

# DOES MANAGERIAL ENTRENCHMENT AFFECT AUDIT REPORT LAG?

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## Abstract

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We examine the association between audit report lag (ARL) and managerial entrenchment using data spanning 2008-2016. We use regression analysis and data obtained from publicly available sources to construct our sample consisting of 5,155 firm-year observations and 807 unique firms to investigate whether the behavior of entrenched managers influences the time it takes auditors to complete an audit. The length of the annual audit is the most critical determinant of the timeliness and relevance of the financial reports. Our proxy for managerial entrenchment is the entrenchment index (EINDEX) as constructed by Bebchuk, Cohen, and Farrell (2009). We find a negative relation between audit report lag and the entrenchment index. We stratify the entrenchment provisions in line with existing literature and find a negative association between the provisions that restrict shareholder rights and the provisions that discourage hostile takeovers. Overall, our findings suggest that management entrenchment curtails managerial opportunism and reduces the auditors' efforts, and the time auditors spend to complete the audit.

**Keywords:** Entrenchment Provisions, Entrenchment Index, Managerial Entrenchment, Managerial Opportunism, Audit Report Lag

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## 1. INTRODUCTION

Regulators, investors, and standard setters are among those that have expressed concern about the timeliness of financial information. Financial information loses its relevance to users when delayed (Atiase, Bamber, & Tse, 1989; Owusu-Ansah & Leventis, 2006). Leventis, Weetman, and Caramanis (2005) argue a positive relation between the timeliness of financial reporting and investor confidence in decision-making. Bryan and Mason (2020) find a negative relation between the volatility of earnings and audit report lag (ARL). The stock market appears to respond negatively to late Securities and Exchange Commission (SEC) filings (Bartov & Konchitchki, 2017; Li & Ramesh, 2009). Knechel and Sharma (2012) suggest that the most

critical determinant of timely financial reporting is the length of the annual audit measured by the audit report lag.

Audit report lag is the period between a firm's fiscal year-end date and the date the audit report is signed (Bryan & Mason, 2020; Blankley, Hurtt, & MacGregor, 2014; Ashton, Willingham, & Elliott, 1987). Abbott, Parker, and Peters (2012) find that firms with material weaknesses in internal controls and firms that are more likely to restate their financial statements have longer audit report lags. The literature reflects a positive relation between corporate governance mechanisms and managerial behavior. However, researchers are divided over the impact of management entrenchment on managerial behavior and firm performance. Whereas some studies find that management entrenchment

encourages managerial opportunism (including but not limited to the manipulation of earnings) and adversely impacts firm performance, others find that management entrenchment curtails managerial opportunism, enhances firm performance, and improves shareholder value. Thus, the relation between the behavior of entrenched managers and the time it takes an auditor to ensure that the financial statements are reasonably free of material misstatements is an important empirical question that this study investigates.

Therefore, we examine the association between management entrenchment and audit report lag. We contend that if management entrenchment curtails managerial indiscipline and opportunism due to enhanced job security, management entrenchment should reduce audit report lag. However, if management entrenchment engenders managerial indiscipline and empowers managers to take self-serving actions, we should find that management entrenchment culminates in longer audit report lag. Our proxy for management entrenchment is the entrenchment index (EINDEX), as constructed by Bebchuk, Cohen, and Ferrell (2009). They used six entrenchment provisions to construct the entrenchment index. The provisions are: 1) staggered board, 2) limits to amending the bylaws, 3) limits to amending the charter, 4) supermajority requirements for mergers, 5) poison pills, and 6) golden parachutes. The first four provisions limit the shareholders' ability to enforce their will on management, and the last two provisions (poison pills and golden parachute) discourage hostile takeover bids. We find a significant negative relation between management entrenchment and audit report lag. Based on the classification of the six provisions noted above, we construct two indices to examine their impact on audit report lag. We find a negative and significant association between the provisions that limit shareholder rights and audit report lag.

Al Dah, Michael, and Dixon (2017) classified the six entrenchment provisions into those that provide monetary benefits in the event of a change in corporate control comprising golden parachutes, poison pills, and staggered boards, and those that do not, comprising the supermajority requirement to amend the corporate bylaws, the supermajority requirement to amend the charter, and the supermajority requirement for mergers. We find a negative relation between the provisions that provide monetary benefits to managers in the event of a change in corporate control and audit report lag. We also find a negative relation between the provisions that provide non-monetary benefits to managers and audit report lag.

We contribute to the debate on the effect of management entrenchment on managerial behavior, firm performance, audit risks, and timeliness of financial information. We provide empirical evidence to support the relation between management entrenchment and audit report lag. Our study should be of interest to researchers, regulators, market participants, auditors, and policymakers who continue to explore ways to enhance investor confidence in the capital markets and shareholders' wealth.

We organize the remainder of the study as follows. Section 2 provides the literature review and develops our hypothesis. In Section 3, we discuss

our methodology and research design. In Section 4, we provide empirical analyses. In Section 5, we discuss the results, and in Section 6, we conclude the study.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Auditors have a fiduciary duty to their stakeholders to provide reliable information for purposes of decision-making. Auditors thus design procedures to obtain and evaluate evidence on the firms' financial statements to assure stakeholders that the financial statements are reasonably free of material misstatements. Auditors face significant audit risks in the discharge of their duties, as they may arrive at inaccurate opinions. For instance, the auditor may render an opinion that the financial statements are not materially misstated when, in fact, they are. The auditor's assessment of the level of risk determines the volume of evidence the auditor obtains, the timing of the audit test, and the nature of the evidence. Audit risk is a function of the inherent risk, the control risk, and the detection risk. Where the auditor identifies deficient internal controls, the auditor will conclude that there is a high risk that material misstatements will not be detected, and the auditor will increase the substantive tests of the transactions and accounts to mitigate the risk. The increased substantive tests often prolong the completion of the audit and thus increase the audit report lag.

Abernathy, Barnes, Stefaniak, and Weisbarth (2017) find that audit report lag determines the timeliness of financial information. Abernathy, Beyer, Masli, and Stefaniak (2015) find that audit committee members with accounting expertise enhance the timeliness of the financial reports. Based on a survey of 134 chief audit executives of Fortune 1000 firms, Abbott et al. (2012) find that highly leveraged firms, as well as firms that have material weaknesses in internal control and are prone to restate their financial statements, are more likely to have longer audit delays. Knechel and Payne (2001) find that audit report lag is likely to increase when the audit client has unsettled tax issues. Using a sample of 171 publicly listed firms on the Athens Stock Exchange as of December 31, 2000, Leventis et al. (2005) find that ARL is related to audit fees, the presence of extraordinary items, and the type of auditor. Using a sample of 465 firms from the Toronto Stock Exchange, Ashton, Graul, and Newton (1989) examine the factors that influence ARL. They find that the type of auditor, the firm's financial performance, and the existence of extraordinary items influence ARL. Sultana, Singh, and Van der Zahn (2015) examine the impact of corporate governance mechanisms on the timeliness of financial reporting. They find that the audit committee members' financial expertise and the independence of the audit committees culminate in the shortening of the ARL.

Bryan and Mason (2020) find a negative relation between the volatility of earnings and audit report lag. They document that auditors exert more effort when the earnings are less volatile. Bedard and Johnstone (2004) explore the relation between firms' earnings manipulations and auditors' risk assessment, pre-planning, and decisions. They use

data from 1,000 public accounting clients for one audit firm and find that auditors increase their effort and charge higher rates when they assess that their risk is high. Bedard and Johnstone (2004) note that auditors can increase their effort by increasing their planned hours. Using a sample of 119 audits for firms in the Netherlands, Schelleman and Knechel (2010) examine the relation between short-term accruals and the pricing and production of audit services. They find that earnings management practices increase audit risk, which leads to substantial increases in the auditor's total effort and fees. In addition to audit risks, auditors also face business risks. The auditors' business risk is the risk of being sued because they arrive at the wrong opinions. Henninger (2001) uses a matched sample to examine the relation between the auditors' level of litigation and the level of discretionary accruals. He finds that the level of litigation is significantly and positively associated with the level of discretionary accruals.

Studies on the impact of corporate governance mechanisms on managerial behavior, firm performance, and shareholder wealth using the entrenchment index constructed by Bebchuk et al. (2009) as a proxy for corporate governance remains inconclusive. Whereas one stream of research document that management entrenchment reduces managerial myopia and engenders managerial actions that enhance firm performance and shareholder wealth (Amoah, Bonaparte, Lamptey, & Kelly, 2020; Di Meo, Lara, & Surroca, 2017; Bhojraj, Sengupta, & Zhang, 2017), another stream suggest that management entrenchment weakens board oversight of the managers and engenders managerial indiscipline culminating in poor firm performance and a significant reduction in shareholder wealth (Chakraborty, Rzakhanov, & Sheikh, 2014; Bebchuk et al., 2009; Faleye, 2007).

Amoah et al. (2020) examine the relation between management entrenchment and stock option backdating. They find a negative association between management entrenchment and stock option backdating. Amoah et al. (2020) document that management entrenchment curtails the propensity for managerial opportunism. Di Meo et al. (2017) study the effect of managerial entrenchment on both accrual and real earnings management. They find a negative association between managerial entrenchment and accrual management. Di Meo et al. (2017) also find a negative association between managerial entrenchment and real earnings management. However, Hwang and Lee (2012) document that management entrenchment has the propensity to engender earnings management activities aimed at reducing the possibility of detecting managerial expropriations of shareholder wealth.

Bebchuk et al. (2009) constructed the entrenchment index using the following six entrenchment provisions: staggered board, limits to amending the bylaws, limits to amending the charter, supermajority requirements for mergers, poison pills, and golden parachutes. The first four provisions curtail the voting rights of the shareholders and thus limit the ability of the shareholders to enforce their will on management, whereas the last two provisions: poison pills and golden parachute, discourage hostile takeover of the firm. Staggered

boards are designed to ensure that all board members are not eligible for re-election or replacement annually, as the board members are placed into groups (often into three groups) with overlapping terms. Thus, acquiring firms have to wait for at least two consecutive years to assume control of the target firms, which may be frustrating to the potential acquirer.

A staggered board has the propensity to impact board oversight adversely and encourage the managers to engage in self-serving actions including (but not limited to) the opportunistic manipulation of earnings, as the board members depend on the managers for their re-election prospects. The supermajority provisions require that a supermajority of shareholders approve amendments of the corporate bylaws, the corporate charters, and corporate mergers. The supermajority provisions inhibit the ability of shareholders to alter previously accepted provisions. When a takeover is successful, a golden parachute provision essentially requires significant compensation to top executives without the approval of shareholders (Gompers, Ishii, & Metrick, 2003; Straska & Waller, 2014). This prohibitive compensation that the acquirer must pay to top management increases the cost of the takeover. Poison pills are exclusive rights that allow a common stockholder to purchase more shares of the target firm at a significant discount. Thus, poison pills make the target firm less attractive to the acquirer.

Given that, researchers are divided on the impact of management entrenchment on managerial behaviors, such as manipulating earnings to enhance reported income, we examine the relation between management entrenchment and audit report lag. We contend that if management entrenchment provides managerial job security, reduces managerial myopia, and mitigates managerial opportunism, we expect to find a negative relation between management entrenchment and audit report lag. However, if management entrenchment negatively influences managerial discipline and exacerbates managerial opportunism, we expect to find a positive relation between management entrenchment and audit report lag. Therefore, we state a non-directional null hypothesis as follows:

*H1: Ceteris paribus, there is no association between managerial entrenchment and audit report lag.*

### 3. METHODOLOGY AND RESEARCH DESIGN

#### 3.1. Data and sample description

Our sample consists of firm-years with managerial entrenchment provisions spanning the period of 2008-2016. We use the entrenchment provisions to construct the entrenchment index. We obtain our data from Institutional Shareholder Services (ISS), Audit Analytics, and Compustat databases. The ISS database provides researchers with corporate governance and company-related risks and opportunities data, while the Compustat database provides comprehensive data on fundamentals and financial information of publicly listed companies. The audit analytics database is the leading data source for all audit-related information. Therefore, these data sources provide authentic data for

accounting research. We extract data starting from 2008 to capture the effects of the global financial crisis. We begin constructing our sample by identifying 14,843 firm-years that meet our selection criteria from the ISS governance database. We exclude firm-years with missing SOX 404, Compustat, audit fee, non-audit fee, and segment data. We also exclude firms with excess audit report

lags due to revenue recognition and protracted legal issues, leading to their annual financial reports' restatements. Our final sample consists of 5,155 firm-year observations and 807 unique firms. We winsorized all continuous variables of our data at the top and bottom 1% to reduce the impact of outliers. We present a summary of our sample construction in Table 1 below.

**Table 1.** Sample construction

<i>Description</i>	<i>No. of firm-year observations</i>
Institutional shareholder governance data for firms with available data	14,843
Less firms-years with missing Compustat data	2,446
Less firms-years with missing SOX 404 data	5,175
Less firms-years with missing audit fee data	10
Less firms-years with missing non-audit fee data	262
Less firms-years with missing segment data	749
Less firms-years with missing utilities and financial data	1027
Less firms-years with excess ARL due to revenue recognition and protracted legal issues	19
Final sample	5,155

### 3.2. Sample distribution

Table 2, *Panels A, B, and C* present the distribution of our sample. *Panel A* shows the Fama-French 48 industry portfolio distribution. A total of 41 industries are represented in our sample. *Panel B*

shows the year distribution of the firms in our sample. There is a consistent increase in the number of firm-years from 2008 to 2016. *Panel C* shows the S&P index distribution. Our sample consists of about 39% large-cap firms, 26% mid-cap firms, and 35% small-cap firms.

**Table 2.** Fama-French 48 industry portfolio distribution (Panel A)

<i>Item</i>	<i>Description</i>	<i>Number of firm-years</i>	<i>Percentage of firms</i>
Food	Food products	158	3.06%
Soda	Candy & soda	12	0.23%
Beer	Beer & liquor	37	0.72%
Toys	Recreation	43	0.83%
Fun	Entertainment	54	1.05%
Hshld	Consumer goods	175	3.39%
Clths	Apparel	120	2.33%
Hlth	Healthcare	107	2.08%
MedEq	Medical equipment	180	3.49%
Drugs	Pharmaceutical products	225	4.36%
Chems	Chemicals	209	4.05%
Rubbr	Rubber and plastic products	55	1.07%
Txtls	Textiles	22	0.43%
BldMt	Construction materials	112	2.17%
Cnstr	Construction	22	0.43%
Steel	Steelworks, etc.	151	2.93%
FabP	Fabricated products	3	0.06%
Mach	Machinery	307	5.96%
ElcEq	Electrical equipment	94	1.82%
Autos	Automobiles and trucks	102	1.98%
Aero	Aircraft	42	0.81%
Ships	Railroad equipment	15	0.29%
Guns	Defense	31	0.60%
Gold	Precious metals	8	0.16%
Mines	Non-metallic and industrial metal mining	42	0.81%
Coal	Coal	14	0.27%
Oil	Petroleum and natural gas	259	5.02%
Telcm	Communication	81	1.57%
PerSv	Personal services	39	0.76%
BusSv	Business services	616	11.95%
Comps	Computers	215	4.17%
Chips	Electronic equipment	377	7.31%
LabEq	Measuring and control equipment	182	3.53%
Paper	Business supplies	105	2.04%
Boxes	Shipping containers	51	0.99%
Trans	Transportation	161	3.12%
Whsl	Wholesale	305	5.92%
Rtail	Retail	206	4.00%
Meals	Restaurants, hotels, motels	131	2.54%
REst	Real estate	14	0.27%
Other	Almost nothing	73	1.42%
Total		5155	100.00%

Table 2. Sample year distribution (Panel B)

Year	Firm-years observations	Percentage of firm-years
2008	478	9.27%
2009	488	9.47%
2010	528	10.24%
2011	556	10.79%
2012	579	11.23%
2013	607	11.77%
2014	609	11.81%
2015	637	12.36%
2016	673	13.06%
Total	5155	100.00%

Table 2. S&amp;P index distribution (Panel C)

Year	S&P 400	S&P 500	S&P 600
2008	126 (9.50%)	185 (9.23%)	167 (9.16%)
2009	125 (9.42%)	193 (9.63%)	170 (9.33%)
2010	138 (10.40%)	206 (10.27%)	184 (10.09%)
2011	143 (10.78%)	218 (10.87%)	195 (10.70%)
2012	149 (11.23%)	230 (11.47%)	200 (10.97%)
2013	151 (11.38%)	241 (12.02%)	215 (11.79%)
2014	153 (11.53%)	237 (11.82%)	219 (12.01%)
2015	168 (12.66%)	245 (12.22%)	224 (12.29%)
2016	174 (13.11%)	250 (12.47%)	249 (13.66%)
Total	1327 (25.74%)	2005 (38.89%)	1823 (35.36%)

### 3.3. Variable construction

Consistent with the literature, we measure ARL as the number of days between the end of a firm's fiscal year and the signature date of the audit report (Bryan & Mason, 2020; Blankley et al., 2014). We test our hypothesis using the ARL model modified from those used by Krishnan and Yang (2009) and Tanyi, Raghunandan, and Barua (2010), and our control variables are consistent with those used in the ARL literature.

Our main variable of interest is the entrenchment index (*EINDEX*). Consistent with Bebchuk et al. (2009), we construct the *EINDEX* as a categorical variable from the six entrenchment provisions. We assign a value of one to each of the entrenchment provisions adopted by a firm and zero otherwise. Thus, the *EINDEX* ranges from zero, where a firm does not adopt any entrenchment provision, to six, where a firm adopts all the six provisions.

### 3.4. Control variables

Our control variables are consistent with the audit report lag literature. These include Altman's *ZSCORE*, *TOBINQ*, *SIZE*, leverage (*LEV*), return on assets (*ROA*), auditor type (*BIG4*), material weakness

in internal control (*MCW*), the natural logarithm of the non-audit fee (*LNAFEE*), the natural logarithm of audit fees (*LAFEE*), business segments (*BUSSEG*), litigation (*LIT*), going concern opinion (*GC*), firms with December fiscal year-end (*DEC*), accelerated filers (*ACF*), large-accelerated filers (*LACF*), and auditor change (*AUDCH*). Consistent with the literature, we expect a positive association between *ARL* and *ZSCORE*, *LEV*, *MCW*, *BUSSEG*, and *LIT* (Roychowdhury, 2006; Knechel & Payne, 2001; DeFond & Jiambalvo 1994; DeAngelo, DeAngelo, & Skinner, 1994; Simunic, 1980).

We expect a negative association between *ARL* and *SIZE*, *ROA*, *BIG4*, *ACF*, *LACF*, *GC* (Bryan & Mason, 2020; Dao & Pham, 2014; Knechel & Sharma, 2012; Krishnan & Yang, 2009; Collins, Gong, & Li, 2009; Anderson & Bizjack, 2003; Simunic & Stein, 1996; Ashton et al., 1987; Simunic, 1980). The ARL literature is inconclusive on the relationship between *ARL* and *TOBINQ*, *LNAFEE*, *LAFEE*, *DEC*, and *AUDCH*. Therefore, we do not provide directional expectations between *ARL* and those variables.

We test our hypothesis by estimating the following regression model.

We have defined all the variables in our model and specified how we operationalize them in the Appendix.

$$\begin{aligned}
 ARLP365 = & \alpha + \beta_1 EINDEX + \beta_2 ZSCORE + \beta_3 TOBINQ + \beta_4 SIZE + \beta_5 LEV + \beta_6 ROA + \beta_7 BIG4 + \\
 & \beta_8 MCW + \beta_9 LNAFEE + \beta_{10} LAFEE + \beta_{11} BUSSEG + \beta_{12} LIT + \beta_{13} GC + \beta_{14} DEC + \beta_{15} ACF + \\
 & \beta_{16} LACF + \beta_{17} AUDCH + \beta_{18} INDUSTRY + \beta_K YEAR + \varepsilon
 \end{aligned} \quad (1)$$

## 4. EMPIRICAL ANALYSES

### 4.1. Descriptive statistics

Table 3 presents the descriptive statistics for our sample. The mean (median) ARL is 55 (56), which is consistent with those reported by Tanyi et al. (2010). The mean (median) *EINDEX* is 2 (2). Our sample shows the following means (medians). Altman's

Z-score (*ZSCORE*), *TOBINQ*, *SIZE*, *LEV*, *ROA* are 4.67 (3.70), 2.05 (1.70), 3.50 (3.45), 0.52 (0.52), 0.11 (0.10), respectively. Ninety-four percent of the firms in our sample are audited by *BIG4* auditing firms, whereas 29% are operating in industries that have high litigation risk. Only 2% report material control weaknesses, whereas 61% have *DEC 31* fiscal year-end. All firms in our sample are accelerated filers.

Table 3. Descriptive statistics

Variable	N	Mean	Std. dev.	Q1	Median	Q3	Minimum	Maximum
ARL	5155	54.87	8.37	51.00	56.00	59.00	20.00	99.00
ARLP365	5155	0.15	0.02	0.14	0.15	0.16	0.05	0.27
EINDEX	5155	1.93	1.47	1.00	2.00	2.00	0.00	6.00
ZSCORE	5155	4.67	5.11	2.47	3.70	5.33	-55.65	98.14
TOBINQ	5155	2.05	1.22	1.32	1.70	2.35	0.40	14.67
SIZE	5155	3.50	0.68	3.00	3.45	3.93	1.74	5.61
LEV	5155	0.52	0.22	0.39	0.52	0.64	0.03	3.63
ROA	5155	0.11	0.10	0.07	0.10	0.15	-2.76	0.78
BIG4	5155	0.94	0.23	1.00	1.00	1.00	0.00	1.00
MCW	5155	0.02	0.15	0.00	0.00	0.00	0.00	1.00
LNAFEE	5155	5.57	0.76	5.14	5.62	6.08	3.00	7.83
LAFEE	5155	6.42	0.43	6.11	6.40	6.70	4.85	7.82
BUSSEG	5155	0.19	0.39	0.00	0.00	0.00	0.00	1.00
LIT	5155	0.29	0.45	0.00	0.00	1.00	0.00	1.00
GC	5155	0.00	0.03	0.00	0.00	0.00	0.00	1.00
DEC	5155	0.61	0.49	0.00	1.00	1.00	0.00	1.00
ACF	5155	1.00	0.07	1.00	1.00	1.00	0.00	2.00
LACF	5155	0.90	0.30	1.00	1.00	1.00	0.00	2.00
AUDCH	5155	0.13	0.34	0.00	0.00	0.00	0.00	1.00

Notes: Table 3 provides the descriptive statistics for the variables in our model. See the Appendix for variable descriptions.

Table 4 shows the Pearson's correlation matrix for all the variables in our model. Apart from *ZSCORE* and *LIT*, *ARL* is significantly correlated with all the variables in our model. The correlation matrix also shows that four pairs of variables indicate univariate correlations greater than 0.50. These include *ZSCORE* and *TOBINQ*, *SIZE* and *LAFEE*, *SIZE* and *LNAFEE*, and *LAFEE* and *LNAFEE*. Because of these high correlations, we checked for the possibility of multicollinearity by estimating the variance inflation factor (*VIF*) for the variables in equation (1). The results show that *SIZE* and *LAFEE* have the highest *VIF*. Whereas *SIZE* has a *VIF* of 5.31, *LAFEE* has a *VIF* of 5.39. These high *VIFs* are comparatively lower than the critical value of 10 indicated in the literature, suggesting that there is no concern for multicollinearity.

## 5. RESULTS

### 5.1. Main results and discussions

Table 5 shows the results from estimating equation (1) used to test *H1*. The results show a negative and significant relation between *ARL* and *EINDEX*, with the model showing an *adjusted R<sup>2</sup>* of 31.30%. This suggests that auditors exert less effort and spend a shorter time completing the audit when the management of firms is entrenched. Consistent with our expectation, the results show that *ARL* is significantly and negatively associated with *TOBINQ*, *SIZE*, *BIG4*, *ACL*, and *LACF*. Additionally, our results show that *ARL* is significantly and positively associated with *MCW*, *LNAFEE*, *LAFEE*, *GC*, and *DEC*.

### 5.2. Additional analyses and robustness tests

Similar to Bebchuk et al. (2009), we bifurcate the entrenchment index into two categories. The first group consists of provisions that limit

shareholder power. These provisions include staggered boards, the supermajority requirement for mergers and acquisitions, amendments of the corporate charter, and amendments of the corporate bylaws. The literature suggests that these four provisions limit the ability of shareholders to enforce their will over management. Therefore, we create an index (*LSPOWER*) which is a categorical variable using these four provisions and examine the association between this *LSPOWER* and *ARL*. We examine this relationship by separately estimating equation (1) by replacing *EINDEX* with *LSPOWER* while maintaining all the control variables. We find a negative and significant association between *ARL* and *LSPOWER*. We find that *ARL* is significantly and negatively associated with *TOBINQ*, *SIZE*, *BIG4*, *ACF*, and *LACF*. We also find positive and significant associations between *ARL* and *MCW*, *LNAFEE*, *LAFEE*, *GC*, and *DEC*.

The second group consists of provisions that discourage hostile takeover of firms. These provisions include golden parachutes and poison pills. We create an index (*HOST*), which is a categorical variable using these two provisions. We examine whether *HOST* has any association with *ARL*. We find a negative and significant association between *HOST* and *ARL*. Similar to our prior results, we find that whereas *ARL* is significantly and negatively associated with *TOBINQ*, *SIZE*, *BIG4*, *ACF*, and *LACF*, *ARL* is significantly and positively associated with *MCW*, *LNAFEE*, *LAFEE*, *GC*, and *DEC*. Table 6 presents the results of these tests.

Table 4. Pearson's correlation coefficient matrix

	ARLP365	EINDEX	ZSCORE	TOBINQ	SIZE	LEV	ROA	BIG4	MCW	LNAFEE	LAFEE	BUSSEG	LIT	GC	DEC	ACF	LACF	AUDCH
ARLP365	1.00																	
EINDEX	0.06***	1.00																
ZSCORE	0.01	-0.01	1.00															
TOBINQ	-0.14***	-0.06***	0.56***	1.00														
SIZE	-0.42***	-0.20***	-0.27***	-0.14***	1.00													
LEV	-0.14***	-0.07***	-0.47***	-0.01	0.35***	1.00												
ROA	-0.10***	-0.05***	0.37***	0.47***	-0.01	-0.04***	1.00											
BIG4	-0.19***	0.05***	-0.14***	-0.05***	0.27***	0.17***	0.01	1.00										
MCW	0.16***	-0.01	-0.02	-0.02	-0.08***	0.00	-0.06***	-0.03**	1.00									
LNAFEE	-0.24***	-0.11***	-0.18***	-0.05***	0.62***	0.28***	0.03**	0.22***	-0.02*	1.00								
LAFEE	-0.34***	-0.16***	-0.29***	-0.16***	0.84***	0.38***	-0.04***	0.26***	-0.02*	0.68***	1.00							
BUSSEG	0.05***	-0.03**	0.01	0.01	-0.07***	0.02*	0.01	-0.03**	0.00	-0.09***	-0.17***	1.00						
LIT	-0.01	-0.07***	0.17***	0.26***	-0.04***	-0.12***	0.09***	-0.06***	0.02	-0.02	-0.09***	0.02	1.00					
GC	0.07***	0.00	-0.03*	-0.03**	-0.02	0.01	-0.05***	-0.02*	0.00	-0.01	-0.02*	0.00	-0.02	1.00				
DEC	0.06***	0.00	-0.10***	-0.03**	0.08***	0.09***	-0.10***	-0.03**	0.00	0.04***	0.10***	0.02	-0.22***	0.02	1.00			
ACF	-0.13***	0.01	0.01	0.05***	0.09***	0.05***	0.06***	0.18***	-0.01	0.07***	0.09***	-0.02	-0.02	0.00	-0.03**	1.00		
LACF	-0.29***	-0.06***	-0.04***	0.09***	0.36***	0.16***	0.11***	0.25***	-0.09***	0.25***	0.32***	-0.06***	-0.04***	-0.01	0.01	0.21***	1.00	
AUDCH	0.11***	0.09***	0.03**	-0.02	-0.21***	-0.08***	-0.06***	-0.07***	0.08***	-0.14***	-0.17***	0.02	-0.03**	-0.01	-0.01	-0.05***	-0.14***	1.00

Notes: Table 4 presents a Pearson's correlation matrix for our sample. We denote the statistical significance at 1%, 5%, and 10% as \*\*\*, \*\*, and \*, respectively. See the Appendix for variable descriptions.

Table 5. Regression results - EINDEX

DV = ARLP365			
Variable	Predicted sign	Coefficient	t-value
Intercept	?	0.20426***	27.14
EINDEX	?	-0.00064***	-3.25
ZSCORE	+	0.00003	0.4
TOBINQ	?	-0.00381***	-11.56
SIZE	-	-0.01925***	-21.46
LEV	+	0.00057	0.35
ROA	-	-0.00011	-0.03
BIG4	-	-0.00590***	-4.63
MCW	+	0.01808***	10.05
LNAFEE	?	0.00199***	3.99
LAFEE	?	0.00596***	4.22
BUSSEG	+	0.00062	0.87
LIT	+	0.00158	1.37
GC	+	0.04269***	4.46
DEC	?	0.00395***	6.3
ACF	-	-0.01528***	-3.76
LACF	-	-0.00651***	-6.3
AUDCH	?	-0.00020	-0.24
Industry fixed effects		YES	
Year fixed effects		YES	
Adjusted R <sup>2</sup>		0.3130	
F-statistic (p-value)		37.13 (< 0.0001)	
N		5155	

Notes: Table 5 presents the regression results of the EINDEX. We denote the statistical significance at 1%, 5%, and 10% as \*\*\*, \*\*, and \*, respectively. See the Appendix for variable descriptions.

Table 6. Regression results - LSPOWER and HOST

DV = ARLP365		IV = LSPOWER		IV = HOST	
Variable	Predicted sign	Coefficient	t-value	Coefficient	t-value
Intercept	?	0.20370***	27.08	0.20374***	27.12
LSPOWER	?	-0.00075***	-2.75		
HOST	?			-0.00158***	-3.16
ZSCORE	+	0.00003	0.41	0.00003	0.45
TOBINQ	?	-0.00378***	-11.49	-0.00384***	-11.66
SIZE	-	-0.01920***	-21.41	-0.01920***	-21.43
LEV	+	0.00041	0.25	0.00089	0.54
ROA	-	-0.00010	-0.03	-0.00003	-0.01
BIG4	-	-0.00597***	-4.68	-0.00605***	-4.75
MCW	+	0.01810***	10.06	0.01809***	10.05
LNAFEE	?	0.00199***	3.99	0.00199***	3.99
LAFEE	?	0.00599***	4.24	0.00598***	4.23
BUSSEG	+	0.00063	0.88	0.00063	0.88
LIT	+	0.00151	1.31	0.00176	1.52
GC	+	0.04255***	4.44	0.04297***	4.49
DEC	?	0.00392***	6.24	0.00403***	6.42
ACF	-	-0.01519***	-3.74	-0.01550***	-3.82
LACF	-	-0.00656***	-6.34	-0.00639***	-6.18
AUDCH	?	-0.00020	-0.24	-0.00027	-0.32
Industry fixed effects		YES		YES	
Year fixed effects		YES		YES	
Adjusted R <sup>2</sup>		0.3126		0.3129	
F-statistic (p-value)		37.06 (< 0.0001)		37.12 (< 0.0001)	
N		5155		5155	

Notes: Table 6 presents the regression results of the LSPOWER. We denote the statistical significance at 1%, 5%, and 10% as \*\*\*, \*\*, and \*, respectively. See the Appendix for variable descriptions.

Consistent with Al Dah et al. (2017), we create two new indices. The first is for the provisions that provide monetary benefits in the event of a takeover (MB). MB is a categorical variable that comprises staggered boards, golden parachutes, and poison pills. Al Dah et al. (2017) included staggered boards because Bebchuk and Cohen (2005) argue that poison pills are effective when staggered boards are in place, although staggered boards do not provide direct monetary benefits. The second index comprises provisions that do not provide monetary benefits in the event of a takeover (NMB) but rather serve as the first line of defense against any takeover attempt. NMB is a categorical variable that comprises three entrenchment provisions, including supermajority requirements for mergers and

acquisitions, amendment of corporate bylaws, and corporate charter amendments.

We test the association between audit report lag and each of these two indices separately. Consistent with the results from other tests conducted using the other indices - EINDEX, LSPOWER, and HOST, we find a negative and significant association between ARL and MB. We also find a negative and significant association between ARL and NMB. For both models, our results show significant and negative associations between ARL and TOBINQ, SIZE, BIG4, ACF, and LACF. The results also show significant and positive associations between ARL and MCW, LNAFEE, LAFEE, GC, and DEC. We present the results of these tests in Table 7.



Table 7. Regression results – MB and NMB

DV = ARLP365		IV = MB		IV = NMB	
Variable	Predicted sign	Coefficient	t-value	Coefficient	t-value
Intercept	?	0.20429***	27.08	0.20306***	27.07
MB	?	-0.00103***	-2.81		
NMB	?			-0.00093***	-2.86
ZSCORE	+	0.00003	0.42	0.00003	0.44
TOBINQ	?	-0.00382***	-11.58	-0.00379***	-11.51
SIZE	-	-0.01931***	-21.44	-0.01908***	-21.34
LEV	+	0.00069	0.42	0.00045	0.27
ROA	-	-0.00025	-0.08	0.00008	0.03
BIG4	-	-0.00592***	-4.64	-0.00608***	-4.78
MCW	+	0.01810***	10.06	0.01810***	10.06
LNAFEE	?	0.00197***	3.96	0.00200***	4.02
LAFEE	?	0.00597***	4.22	0.00601***	4.25
BUSSEG	+	0.00059	0.82	0.00067	0.94
LIT	+	0.00174	1.51	0.00145	1.26
GC	+	0.04281***	4.47	0.04256***	4.44
DEC	?	0.00401***	6.38	0.00391***	6.23
ACF	-	-0.01541***	-3.8	-0.01519***	-3.74
LACF	-	-0.00643***	-6.22	-0.00657***	-6.35
AUDCH	?	-0.00028	-0.34	-0.00017	-0.21
Industry fixed effects		YES		YES	
Year fixed effects		YES		YES	
Adjusted R <sup>2</sup>		0.3127		0.3127	
F-statistic (p-value)		37.07 (< 0.0001)		37.08 (< 0.0001)	
N		5155		5155	

Notes: Table 7 presents the regression results of the HOST. We denote the statistical significance at 1%, 5%, and 10% as \*\*\*, \*\*, and \*, respectively. See the Appendix for variable descriptions.

### 5.3. Discussion of results

In our main test, we find a negative and significant association between *ARL* and *EINDEX*. This result suggests that when managers are entrenched, they have no incentive to engage in self-serving behaviors detrimental to shareholders. Therefore, auditors are likely to assess the audit risk and their own business risk as low. Such low-risk assessments suggest auditors will most likely spend less time and effort to complete audits hence a shorter *ARL*.

We find a negative and significant relation between *ARL* and *LSPOWER*. Because the provisions in the *LSPOWER* index limit shareholder power, these provisions tend to entrench management. Like the entrenchment index, they discourage management from engaging in managerial misbehavior, which will cause auditors to spend less time and effort to complete audits. Also, we find a negative relation between *ARL* and *HOST*. The provisions in *HOST* make hostile takeover difficult, and management feels protected from such takeovers. Consistent with the *EINDEX* and *LSPOWER*, management will not engage in misbehavior. Consequently, auditors will likely spend less time and effort to complete audits, which leads to the negative relation between *ARL* and *HOST*.

We also find a negative relation between *ARL* and *NMB*. Since the provisions in *NMB* provide the first line of defense against takeover attempts, we contend that these provisions, like the entrenchment index, protect management against job and financial losses. As such, management will not engage in misbehavior, which will consequently cause auditors to spend less time and effort to complete their audits and result in a negative relation between the *ARL* and *NMB*. Finally, we find a negative and significant relation between *ARL* and *MB*. The provisions in the *MB* index provide monetary benefits to managers in the event of a takeover. The significant monetary benefit to

the managers in the event of a change in corporate ownership and control is a disincentive to potential acquirers and entrenches managers. Also, the inclusion of staggered board in the index further consolidates the position of management. Consistent with the main test results, auditors will likely spend less time and effort to complete the audit culminating in a negative relation between *ARL* and *MB*.

### 6. CONCLUSION

This study examines the association between management entrenchment and audit report lag. We use the entrenchment index as our proxy for management entrenchment. We find a negative association between the entrenchment index and audit report lag. Our results suggest that management entrenchment reduces auditor effort, and the time auditors spend on the audit. Our finding is consistent with those studies that document that management entrenchment strengthens managerial job security and reduces managerial myopia and self-serving managerial activities, such as manipulating earnings to enhance reported income. Auditors are more likely to evaluate the risk of material misstatements as low and thus may not perform any extended procedures. We further provide evidence that entrenchment provisions that curtail shareholder rights, discourage firm takeover, and provide both monetary and non-monetary benefits reduce audit report lag. Overall, our findings suggest that management entrenchment is beneficial to firms, as it reduces agency costs.

The study may be of interest to researchers, regulators, market participants, auditors, and policymakers, who intend to explore ways to minimize the effect of managerial misbehavior, attenuate managerial opportunism, and eventually provide market participants and shareholders with timely information to help them make investment

decisions. Our study contributes to the existing literature on corporate governance and financial reporting timeliness. Our study also contributes to the literature on the relation between entrenchment provisions and firm values by providing empirical evidence to support the relation between the entrenchment provisions and the ARL. Bebchuk and Cohen (2005) find a negative relation between staggered boards and firm values, and this study extends that finding by showing a negative association between entrenchment indices and ARL.

Considering that managerial entrenchment can potentially lead to managerial misbehavior that is detrimental to shareholder interests, many shareholders push for the abolition of entrenchment provisions to safeguard shareholder interests. However, our results show that managerial entrenchment is beneficial to shareholders, as entrenched managers have no incentive to engage in managerial misbehavior that may result in longer audit report lag.

We contend that, like other empirical studies, this study has some limitations. Consistent with the definition of audit report lag in literature, we focus our research on audit work performed at the end of the year. Interim audit work potentially influences the amount of audit work performed at year-end. Therefore, future research may consider the effect that interim work may have on audit report lag. Additionally, auditor familiarity with both management and the company under audit may potentially influence the auditors' work, and the time it takes the auditors to complete the audit. Our work does not reflect the impact that such familiarity may have on the audit report lag. Besides, the audit report lag literature contains several control variables. Our research captures only some of those variables. Therefore, we contend that other variables not included in our model may influence the association between managerial entrenchment on audit report lag.

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## APPENDIX

**Table A.1.** Variable descriptions

Variable	Definition
ARPP365	The number of days from the firm's fiscal year-end to the date the audit report was signed scaled by 365.
EINDEX	A categorical variable that takes values from zero to six such that zero indicates that a firm that did not adopt any of the six entrenchment provisions used by Bebchuk et al. (2009) to create the EINDEX, while six indicates that a firm adopted all six entrenchment provisions used in the EINDEX.
LSPOWER	A categorical variable that takes values from zero to four such that zero indicates that the firm did not adopt any of the four entrenchment provisions that limit the ability of shareholders to enforce their will on management, while four indicates that a firm adopted all four provisions.
HOST	A categorical variable that takes values from zero to two such that zero indicates that the firm did not adopt any of the two entrenchment provisions that discourage hostile takeover of a firm, while two indicates that a firm adopted all two provisions.
MB	A categorical variable that takes values from zero to three such that zero indicates that the firm did not adopt any of the three entrenchment provisions that provide monetary benefits to managers based on the classification provided by Al Dah et al. (2017), when a takeover occurs, while three indicates that a firm adopted all three entrenchment provisions that provide monetary benefits.
NMB	A categorical variable that takes values from zero to three such that zero indicates that the firm did not adopt any of the three entrenchment provisions that do not provide monetary benefits to managers based on the classification provided by Al Dah et al. (2017), when a takeover occurs, while three indicates that a firm adopted all three entrenchment provisions that do not provide monetary benefits to managers.
ZSCORE	Altman's Z-score
TOBINQ	A measure of the firm's performance.
SIZE	Natural logarithm of total assets of the firm.
LEV	The leverage of the firm is measured by total liabilities divided by total assets.
ROA	The return on assets of the firm is measured as earnings before interest and taxes scaled by total assets.
BIG4	A binary variable equals 1 when the firm is audited by a BIG4 audit firm, and 0 otherwise.
MCW	A binary variable equals 1 when the firm records material control weaknesses, and 0 otherwise.
LNAFEE	Natural logarithm of the fees paid by the firm for non-audit services.
LAFEE	Natural logarithm of the fees paid by the firm for audit fees.
BUSSEG	A binary variable that takes the value of 1 when the firm has more than one business segment, 0 otherwise.
LIT	A binary variable equals 1 when the firm is engaged in a high litigious industry, and 0 otherwise (2-digit SIC codes 28, 35, 36, 38, and 73).
GC	A binary variable that takes the value of 1 if a firm is issued a going concern opinion, 0 otherwise.
DEC	A binary variable that takes the value of 1 if a firm has a fiscal year-end of December, 0 otherwise.
ACF	A binary variable equals 1 when the firm is an accelerated filer, and 0 otherwise.
LACF	A binary variable equals 1 when the firm is a large-accelerated filer, and 0 otherwise.
AUDCH	A binary variable that takes the value of 1 if a firm changes auditor during the year, 0 otherwise.