

Government Connection Versus Financial Reporting Quality: The Effect on Investment Decision

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Abstract:

This paper aims to examine the impact of government connection in using financial information on investment decisions, and investment decision making companies are more likely to be influenced by financial reporting quality or government connections. This study used quantitative research with a sample of infrastructure industry companies, both government and non-government companies, totaling 460 consisting of 248 non-government companies and 218 government companies. This research was conducted from 2014 to 2018 because, in that period it was supported by government policies in carrying out infrastructure development throughout Indonesia. This study showed that the higher the Financial Reporting Quality (FRQ), the more efficient the investment made by the company. In addition, it showed that government connection does not affect investment decisions. The results of this study support the agency theory which indicates that there is a need for agency costs incurred by companies in decision making. Implication for the Indonesian Stock Exchange (IDX) and the Financial Services Authority (FSA) is to monitor its companies so that they can publish good quality of financial report, and eventually investments made by companies can be more efficient. This study examines the role of CEOs of government companies in investment decision.

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I. INTRODUCTION

Research that examines the influence of financial reporting in decision making is widely investigated because financial reporting reflects the actual condition of the company so that it can be used as a basis for decision making by stakeholders (Lin and Wang, 2016, Shahzad et al, 2018, Zimmerman, 2013, Noor et al. 2013). Several studies have examined family businesses such as those conducted by Lin and Wang (2016); Shahzad et al. (2018) which showed that financial reporting has a significant influence on investment decisions when the company is owned by minority family ownership. Conversely, when the company is majority-owned by the family owner, it causes the level of investment decisions will below by referring to the company's financial statements.

But, according to Fox (2017), Njowa and Musingwini (2018), the CEO of the company uses financial reporting to decide investment on the company. The results of this study are in line with agency-level II theory conducted by Villa-longa, and Amit (2006), which showed that there are conflicts of interest that occur when the company is majority-owned by individuals and families. Conflicts of interest arise when the company is majority-owned by individuals or families. The pressures are significant for personal gain and supervision of the company. In contrast to the first level of agency theory as proposed by Jensen and Meckling (1976) that the existence of a conflict of interest occurs between managers and shareholders, but on the second level agency theory these conflicts can be minimized because the manager is part of the family ownership. When

the company is owned by institutions such as banks and other institutions, the profits will return to their respective owners.

This research based on the issue of infrastructure development problems over the past four years. Infrastructure development involves companies listed on the Indonesia Stock Exchange. The company makes investments to support government programs while also hoping to get a return from these investments. However, the company refer to the financial statements as a basis for making investment decisions. The issue of political developments in Indonesian affect the existing infrastructure development programs in Indonesia, so that this becomes an important matter for the CEO as a manager in the company to be able to make investment decisions.

CEO as a manager in a company must realize that every activity will impact the financial statement. It is important to be able to produce policies related to company activity as much as possible, so that the company will get a significant return. Shahzad et al. (2018) , Lin and Wang (2016) , Lee and Neill (2003) , Biddle et al. (2014) , Biddle, Hi lary, and Verdi (2009) suggested that the existence of financial reporting made and reported by the company can be used as a tool to decision making.

The originality of the research is the function of financial reporting in determining decision making in Indonesia. The companies in Indonesia, there are two types of ownership, namely government and non government ownership. Based on this explanation, it causes anomaly between the decisions made by managers as managers of the company, whether the manager decided because it refers to the company's financial statements or the government encouragement to develop investments.

This research has contributed to level 1 agency theory (Jensen, and Meckling 1976),

which shows that one important aspect in minimizing asymmetry information between shareholders and CEOs are by agency costs. it is to minimize asymmetry information a produce quality financial reports.

This study aims to examine the relevance of financial statements in decision making when the company owned by government and non-government. This article provides the results that financial reporting quality is still used as a basis or reference in making investment decisions by corporate CEOs. Financial reporting quality is still considered as one important factor in assessing a company's investment decisions.

In addition, this article also provides evidence that the government which has a majority shareholding in the company cannot provide intervention to the company's CEO. Even though the government has policies in the form of programs for the past four years that must be supported. These results also provide evidence that there is no emotional connection between the CEO and the government so that the CEO in running the company is more independent.

In the end, it can be concluded that this article provides evidence of financial reporting quality is an important aspect for company CEOs in decision making. This is evidenced by the inclusion of elements of government connection, the CEO is still referring to the financial reporting quality in decision making so it can be concluded that the emotional relationship between the CEO and government connection is still weak. The company's CEO can make decisions without being influenced by government pressure, especially investment decision.

II. FINANCIAL REPORTING QUALITY AND DECISION INVESTMENT

Conflicts of interest occur between managers and investor. Moral hazard and adverse selection that occur can be provides opportunities and advantages for company

managers to make over and under investments (Myers and Majluf, 2011). So it is necessary to spend agency cost to be able to minimize conflicts that occur between managers and investors, especially when the company wants to invest. The form of agency cost incurred to reduce information asymmetry that occurs is to report quality financial reports (Biddle, Hilary, and Verdi, 2009; Cheng, Dhaliwal, and Zhang, 2013; Jo, Pinkerton, and Sarin, 1994; Lin and Wang, 2016; Myers and Majluf, 2011; Shahzad et al, 2018; Huang, Kabir, and Zhang, 2018; Wan, Zhu, and Chen, 2015; Zhao, Chen, and Hao, 2018). Several reasons cause the quality of financial statements to be an important factor in reducing information asymmetry that occurs between investors and managers. First, the financial statements produced can be the basis for investors making decisions about the actual condition of the company. Quality financial statements affect to investing decision. A good company will pursue profit so that it can minimize under or over investment. Second, the quality financial report is a control for management to deter personal interests. Good quality financial report managers will not under or over invest but rather an efficient investment. This research also reinforces the importance of financial information in decision making by company CEOs regarding investment decisions. This is based on many issue about the ineffectiveness of financial information in decision making. The various studies as carried out by (Ari and Koc 2018, 2019; Ehnert et al. 2016; Mahmood and Orazalin 2017; Orazalin, Mahmood, and Narbaev 2019; Ziolo et al. 2019) the stakeholders tend to have used non-financial aspects in decision making so that the research can be a contribution regarding the importance of financial issue as a basis for decision making.

This research also include the role of government to influence investment decisions. This issue is interesting because it has previously been explained that the CEO uses

quality financial statements in investment decision making, but in this section the researcher tries to link whether investment decisions made by the company's CEO are purely referring to the quality of financial reporting or more because of government policy support related to infrastructure program for the past four years. Government connections can provide benefits for companies that are majority owned by the government. Government support through investment development programs over the past four years can be a factor influencing investment decisions for CEO, especially when the government has a majority shareholding, such as ease of regulation in investing, and the government contributes if the company fails in its investment activities. So that in decision making, managers tend to involve the government in decision making. But it is different if the company is owned by a non-governmental organization. Asaba (2013); Cheng, Dhaliwal, and Zhang (2013); Czarnitzki and Kraft (2009); Lee and Neill (2003) Du et al. (2018); Huang, Kabir, and Zhang (2018); Leung and Cheng (2013); Wan, Zhu, and Chen (2015); Wang and Xiao (2009); Zhang, An, and Zhong (2019); Zhao, Chen, and Hao (2018) showed that the basis for managers to determine the right investment is a quality financial report. In addition, there is the role of investors to be a control for managers not to invest below or more. The results of this study can contribute to the impact of government program policies related to infrastructure development whether it can give a different view to the CEO of the company in making investment decisions. So based on the explanation above, the hypothesis that:

- H1: The higher Financial Reporting Quality, then the Company will be investing efficiently
- H2: Effect of Financial Reporting Quality on different investments for companies controlled by the Government and non-government

by Gomariz, Ma Fuensanta Cutillas, and Ballesta (2014); Shahzad et al. (2018).

The following equation 2 is used to test FRQ in a cross-section for each industry:

$$TA_{i,t} = \alpha_{i,t} + \beta_1 Sales_{i,t} + \beta_2 PPE_{i,t} + \beta_3 \Delta CFO_{i,t} + \varepsilon_{i,t} \dots \dots \dots \text{Equation 2}$$

where $TA_{i,t}$ is the total accrual provided by $(\Delta \text{ current assets} - \Delta \text{ current liabilities}) + (\Delta \text{ Short-term bank} - \text{depreciation})$ lagged total asset; $\Delta Sales_{i,t}$ is the change in sales of sales from year t to year $t-1$. $PPE_{i,t}$ is tangible fixed assets. $\Delta CFO_{i,t}$ is the change in operating cash flow from year t to year $t-1$ and $\varepsilon_{i,t}$ is the error rate. To calculate FRQ by multiplying the absolute value of residuals by -1 . Then the value will be authenticated. A higher residual value indicates a higher FRQ.

Robustness checks are carried out to test the consistency of FRQ. We consider discretionary revenue as a FRQ proxy. McNichols and Stubben (2008) argue that discretionary income has a predictive power that is stronger than accrual discretionary for three reasons. First, the level of measurement error in discretionary revenue is quite low compared to accrual discretionary. Second, accruals are closer to investment, for example, depreciation. Third, product demand is a function of income, so discretionary revenue is related to investment. Finally, accountants often manipulate sales revenue to meet the analysis estimates. Therefore, to increase the predictive power of testing, discretionary revenue, together with the discretionary accruals is used as a proxy for FRQ. The equation can be described in the following model:

$$\Delta AR_{i,t} = \alpha_{i,t} + \beta_1 \Delta SR_{i,t} + \varepsilon_{i,t} \dots \text{Equation 3}$$

Where $\Delta AR_{i,t}$ is the change of Receivables from year t to year $t-1$; $\Delta SR_{i,t}$ is the change in sales revenue and $\varepsilon_{i,t}$ is the residual. Residuals are used

to measure FRQ. To calculate FRQ by multiplying the absolute value of residuals by -1 . A higher residual value indicates a higher FRQ. The model in equation three will regress the changes in debt to changes in sales after subtracting the total past assets for each industry separately.

To test hypothesis 1, this study uses the following equation:

$$I = \alpha + \beta_1 FRQ + \beta_2 DER + \beta_3 LnTA + \beta_4 OT + e1 \dots \dots \dots \text{Equation (4)}$$

$$I = \alpha + \beta_5 FRQ + \beta_6 FRQ * OT + \beta_7 DER + \beta_8 LnTA + \beta_9 OT + e1 \dots \dots \dots \text{Equation (5)}$$

Where I is Total Investment is the sum of capital and non-capital expenditure; FRQ is Financial reporting Quality was measured using accrual-based earnings management. We use the Kasznik model (1999); Ownership Type (OT) is a type of company ownership measured by dummy variables. Category 2 if the company is majority-owned by the government and 1 if the company is majority-owned by non-government, Debt to Equity Ratio (DER) is the ability of the company's debt as measured by total debt divided by total equity; Total assets (LnTA) is the size of the company measured by the natural logarithm of the company's total assets. The DER, OT and Ln TA variables are control variables.

IV. Discussion

Financial Reporting Quality and Investment Efficiency

Table 1

Regression Results

$$I = \alpha + \beta_1 FRQ + \beta_2 DER + \beta_3 LnTA + \beta_4 OT + e1 \dots \dots \dots (4)$$

Variable	Expected Sign	Coefficient
Intercept	-	-0.449 ***
FRQ	-	-0.120 ***
DER	-	-1.377 ***
LNNTA	+	1.468 ***

OT	-	-0.538 ***
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*** Denote statistical significant at the 1% level

To test the hypothesis, this study using the OLS regression equation 4. In table 1 shows that the Financial Reporting Quality (FRQ) was negatively related to the decision to invest is the p-value pada level 1% and a coefficient value of -0.120. The results of this study indicate that high FRQ can make corporate CEOs make investment decisions more efficiently. The results of this study prove **Hypothesis 1 is accepted**. This research proves that companies both government and non-government companies use financial statements in determining their investments. The results of this study are consistent with research conducted by Cheng, Dhaliwal, and Zhang (2013); Gomariz, Ma Fuensanta Cutillas and Ballesta (2014); Jo, Pinkerton, and Sarin (1994); Lin and Wang (2016); Shahzad et al. (2018) which shows that the higher FRQ, the investment decisions made by companies will be more efficient.

The results of this study indicate that infrastructure companies, both government and non-government companies in determining investments, still refer to the financial statements in making decisions related to these investments. CEO, as a manager in the company, still uses the quality of financial information in determining investment. So the investment policy undertaken by the CEO is still considered logical. The results of this study support the theory of level 1 agencies, which prove that FRQ is still used as a reference for CEOs to determine to investors about the company's financial condition. Therefore, it is important for shareholders to be able to see the financial statements produced by the company so that later it can be used as a reference in the investment decision-making process carried out by the company's CEO. The results of this study support the agency theory by Jensen and Meckling (1976) that there need to be agency costs incurred by companies so that there is no information gap that occurs between investors and managers,

especially related to the business development process.

The Effect of Financial Reporting Quality on Different Investments for Companies Controlled By The Government and Non Government

To test hypothesis two (2), this study correlates FRQ and OT in equation 5. In table 2 below shows the effect of FRQ on investment for companies controlled by the government and non-government.

Table 2
Regression Results

$$I = \alpha + \beta_5 FRQ + \beta_6 FRQ * OT + \beta_7 DER + \beta_8 LnTA + \beta_9 OT + e1 \dots (5)$$

Variable	Expected Sign	Coefficient
Intersept	-	-0.468 ***
FRQ	-	-0.266 ***
DER	-	-0.002 ***
LnTA	-	-10.110 ***
OT	-	1.987 ***
FRQ1_OT	-	-0.001

*** Significance at the 1% level

The coefficient value of FRQ_OT influence on investment for companies controlled by the government and non-government is -0.001 with a sign of negative (not significant at the 10% level). this shows that there is no difference in the influence of FRQ_OT on investments controlled by the government and non-government.

The results of the regression analysis showed that FRQ_OT did not affect corporate investment controlled by the government or non-government, so that the second hypothesis (H₂) in this study was **not accepted**. It can be said that in decision making by managers there is no government pressure, what decision-making managers use FRQ, which can be seen from the absence of differences between government and non-government companies in investment decision

making. This is in line with agency-level I theory (Jensen, and Meckling, 1976) which states that the form of agency costs incurred in making quality financial reports will reduce the information asymmetry between management and shareholders for investment decision making.

This study does not prove the differences in the influence of FRQ on investment decision making between government companies and non-government companies. The results of this study also showed that there was no emotional connection between management and owners, especially the government, in making investment decisions. In particular, management is still independent in investment decision making, management still uses financial statements in investment decision making. This provides evidence that the form of direct intervention from the Government to the CEO of the company is still weak especially related to infrastructure development (Cull et al, 2015a, 2015b; Gray, Harymawan, and Nowland, 2016; Habib, Muhammadi, and Jiang, 2017; Kogan and Salganik-Shoshan, 2015; Ma, Rui, and Wu, 2015; Su, Fung, and Yau, 2013).

Robustness check

This research also uses a robustness check by using a different FRQ proxy that is using a proxy that has been done by McNichols and Stubben (2008). Results using robustness check results are the same as proxy by the Kasznik model (1999).

V. CONCLUSION, IMPLICATIONS, AND FUTURE RESEARCH

This study examines FRQ and the Types of Companies on Investment Efficiency in infrastructure companies in Indonesia. The results of this study indicate the results that if the CEO uses FRQ as a basis for decision making, the company's investment decisions will be more efficient. The existence of FRQ can minimize information asymmetry between investors and management. So FRQ can become the agency cost

of the company-owned to be able to minimize the information gap between investors and management. The results of this study also prove that in making corporate investment decisions the CEO as a manager in the company is not affected by the Government in making investments. The CEO uses FRQ as a basis for making investment decisions. The results of this study have implications for the Indonesian Stock Exchange (IDX) or the Financial Services Authority (FSA) in order to monitor its companies so that they can publish quality financial reports so that investments made by companies can be more efficient. Future studies are expected to be able to add concepts regarding non-financial information in addition to company information in investing.

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VII. References

- [1]. Asaba, Shigeru. 2013. "Patient Investment of Family Firms in the Japanese Electric Machinery Industry." *Asia Pacific Journal of Management* 30 (3): 697-715. <https://doi.org/10.1007/s10490-012-9319-3>
- [2]. Ari, Ibrahim, and Muammer Koc. 2018. "Sustainable Financing for Sustainable Development: Understanding the Interrelations between Public Investment and Sovereign Debt." *Sustainability (Switzerland)* 10(11).<https://doi.org/10.3390/su10113901>
- [3]. 2019. "Sustainable Financing for Sustainable Development: Agent-Based Modeling of Alternative Financing Models for Clean Energy Investments." *Sustainability (Switzerland)* 11(7). <https://doi.org/10.3390/su11071967>
- [4]. Biddle, Gary C, and Gilles Hilary. 2014. "Accounting Quality and Firm-Level Capital

- Investment." 81 (5): 963–982.<http://doi.org/10.2308/accr.2006.81.5.963>
- [5]. Biddle, Gary C, Gilles Hilary, and Rodrigo S Verdi. 2009. "How Does Financial Reporting Quality Relate to Investment Efficiency?. " *Journal of Accounting and Economics* 48 (2–3): 112–131. <https://doi.org/10.1016/j.jacceco.2009.09.001>
- [6]. Cheng, Mei, Dan Dhaliwal, and Yuan Zhang. 2013. "Does Investment Efficiency Improve after the Disclosure of Material Weaknesses in Internal Control over Financial Reporting?. " *Journal of Accounting and Economics* 56 (1): 1–18. <https://doi.org/10.1016/j.jacceco.2013.03.001>
- [7]. Cull, Robert, Wei Li, Bo Sun, and Lixin Colin Xu. 2015a. "Government Connections and Financial Constraints: Evidence from a Large Representative Sample of Chinese Firms." *Journal of Corporate Finance* 32(71302029): 271–94. <http://dx.doi.org/10.1016/j.jcorpfin.2014.10.012>.
- [8]. 2015b. "Government Connections and Financial Constraints: Evidence from a Large Representative Sample of Chinese Firms." *Journal of Corporate Finance* 32: 271–94. <http://dx.doi.org/10.1016/j.jcorpfin.2014.10.012>.
- [9]. Czarnitzki, Dirk, and Cornelius Kraft. 2009. "Capital Control, Debt Financing, and Innovative Activity." *Journal of Economic Behavior and Organization* 71 (2): 372–383. <https://doi.org/10.1016/j.jebo.2009.03.017>
- [10]. Du, Jing, Wanfu Li, Bin Lin, and Yu Wang. 2018. "Government Integrity and Corporate Investment Efficiency." *China Journal of Accounting Research* 11(3): 213–32. <https://doi.org/10.1016/j.cjar.2017.03.002>.
- [11]. Ehnert, Ina et al. 2016. "Reporting on Sustainability and HRM: A Comparative Study of Sustainability Reporting Practices by the World's Largest Companies." *International Journal of Human Resource Management* 27(1): 88–108. <http://doi.org/10.1080/09585192.2015.1024157>
- [12]. Fox, Kenneth A., 2017. "The Usefulness of NI 43-101 Technical Reports for Financial Analysts." *Resources Policy* 51(August 2016): 225–233. <https://doi.org/10.1016/j.resourpol.2017.01.008>
- [13]. Gomariz, Ma Fuensanta Cutillas and Ballesta, Juan Pedro Sánchez. 2014. "Financial Reporting Quality, Debt Maturity and Investment Efficiency." *Journal of Banking and Finance* 40(1): 494–506.
- [14]. Gray, Stephen, Iman Harymawan, and John Nowland. 2016. "Political and Government Connections on Corporate Boards in Australia: Good for Business?" *Australian Journal of Management* 41(1): 3–26. <https://doi.org/10.1016/j.jbankfin.2013.07.013>
- [15]. Habib, Ahsan, Abdul Haris Muhammadi, and Haiyan Jiang. 2017. "Political Connections, Related Party Transactions, and Auditor Choice: Evidence from Indonesia." *Journal of Contemporary Accounting and Economics* 13(1): 1–19. <http://dx.doi.org/10.1016/j.jcae.2017.01.004>.
- [16]. Huang, Xiaohong, Rezaul Kabir, and Lingling Zhang. 2018. "Government Ownership and the Capital Structure of Firms: Analysis of an Institutional Context from China." *China Journal of Accounting Research* 11(3): 171–85. <https://doi.org/10.1016/j.cjar.2018.07.001>.
- [17]. Jensen, C, and Meckling, H. 1976. "Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure. *Journal of Financial Economic*. 3: 305-360. [https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)
- [18]. Jo, Hoje, John M. Pinkerton, and Atulya

- Sarin. 1994. "Financing Decisions and the Investment Opportunity Set: Some Evidence From Japan". *Pacific-Basin Financial Journal*. 2: 227–242. [https://doi.org/10.1016/0927-538X\(94\)90018-3](https://doi.org/10.1016/0927-538X(94)90018-3)
- [19]. Kasznik, Ron. 1999. "On the Association between Voluntary Disclosure and Earnings Management." *Journal of Accounting Research* 37 (1): 57-81. <http://doi.org/10.2307/2491396>
- [20]. Kogan, Theodore Benjamin, and Galla Salganik-Shoshan. 2015. "Corporate Governments: Government Connections of Public Oil and Gas Companies." *Corporate Ownership and Control* 12(4): 286–302. <https://ssrn.com/abstract=2629133>
- [21]. Lee, Peggy M, and Hugh MO Neill. 2003. "Ownership Structures And R&D Investments Of U. S. And Japanese Firms: Agency And Stewardship Perspectives ." *The Academy of management Journal*. 46 (2): 212-226. <http://doi.org/10.2307/30040615>
- [22]. Leung, Noel W., and Mei Ai Cheng. 2013. "Corporate Governance and Firm Value: Evidence from Chinese State-Controlled Listed Firms." *China Journal of Accounting Research* 6(2): 89–112. <http://dx.doi.org/10.1016/j.cjar.2013.03.002>.
- [23]. Lin, Chan Jane, Tawei Wang, and Chao Jung Pan. 2016. "Financial Reporting Quality and Investment Decisions for Family Firms." *Asia Pacific Journal of Management* 33(2): 499–532. <http://dx.doi.org/10.1007/s10490-015-9438-8>.
- [24]. Li, Kuei Fu, and Yi Ping Liao. 2014. "Directors 'and Officers' Liability Insurance and Investment Efficiency: Evidence from Taiwan." *Pacific Basin Finance Journal* 29: 18–34. <https://doi.org/10.1016/j.pacfin.2014.03.001>
- [25]. Ma, Guangrong, Oliver Meng Rui, and Yiping Wu. 2015. "A Springboard into Politics: Do Chinese Entrepreneurs Benefit from Joining the Government-Controlled Business Associations?" *China Economic Review* 36: 166–83. <http://dx.doi.org/10.1016/j.chieco.2015.09.003>.
- [26]. Mahmood, Monowar, and Nurlan Orazalin. 2017. "Green Governance and Sustainability Reporting in Kazakhstan's Oil, Gas, and Mining Sector: Evidence from a Former USSR Emerging Economy." *Journal of Cleaner Production* 164: 389–97. <http://dx.doi.org/10.1016/j.jclepro.2017.06.203>.
- [27]. Motylska-Kuzma, Anna. 2017. "The Financial Decisions of Family Businesses." *Journal of Family Business Management* 7(3): 351–73. <https://doi.org/10.1108/JFBM-07-2017-0019>
- [28]. McNichols, Maureen F., and Stephen R. Stubben. 2008. "Does Earnings Management Affect Firms' Investment Decisions?" *Accounting Review* 83 (6): 1571–1603. <https://doi.org/10.2308/accr.2008.83.6.1571>
- [29]. Myers, Stewart C., and Nicholas S. Majluf. 2011. "Brealey, Richard A., Stewart C. Myers, and Franklin Allen. *Principles of Corporate Finance*. " New York: McGraw-Hill / Irwin, 2011. Print. 13 (2): 187–221.
- [30]. Orazalin, Nurlan, Monowar Mahmood, and Timur Narbaev. 2019. "The Impact of Sustainability Performance Indicators on Financial Stability: Evidence from the Russian Oil and Gas Industry." *Environmental Science and Pollution Research* 26(8): 8157–68. <https://DOI.org/10.1007/s11356-019-04325-9>
- [31]. Shahzad, Faisal, Ijaz Ur Rehman, Sisira Colombage, and Faisal Nawaz. 2018. "Financial Reporting Quality, Family Ownership, and Investment Efficiency An Empirical Investigation." 45 (4): 513–535. <https://doi.org/10.1108/MF-02-2018-0081>

- [32]. Su, Zhong Qin, Hung Gay Fung, and Jot Yau. 2013. "Political Connections and Corporate Overinvestment: Evidence from China." *International Journal of Accounting and Information Management* 21(4): 285–96. <https://doi.org/10.1108/IJAIM-02-2013-0006>
- [33]. Villalonga, Belen, and Raphael Amit. 2006. "How Do Family Ownership, Control, and Management Affect Firm Value?" *Journal of Financial Economics* 80 (2): 385–417. <https://doi.org/10.1016/j.jfineco.2004.12.005>
- [34]. Wan, Hualin, Kai Zhu, and Xinyuan Chen. 2015. "Career Concerns, Shareholder Monitoring and Investment Efficiency: From the Perspective of Compensation Contract Rigidity in Chinese SOEs." *China Journal of Accounting Research* 8(1): 59–73. <http://dx.doi.org/10.1016/j.cjar.2015.01.003>
- [35]. Wang, Kun, and Xing Xiao. 2009. "Ultimate Government Control Structures and Firm Value: Evidence from Chinese Listed Companies." *China Journal of Accounting Research* 2(1): 101–22. [http://dx.doi.org/10.1016/S1755-3091\(13\)60010-6](http://dx.doi.org/10.1016/S1755-3091(13)60010-6)
- [36]. Zhang, Huili, Ran An, and Qinlin Zhong. 2019. "Anti-Corruption, Government Subsidies, and Investment Efficiency." *China Journal of Accounting Research* 12(1): 113–33. <https://doi.org/10.1016/j.cjar.2018.12.001>
- [37]. Zhao, Jing, Xiao Chen, and Ying Hao. 2018. "Monetary Policy, Government Control and Capital Investment: Evidence from China." *China Journal of Accounting Research* 11(3): 233–54. <https://doi.org/10.1016/j.cjar.2018.04.002>
- [38]. Ziolo, Magdalena et al. 2019. "Finance, Sustainability and Negative Externalities. An Overview of the European Context." *Sustainability* 11(15): 4249. <https://doi.org/10.3390/su11154249>

Appendix

Variable Label	Label	Nature Variable	Description	Data Source
Dependent Variable				
Investment Efficiency	I	Numeric	Total Investment ($I_{i,t}$) is the sum of capital and non-capital expenditures, while SG is the difference between company sales in years $t-2$ and $t-1$	Financial Reporting
Independent variables				
Financial reporting quality	FRQ	Numeric	$TA_{i,t}$ is the total accrual obtained from (current assets - Δ current liabilities) + (short-term banks - depreciation expense) lagged total assets; $\Delta Sales_{i,t}$ is the change in sales of sales from year t to year $t-1$. $PPE_{i,t}$ is tangible fixed assets. $\Delta CFO_{i,t}$ is the change in operating cash flow from year t to year $t-1$ and $\varepsilon_{i,t}$ is the error rate. To calculate FRQ by multiplying the absolute value of residuals by -1. Then the value will be authenticated. Kasznik (1999)	Financial Reporting
Company Size	Ln Total Assets	Numeric	Log natural total assets	Financial Reporting
Leverage	DER	Numeric	Total debt divided by total equity	Financial Reporting
Ownership Type	OT	Nominal	Type of Ownership is measured by Dummy, if the company which is majority-owned by the Government is categorized 2, and the company which is majority-owned by non-Government is categorized 1.	Financial Reporting