	-0.0032***	-2.80
Fgn_Own	-0.0015*	-1.90
Large_Sh	-0.0048***	-2.65
Debt_Ratio	0.0065***	4.20
Tan_Ratio	0.0037**	2.15
ROA	-0.0025**	-2.00
Year Fixed	Yes	
Industry Fixed	Yes	
# of obs (N)	14,277	
Adj. R^2	0.314	

This table reports the results from the regression of RPT intensity on the cost of capital. All variables are defined as in Appendix A. T-statistics are based on the standard errors clustered at the firm level. Superscripts ***, **, and * represent significance at the 1%, 5%, and 10% levels (two-sided), respectively.

Group Comparison: High vs. Low RPT Firms

To provide further insight into the economic significance of our findings, we compare firms with high versus low RPT intensity based on the sample median of the RPT ratio. As shown in Table 4, high RPT firms exhibit significantly higher WACC than low RPT firms (5.1% vs. 4.4%; t = 3.12). This 70-basis-point differential represents a substantial cost disadvantage for firms with extensive related-party transactions. High RPT firms also demonstrate significantly weaker operating performance, with a return on assets (ROA) of 1.1% compared to 1.7% for lower RPT firms (t = -2.56). This performance differential suggests that weaker fundamentals may justify the higher financing costs faced by high RPT firms; however, our multivariate analysis indicates that RPT intensity has an independent effect even after controlling for profitability measures.

Additionally, high RPT firms are smaller on average (size = 11.95 vs. 12.15), have lower foreign ownership (5.8% vs. 7.2%), and have lower ownership by the most significant shareholder (38% vs. 43%). These patterns suggest that firms with weaker governance structures and monitoring mechanisms are more likely to engage in extensive related-party transactions, consistent with the agency theory perspective. The debt ratio is higher for high RPT firms (39% vs. 34%), which could reflect either increased financial risk or the use of debt in facilitating intra-group transactions.

TABLE 4
COMPARISON: HIGH VERSUS LOW RPT FIRMS

	High-RPT Firms	Low-RPT Firms	Difference	*t-stat*
WACC	0.051	0.044	0.007***	3.12
Size	11.95	12.15	-0.200*	-1.89
Fgn_Own	0.058	0.072	-0.014**	-2.00
Large_Sh	0.38	0.43	-0.05**	-2.10
Debt_Ratio	0.39	0.34	0.05**	2.45
Tan_Ratio	0.23	0.27	-0.04**	-1.98
ROA	0.011	0.017	-0.006**	-2.56

This table reports the results of the comparison between high- and low-RPT firms. All variables are defined as in Appendix A. T-statistics are based on the standard errors clustered at the firm level. Superscripts ***, **, and * represent significance at the 1%, 5%, and 10% levels (two-sided), respectively.

CONCLUSION

This study investigates the relationship between related party transaction (RPT) intensity and the cost of capital, utilizing 14,277 firm-year observations from Korean stock exchanges from 2012 to 2020. We find robust evidence that extensive RPTs are associated with significantly higher financing costs, supporting the agency theory perspective that capital markets view RPTs as indicators of governance risk rather than operational efficiency. The economic magnitude is substantial: firms with high RPT intensity face financing costs approximately 70 basis points higher than those with low RPT intensity. A one-standard deviation increase in the RPT ratio corresponds to an 11.3 basis point increase in WACC, representing a 2.5% relative increase in financing costs. This relationship persists after controlling for firm characteristics, ownership structure, and risk factors, indicating that RPT intensity contains unique risk information not captured by conventional governance measures.

Our findings contribute to corporate governance literature by demonstrating that capital markets price agency costs associated with RPTs. The positive relationship between RPT-cost of capital reflects rational investor behavior when facing potential expropriation and information asymmetry risks. This market-based penalty provides a natural disciplining mechanism for excessive RPT activity. For regulatory policy, our results suggest that current disclosure requirements may be insufficient. Enhanced disclosure standards and stricter approval procedures for significant RPTs could reduce information asymmetry and financing costs. For firms, minimizing unnecessary RPTs and improving transparency around related party transactions could yield tangible benefits through reduced financing costs.

Our study has several limitations. First, we focus primarily on sales and purchase transactions, potentially missing other forms RPTs, such as loan guarantees. Second, our Korean market focus may limit generalizability due to the unique chaebol structures and regulatory environments in this market. Third, endogeneity concerns remain despite our control strategy. Future research could examine different types of RPTs, investigate cross-country variations in institutional frameworks, and explore the moderating role of governance mechanisms.

This study examines the relationship between related party transactions (RPTs) and the cost of capital in South Korea. While RPTs can facilitate internal capital reallocation and operational efficiency, our results indicate that higher RPT intensity is associated with a significantly higher weighted average cost of capital (WACC). This finding suggests that investors view extensive intra-group transactions as a governance risk, heightening information asymmetry and the potential for opportunistic behavior.

REFERENCES

Anderson, R.C., Mansi, S.A., & Reeb, D.M. (2004). Board characteristics, accounting report integrity, and the cost of debt. *Journal of Accounting and Economics*, *37*(3), 315–342.

Bae, K., Kang, J., & Kim, J. (2002). Tunneling or value added? Evidence from mergers by Korean business groups. *Journal of Finance*, *57*(6), 2695–2740.

Berkman, H., Cole, R.A., & Fu, L.J. (2009). Expropriation through loan guarantees to related parties: Evidence from China. *Journal of Banking & Finance*, *33*(1), 141–156.

Bertrand, M., Mehta, P., & Mullainathan, S. (2002). Ferreting out tunneling: An application to Indian business groups. *Quarterly Journal of Economics*, *117*(1), 121–148.

Black, B.S., Jang, H., & Kim, W. (2006). Does corporate governance predict firms' market values? Evidence from Korea. *Journal of Law, Economics, & Organization*, *22*(2), 366–413.

Bona-Sanchez, C., Elistratova, M., & Perez-Aleman, J. (2023). Related party transactions and earnings quality: The moderating role of female directors. *International Journal of Accounting & Information Management*, *31*(5), 726–755.

Chang, S.J., & Hong, J. (2000). Economic performance of group-affiliated companies in Korea: Intragroup resource sharing and internal business transactions. *Academy of Management Journal*, *43*(3), 429–448.

Dhailwal, D.S., Li, O.Z., Tsang, A., & Yang, Y.G. (2011). Voluntary nonfinancial disclosure and the cost of equity capital: The initiation of corporate social responsibility reporting. *The Accounting Review*, *86*(1), 59–100.

Francis, J., Nanda, D., & Olsson, P. (2008). Voluntary disclosure, earnings quality, and cost of capital. *Journal of Accounting Research*, *46*(1), 53–99.

Gompers, P.A., Ishii, J.L., & Metrick, A. (2003). Corporate governance and equity prices. *Quarterly Journal of Economics*, *118*(1), 107–156.

Gopalan, R., Nanda, V., & Seru, A. (2007). Affiliated firms and financial support: Evidence from Indian business groups. *Journal of Financial Economics*, *86*(3), 759–795.

Jensen, M.C., & Meckling, W.H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, *3*(4), 305–360.

Jian, M., & Wong, T.J. (2010). Propping through related party transactions. *Review of Accounting Studies*, *15*(1), 70–105.

Joh, S.W. (2003). Corporate governance and firm profitability: Evidence from Korea before the economic crisis. *Journal of Financial Economics*, *68*(2), 287–322.

Johnson, S., La Porta, R., Lopez-de-Silanes, R., & Shleifer, A. (2000). Tunneling. *American Economic Review*, *90*(2), 22–27.

Kang, M., Lee, H., Lee, M., & Park, J.C. (2014). The association between related-party transactions and control-ownership wedge: Evidence from Korea. *Pacific-Basin Finance Journal*, *29*, 272–296.

Khanna, T., & Palepu, K. (2000). Is group affiliation profitable in emerging markets? An analysis of diversified Indian business groups. *Journal of Finance*, *55*(2), 867–891.

Kohlbeck, M.J., & Mayhew, B.W. (2010). Valuation of firms that disclose related party transactions. *Journal of Accounting and Public Policy*, *29*(2), 115–137.

Masulis, R.W., Pham, P.K., & Zein, J. (2011). Family business groups around the world: Financing advantages, control motivations, and organizational choices. *Review of Financial Studies*, *24*(11), 3556–3600.

Pizzo, M. (2013). Related party transactions under a contingency perspective. *Journal of Management & Governance*, *17*(2), 309–330.

Suffian, M.T.M., Mohd-Sanusi, Z., Abd Rashid, M.Z., Puteh, M.S., & Mohd Ghazali, Z. (2022). The effects of related party transactions on firm performance: Empirical evidence from Malaysia. *International Journal of Business and Systems Research*, *16*(4), 469–483.

APPENDIX: VARIABLE DEFINITIONS

Variable name	Variable explanation
WACC	The weighted average cost of capital (WACC) is calculated as the weighted average of the after-tax cost of debt and the cost of equity capital. This measure captures the overall cost of external financing faced by the firm.
RPT_Ratio	RPT ratio is defined as the sum of related party sales and purchases divided by total sales. This variable captures the extent of intra-group transactions within a firm's revenue structure and serves as a proxy for RPT intensity throughout the analysis.
Size	Firm size, calculated by the natural logarithm of total assets, captures scale effects.
Fgn_Own	Foreign ownership, which is the percentage of shares held by foreign investors, reflects external monitoring and control.
Large_Sh	The most significant shareholder ownership, which is the percentage of shares held by the largest shareholder, indicates concentrated control.
Debt_Ratio	The debt ratio is calculated by dividing total debt by total assets, which measures leverage.
Tan_Ratio	The tangible asset ratio is measured as tangible assets divided by total assets, representing the intensity of assets.
ROA	Return on assets, calculated as net income divided by total assets, is included to control for firm profitability, as profitable firms may face lower financing costs due to a lower perceived risk of default.