

Audit Report Lag and Cost of Equity Capital: How do investors deem audit report lag? Evidence from France

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Abstract:

This research investigates the impact of external audit report lag on the cost of equity capital and how investors perceive audit report lag.

We posit that a longer audit report lag is associated with a higher cost of equity capital because a lengthier audit report arouses investors' mistrust concerning accounting practices and the credibility of reported financial information, which increases the cost of equity capital in return.

For the contributions of the study and to the best of our knowledge, this paper is the first to study the impact of audit report lag on the cost of equity capital in the French context.

Using a sample of the 881 listed French companies and 34,950 firm-year observations from 2008 to 2021, we find that firms with higher audit report lag have a higher cost of equity capital. Investors link extended audit delay to a lack of transparency, issues in financial reporting, and higher business risks (such as dubious accounting practices and adverse or disclaimer opinions) due to information asymmetry.

Our findings have implications for companies, investors, auditors, and regulators as they highlight that firms' cost of equity capital is positively associated with the audit report lag. Our findings contribute to the ongoing debates concerning the impact of audit report lag by emphasizing its impact on financing costs.

As for limitations, we mention that there is no flawless approach to estimating the cost of equity capital. Even if the adopted measurements of the cost of equity capital in this research have wide empirical support, the measurements can be improved.

Keywords: Audit report lag, cost of equity capital, quality of information, improved decision-making, information asymmetry

Classification JEL : M40

Paper type : Empirical Research

1. Introduction

Audit report lag contains valuable information (Asthana, 2014) and is an important and decisive attribute of capital market activities (Bhuiyan & Man, 2021).

Audit report lag affects capital market efficiency (Al-Ghanem & Hegazy, 2011; Securities & Commission, 2002), delays the announcement of earnings, and decreases earnings quality which results in turn in a lower market response to earnings (Bamber et al., 1993). This paper reports an empirical study of the impact of audit report lags on the cost of equity capital.

Audit report lag is defined as *“the length of time [number of calendar days] from a company’s fiscal year-end to the date of auditor’s report”* (Ashton et al., 1987, p. 275). Research has pointed it out as the determinant factor of timely financial report issuance (Givoly & Palmon, 1982). Audit report lag delays the publication of financial statements. Financial statements cannot be published on the capital market before the audit is finalized. Hence, audit report lag is proxied by audit report timeliness (Alkhatib & Marji, 2012).

Disclosing financial information to the public on time is crucial to ensure that the aforementioned information remains relevant (Abdillah et al., 2019). Previous research has established that timely financial reporting enhances information content which in turn has an impact on the firm’s value (Blankley et al., 2014; Beaver et al., 1980).

Delaying the delivery of financial statements occasions a loss of information’s ability to influence user decisions. This is particularly important for investors, who need timely information to make informed investment decisions (Ashton et al., 1989) and reduce uncertainty in financial markets (Jaggi & Tsui, 1999). On top of that, timely information plays a role in reducing the risk of investors’ being defrauded (Sultana et al., 2015) and the occurrence of rumours, leaks, and insider trading in capital markets (Owusu-Ansah, 2000). Shareholders also make the most of timely information contained within annual reports, as those latter provide valuable information for decision-making purposes (Al-Ajmi, 2008) and for management performance appraisal (Abdillah et al., 2019).

To diminish the uncertainty associated with their investments and the risks involved in their investment decisions, investors at large consider audited financial statements as a *“primary source of information”* (Bhuiyan & Man, 2021, p.3). Audits are conducted by independent and knowledgeable third-party professionals who examine accounting records to express their opinion on the accordance of annual reports with accounting standards and ensure that the financial statements are an accurate representation of the financial and patrimonial situation of the company.

Annual report timeliness enables its availability shortly on the capital market after the end of the fiscal year-end to make the right economic decisions. The faster the information is disclosed, the more useful information is, as financial reports must be prepared in such a way as to satisfy all stakeholders. On this point, the Financial Accounting Standards Board (2018, p.6) states that *“the older the information is, the less useful it is”*.

In light of several prominent scandals, investors have become more and more concerned with audit report lag (Sultana et al., 2015). While there a much research on audit report lag, most of the prior examines the impact of a firm’s qualities (e.g. profitability, size, industry type, internal control...), the characteristics of audit (e.g. audit complexity, audit risk...) and the features of external auditors (e.g. expertise, audit fees, audit firm size...) on audit report lag. Our research contributes to the literature that investigates the effects of audit report lag on firms.

Given the importance of audit delay, our research aims to extend the current literature and investigate whether audit report lag is used to determine a company’s cost of capital. The central question in this study is whether a short audit report lag reduces the cost of equity capital or not. In other words, we examine, using a sample of listed French companies from 2008 to 2021, whether investors consider audit delay to make investment decisions.

Our findings underline a positive association between audit report lag and the cost of equity and shed light on its implications for the capital market. Investors deem audit report lag as a warning signal while determining the cost of equity, as a lengthier audit report lag suggests the presence of issues during the audit.

The remainder of this paper is organized as follows. Section 2 reviews the existing literature and develops our hypotheses. Section 3 outlines our research design. Section 4 reports descriptive statistics, correlations and the main results of our multivariate analysis. The final section concludes this study by summarizing findings, discussing the implications of our results, identifying limitations and making suggestions for future research.

2. Literature review

Audit Report Lag (ARL), which is the number of days elapsed between the end of a fiscal year and the release of financial statements, has been revealed to have a noteworthy influence on the cost of equity capital (Kalelkar & Xu, 2023).

Prior research provides evidence that the market reacts negatively to delays in financial information disclosure, which leads to a higher cost of equity capital. Investors in financial markets rely on financial information from different sources to make informed decisions and build the desired portfolio (Abernathy et al., 2017; Easley & O'hara, 2004). Any postponement in the announcement of this information can increase information asymmetry and raise uncertainty and risks (Ettredge et al., 2006; Bamber et al., 1993; Ashton et al., 1987), which affects the cost of equity capital in response (Dechow et al., 2010; Francis et al., 2004). Following Stakeholder Theory, the increasing demand from stakeholders for access to financial information has prompted the quest for financial reports that are not only timely but also reliable and credible. Chambers and Penman (1984) suggested the possibility of information asymmetry arising, whether in communicating positive or negative developments regarding a firm's financial standing. Foster (2003) has concluded that more information in the marketplace lowers the cost of capital.

On the other hand, enhanced financial information quality is negatively linked to the cost of equity capital by dint of accurate and relevant stockholder information (Whitworth & Lambert, 2014; Kim & Sohn, 2013; Gray et al., 2009). The accuracy of the communicated information lessens the uncertainty and moral hazard embroiled in making an investment decision. Therefore, the investment becomes less risky (Tischenko, 2007).

Beaver (1968) noticed that investors may delay their trade of securities until the annual report is disclosed. Investors need evidence to make their investment decisions. Those evidences are contained in annual reports, earnings announcements and press releases. On account of this information, investors can make a more well-informed decision, compared to lacking it. To have timely access to information and reduce information asymmetry, some investors tend to purchase overpriced pre-disclosure and private information to build their portfolios without regard for "less-informed" stockholders (Bhuiyan & Man, 2021; Bamber et al., 1993). These observations are aligned with the transaction cost theory (Knechel & Payne, 2001).

Audit report lag determines the period to release the financial statements reports (Pizzini et al., 2015; Givoly & Palmon, 1982). The stakeholders weigh up a lengthy audit report lag as a signal of a problem. Chambers & Penman (1984) and Givoly & Palmon (1982) argued that earnings information is disclosed later when earnings are below expectation and that late earnings disclosures are positively associated with abnormal returns.

Hay et al. (2006, p.177) provided evidence that a lengthier audit delay (ARL) points out "*problems during the course of the audit, difficulties in resolving sensitive audit issues, or more complex financial reports to prepare*". Blankley et al. (2014) support that audit report lag is

positively associated with financial restatements. Habib (2013); Tanyi et al. (2010) and Knechel et al. (2009) found a strong positive relation between audit report lag and amended audit opinions, and that longer audit report lag indicates increased audit work. Kalelkar & Xu (2023); Knechel & Payne (2001); Cohen & Hanno (2000); Johnstone (2000) and Bamber et al. (1993) documented that audit work is positively associated with audit risk, suggesting that extended audit work elongates audit report lag. The higher business risks are, the more diligent and sceptical auditors are when auditing, and the higher likelihood of detecting material misstatements and asking for restatements, under penalty of receiving non-standard opinion, will be (Chan et al., 2016; Krishnan, 2005; Gonthier-Besacier, 2001; Arens et al., 2000). This will cause the protraction of audit report lag.

Besides, Abernathy et al. (2017) and Mitra et al. (2015) observed a positive association between audit report lag and weak governance. Audit report lag drops considerably with the improvement of internal control (Khlif & Samaha, 2014; Munsif et al., 2012; Ashbaugh-Skaife et al., 2009; Ettredge et al., 2006). Ogneva et al. (2007) affirm that weakness of internal control impacts negatively the quality of financial information, and increases informational and idiosyncratic risks which incur a high cost of capital.

An abnormal long audit report lag flags issues, uncertainty, risks and negative perceptions of a firm on the financial market. Investment would be deemed riskier, which would lead auditors to carry out substantive extensive tests, for that reason more audit work is required. Hence, the cost of equity would be increased (Hribar & Jenkins, 2003). Firms with a longer audit delay (ARL) have a higher cost of capital (Bhuiyan & Man, 2021). Investors ask for a high rate of returns on their investment to counterweight the risks since they cannot make an investment decision timely. Consequently, the required return affects the cost of equity capital and funding a firm from the capital market will be costlier (Bhuiyan & Man, 2021).

Kalelkar & Xu (2023) exhibit that audit report lag is positively and significantly associated with the cost of equity capital. They assert that investors perceive negatively audit report lag and that they draw a parallel between audit delay and financial reporting issues.

Given the above, we posit that:

Hypothesis 1 : There is a positive association between Audit Report Lag and cost of equity

Hypothesis 2 : There is a positive association between Audit Report Lag and cost of capital

3. Research methodology

The following sub-sections provide details of the research design (3.1) and the selected sample (3.2).

3.1. Research model

We depict proxies to measure audit report lag and cost of equity in 3.1.1, describe the control variables in 3.1.2, specify the statistical model used to formally test the hypotheses of this study and investigate the relationship between audit report lag and the cost of equity in 3.1.3.

3.1.1. Proxies to measure audit report lag and cost of equity

We define the proxy measure audit report lag in 3.1.1.1, while we define the proxy to measure the cost of equity in 3.1.1.2.

3.1.1.1. Proxy to measure audit report lag

Audit report lag (denoted ARL) is the number of days from the end of the financial year of a firm to the day the external auditor signs the audit report (Sultana et al., 2015).

Audit report lag is the period of audit completion starting from the end of a firm's fiscal year to the date stated in the audit report :

$$ARL_{i,t} = DS_{i,t} - DC_{i,t}$$

Where :

- $ARL_{i,t}$: Audit Report Lag
- $DS_{i,t}$: Date of signature of the audit report
- $DC_{i,t}$: Date of firm's books closure

3.1.1.2. Proxy to measure cost of equity capital

The cost of equity is defined as “the expected return on a firm's common stock” (Witmer & Zorn, 2007, p.4). There is a risk that the investor may not receive the expected return; therefore, investors are expected to take the risk of the investment into account when determining the returns they want to receive. There is a relationship between risk and expected return on a stock; the greater the risk, the greater the expected return on investment the investor expects (Fehr, 2010).

The main issue with the cost of equity measurement is that there is no conclusive evidence of the superiority of one of the models (Tischenko, 2007; Witmer & Zorn, 2007). We use the modified Price-earnings-to-growth (MPEG) ratio model suggested by Easton (2004) to calculate the cost of equity.

We adopt the modified Price-earnings to Growth (MPEG) because it associates the stock price to cost of equity and to the next two year's forecasted earnings. The modified Price-earnings to Growth (MPEG) is a special case of the Price-earnings to Growth (PEG) model because the discount rate is equal to the square root of the inverse of the PEG ratio :

$$CoE_{i,t} = \sqrt{\frac{(eps_{i,t+2} - eps_{i,t+1})}{p_{i,t}}}$$

Where:

- $CoE_{i,t}$: Firm i's cost of equity in period t
- $eps_{i,t+1}$: One-year ahead earnings per share forecasts for firm i
- $eps_{i,t+2}$: Two-year ahead earnings per share forecasts for firm i
- p_t : Price per share at the end of the firm i's fiscal year

We measure the cost of capital using the Sharpe-Lintner Capital Asset Pricing Model (CAPM) which considers stock's volatility and risks to compensate shareholders for owning a risky equity security and not a risk-free security :

$$CoE_i = E(r_i) = R_f + \beta * (E(R_m) - R_f)$$

Where:

- CoE_i : Firm i's cost of equity in period t
- $E(r_i)$: Expected return on firm i's equity
- R_f : Risk-free rate
- β : Market risk
- $E(R_m)$: Expected market return

3.1.2. Measurement of control variables

Kim & Sohn (2013) exposed the positive association between the occurrence of earnings management and cost equity, whereas Gray et al. (2009) and Francis et al. (2004) found a positive association between accruals management and the cost of equity. Accruals are the conventional approach to examine the quality of accounting information, they carry information on the value of companies and have no monetary consistency. Several models of accruals

estimation exist, we are going to adopt the modified Jones model proposed by Dechow et al. (1995) because it overcomes the limits of the Healy model (1985) which does not consider important variables such as fixed assets and turnover:

$$\begin{aligned} \text{Earnings}_{i,t} &= TA_{i,t} + CFO_{i,t} \Leftrightarrow TA_{i,t} = \text{Earnings}_{i,t} - CFO_{i,t} \\ TA_{i,t} &= AN_{i,t} + DA_{i,t} \Leftrightarrow DA_{i,t} = TA_{i,t} - AN_{i,t} \\ AN_{i,t} &= \frac{(\Delta CA_{i,t} - \Delta CL_{i,t} - \Delta Cash_{i,t} + \Delta STD_{i,t} - Dep_{i,t})}{A_{i,t-1}} \end{aligned}$$

Where:

- $CFO_{i,t}$: Firm's i cash from operations in year t
- $TA_{i,t}$: Firm's i total accruals in year t
- $AN_{i,t}$: Firm's i non-discretionary accruals in year t
- $DA_{i,t}$: Firm's i Discretionary accruals in year t
- $\Delta CA_{i,t}$: Change in current asset for firm i in year t
- $\Delta CL_{i,t}$: Change in current liabilities for firm i in year t
- $\Delta Cash_{i,t}$: Change in cash and cash equivalents for firm i in year t
- $\Delta STD_{i,t}$: Change in accounts receivable for firm i in year t
- $Dep_{i,t}$: Depreciation and amortization expense for firm i in year t
- $A_{i,t-1}$: Total Assets for firm i in year $t-1$

Empirical research indicates that the cost of equity capital is affected by a firm's size. Embong et al. (2012) exhibit that a firm's size influences the level of corporate disclosure and cost of equity capital. They found a negative association between a negative association between firm's size and cost of equity, indicating that larger companies tend to have a lower equity premium. Kalelkar & Xu (2023) and Tischenko (2007) support the same results. We measure firm size as the natural logarithm of the client's total assets

Prior literature points out the higher chance of misreporting in financially distressed companies with a higher leverage level, a lower Return on Assets and a lesser Return on Equity. Financially distressed companies are risky investments and have, therefore, a higher cost of equity capital (Kalelkar & Xu, 2023; Bhuiyan & Man, 2021; Tischenko, 2007; Dhaliwal et al., 2006). We measure leverage as the total liabilities divided by total assets and Return on Assets as the net income divided by total assets. Meanwhile, we measure Return on Equity as the net income divided by shareholder's equity

Kalelkar & Xu (2023) and Bhuiyan & Man (2021) provided evidence concerning the negative association between Bankruptcy risk and Cost of Equity. To measure the bankruptcy score, we will use the Altman Z-Score model (1968) for predicting bankruptcy by combining financial ratios to obtain a certain score that will indicate the likelihood of bankruptcy :

$$Z = 1.2 X_1 + 1.4 X_2 + 3.3 X_3 + 0.6 X_4 + 1.0 X_5$$

Where :

- X_1 = Working Capital / Total Assets
- X_2 = Retained Earnings / Total Assets
- X_3 = Earnings Before Interest & Taxes (EBIT) / Total Assets
- X_4 = Market Capitalisation / Total Liabilities
- X_5 = Sales / Total Assets

Book-to-Market is the division of the book value of equity by the market value of equity. Book-to-Market is positively associated with the Cost of equity because they are expected to deliver lower future returns than firms with a lower Book-to-Market ratio (Kalelkar & Xu, 2023; Bhuiyan & Man, 2021; Tischenko, 2007).

3.1.3. Specification of the statistical model

It must first be pointed out that there is no unanimity on which statistical model works best (Bhuiyan & Man, 2021).

To formally test whether a longer Audit Report Lag is associated with a higher firm's cost of equity capital, we are going to perform OLS regression on the following models:

$$CoE_MPEG = \beta_0 + \beta_1 ARL_{i,t} + \beta_2 FIRM_SIZE_{i,t} + \beta_3 LEV_{i,t} + \beta_4 ROA_{i,t} + \beta_5 ROE_{i,t} + \beta_6 BANKRUPTCY_RISK_{i,t} + \beta_7 BTM_{i,t} + \beta_8 ACCRUALS_{i,t} + \varepsilon_{i,t}$$

$$CoE_CAPM = \beta_0 + \beta_1 ARL_{i,t} + \beta_2 FIRM_SIZE_{i,t} + \beta_3 LEV_{i,t} + \beta_4 ROA_{i,t} + \beta_5 ROE_{i,t} + \beta_6 BANKRUPTCY_RISK_{i,t} + \beta_7 BTM_{i,t} + \beta_8 ACCRUALS_{i,t} + \varepsilon_{i,t}$$

The following table describes the measure of all the variables:

Table 1: Variable definitions

Acronym	Variable	Measurement
Dependent variables		
CoE_MPEG	Cost of Equity	Cost of equity calculated following Modified Price-Earnings to Growth
CoE_CAPM	Cost of Equity	Cost of equity calculated following CAPM
Independent variable		
ARL	Audit Report Lag	Natural logarithm of the number of calendar days elapsed between the end of a fiscal year and audit report date
Control Variables		
FIRM_SIZE	Firm's size	Natural logarithm of the company's total assets
LEV	Leverage	Total liabilities / Total assets
ROA	Return on Assets	Net income / Total assets
ROE	Return on Equity	Net income / Shareholder's equity
BANKRUPTCY_RISK	Bankruptcy Score	Bankruptcy Score calculated using Altman Z-Score (1968)
BTM	Book-to-Market	Book value of equity / Market value of equity
ACCRUALS	Discretionary Accruals	Discretionary accruals calculated using modified Jones model (1995)

Source: Author

3.2. Sample selection

This study covers a sample of 881 listed French firms from 2008 to 2021. Our sample period starts in 2008 to avoid the effect of the transposition of the Directive 2004/109/EC of the European Parliament and of the Council of 15 December 2004 on the harmonization of transparency requirements about information about issuers whose securities are admitted to trading on a regulated market and amending Directive 2001/34/EC into the French law on 17 December 2007.

We use various sources to collect data and build our dataset. We merge data extracted from COMPUSTAT and AUDIT ANALYTICS databases to manually collect data from Universal Registration Documents (URD).

Following Carluccio et al. (2018), we exclude from our sample observations missing data and companies belonging to farming, public administration, financial, real estate and healthcare sectors because they are governed by particular legal, prudential and accounting frameworks. Our sample of 881 companies and 34,950 firm-year observations is distributed as follows:

Table 2: Sample selection

Observations from 2008 to 2021	Firm-year observations
	120,931
Exclusions :	
- Observations with missing data	(71,748)
- Public administration, farming, financial, real estate and healthcare firms	(14,233)
Final sample	34,950

Source: Author

4. Results and discussion

Before testing the hypotheses using multiple regression analysis (4.3), inspection of data using descriptive statistics (4.1) and correlation analysis (4.2) will be performed.

4.1. Descriptive statistics

Table 3 below summaries the descriptive statistics of the cost of equity, audit report lag and control variables.

The mean (median) of ARL is 101.7 (96.0) days and is to some extent higher than prior studies conducted in the American and the Australian contexts (Kalelkar & Xu, 2023; Sultana et al., 2015). Firms below the 1st quartile had recorded a maximum ARL of 70 days compared to the firms above the 3rd quartile which take 133 days to issue the audit report. The minimum ARL value is 14 days while the maximum ARL is 204 days which exceeds the statutory maximum time of 4 months to disclose the audit report.

The average value of CoE_MPEG and CoE_CAPM are 0.146269 and 2.7589. The higher the level of ARL, the higher the median or mean of the cost of equity. These findings support our hypotheses.

As for control variables, the average firm size is 5.866 and leverage is 60.64%. The maximum leverage value recorded (100.96%) denotes that a firm is operating with significant amounts of debt, superior to assets and that it may not be able to service its future payments on that debt.

The Return on Assets (ROA) and Return on Equity (ROE) ratios show that at least 25% of firms are financially distressed and are not generating enough profit to cover the cost of capital. The average bankruptcy risk, Book-to-Market, discretionary accruals over 2008-2021 are 2,408, 0.6994 and -200.623.

Table 3: Descriptive statistics

Variables	(1) Mean	(2) 1st Qu.	(3) Median	(4) 3rd Qu.	(5) Min	(6) Max	(7) Sd
CoE_MPEG	0.14627	0.009698	0.034891	0.108752	0.00005	15.55788	0.54986
CoE_CAPM	2.75886	1.1136	1.6529	3.0579	0.17479	73.38874	4.42137
ARL	101.73	70.0	96.0	133.0	14.0	204.0	38.66
FIRM_SIZE	5.86612	3.882	5.575	7.558	-2.99573	14.13922	2.48837
LEVERAGE	0.60642	0.457283	0.592095	0.717691	0.00027	10.96486	0.36081
ROA	-0.03361	-0.02920	0.02104	0.04924	-5.94	5.80036	0.25581
ROE	-1.52831	-0.309	0.358	1.730	-5266.9476	322.76280	91.13111
BANKRUPTCY_RISK	2.40796	1.058	1.742	2.387	-56.7315	2249.74965	38.7501
BTM	0.69949	0.332182	0.614099	0.914685	0.00709	5.22788	0.51421
ACCRUALS	-200.623	-51.594	-3.953	0.394	-9223.372	3581	1008.041

Source: Author

Table 4: Correlation matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1) CoE_MPEG	1.000									
(2) CoE_CAPM	0.025***	1.000								
(3) ARL	0.198***	0.202**	1.000							
(4) FIRM_SIZE	-0.046**	-0.017*	0.560**	1.000						
(5) LEVERAGE	0.089**	0.043***	0.030**	0.230**	1.000					
(6) ROA	-0.049**	-0.025***	-0.072**	0.289**	-0.188**	1.000				
(7) ROE	-0.020*	-0.002*	-0.015***	0.017**	-0.021	0.085**	1.000			
(8) BANKRUPTCY_RISK	0.005	0.015	0.018***	-0.009***	-0.062**	0.038*	0.003*	1.000		
(9) BTM	0.114	0.397	0.050**	0.011*	0.031**	-0.030*	-0.014	-0.022	1.000	
(10) ACCRUALS	-0.044**	-0.031**	0.194**	-0.380**	-0.048**	-0.038**	0.001	0.006**	-0.044**	1.000

*** Significance at and 10% level (two-tailed)

** Significance at 5% level (two-tailed)

* Significance at 10% level (two-tailed)

Source: Author

4.2. Correlation analysis

Table 4 above reveals several significant pairwise correlations between all the variables used in our study.

We observe that both CoE_MPEG and CoE_CAPM are significantly and positively associated with ARL. This suggests that as the audit report lag increases, the cost of equity increases. Besides, ARL positively and significantly correlates with FIRM_SIZE, LEVERAGE, BANKRUPTCY_RISK, BTM and ACCRUALS. This implies that a longer audit report lag is associated with larger firm size, higher leverage, increased bankruptcy risk, higher book-to-market ratio, and higher discretionary accruals. These findings offer further evidence for this article's two main assumptions.

CoE_MPEG and CoE_CAPM are positively associated with BANKRUPTCY_RISK and BTM, suggesting that higher costs of equity are linked to higher bankruptcy risk and a higher book-to-market ratio. While, CoE_MPEG and CoE_CAPM are negatively and significantly correlated to FIRM_SIZE, ROA and ROE. This indicates that higher costs of equity are associated with smaller firm size, lower return on assets, and lower return on equity.

Moreover, none of the correlations exceeds the critical threshold of 0.70 which would raise multi-collinearity concerns (Kevin 1992).

4.3. Multivariate analysis and discussion

This research is using some classical assumption tests. Before running OLS regression, we will run the normality test, the heteroskedasticity test and the autocorrelation test.

4.3.1. Normality test

The normality test uses the Kolmogorov-Smirnov test (McClave & Sincich, 2014). Following table 5, it can be concluded that the data is normally distributed since the p-value for both models is superior to 0.05:

Table 5 : Kolmogorov-Smirnov Test results

Models	p-value
Model (1)	0.30804
Model (2)	0.29423

Source: Author

4.3.2. Heteroskedasticity test

Heteroscedasticity relates to the situation in which the variability of a variable is unequal across the range of values of a second variable that predicts it.

Glejser test (1969) will be applied in this paper to detect heteroscedasticity tendencies. If the probability value is superior to 0.05, it means no heteroscedasticity happened :

Table 6 : Park Glejser Test results

Models	p-value
Model (1)	0.157
Model (2)	0.129

Source: Author

Based on the evidence, it can be stated that the two models are free from symptoms of heteroskedasticity.

4.3.3. Autocorrelation test

To test the autocorrelation of the residuals within our two models and measure the independence of the errors, we will run the Durbin-Watson test (1950) :

Table 7 : Durbin-Watson Test results

Models	Durbin-Watson
Model (1)	1.605
Model (2)	0.284

Source: Author

Model (1) shows a Durbin-Watson value of 1.605 while model (2) shows a Durbin-Watson value of 0.284. Since the Durbin-Watson values are between -2 to +2, the models are in the autocorrelation-free region.

Based on this evidence, we conclude that our model is well-specified and that there is no omission of important variable(s) (Hamisultane 2002).

4.3.4. Regression analysis

Table 8 reports the results of the multivariate regression analysis for the models (1) and (2). In column 1, we present the results of equation (1) testing, while we present in column 2, the results of equation (2) testing :

Table 8: Main regression results

Variables	(1)	(2)
	CoE_MPEG	CoE_CAPM
(Intercept)	0.26938 (-1.105)	0.0000002*** (-14.232)
ARL	0.0001*** (6.792)	0.00018*** (25.322)
FIRM_SIZE	0.03096* (-2.158)	0.2557 (-1.137)
LEVERAGE	0.0000152*** (4.331)	0.0465* (1.992)
ROA	0.00357** (-2.916)	0.4165 (-0.813)
ROE	0.32352 (-0.987)	0.6016 (0.522)
BANKRUPTCY_RISK	0.79592 (0.259)	0.7227 (0.355)
BTM	0.567919 (-0.572)	0.4506 (-0.755)
ACCRUALS	0.38189 (-0.875)	0.8952 (0.132)
N	3,495	3,495
F-Statistics	11.586	82.630
Adj. R squared	23.66%	35.70%

Standard errors are robust to heteroskedasticity and clustered by firm

**** Significance at the 1% level (two-tailed t-tests);*

*** Significance at the 5% level (two-tailed t-tests);*

** Significance at the 10% level (two-tailed t-tests)*

Source: Author

The results in column (1) show that audit report lag is significant at 1% and positively influences the cost of equity ($\beta = 6.792$; $t = 0.26938$). This result indicates a positive influence, suggesting that firms experiencing a lengthier audit report lag tend to face a higher cost of equity capital. This pattern is consistent, as demonstrated in column (2), where audit report lag remains significant at 1%, attesting that firms with longer audit report lag bear the higher cost of capital ($\beta = 25.322$; $t = 0.00018$). Those results are corresponding with the findings of Kalelkar & Xu (2023).

Furthermore, we find that leverage ($\beta = 4.331$; $t = 0.0000152$) is positively and significantly associated with the cost of equity and cost of capital. This aligns with the argument that leverage extends the audit report lag (Piot, 2008), leading to increased investor distrust regarding the reasons behind the lag and elevating uncertainty about the reliability of financial statements. Consequently, companies with higher leverage exhibit higher costs of equity and capital.

These findings are congruous with the argument that a prolonged audit report lag and unreleased accounting information results rise uncertainty, moral hazard and risks (Ettredge et al., 2006; Bamber et al., 1993; Ashton et al., 1987). Subsequently, the required return affects the cost of equity and funding a firm from the capital market will be more costly (Bhuiyan & Man, 2021). Thus, hypotheses 1 and 2 are supported.

The results of the regression model (1) and (2) suggest that the firm's size ($\beta = -2.158$; $t = 0.03096$) and ROA ($\beta = -2.916$; $t = 0.00357$) are significantly and negatively associated with the cost of equity and the cost of capital. Our results, suggest that the higher a firm's size or return on assets is, the lesser the expected return on a firm's common stock and the lesser what a corporation has to pay so that it can raise new money, in the view of the fact that big and performant firms are perceived to be less risky. This implies that larger firms or those with higher returns on assets tend to attract lower expected returns on common stock and incur lower costs when raising new capital.

Models (1) and (2) indicate that there is no statistically significant association between Return on Equity ($\beta = -0.987$; $t = 0.32352$), Bankruptcy Score ($\beta = 0.259$; $t = 0.79592$), Book-to-Market ($\beta = -0.572$; $t = 0.567919$), and Discretionary Accruals ($\beta = -0.875$; $t = 0.38189$) with the cost of equity capital. These factors do not exhibit a noteworthy impact on the determination of the cost of equity capital. These results contribute valuable insights to the understanding of the factors influencing the cost of equity capital, highlighting the non-significant role played by the aforementioned variables. This finding contradicts the outcomes reported in prior studies conducted by Kalelkar & Xu (2023); Bhuiyan & Man (2021); Tischenko (2007) and Dhaliwal et al. (2006). Conversely, it aligns with certain findings of Piot (2008).

5. Conclusion

The impact of report lag on the cost of equity and the cost of capital has been a topic of interest in accounting and finance research for several years. In this research, we examine how investors perceive the length of audit report lag.

The prevalent stream of accounting research on information asymmetry, business risk and audit report lag considers that audit delay is associated with difficulties that may arise throughout the auditing process, obstacles in addressing and resolving delicate audit matters and to preparation of complex financial statements (Hay et al., 2006). The delay of the issuance of an audit report conveys useful data regarding the earnings quality, and investors take this information into account when assessing the value of earnings (Chan et al., 2016; Asthana, 2014; Krishnan, 2005; Arens et al., 2000).

Following, this mainstream, we argue that prolonged audit delay arouses investors' mistrust concerning dubious accounting practices and adverse or disclaimer opinions, which increases the cost of equity capital.

Using a sample of 881 listed French firms and 34,950 firm-year observations from 2008 to 2021, we find a strong and positive association between audit report lag and cost of equity capital, suggesting that firms with higher audit delay have a higher cost of equity capital. This implies that investors link extended audit report lag to a lack of transparency, issues in financial reporting, and higher business risks due to information asymmetry.

Overall, our findings support the argument that protracted audit report lag creates apprehension among investors, leading to a higher cost of equity capital. This contributes to the ongoing debates concerning the impact of audit report lag by emphasizing its impact on financing costs. However, it is important to mention that our findings are subject to one major limitation. There is no flawless approach to estimating the cost of equity capital. Even if the adopted measurements of the cost of equity capital in this research have wide empirical support, the aforementioned measurements can be improved. This research can be replicated in future to obtain even more robust evidence. This research can also be extended, in future, to other countries to provide more evidence about the impact of audit report lag on the cost of equity capital.

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