Corporate governance and the informativeness of earnings:
A note using East Asian firms

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Abstract

In this research note, I test the hypothesis that firms with "better" corporate governance have a higher earnings-return relation. Using data from 65 firms in East Asia, where governance is likely a particular concern, I find strong evidence to support the hypothesis. Currently, there is an on-going debate as to whether or not corporate governance matters, and if it does, then how. My result sheds some additional light in these regards.

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1.   Introduction

Research investigating whether or not firm-level corporate governance influences the informativeness of reported earnings is surprisingly scant. Prior governance-oriented papers have studied how earnings quality is influenced by audit committees (e.g., Wild 1996), by ownership structure (e.g., Fan and Wong 2002), and by board composition (e.g., Vafeas 2000), but an examination of whether or not a firm's *overall* quality of corporate governance affects earnings quality is virtually nonexistent. As such, the issue of whether or not corporate governance is even important remains unresolved (Larcker, Richardson, and Tuna 2004) and Bushman and Smith (2001) adamantly argue that further research is needed. Recently, Klapper and Love (2004) use a measure that captures a firm's overall level of corporate governance and they find that it is positively related to firm performance. My paper tests whether or not firm-level differences in overall corporate governance quality matter for reported earnings quality.

Following Klapper and Love (2004), I utilize the overall corporate governance rankings from a recent study by Credit Lyonnais Securities Asia (CLSA hereafter) that assessed the governance quality of 495 firms in 25 emerging markets. I limit my focus to East Asian firms, which I admit diminishes my paper's scope to a mere research note, but I believe East Asian firms represent a particularly useful sample to study earnings informativeness. For example, Fan and Wong (2002) specifically focus on East Asian firms in their study on earnings informativeness because of their claim (and others') that East Asian firms have low levels of transparency and disclosure quality. They study the period prior to the Asian financial crisis to identify the cause of low quality reported earnings. Since the 1997 Asian financial crisis,

regulators and market participants from those markets have committed themselves to improving corporate governance, making it part of their national agenda. If corporate governance is going to matter, and if it is going to play an important role to restoring investor confidence, then it should be especially pertinent in East Asia where investor confidence is low and emphasis on corporate governance is high, especially in the aftermath of their financial crisis.

My proxy for the informativeness of earnings is the earnings-return relation. Many papers have found that the informativeness of earnings is captured well by its relation with stock returns (e.g., Warfield, Wild, Wild (1995), and Wild (1996)). The intuition is straight-forward. If a firm's reported earnings reflect accurate and reliable information, then it should be highly correlated to the firm's stock returns from the same time period. Overall, from my earnings-returns regression models, I find that when my governance scores interact with earnings, its explanatory power on stock returns is high. In fact, the model's adjusted R^2 increases from 36 percent to 50 percent when the governance variable is added to a simple earnings-returns model. This finding is remarkable considering the sample size. Adding additional control variables only improves the R^2 to 55 percent, indicating that governance quality is more influential on the earnings-returns relation than factors previously studied. Overall, my results contribute to the viewpoint that corporate governance does matter, at least to the quality of reported earnings.

The rest of my research note proceeds as follows. The next section discusses my data, empirical tests, and results. The last section concludes.

2. Empirical Analysis

In this section, I discuss the data, I describe my empirical methodology to test the relation between corporate governance and the informativeness of earnings, and I discuss the results of those tests.

2.1   Data

CLSA administered questionnaires to analysts that covered 495 large firms, from 25 emerging markets, that had a high level of investor interest. A total of 57 yes/no questions were asked. The overall governance score for each firm is based on the percentage of times respondents answered "yes" to a question. A higher percentage indicates a firm with better corporate governance. The 57 questions covered seven broad categories of corporate governance, including disclosure, transparency, independence, accountability, responsibility, fairness, and social awareness. Therefore, these CLSA governance scores should represent a reasonable and reliable proxy for the firm's overall level of corporate governance. Examples of the types of question asked include whether executive compensation is tied to share performance, whether the company publishes an annual report within four months of the fiscal year-end, whether the board chairman is independent, whether there no overlaps in board subcommittee memberships, whether mismanagement is actively policed, whether minority shareholders have power, and whether the firms are environmentally aware. The questionnaire data was collected and compiled in 2000. Klapper and Love (2004) provide a more detailed discussion of the CLSA questionnaire. Other papers in the finance literature have also used these CLSA ratings and they have deemed them as reliable for empirical studies (e.g., Durnev and Kim 2004; Doidge, Karolyi, and Stulz 2004).

The CLSA governance scores are merged with the PACAP database. The PACAP database keeps track of financial statements data and stock returns data for seven Pacific-Basin countries, including Hong Kong, Indonesia, Korea, Japan, Malaysia, Taiwan, and Thailand. The last year in the database for most countries is 1999, and so it becomes the year for which I conduct my analysis. Klapper and Love (2004) also use 1999 data in their study of CLSA

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governance scores. The Indonesia database only goes up to 1998, and because I wish to avoid the anomalous Asian crisis period, I deleted Indonesia from my study. The CLSA study did not include Japan in their governance study, as Japan is not an emerging market, so this leaves five East Asian countries for my study sample. Among the firms that CLSA surveyed, I was able to get complete financial data for 18 out of the 38 Hong Kong firms, 9 out of 24 Korean firms, 14 out of 47 Malaysian firms, 12 out of 47 Taiwan firms, and 12 out of 20 Thai firms. A careful scan of the resulting study sample does not suggest any kind of sample selection bias. That is, there does not seem to be a pattern as to which firm-types were missing from the PACAP Databases. Therefore, while I admit that I have a small study sample, I do believe it is a representative sample.

2.2 *Empirical analysis*

I test the basic relation between stock returns and reported earnings using the following ordinary least squares regression model:

$$\text{Ret}_i = \alpha_0 + \alpha_1 \text{NI}_i + (\text{F.E.}) + \varepsilon_i, \tag{1}$$

where, for sample firm i, Ret_i is the raw cumulative 12-month stock returns for the fiscal year 1999, NI_i is net income from the 1999 fiscal year-end divided by the market value of equity from the beginning of the 1999 fiscal year-end, F.E. represent dummy variables controlling for the fixed effects of the five countries in my sample, α_0 is the intercept term, α_1 is a parameter coefficient that shows the relation between reported earnings and stock returns, and ε_i represents the error term.

The role of firm-level corporate governance is introduced into the earnings-return model in the following way:

$$\text{Ret}_i = \alpha_0 + \alpha_1 \text{NI}_i + \alpha_2 \text{Gov}_i + \alpha_3 \text{NI}_i * \text{Gov}_i + (\text{F.E.}) + \varepsilon_i, \tag{2}$$

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where, for sample firm i, Ret_i, NI_i, F.E., ε_i are defined as in equation (1) and Gov_i is the CLSA governance score from 0 to 100 percent, with the higher the score the better the firm's overall corporate governance. If good corporate governance enhances the informativeness of earnings, then the interaction term, NI_i*Gov_i, should be significantly positive.

Finally, I also include the usual control variables into the returns-earnings regression model to make sure that my findings from equation (2) are not spurious. The full model containing the control variables is as follows:

$$Ret_i = \alpha_0 + \alpha_1 NI_i + \alpha_2 Gov_i + \alpha_3 NI_i*Gov_i + \alpha_2 Size_i + \alpha_3 NI_i*Size_i$$
$$+ \alpha_2 Q_i + \alpha_3 NI_i*Q_i + \alpha_2 Lev_i + \alpha_3 NI_i*Lev_i + (F.E.) + \varepsilon_i, \qquad (3)$$

where, for sample firm i, Ret_i, NI_i, Gov_i, F.E., ε_i is defined as in equations (1) and (2), $Size_i$ is the natural log of the market value of equity (in U.S. dollars) from the beginning of the 1999 fiscal year, Q_i is the market value of equity plus the book value of liabilities divided by book value of total assets at the beginning of the 1999 fiscal year, and Lev_i is the total liability divided by total assets at the beginning of the 1999 fiscal year.

The control variables in equation (3) have been previously found to affect the earnings-returns relation (e.g., see Collins and Kothari 1989), and as such they often represent the usual control variables in studies that examine the earnings-return relation (e.g., Fan and Wong 2002; Vafeas 2000). Size is a particularly useful control variable as it should capture other missing factors that affect the earnings-return relation (see Fan and Wong (2002, page 416)).

Table 1 shows summary statistics for all of the variables used in my study. On average, the firms in my sample experienced a 140 percent stock return during the 1999 fiscal year. These returns were typical of many East Asian firms during this time period, where many firms were still rebounding from the region's market plunge of 1997. The statistics on reported earnings (NI) and all of the control variables are distributed within reasonable ranges, similar to

that of prior research. Running my regressions with or without one or two outliers does *not* affect my main results. The statistics of my corporate governance measure (Gov) is very similar to what Klapper and Love (2004) report, indicating that my study sample is representative of the governance ranges of a fuller previously studied sample.

[Insert Table 1 Here]

Table 2 reports regression results. In Table 2, model (1), we see reported earnings (NI) is positively related to stock returns. This result indicates that reported earnings are informative for my sample of firms. That is, firms with higher reported earnings also experienced higher stock returns during the same time period. In model (2), where the firm's governance score is interacted with its reported earnings, NI*Gov, we see that this interaction variable is also positively related to stock returns. In fact, the stand-alone NI variable becomes negative in model (2), but note that this does not mean that the earnings-return relation is negative. Instead, the positive earnings-return relation found in model (1) is now mostly captured by the interaction term, NI*Gov (in fact, a similar occurrence happens when Fan and Wong (2002) included additional independent variables in their earnings-returns model).

[Insert Table 2 Here]

The findings in model 2 are quite dramatic. First, it shows that firms with better governance have reported earnings that are more informative. Prior papers have examined specific aspects of governance, such as board composition (Vafeas 2000), audit committees (Wild 1996), ownership structure (Fan and Wong 2002), and so forth, but no paper has examined the effect of how the firm's overall governance level affects the quality of reported earnings. Further, existing findings are either surprising (e.g., Vafeas (2000) finds that board independence does not affect the earnings-return relation) or suspect (see Larcker et al. (2004) for a discussion).

In my study, despite a small sample size, our results are quite strong. When a corporate governance measure is included into the simple earnings-return model, the model's adjusted-R^2 increases from 36% to 50%. This significant increase in the adjusted-R^2 confirms the significant role that governance plays in reported earnings quality. Our findings should be viewed as providing additional evidence to the on-going debate and dialogue as to whether or not corporate governance matters; our findings suggest that they do.

Finally, model (3) includes the usual control variables when testing the earnings-returns model. None of the additional explanatory variables are statistically significant, probably due to the lack of statistical power (i.e., small sample size), while the governance and earnings interaction term, NI*Gov, is still statistically significant. The results of model (3) confirms that the significant and positive role of corporate governance on the earnings-returns relation found in model 2 is not spurious, as model (3) controls for other well-known determinants of earnings information quality. Re-running model (3) while excluding one or two outliers does not change the main results.

3. Conclusion

In this brief note, I examine whether or not a firm's overall level of corporate governance affects the quality of its reported earnings. The informativeness of earnings is proxied by the earnings-return relation. Using the overall firm-level governance scores compiled by Credit Lyonnaise Securities Asia (CLSA) and a sample of firms from five East Asian countries, where investor confidence is especially low and the need for better governance is particularly high in the aftermath of the Asian financial crisis, I find that firms with good governance have more informed earnings (i.e, the earnings-return relation is stronger). My results suggest that firm-level corporate governance, in a holistic sense, can matter.

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Table 1
Descriptive statistics of all variables used in the study[a]

Variable[b]	Mean	SD	1st quartile	Median	3rd quartile	Min.	Max.
Ret (%)	140.61	262.34	7.89	72.14	169.47	-48.61	1462.56
NI (%)	17.16	31.64	3.48	8.27	19.01	-23.04	168.38
Gov (%)	55.28	12.40	45.00	54.80	64.60	27.60	82.00
Size	16.94	2.15	15.67	17.07	18.24	12.19	23.02
Q	2.32	4.05	1.04	1.54	2.41	0.38	32.93
Lev (%)	42.28	24.12	22.61	37.48	57.54	7.46	139.97

[a] The sample consists of 65 firms from Hong Kong (18), Korea (9), Malaysia (14), Taiwan (12), and Thailand (12). To be included in the sample, a firm must have a CLSA governance score and have all complete financial statements and returns data available in the PACAP Databases for the fiscal year 1999.
[b] *Variable definitions*: Ret is the raw 12-month stock returns for the fiscal year 1999, NI is net income from the 1999 fiscal year-end divided by the market value of equity from the beginning of the 1999 fiscal year-end, Gov is a CLSA governance score that measures the firm's corporate governance quality, Size is the natural log of the market value of equity in U.S. dollars from the beginning of the 1999 fiscal year, Q is the market value of equity plus the book value of liabilities divided by book value of total assets at the beginning of the 1999 fiscal year, and Lev is the total liability divided by total assets at the beginning of the 1999 fiscal year.

Table 2
OLS regressions on the earnings-returns relation[a,b]

	(1)[c]	(2)[d]	(3)[e]
Intercept	0.33	1.44	3.14
	(0.66)	(0.97)	(0.82)
NI	2.60***	-18.54***	-5.99
	(2.82)	(3.57)	(-0.42)
NI*Gov		0.46***	0.33**
		(4.12)	(2.38)
Gov		(-0.03)	-0.04
		(-1.28)	(-1.44)
NI*Size			-0.93
			(-1.66)
Size			-0.04
			(-0.18)
NI*Q			2.87
			(0.91)
Q			0.04
			(0.54)
NI*Lev			2.49
			(0.33)
Lev			-1.04
			(-0.86)
Adjusted R^2	0.36	0.50	0.55
Sample size	65	65	65
F-value	8.41***	10.13***	6.95***

[a] The sample consists of 65 firms from Hong Kong (18), Korea (9), Malaysia (14), Taiwan (12), and Thailand (12).
[b] Ret is the raw 12-month stock returns for the fiscal year 1999, NI is net income from the 1999 fiscal year-end divided by the market value of equity from the beginning of the 1999 fiscal year-end, Gov is a CLSA governance score that measures the firm's corporate governance quality, Size is the natural log of the market value of equity in U.S. dollars from the beginning of the 1999 fiscal year, Q is the market value of equity plus the book value of liabilities divided by book value of total assets at the beginning of the 1999 fiscal year, and Lev is the total liability divided by total assets at the beginning of the 1999 fiscal year. F.E. represents dummy variables (results not reported) controlling for the fixed effects of the countries in the sample. OLS parameter coefficients and t-statistics (in parentheses) are reported.
[c] Model specification: $Ret_i = \alpha_0 + \alpha_1 NI_i + (F.E.) + \varepsilon_i$
[d] Model specification: $Ret_i = \alpha_0 + \alpha_1 NI_i + \alpha_2 Gov_i + \alpha_3 NI_i*Gov_i + (F.E.) + \varepsilon_i$
[e] Model specification: $Ret_i = \alpha_0 + \alpha_1 NI_i + \alpha_2 Gov_i + \alpha_3 NI_i*Gov_i + \alpha_2 Size_i + \alpha_3 NI_i*Size_i + \alpha_2 Q_i + \alpha_3 NI_i*Q_i + \alpha_2 Lev_i + \alpha_3 NI_i*Lev_i + (F.E.) + \varepsilon_i$
***, ** significant at the 1% and 5% levels, respectively.