Earnings Management, Tax Compliance, and Institutional Factors: A Discussion of Haw et al [2004]

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1. Introduction

Haw, Hu, Hwang, and Wu [2004] (hereafter, H_3W) examine the association between earnings management (as captured by absolute total discretionary accruals scaled by total assets), the separation of insiders' cash-flow and ownership rights, and institutional factors that affect both earnings management and control rights. Their study extends the literature on institutional determinants of earnings management by examining the interaction between country-level institutional factors and firm-level ownership characteristics. The authors particularly highlight their empirical finding that, relative to other institutional factors, high tax compliance appears to have the greatest impact on reducing earnings management. The authors therefore suggest that policy efforts to reduce insiders' private control benefits and earnings management activities may be best focused on tax enforcement reforms.

Given the potentially important policy implications of H_3W, my discussion and associated empirical tests focus on the validity of their earnings management proxy and on their claims of a causal link between tax compliance and earnings management. These two issues were major discussion points during the conference session. My empirical analysis suggests that

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one must exercise caution in interpreting H_3W's results. First, I find that their earnings management proxy exhibits no meaningful association with previously validated country-level measures of earnings management and accounting quality. Their earnings management proxy also exhibits contradictory correlations with the economic factors that H_3W use to motivate their empirical analysis. Second, I present empirical tests that suggest that tax compliance is endogenously determined with earnings management and, therefore, simple OLS regressions using these variables are misspecified. Finally, I recast H_3W's public policy arguments and suggest a reverse-causal link between tax compliance and earnings management. Specifically, I argue that better investor protection laws and accounting standards can mitigate earnings management and, as a side benefit, potentially increase tax compliance. My empirical results are generally consistent with this prediction.

Other issues raised during the conference included the distinction between tax compliance and tax enforcement, questions about of the relation between earnings management and private control benefits, and concerns that absolute discretionary accruals scaled by total assets captures correlated risk and other factors. The following discussion and descriptive empirical analysis provide insights into these and other questions raised at the conference. The remainder of my discussion is organized as follows. Section 2 examines the empirical properties of the H_3W earnings management proxy. In section 3, I present empirical tests that account for the endogenous determination of tax compliance and earnings management. I also present evidence consistent with the idea that lower earnings management "leads to" greater tax compliance. Section 4 summarizes the implications of my tests and presents suggestions for possible future research.

2. Empirical Validity of the Earnings Management Proxy

2.1 DOES |*DACC*| CAPTURE EARNINGS MANAGEMENT?

H_3W use absolute discretionary accruals scaled by total assets as a proxy for earnings management (defined by the authors as |*DACC*|). They adapt a version of the Jones [1991] discretionary accruals model to estimate abnormal accruals in an across-country setting. H_3W provide a detailed description of the apparent advantages of their empirical measure. Moreover, the authors are careful to address several common concerns about the limitations of discretionary accruals models.

However, |*DACC*| has residual problems. First, while discretionary accruals models control for firm and industry characteristics, they fail to identify a benchmark for the underlying "economic income" that is being managed. Leuz, Nanda, and Wysocki [2003] (hereafter, LNW) suggest a possible solution to this problem. LNW use absolute working capital accruals as a measure of earnings management and then scale this measure by absolute cash flow from operations. This scaling factor not only controls for differences in firm size and performance, but it provides a direct benchmark for the absolute magnitude of "economic income." The LNW proxy also can be viewed as a measure of earnings quality that uses closeness-to-cash as a benchmark. Conference participants also noted that the absolute value of accruals likely captures firm risk. Deflating absolute accruals by absolute cash flows can control for this underlying risk in a firm's economic (cash) flows. However, the H_3W earnings management proxy does not address any of these issues.

Second, in contrast to LNW, H_3W calculate absolute accruals using total accruals including depreciation. It is questionable whether depreciation should be included in such an earnings management proxy because period-to-period depreciation manipulation is generally difficult, if not totally transparent. In addition, accounting depreciation rules vary across countries and firms for reasons unrelated to earnings management and this variation may be correlated with institutional factors and ownership patterns.

Finally, H_3W scale their accruals measure by total assets. This scaling choice is particularly troublesome given across-country differences in asset recognition rules and choices. In fact, H_3W's reported regressions suggest a strong mechanical negative correlation between |*DACC*| and the natural logarithm of total assets. While H_3W use the natural logarithm of total assets as a control in their regressions, there is likely to be residual asset effect that corrupts their empirical tests.

While the aforementioned critiques are important, it is ultimately an empirical matter whether H_3W's earnings management proxy captures earnings management activity. Therefore, I present several diagnostic checks of the H_3W earnings management proxy. A nice feature of country-level accounting and finance studies is that they often tabulate their raw data. H_3W report the country-level averages of |*DACC*| for the 22 countries in their sample. I compare average |*DACC*| with other country-level earnings management and accounting quality measures validated in previous research studies. Specifically, I examine the correlations between average |*DACC*| and (1) the earnings management measures in LNW [2003], (2) the accounting standards/disclosure index reported in La Porta et al. [1998], and (3) the filing disclosure index reported in La Porta et al. [2003].

LNW [2003] tabulate four different measures of earnings management and then combine these measures into an aggregate earnings management score for each of the 31 countries in their sample. Their four earnings management measures are: (i) the standard deviation of operating income scaled by the standard deviation of cash flow from operations to capture earnings smoothing, (ii) the correlation between accruals and operating cash flows, (iii) the magnitude of working capital accruals scaled by absolute cash flow from operations, and (iv) the prevalence of small loss avoidance. In section 2.2, I show that the LNW proxies are empirically valid earnings management benchmarks.

Table 1 presents the correlations between the various earnings management and accounting quality proxies. The first row of column (3) shows the country-level correlation between the H_3W proxy (|*DACC*|) and the LNW aggregate earnings management score. There is essentially no correlation between average country-level |*DACC*| and the LNW aggregate earnings management score. This lack of correlation may result from the fact that |*DACC*| captures only a single dimension of earnings management, whereas the aggregate earnings management score captures several earnings management activities. Therefore, I also examine the correlation between |*DACC*| and the LNW measure of absolute working capital accruals scaled by absolute cash flow from operations. Again, row two of column (3) of Table 1 shows no significant correlation between |*DACC*| and the LNW absolute accruals measure.

Next, I examine the relation between average country-level |*DACC*| and other measures of accounting and disclosure quality that are predicted to be associated with earnings management activity. In particular, I use the accounting standards measure reported by La Porta et al. [1998]. This country-level variable, labeled *Accounting Standards*, measures the inclusion or omission of 90 items from the annuals reports of companies in each country. This is a widely-used measure and has been validated in previous studies. Regardless if one interprets this measure as capturing mandated accounting standards or firms' average discretionary accounting quality, one should expect it to be negatively related to earnings management. In column (3) of

Table 1, we again observe no significant correlation between country-level |*DACC*| and the *Accounting Standards* variable.

The next test of the |*DACC*| proxy examines its correlation with a newly created disclosure quality index. *Filing Disclosure* captures the security filing disclosure quality across countries and is tabulated by La Porta et al. [2003]. The new index measures the level of mandated stock exchange disclosure filing requirements for each country. The relevant filing requirements include the issuance of a prospectus as well as disclosures on insiders' compensation, shareholder stakes, insider ownership, irregular contracts and related-party transactions. This new disclosure index can be seen as an out-of-sample benchmark for other earnings management and disclosure quality proxies. In Column (3) of Table 1, we observe a contradictory positive correlation between |*DACC*| and *Filing Disclosure.* This correlation is opposite to the expected negative association between earnings management and disclosure quality. However, this positive correlation is not statistically significant. In summary, the H_3W earnings management proxy shows little association with traditional measures of earnings management and disclosure quality.

2.2 VALIDATING THE LNW EARNINGS MANAGEMENT BENCHMARKS

One potential critique of the benchmarking exercise presented in section 2.1 is that it assumes that previously constructed proxies are appropriate empirical benchmarks for earnings management. In this sub-section, I briefly summarize the properties of the LNW earnings management proxies and confirm their validity as empirical benchmarks.

If earnings management leads to lower quality accounting numbers, then one should expect a negative correlation between an earnings management proxy and other measures of accounting qu

ality. As shown in row three of Table 1, the LNW earnings management proxies exhibit statistically significant negative correlations of -0.67 and -0.58, respectively, with the *Accounting Standards* measure tabulated by La Porta et al [1998]. Furthermore, row four of Table 1 shows that the LNW proxies also exhibit statistically significant negative correlations of -0.42 and -0.46, respectively, with the *Filing Disclosure* measure tabulated by La Porta et al [2003].

LNW [2003] also provide direct evidence on the association between their earnings management proxies and insiders' private control benefits. LNW regress their aggregate earnings management proxy on the Dyck and Zingales [2004] private control benefits measure. LNW estimate a 2SLS regression using outside investor rights and legal enforcement as instruments and find a significant positive association between private control benefits and their aggregate earnings management proxy. In row 5 of Table 1, I present a similar analysis using simple correlations. Again, the LNW aggregate earnings management score and their absolute working capital accruals variable both show a positive and statistically significant correlation with the Dyck and Zingales [2004] private control benefits measure.

Finally, I compare the LNW earnings management measures with three recently tabulated out-of-sample measures of public and private enforcement mechanisms that can mitigate earnings management. The first enforcement mechanism, labeled *Sue Auditor*, measures the ability of outsiders to recover losses from the firm's auditor in a civil liability case for misleading audited financial information accompanying a prospectus (La Porta et al., 2003). As shown in row 6 of Table 1, the correlations between the LNW measures and the *Sue Auditor* variable are negative and statistically significant. The second enforcement mechanism, labeled *Private Enforcement*, is the mean of a disclosure index and an index of procedural burden of proof in filing civil cases for financial fraud (La Porta et al., 2003). Row 7 of Table 1 again shows statistically significant negative correlations between the LNW earnings management measures and *Private Enforcement*. The final enforcement mechanism, labeled *Public Enforcement*, is the mean of indices of securities supervisors' characteristics, investigative powers, procedural orders, and the sanctions applicable in criminal cases of financial fraud (La Porta et al., 2003). Row 8 of Table 1 confirms again that the LNW measures have significant negative correlations with *Public Enforcement*.

2.3 IS |*DACC*| RELATED TO PRIVATE CONTROL BENEFITS AND OTHER INSTITUTIONAL FACTORS?

H_3W motivate their analysis by theoretically linking their earnings management proxy to insiders' incentives to hide their private control benefits. If such a relation can be documented, then it would bolster the validity of their earnings management proxy. As a measure of private control benefits, I again use the country-level (median) block premium paid for control in corporate control contests (Dyck and Zingales, 2004). However, the empirical results in column (3), row 5 of Table 1 indicate that the correlation between country-level |*DACC*| and private control benefits is statistically insignificant.

Finally, I compare |*DACC*| with the three out-of-sample measures of public and private enforcement mechanisms that can mitigate earnings management. As noted in section 2.2, these enforcement measures exhibit the expected significant negative association with the LNW earnings management proxies. As shown in column (3), row 6 of Table 1, the correlation between country-level |*DACC*| and *Sue Auditor* is zero. Column (3), row 7 of Table 1 shows a contradictory positive correlation between country-level |*DACC*| and *Private Enforcement*. Lastly, row 8, column (3) of Table 1 again shows a contradictory and statistically-significant positive correlation between country-level |*DACC*| and *Public Enforcement*.

In sum, the H_3W earnings management proxy displays either nonexistent or contradictory country-level correlations with important economic factors that are fundamental to the story in their paper. These undesirable properties raise fundamental questions about the validity of absolute discretionary total accruals scaled by total assets as a proxy for earnings management.

3. What is the Link Between Earnings Management and Tax Compliance?

H_3W examine the association between earnings management and tax compliance without considering the possible endogeneity of tax compliance. In this section, I empirically evaluate the endogenous determination of tax compliance and earnings management. I then present an alternate interpretation of the association between tax compliance and earnings management. In particular, I suggest that better investor protection laws and accounting standards can mitigate earnings management and hiding incentives and thereby increase tax compliance.

3.1 OLS REGRESSIONS OF DETERMINANTS OF EARNINGS MANAGEMENT AND TAX COMPLIANCE

A key finding of H_3W is the apparent negative association between their earnings management proxy and tax compliance. However, an important question raised by the conference participants is whether the tax compliance proxy captures enforcement by tax authorities or if it simply reflects firms' endogenous tax compliance practices when faced with other incentives and institutional factors?

I provide additional insights into this question by presenting country-level regressions of the determinants of both earnings management and tax compliance. Table 2 tabulates the 28 country observations of the regression variables. *Earnings Management* is the country aggregate earnings management score based on firm-level tabulations of four earnings management measures from LNW [2003]. *Tax Compliance* is a measure of the extent of tax compliance in each country from the 2000 IMD World Competitiveness Yearbook. *Corruption* is the corruption perception index from the Transparency International 2000 survey. *Corporate Tax Rate* is the average corporate tax rate on profits from the 2000 IMD World Competitiveness Yearbook. *Accounting Standards* measures the inclusion or omission of 90 items from the annuals reports of companies in each country from La Porta et al. [1998]. *Outside Investor Rights* is the anti-director rights index created by La Porta et al. [1998].[1]

In Table 3, I first estimate an OLS regression of the country-level determinants of earnings management. The simple OLS regression results in column [1] show that *Earnings Management* is significantly deceasing in both *Investor Protection* and *Accounting Standards*. However, and somewhat surprisingly, *Earnings Management* appears to be increasing in *Tax Compliance*.[2] A possible explanation for this result is the regression model estimated in column [1] is misspecified because the *Tax Compliance* variable (much like the H_3W tax compliance variable) is endogenously determined.

To test for the possible determinants of tax compliance, I regress *Tax Compliance* on *Earnings Management*, *Corporate Tax Rate*, and *Corruption*. It is predicted that greater corruption in an economy will lead to less tax compliance. Similarly, other things equal, higher

[1] Leuz, Nanda and Wysocki (2003) tabulate earnings management scores for 31 countries. My sample includes only 28 countries because observations for *Accounting Standards*, *Tax Compliance* or *Corporate Tax Rate* are not available for Ireland, Indonesia, and Pakistan.
[2] It should be noted that the simple correlation between *Earnings Management* and *Tax Compliance* is -0.19.

marginal corporate tax rates increase the expected net benefit of tax evasion. Finally, insider hiding activities through earnings management is expected to decrease tax compliance. However, one must be cautious in interpreting the effect of earnings management because it is an endogenous outcome of other factors. The simple OLS regression results for tax compliance are reported in column [2] of Table 3. As expected, there is a statistically significant and decreasing relation between *Tax Compliance* and both *Corruption* and *Corporate Tax Rate*. However, subject to the aforementioned caveats, there is no apparent association between *Tax Compliance* and *Earnings Management* in this simple OLS specification.

3.2 Simultaneous Estimation of Earnings Management and Tax Compliance

Given the possible simultaneous determination of earnings management and tax compliance, I estimate the determinants of both earnings management and tax compliance using 2SLS regressions. The 2SLS regressions use *Corporate Tax Rate* and *Corruption* as instruments variables in regression [3] in Table 3 and *Investor Protection* and *Accounting Standards* as instruments in regression [4] in Table 3. The regression results reveal several interesting outcomes. Consistent with the OLS regressions, *Investor Protection* and *Accounting Standards* are statistically robust determinants of *Earnings Management*. However, *Earnings Management* no longer exhibits the spurious positive correlation with the endogenous *Tax Compliance* variable in the 2SLS regression. Endogenous *Tax Compliance* does not appear to be an important determinant of *Earnings Management*.

In the 2SLS *Tax Compliance* regression in column [4], *Corruption* remains a statistically significant factor. *Corporate Tax Rate* also comes in with the expected sign, but it is not significant.[3] However, the instrumented *Earnings Management* variable is now statistically significant with the predicted sign. This finding suggests that lower levels of earnings management (as influenced by stronger investor protection laws and accounting standards) may provide the positive externality of higher tax compliance. In other words, if insiders have limited incentives and ability to engage in earnings management to hide expropriations from outside investors, this can also mitigate hiding activities and wealth transfers from government tax authorities.

4. Conclusion

Haw, Hu, Hwang, and Wu [2004] extend the literature on the institutional determinants of earnings management by examining the interaction between country-level institutional factors and firm-level measures of the separation of insiders' cash-flow and ownership rights. Their empirical results are both potentially new and interesting. However, my empirical analysis suggests that one must exercise great care in interpreting their results.

First, H3W's single proxy for earnings management appears to have limited empirical validity because it exhibits no association with previously validated earnings management and accounting quality measures. In addition, the H_3W proxy is not associated with measures of private control benefits and it exhibits contradictory correlations with other important economic factors. Second, my results raise questions about H_3W's claim that tax compliance is a primary determinant of earnings management. I present evidence that suggests that tax compliance is an endogenous outcome of other institutional factors. Using a simultaneous equations framework, I show that lower earnings management (as influenced by strong investor protection and higher

[3] It should be noted that the *Tax Compliance* proxy reflects both corporate and individual tax compliance. Therefore, individual tax rates may also be a relevant (and a possibly correlated) determinant of overall tax compliance within a country.

quality accounting standards) can lead to greater tax compliance. This finding suggests that better legal protection of outside investors and stronger accounting rules may reduce insiders' incentives and ability to divert funds from both outside investors and tax authorities.[4] On the other hand, after controlling for the determinants of tax compliance, it is not a significant determinant of earnings management.

My characterization of the association between tax compliance, earnings management, and expropriation is the mirror image of the argument presented by H_3W and Dyck and Zingales [2004]. The recent accounting scandals in the U.S. lend some credence to my view that tax authorities are often late comers in uncovering earnings management and related expropriations. While many of the high profile corporate scandals revealed extensive tax evasion, these evasions were only detected well after the financial accounting manipulations were discovered. Therefore, it is questionable whether the blunt policy instrument of greater tax enforcement can provide an efficient and effective deterrent for, or an early warning indicator of, insiders' expropriation and hiding from outside investors. At the very least my findings on the endogenous determination of tax compliance raise important questions about the claim that tax compliance (tax enforcement) is a dominant institutional factor affecting the level of earnings management.

Prior research on the incentives for high quality accounting and disclosures has generally focused on cost of capital benefits (see, for example, Leuz and Verrecchia, 2000). The empirical analysis in this discussion suggest other possible social benefits to high quality financial reports including lower tax evasion. This suggests that public and private investments to improve

[4] The objectives of outside investors and tax authorities are not perfectly aligned (i.e., shareholders have the incentives to minimize expected tax payments). However outside investors and tax authorities have aligned interests in limiting insiders' expropriation and hiding activities from outside stakeholders including investors and tax authorities.

corporate governance and financial reporting may reduce insiders' incentives and ability to hide from *all* outside stakeholders and generate the positive externality of greater tax compliance.

The findings of Haw, Hu, Hwang, and Wu [2004] and the empirical analysis in this discussion highlight other unanswered questions on the relation between earnings management, public and private enforcement mechanisms, tax compliance, and the broader benefits of improved financial reporting. For example, does the provision of both audit services and tax advisory services by accounting firms impact earnings management? How do differences in international financial and tax reporting rules reinforce or mitigate earnings management incentives? Answers to these questions are left for future research.

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TABLE 1

Pearson Correlations between Country-level Measures of Earnings Management and other Institutional Factors

Institutional Variable	Predicted Sign	(1) Aggregate EM Score (LNW 2003) #	(2) |WC Acc|/|CFO| (LNW 2003) #	(3) |DAcc| (HHHW, 2004) ^
Earnings Management				
Aggregate EM Score (LNW 2003)	+		0.80 *	0.11
|WC Acc|/|CFO| (LNW 2003)	+	0.80 *		0.18
Disclosure Quality				
Accounting Standards (LLSV 1998)	-	-0.67 *	-0.58 *	-0.10
Filing Disclosure (LLS 2003)	-	-0.42 *	-0.46 *	0.21
Private Control Benefits				
Block Premium (DZ 2004)	+	0.62 *	0.65 *	0.18
"New" Enforcement Measures				
Sue Auditor (LLS 2003)	-	-0.42 *	-0.59 *	0.00
Private Enforce (LLS 2003)	-	-0.48 *	-0.60 *	0.24
Public Enforce (LLS 2003)	-	-0.39 *	-0.27 *	0.57 *

* indicates significant correlation at the 5% or better level. # indicates correlations based on 31 country observations, or 28 country observations for *Accounting Standards*. ^ indicates correlations based on 22 country observations.

|DACC| is the country mean of the absolute value of discretionary accruals scaled by total assets from Haw, Hu, Hwang, and Wu [2004]. *Aggregate EM Score* is the aggregate earnings management score tabulated from four earnings management measures from Leuz, Nanda, and Wysocki [2003]. *|WC Acc|/|CFO|* is absolute working capital accruals scaled by absolute cash flow from operations from Leuz, Nanda, and Wysocki [2003]. *Accounting Standards* measures the inclusion or omission of 90 items from the annuals reports of companies in each country from La Porta et al. [1998]. *Filing Disclosure* captures mandated stock exchange disclosure filing requirements for each country from La Porta et al. [2003]. *Block Premium* is the median country-level block premium paid for control in corporate control contests from Dyck and Zingales [2004]. *Sue Auditor* measures the ability of outsiders to recover losses from the firm's auditor in a civil liability case for misleading audited financial information accompanying a prospectus from La Porta et al., [2003]. *Private Enforcement* is the mean of a disclosure index and an index of procedural burden of proof in filing civil cases for financial fraud from La Porta et al. [2003]. *Public Enforcement* is the mean of indices of securities supervisors' characteristics, investigative powers, procedural orders, and the sanctions applicable in criminal financial fraud cases from La Porta et al. [2003].

TABLE 2

Country-level Measures of Earnings Management, Tax Compliance, and Other Institutional Factors

Country	Earnings Management	Tax Compliance	Corruption	Corporate Tax Rate	“Accounting Standards”	Outside Investor Rights
Australia	4.8	5.56	1.7	36%	75	4
Austria	28.3	5.73	2.3	34%	54	2
Belgium	19.5	2.43	3.9	40.2%	61	0
Canada	5.3	6.49	0.8	44.6%	74	5
Denmark	16	3.70	0.2	32%	62	2
Finland	12	5.64	0	28%	77	3
France	13.5	3.86	3.3	40%	69	3
Germany	21.5	4.78	2.4	53%	62	1
Greece	28.3	2.74	5.1	40%	55	2
Hong Kong	19.5	7.08	2.3	16%	69	5
India	19.1	2.36	7.2	35%	57	5
Italy	24.8	2.87	5.4	37%	62	1
Japan	20.5	6.06	3.6	34.5%	65	4
Korea (South)	26.8	3.66	6.0	28%	62	2
Malaysia	14.8	4.34	5.2	28%	76	4
Netherlands	16.5	5.11	1.1	35%	64	2
Norway	5.8	5.66	0.9	28%	74	4
Philippines	8.8	2.35	7.2	33%	65	3
Portugal	25.1	2.82	3.6	37.4%	36	3
Singapore	21.6	8.56	0.9	26%	78	4
South Africa	5.6	3.70	5.0	35%	70	5
Spain	18.6	5.09	3.0	35%	64	4
Sweden	6.8	4.16	0.6	28%	83	3
Switzerland	22	6.84	1.4	31%	68	2
Taiwan	22.5	4.57	4.5	25%	65	3
Thailand	18.3	3.52	6.8	30%	64	2

United Kingdom	7	6.58	1.3	31%	78	5
United States	2	6.55	2.2	40%	71	5

Table 2 presents the country-level earnings management, tax compliance and institutional characteristics for 28 countries with complete data for each of the variables. *Earnings Management* is the aggregate earnings management score for each country based on firm-level tabulations of four earnings management measures from Leuz, Nanda and Wysocki [2003]. *Tax Compliance* is a survey measure of the extent of tax compliance (evasion) in each country from the 2000 IMD World Competitiveness Yearbook. *Corruption* is the corruption perception index from the Transparency International 2000 survey (to simplify the interpretation of this measures, it is computed as 10 minus the reported survey value). *Corporate Tax Rate* is the average corporate tax rate on profit (as a percentage of profit before tax) from the 2000 IMD World Competitiveness Yearbook. *"Accounting Standards"* measures the inclusion or omission of 90 items from the annuals reports of companies in each country from La Porta et al. [1998]. *Outside Investor Rights* is the anti-director rights index created by La Porta et al. [1998].

TABLE 3

Determinants of Earnings Management and Tax Compliance (OLS and 2SLS)

	Predicted Sign	Stand Alone Equations: Earnings Management [1] (OLS)	Stand Alone Equations: Tax Compliance [2] (OLS)	Simultaneous Equations: Earnings Management [3] (2SLS)	Simultaneous Equations: Tax Compliance [4] (2SLS)
Intercept		53.33**	8.28**	51.48**	9.52**
		(2.22)	(6.61)	(6.63)	(6.38)
Tax Compliance	-	1.64*		0.07	
		(2.23)		(0.06)	
Investor Protection	-	-2.53**		-2.02*	
		(-3.16)		(-2.19)	
Accounting Standards	-	-0.56**		-0.44**	
		(-4.42)		(-2.88)	
Earnings Management	-		-0.001		-0.09*
			(-0.04)		(-1.90)
Corporate Tax Rate	-		-5.74*		-6.23
			(-1.73)		(-1.64)
Corruption	-		-0.50**		-0.40**
			(-4.50)		(-3.05)
# Obs		28	28	28	28
Adj. R^2		57.9%	46.7%	50.0%	29.9%

t-statistics are in parentheses. * and ** indicate significance for signed tests at the 5% and 1% levels, respectively.

This table presents regression estimates of the determinants of average country-level *Earnings Management* and *Tax Compliance* across 28 countries. Regressions [1] and [2] are estimated using ordinary least squares (OLS). Regressions [3] and [4] are estimated using two-stage least squares (2SLS) where *Corporate Tax Rate* and *Corruption* are used as additional instrumental variables in regression [3] and *Investor Protection* and *Accounting Standards* are used as additional instrumental variables in regression [4]. *Earnings Management* is the country aggregate earnings management score based on firm-level tabulations of four earnings management measures from Leuz, Nanda, and Wysocki [2003]. *Tax Compliance* is a measure of the extent of tax compliance in each country from the 2000 IMD World Competitiveness Yearbook. *Corruption* is the corruption perception index from the Transparency International 2000 survey (to simplify the interpretation of this measures, it is computed as 10 minus the reported survey value). *Corporate Tax Rate* is the average corporate tax rate on profits from the 2000 IMD World Competitiveness Yearbook. *Accounting Standards* measures the inclusion or omission of 90 items from the annuals reports of companies in each country from La Porta et al. [1998]. *Outside Investor Rights* is the anti-director rights index created by La Porta et al. [1998].