Cross-Shareholdings and Firm Value: Evidence from Korean Business Groups

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Introduction

- Concerns on the disparity in cash-flow and voting rights that is very common in Europe and Asia through dual class equity, pyramidal ownership, and cross-shareholdings.
- Conflicting empirical evidence on the relationship between cross-shareholdings and firm value.
- Endogeneity issue of the association between ownership structure and firm value due to not randomly but strategically determined affiliate's position (Almeida et al., 2011) and omitted variable bias that might affect cross-sectional variations in firms' ownership structure.
- Need for a cleaner research design to estimate the causal connection between ownership structure and firm value

Contribution

- Contribute to the debate on the costs and benefits of cross-shareholdings by providing a causal evidence on firm value with a plausibly exogenous shock to firms' ownership structure
- Providing a more unbiased view on cross-holdings and guiding policymakers where political and market scrutiny has occurred over cross-ownership

Data & Methodology

- Data: 1) 194 public firms of 36 regulated business groups and 449 non-group public firms, 2) a hand-collected ownership dataset
- Event study exploiting a new regulation in Korea that prohibits new cross-shareholdings and forces to remove existing ones of business groups over 5 trillion KRW in total combined assets since 2014
- Using the regulatory change as a plausibly exogenous shock to firms' ownership structure, which was unexpected due to active lobbying efforts by large firms against the law and its strong enforcement level
- Estimating cumulative abnormal returns using market-adjusted model and market model for three different event windows from day -1 to +1, -1 to +2, and 0 to 2 around the passage of the law
- Then, regressing the cumulative abnormal returns (CAR_i) on a treatment group dummy variable ($D_{target,i}$, $D_{CS,i}$), ownership structure variables (OS_i) and control variables of interest as follows:

$$CAR_i = \alpha + \beta_1 D_{target,i} + Controls_i + \varepsilon_i$$

$$CAR_i = \alpha + \beta_1 D_{CS,i} + \beta_2\, OS_i + \beta_3\, D_{CS,i} * OS_i + Controls_i + \varepsilon_i$$

Key Results

- Positive stock market response to the new regulation limiting cross-shareholdings by 2.14% to 3.5% using the market model and 2.78% to 4.09% using the market-adjusted model
- A significant reduction in market returns for firms belonging to the business groups holding cross-shares, compared to firms affiliated to the business groups without cross-shareholdings

Comparing target firms' market value according to holding cross-ownership

	Market Model			Market-Adjusted Model		
Dependent variable	CAR(0,+2)			CMAR(0,+2)		
	(1)	(2)	(3)	(4)	(5)	(6)
Target Group	2.142*			2.777**		
	(1.145)			(1.133)		
Crossholdings		-1.094*			-1.176**	
		(0.604)			(0.591)	
Loop			-1.220*			-1.347**
			(0.621)			(0.615)
Control Variables	Y	Y	Y	Y	Y	Y
Observations	643	194	194	643	194	194
Adjusted R-squared	0.127	0.196	0.194	0.099	0.172	0.171

Target Group: a dummy variable assigning 1 for affiliated firms of the target business group, and 0 for non-target and non-business group firms listed on the KSE.
Crossholdings: a dummy variable indicating whether its business group has cross-shareholdings or not.
Loop: a dummy variable indicating whether the firm belongs to cross-ownership or not..

- The value reduction is larger for affiliates with a greater disparity in cash-flow and voting rights, a far distance from controlling shareholder's direct ownership, and a higher dependence on the internal capital market.

Robustness Checks

- Robust to using a matching sample in terms of firm size & industry
- Robust to using the MSCI Asia Pacific Ex-Japan Index as an alternative benchmark market return
- Robust to a different estimation model, a panel regression of raw daily market-adjusted returns with time- & industry-fixed effects

Conclusion

- Limiting cross-shareholdings improve group-firms' market value due to reducing agency costs between controlling shareholders and minority shareholders.
- The positive market value of group-firms belonging to the regulated business groups holding cross-shares declines due to the loss of benefits from existing cross-holdings.
- The cost of removing pre-existent cross-shareholdings depends on a firm's position in ownership chain and the level of dependence on the internal debt finance.

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Key References

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