Capital Allocation Efficiency of Firms Outside the Business Group

by
Yunxiao Liu, Woochan Kim, and Taeyoon Sung

Discussion by
Alexander Wagner
Swiss Finance Institute – University of Zurich
(visiting Keio University)

alexander.wagner@bf.uzh.ch

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- Key motivation as I understand it:

- Many studies compare the performance / capital allocation decisions of business-group-affilliated and non-affiliated firms.

- But we know too little about the influence that business groups exert on other firms

- Questions: Can firms without group affiliations efficiently allocate capital in industries with dominant group-affiliated firms? If not, is this due to the group-affiliated firm's ability to mobilize capital from its internal capital market?

- Answers:

  - When in an industry, the Top-30 chaebol are strong and dominant (BSD-index high), firms outside the Top-30 chaebol (whether business group or not) allocate «less efficiently»

  - This effect exists only in the pre-1997/98 period (when the financial market was less developed in there was weaker investor protection).

Dependent Variable:		Non-LBG Firms		
Industry CAPEX Ratio	Entire Period	Before 1997	After 1998	Before + After
Industry Sales Growth [a]	0.052***	0.050	0.055***	0.073***
	(0.011)	(0.040)	(0.014)	(0.026)
BSDI [b]	-0.183	-0.189	-1.311	0.225
	(1.012)	(2.122)	(1.265)	(1.321)
Industry EBITDA Ratio [c]	0.086*	0.135*	0.013	0.171**
	(0.049)	(0.071)	(0.040)	(0.076)
Period Dummy [d]				1.629***
				(0.585)
[a] × [b]	-0.091**	-0.188**	-0.034	-0.200**
	(0.040)	(0.081)	(0.047)	(0.081)
[a] × [d]				-0.024
				(0.019)
[b] × [c]	0.042	0.002	0.202	0.002
	(0.143)	(0.187)	(0.203)	(0.232)
[b] × [d]				-0.378
				(2.385)
[c] × [d]				-0.146**
				(0.061)
[a] × [b] × [d]				0.154*
				(0.089)
[b] × [c] × [d]				0.087
				(0.350)
Constant	-1.081*	-1.188	0.365	-2.007***
	(0.549)	(0.962)	(0.228)	(0.709)
Year & Industry FE	Yes	Yes	Yes	Yes
No. of Observations	1,029	417	524	941
Within R-squared	0.290	0.144	0.437	0.206

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- …puts the paper in context of the literature

- …raises some (clarifying) questions with the methodological approach and offers some ideas for additional analysis

Contribution to the literature

- My reading of the literature (also based on the excellent survey by Khanna and Yafeh 2007)

- Much focus on estimating investment-growth options and investment-cash flow sensitivities for group and non-group firms

- Hoshi, Kashyap, and Scharfstein (1991) find (for Japan) that firms in keiretsu are much less sensitive to cash flow than independent firms, and equally sensitive to Tobin's Q

- Shin and Park (1999) apply this methodology to South Korean business groups

- Chaebol firms: LOW cash-flow-investment sensitivity, but HIGH sensitivity to growth opportunities

- Non-chaebol firms: HIGH cash-flow-investment sensitivity, but LOW sensitivity to growth opportunities

- (And they argue that chaebol internal capital markets are actually ineffecient, leading to too much investment by group firms with weak investment opportunities)

- Chang, Park, and Yoo 1998 also argue that large business groups engaged in overinvestments (so are they a good benchmark?)

- Here, look at external effect

- One way to understand this paper: Explaining why the Shin and Park findings occur

- Interesting addition to the literature, though I am a little unclear on where you stand regarding efficiency of chaebol activities

- Almeida and Wolfenzon (2006): Is more about the question of how groups form in the first place

- (Kim 2004 may also be relevant: risk-aversion as a rationale for business groups)

- In the present paper, groups are taken as given. The analysis focuses on the impact of power of business groups on allocation efficiency of others, as a function of time (capital market status)

- Not sure the theoretical background is so clear

  - As mentioned in the paper, business-group-affiliates may be preferred over non-affiliates when borrowing from banks – that is, this is not only about the internal capital market. Plus too-big-too fail issues

Empirical design

$$BSDI_{kt} = \left[\left(\frac{\sum_{i=1}^{n} S_{itk} * w_{it}}{\sum_{i=1}^{n} S_{itk} + \sum_{j=1}^{m} S_{jtk}}\right)/BSDI^*\right], where \ w_{it} = \frac{ICM_{it}}{ICM_t^*}$$

- Argument: Elements of strength and dominance are «inseparable» (p. 12)

  - Not sure how you can then later separate them by running linear regressions (p. 28)

  - Results are driven by size of ICM, not market share

- Good that results also hold when just using cash holdings (instead of book value of assets)

- (My lack of knowledge: How much change is there of business group membership?)

- Effects identified through 1997/98 crisis

- This is a dummy variable that may or may not capture many other things

- Can we have a finer measure of the status of the financial market that varies over the years?

  - International capital flows, for example?

- Essentially all studies use Top 30 chaebols as the focus

- Following this work, you assign those firms in business group 31 and below as a non-large-business group firm

- Can you illuminate whether there is a discrete difference between group 30 and group 31? Would be nice to check robustness regarding this cutoff

- What about results for really independent firms?

- Argument p. 15: «If we used firm-level data, our results would be primarily driven by firms that may not be individually significant in the economy»

- Somewhat unusual. Tends to mix empirics with normative implications

- Not sure why the profitability regressions are on the firm level

- Weighted least-squares firm-level results are stated to be qualitatively similar, but not reported. Wouldn't we expect the effects to be stronger for the smallest firms? Would expect larger of the non-LBG firms to withstand the damaging effect of LBG firms in the industry more?

- How about looking at firm-level, but allowing for heterogeneity of non-LBG-firms?

- Non-affiliated firms arguably differ in the shrewdness of managers, their experience, firm governance, etc., which may affect their ability to deal with the «bullies»

- Run regressions of industry-median CapEx on industry-median past sales growth

  - Is CapEx the right metric for all industries? How about employee growth?

  - Tends to pick up firms chasing after things that have already happened? (Bad to invest a lot just before the crisis…) Can we have a forward-looking measure? (Industry development in US? Option prices?)

  - Sales growth vs. profit growth

- Paper brushes aside Tobin's Q too quickly.

- Hoshi, Kashyap, and Scharfstein 1991 do use Tobin's Q, arguing that «provided that the bias is the same for the two sets of firms»… p. 36

- Results in Table 11 for non-LBF firms suggest robustness.

  - (However, clarify why the BSDI variable now has such huge coefficients, and why the period dummy is so much bigger than in prior regressions.)

- CapEx, Sales Growth, EBITDA ratio: Median values in the industry

- Why is the median the right measure? For Sales growth, all firms are combined. So, this presumably measures sales growth in a small firm (of which there are many). Is this what we want? If we argue that this is representative, then why do we not like firm-level regressions?

- Cash flow split: Is it possible that different industries need different levels of cash-flow to begin with?

- Tangibility split: In low-tangibility industries, do we expect firms to invest a lot in tangible assets (through capital expenditures) when sales growth is high?

- Regressions exclude 1997/98. It might be interesting to look precisely at how firms reacted to this

- Robustness claims (I am a pain): «We find that our key results are highly robust» vs. «qualitatively similar» results.

- You state that Table 5 results (industry-year observations) hold also with industry X year fixed effects (p. 32). How can you have such FE in this regression?

- Standard errors, footnote 11. You could consider applying (a variant of) the two-stage bootstrap procedure described in Ashraf and Galor (2013) [Stata code is available, I think]

- Interesting (and, to my knowledge, novel) take on the relevance of business groups for the overall economy

- Some clarifications / changes proposed for the empirical analysis

- Best of success with the paper!