

The Impact of Corporate Political Connections on Analyst Forecast Quality

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Abstract

The purpose of this study is to investigate that whether the companies have significant impact of political connections on analyst forecasts quality. Refer to the literature on relevant analyst information in the past, especially distinguish the information obtained by analysts into public information and private information, and check whether it will affect the quality of analysts' forecast information. Our empirical results show that there is a significant negative correlation between companies with political ties and the accuracy of analysts' public information; while companies with political ties have a significant positive correlation with the private information part. It indicates that when companies have political connections, companies are only willing to disclose information to specific stakeholders, resulting in information asymmetry. Meanwhile, the accuracy of public information obtained by analysts is relatively low, while the accuracy of private information is relatively high for the companies with political connections.

JEL classification numbers: G30, M41

Keywords: Political Connections, Analyst Forecast Quality

1. Introduction

This study aims to investigate the impact of Taiwanese corporate political relations on the quality of analysts' forecast information. In recent years, news of Taiwanese politicians serving as directors or operators of listed OTC companies has been heard, and there are many foreign literatures discussing the impact of political connections on company value, audit quality and information transparency. Faccio (2006) shows that Companies with political connections account for 8% of the global stock market capitalization, which shows that companies with political connections generally exist in the capital market. In the past literature on political connections, it was found that the economic system in East Asia is a relationship-based system (Rajan and Zingales , 1998; 2006; Bliss and Gul, 2012), Taiwan and these countries are all members of East Asian economies, but compared with other conservative and closed countries in East Asian economies, Taiwan is more inclined to democratic political countries. In this way, this study will use Taiwan's unique environment to understand whether the influence of corporate political relations still exists in an economic system with an open democratic electoral system but a traditional relationship-based business model.

At present, the concentration of equity in listed companies in China is the norm, which leads to the majority of external investors. Because of their lack of professional analysis capabilities, they cannot fully interpret the company's public information, resulting in wrong investment decisions. Therefore, external investors generally rely on external third parties, such as analysts. Therefore, analysts are the bridge between information users and information providers, play the role of information intermediaries, and analyze the company's financial statements, industry characteristics, etc. After summarizing and analyzing Information such as current status, analysts' future vision and earnings forecast are used as a reference for investors to select stocks. Since analysts often have more information about companies than investors, and have the advantages of professional analysis capabilities, their analysis reports have a significant impact on external investors' investment decisions (Kross, Ro, and Schroeder, 1990).

However, many foreign literatures have previously found that politically linked companies have no motivation to increase information transparency. Piotroski, Wong and Zhang (2008) pointed that information transparency can limit the ability of politicians and managers to control private interests. They found that politically connected companies especially like to hide information about bad economic outcomes. Because politically connected companies are less likely to have strict external accountant supervision, those companies often deliberately hide or obscure the financial information that should be disclosed in order to conceal the benefits brought about by political ties. Therefore, politically connected companies tend to reduce information transparency. Prior research has shown that political connections can help businesses get loans from banks or other institutions, lobby for changes and enactments of bills more easily, get tax breaks on certain goods, gain a competitive advantage in competing for government contracts, and enjoy less legal oversight , and it is easier to obtain court support in commercial disputes, with a higher chance of winning (Stigler, 1971; De Soto, 1989; Johnson and Mitton , 2003; Li, Meng , Wang, and Zhou, 2008; Goldman, Rocholl , and So, 2009).

Because most investors lack internal information sources and the ability to interpret financial statements, they need to rely on the professional ability of analysts, so analysts are the information intermediaries between companies and external investors (Beaver, 2002). If the information is fully disclosed and accurate, the accuracy of analysts' forecasts will also increase. Conversely, if the transparency of the information publicly disclosed by the company is low, it will inevitably affect the accuracy of analysts' forecasts. Since analysts publish financial forecasts based on their private information and public public information, once the uncertainty of the information they face increases, the accuracy of the information publicly obtained by analysts will decrease (Han and Manry, 2000;

Hope, 2000). 2003a; Barron, Kim, Lim and Stevens, 1998); however, when analysts are unable to obtain correct public information from public sources, they will turn to private sources to obtain private information from the company to facilitate earnings forecasting. Accordingly, it can be seen from the foregoing that companies with political ties have relatively low information transparency and a low level of information disclosure, and are more likely to hide financial information, so analysts will have poorer accuracy of public information for the company. On the other hand, from another perspective, when analysts cannot obtain accurate public information from politically connected companies, they are forced to rely on privately obtained information to forecast future earnings. Therefore, when analysts cannot base on public information, they will increase the reliance on private information, which in turn increases the accuracy of the analyst's private information. Therefore, this study suggests that companies with political connections have lower information transparency, so the accuracy of public information will decrease. However, in order to obtain relevant financial forecast information, analysts will prefer to obtain private information through personal channels. On the contrary, the accuracy of private information will be higher. This study refers to the model of Barron et al. (1998) (hereinafter referred to as BKLS), which separates analysts' forecast information quality into public information and private information, and then uses the BKLS model to explore the political connection of enterprises to public information to analyst accuracy and private information accuracy.

The contributions of this study are as follows: First, there is very few literature review on the topic of the political connections in Taiwan. This study uses the unique environment of Taiwan to understand that it has an open democratic electoral system but retains its traditions. Under the economic system of the relationship system, whether the political relationship affects the quality of analyst forecast information. Second, this study explores corporate political relationships through publicly available information, and analyzes the impact of such political connections on analysts' different accuracy of information, hoping to help external investors provide another reference indicator when observing companies. Third, this study also contributes to the literature on corporate governance. Corporate governance has been a topic of great importance to the industry, government and academic circles, but in recent years, recent corporate governance research has focused on the composition of the board of director, the impact of ownership structure and the social responsibility. Few literatures focus on this feature of political connections and its impact on analysts' behavior. This study just makes up for this part of the literature. The results of this study will provide external investors with an understanding about the company different political connection backgrounds, which have varying degrees of impact on the quality of analysts' forecast information.

2. Literature Review

2.1 Political Connections

Politically connected companies are prevalent in the capital market, and Faccio (2006) defines the term politically connected: "When a company has one or more major shareholders (more than 10% control) or a senior executive (CEO, president, vice-president, chairman, or secretary), is a member of parliament, a minister, or has close ties to a significant political figure or party, the company is considered politically connected." Faccio (2006) also shows that politically connected companies account for 8% of the global stock market value. Additionally, other characteristics of enterprises have also been used to evaluate political connections. For example, Goldman, Rocholl and So (2009) used the donations or assistance of corporate organizations to the government, political parties, and candidates during elections to evaluate whether a company has political connections.

(1) The favorable influence of political connections

If the company can maintain good relations with government units, political parties, and

government officials and bring operational benefits or preferences to the company, it is natural that the business owner will strive to manage political connections. Many literatures have mixed results on whether companies should be politically connected. On the positive side, Frye and Shleifer (1997), suggest that the government will use its political power to help enterprises, and will actively formulate some regulations that can promote the operation of enterprises. Prior studies also confirm that political ties can indeed bring many benefits to companies; Soto (1990) and Shleifer and Vishny (1994) found that maintaining good relations between companies and politicians not only reduces the possibility of companies being invaded, but also reduces the possibility of aggression. Roberts (1990) and Goldman et al. (2009) pointed that when US company board members have political connections, the value of the company will be enhanced.

López -de- Silanes and Shleifer (2000) and Guriev (2004) argue that when firms have political ties, their intergovernmental processes are shortened, have the benefit of prioritization, and when firms have political connections, the likelihood of receiving government assistance is also relatively high (Claessens, Erik and Luc, 2008; Francis, Huang, Khurana and Pereira, 2009; Faccio, 2010). Peng, Tan , and Tong (2004) found that the relationship between Chinese enterprises and the government will use the seat of the National People's Congress to improve political legitimacy, and it can help enterprises to obtain the exclusive public support and preferential treatment of the government in the future. Adhikari et al. (2006) shows that the tax rate applicable to the calculation of tax is significantly higher for companies without political connections than for companies with political connections. Boubakri, Guedhami, Mishra and Saffar (2012) points that political connections can obtain lower cost of equity capital. In addition, politically connected companies bring key policy and overall industry information to companies (Hillman, Zardkoohi, and Bierman 1999); politically connected companies are also relatively easier to obtain government procurement contracts and financial bailouts (Goldman et al., 2009; Faccio , Masulis , and McConnell, 2006).

(2) The negative impact of political connections

However, several literature arguing that political connections negatively affect firms. Olson (1982) states that if there is an inappropriate relationship between the government and enterprises, it will seriously affect the overall national competitiveness, and even make the country get into recession. Shleifer and Vishny (1994) explore that politically connected enterprises may hide negotiated transactions with government officials or aide, thereby leading to information asymmetry, and it has also been found that government officials may engage in rent seeking to obtain their private benefits. Shleifer and Vishny (1998) also suggest that because the government will interfere in the transactions of enterprises, the ultimate loss of enterprises is not entirely due to poor corporate governance, but because the government directly or indirectly to control the company's transactions. At this time, the government's purpose is not to maximize the interests of shareholders, but to obtain benefits from them. Fisman (2001) and Fan, Wong and Zhang (2007) state that the use of internal resources invested in productivity to develop political relations is one of the important reasons for the poor management of enterprises.

Fan et al. (2007) choose Chinese companies as a sample and found that politically connected companies have significantly lower operating performance than companies without political ties. Boubakri, Cosset and Saffar (2008) pointed that companies with political affiliations are less effective than those without political ties. Yuan (2011) found that government units will encourage and force politically connected companies to hire more employees in order to help solve the problem of unemployment, which will lead to rising costs and inefficiencies in companies. Chaney, Faccio and Parsley (2011) analyzed 20 countries and found that political background is an important factor affecting accounting quality, in particular, companies with a good relationship between major shareholders and top government officials show poor quality of accounting information. Ben-Nasr, Boubakri and Cosset (2012) explore the impact of state ownership and political connections on

privatized companies, and the results show that the higher political interference, the higher the cost of equity capital. Bliss and Gul (2012) used Malaysia as a sample and found that audit institutions and lenders considered politically connected companies to have higher relative risks, and therefore higher cost of debt.

2.2 The Quality of Analyst forecasts

In general, analysts and management forecasts are the two main sources of financial forecast information for investors. The disclosure of corporate public information has a positive impact on the accuracy of analyst forecasts, adequate and appropriate expression. (Diamond and Verrecchia, 1991; Bushman and Smith, 2003; Bushman et al., 2004), which in turn prompts more analysts to increase their forecast willingness and the earnings made by analysts. The prediction accuracy will also be higher (Langberg and Sivaramakrishnan, 2008). Byard and Shaw (2003) believe that when companies increase information transparency, it will attract the attention of institutional investors and analysts. Chiang (2005) took Taiwanese electronics companies as an example, and concluded that the accuracy of analyst forecasts was significantly related to the transparency of company information, and the more transparent the more accurate forecasts would be. Wu (1991) found that the financial forecasts provided by the management authorities mainly hope that analysts will make appropriate corrections to the inappropriate forecasts previously issued, and the analysts will also adjust the previously issued forecasts after obtaining the information.

In the past literatures such as Givoly and Lakonishok (1979), Griffin (1976) and Imhoff and Lobo (1984) considered the market's reaction to analysts' incorrect forecast revisions. The research shows that analysts' revised earnings forecasts convey new information. To the capital market, its forecast revisions are informative. Elton, Gruber, and Gulekin (1981) state that analyst forecast revision information will incur more impact than reported earnings information. When analysts perform financial (earnings) forecasts, the information they use can be divided into public information and private information. In other words, the information environment of an enterprise consists of public information and private information. Public information is actively disclosed by the management of the enterprise, or disclosed by the public. If the analyst uses his own experience, knowledge, and ability to explain, it is private information. (Barron, Kile, Lim, and Stevens, 1998). Barron et al. (1998) suggest that when the earnings consistency is high, the use of public information accounts for a high proportion of their total personal information.

Prior research has shown that increased information transparency rises the forecast accuracy of analysts (Barron, Kile, and O'Keefe, 1999; Brown, 1997; Byard and Shaw, 2003; Lang and Lundholm, 1996). When external investors cannot obtain accurate public information from politically connected companies, analysts will have more incentives to collect private information through personal channels (Verrecchia, 1982; Lang and Lundholm, 1996). Analysts will increasingly obtain private information through private channels when companies have more intangible assets, the value of the company is more difficult to measure, or the company's stock price or less able to reflect its real value. (Barth, Kasznik and McNichols, 2001).

Barron et al. (2002) found that when analysts make earnings forecasts for companies with greater uncertainty, there will be incentives to collect new private information. Lang and Lundholm (1996) also suggest that when the level of public information disclosure of companies is low, analysts will put more weights of private information in their earnings forecasts. Barron, Byard, and Yu (2008) found that in analysts' earnings forecasts, the increase in unexpected earnings and negative unexpected earnings represents an increase in forecast error, indicating that forecast errors will make analysts tend to search more actively or obtain relatively more private information to avoid future forecast errors. Therefore, when an analyst cannot make financial forecasts based on public information, it will increase the analyst's reliance on private information, thereby improving the

accuracy of the analyst's private information. In other words, when a company chooses to disclose a higher degree of public information, the analyst's private information has a lower degree of disagreement with its earnings forecast based on public information, that is, the two have an inverse relationship.

2.4 Hypothesis Development

This study states that the quality of information disclosure by companies may be affected by the political connections. Schipper(1989) and Leuz, Nanda and Wysocki(2003) show that when the company has political connections, the relationship between the company's management authority and the government unit or competent authority is closer, and the quality of financial information disclosure will not receive additional attention. The poor information transparency makes it difficult for users of financial statements to obtain the complete information of the company. Piotroski, Wong and Zhang (2008) found that when local governments control enterprises, they will incline to suppress bad news and expose investors to a high information risk environment. Chaney, Faccio and Parsley (2011) state that when a company is politically connected, manager is less concerned about market pressure, resulting in poorer disclosure quality of accounting information. Haw, Hu, Hwang and Wu (2004) show that in countries with relatively low protection of people's rights, companies will have poorer average disclosure quality of accounting information. In general, since many studies supports that politically connected firms will have lower information quality, this study expects to reduce the accuracy of analysts' publicly available information (Cho and Harter, 1995; Han and Manry, 2000; Hope, 2003a; Barron et al. 1998); on this basis, this study suggests that when firms are politically connected, the relative information transparency is low, which reduces the accuracy of analysts' public information. Thus, Hypothesis 1 is as follows:

Hypothesis 1: Firms with political connections will have lower accuracy of analyst disclosures.

The information of enterprise is composed of public information and private information. Therefore, this study intends to explore the relationship between public information and private information of enterprises, and see whether they will affect each other. When companies deliberately hide, fabricate, or omit financial and non-financial information, the information will be insufficiently disclosed or even misrepresented, the quality and transparency of the information will be poor, and external investors will make wrong decisions.

For analysts, the lack of public information will prompt them to obtain private information through methods to avoid prediction bias. However, if the public information is disclosed, the lower proportion of information accuracy in the overall information accuracy, the higher the proportion of private information accuracy, and the faster the stock market price reaction before the earnings announcement (Lev and Penman, 1990; Francis and Phibrick, 1993). Based on this, this research infers that when companies have political connections, due to lower information transparency, analysts cannot obtain sufficient and appropriate public information, so they turn to rely on self-collected private information, which will increase analysts' accuracy of private information, so this study forms the second hypothesis as follows:

Hypothesis 2: Politically connection firms will have higher accuracy of analyst private information.

Furthermore, in terms of overall information, Barron et al. (2002) found that in the overall financial forecast of analysts, the impact of the accuracy of public information will be greater than that of private information. Therefore, if the accuracy of public information is greater than that of private information, the average analyst forecast error will decrease. On the contrary, if the accuracy of analyst public information decreases, the average analyst forecast error will increase. If the accuracy of analyst private information for politically connected companies is higher, it still cannot

make up for the decline in the accuracy of public information. Therefore, although analysts' forecasts for politically connected companies rely more on privately obtained information, the quality of analysts' overall earnings forecasts will still decline, resulting in larger forecast errors. Hence, this study forms Hypothesis 3 as follows:

Hypothesis 3: Politically connections companies will have larger analyst forecast errors.

3. Research Design

3.1 Empirical regression model

The main purpose of this study is to explore the impact of corporate political connections on the quality of analysts' information. Therefore, based on the research hypotheses derived in the previous section, the empirical regression models are constructed as follows:

$$PUBLIC = \alpha_0 + \alpha_1 POLITICAL + \alpha_2 SIZE + \alpha_3 LEV + \alpha_4 GROWTH + \alpha_5 ROA + \alpha_6 BIG4 + \delta YEAR + \varphi INDUSTRY + \varepsilon \quad (1)$$

Model (1) is mainly used to test Hypothesis 1, whether politically connected companies will have a lower accuracy of analysts' disclosure of information. This study expects that politically connected companies will have poor information disclosure quality, so it will cause the diminished precision of analysts' publicly available information. Therefore, this study suggests that α_1 will be negative.

$$PRIVATE = \beta_0 + \beta_1 POLITICAL + \beta_2 SIZE + \beta_3 LEV + \beta_4 GROWTH + \beta_5 ROA + \beta_6 BIG4 + \delta YEAR + \varphi INDUSTRY + \varepsilon \quad (2)$$

Model (2) is used to test Hypothesis 2, whether politically connected companies have more analysts' private information accuracy. This study suggests that since politically connected companies have lower information transparency, analysts are more likely to obtain the firm's private information. Accordingly, this study expects that β_1 will be positive.

$$ERROR = \gamma_0 + \gamma_1 POLITICAL + \gamma_2 SIZE + \gamma_3 LEV + \gamma_4 GROWTH + \gamma_5 ROA + \gamma_6 BIG4 + \delta YEAR + \varphi INDUSTRY + \varepsilon \quad (3)$$

Model (3) tests Hypothesis 3, expecting that politically connected companies will have larger earnings forecast errors, so this study infers that γ_1 will be positive.

3.2 Measurement of dependent variables

(1) Analyst Public Information Accuracy (*PUBLIC*)

This study refers to Barron et al. (1998) and Botosan, Plumlee and Xie(2004), calculate the accuracy of analysts' public information, which is measured as follows:

$$PUBLIC = \frac{SE - (D/N)}{[(SE - (D/N) + D]^2}$$

(2) Analyst's Private Information Precision (*PRIVATE*)

Following Barron et al. (1998) and Botosan, Plumlee and Xie (2004), this study adopts the accuracy of analysts' private information, which is measured as follows:

$$PRIVATE = \frac{D}{[(SE - (D/N) + D]^2}$$

In the above formula , $SE = (A_{it} - \overline{F_{it}})^2$, is the analyst forecast variability; $D = \frac{1}{N-1} \sum_{i=1}^N (\overline{F_{it}} - F_{ijt})^2$, is the analyst forecast dispersion ; N = the number of analysts forecasting; A_{it} is the actual earnings per share $\overline{F_{it}}$ of company i in year t , which is the average number of earnings per share forecast by analysts in company i in year t ; F_{ijt} is the EPS forecast by individual analysts for company i in year t value.

(3) Analyst forecast error (*ERROR*)

A measure of analyst forecast error is based on the method of Barron et al. (1998):

$$ERROR = (A_{it} - \overline{F_{it}})^2 / P_{t-1}$$

Among them, analysts' forecast errors (*ERROR*) are deflated by the total market price at the beginning of the period (P_{t-1}).

3.3 Measurement of Political Connections (*POLITICAL*)

This study constructs a dummy variable that a firm has political connections, which is based on Faccio (2006), which mentioned that the connections of political connections include executives or major shareholders entering the political arena and politicians serving as company directors, with any member of the company's board of directors. If the director has held political positions such as central government officials, public opinion representatives, or political party positions in the past or present, which takes the value of 1, otherwise 0.

3.4 Measurement of control variables

The purpose of this study is to examine the impact of board functions on analysts' forecasts, and therefore controls for other variables that may affect analysts' forecasting behavior. The control variables in this study are company size, financial leverage ratio, growth opportunities, profitability, accounting firm size, and the effect of control year and industry. The relevant control variables are described as follows:

(1) Company size (*SIZE*)

This study takes the natural logarithm of the company's total assets at the beginning of the period as a measure of company size. When the company is larger, it can achieve the advantages of economies of scale in operations, marketing and finance, so as to improve company performance and increase company value. Previous studies have found that company size is positively correlated with the level of voluntary disclosure (Chow and Wong-Boren, 1987; Eng and Mak, 2003). On the other hand, larger companies are more attractive to investors and have a higher reputation, and the potential benefits obtained by analyzing large companies are relatively large, which is more likely to attract more attention from analysts (Hope, 2003a). Therefore, this study expects that the larger the company size, the analyst forecast accuracy is higher.

(2) Financial Leverage (*LEV*)

It is measured by dividing the book value of total liabilities by the book value of total assets at the end of the year. Soto (1990) and Shleifer and Vishny (1994) found that since politically connection companies are more likely to obtain relevant subsidies, relax access to financing conditions and tax incentives, and tend to hide the potential benefits obtained from political ties, the degree of information disclosure decreased. Analysts cannot obtain sufficient public information and only rely on other means to obtain private information. Therefore, this study intends to explore the relationship between the financial leverage ratio and analysts' forecast behavior. It is believed that the company's high debt ratio implies that the company's directors may obtain more preferential financing contracts due to political connections. The available public information is insufficient, and the accuracy of the public information is low. Analysts turn to use their own channels to obtain private information of the company's directors, which is more accurate, and the low level of information disclosure makes analysts' forecasts more error-prone.

(3) Growth Opportunities (*GROWTH*)

The company's stock market value is divided by the book value to measure the company's growth opportunities. Since the company's value is composed of the current asset value and future growth opportunities, the company's stock market value has included investors' expectations for the company's future, which also represents the value of the company's growth opportunities. When the company grows faster, its business performance and stock return are relatively higher. Previous studies suggest that companies with high growth opportunities will attract more analyst reports to provide investors as a stock selection reference (Lang, and Lundholm, 1996; Barth, Kasznik, and McNichols, 2001). Therefore, this study expects that the company's growth opportunities are positively correlated with analysts' forecast behavior. The high-growth relationship implies that investors' expectations and the company's future prospects are fully disclosed. Analysts can easily obtain more public information, so the accuracy of public information is improved, and private information is more accurate. The information is less accurate.

(4) Profitability (*ROA*)

In this study, the return on assets is used to measure the profitability of a company. ROA can represent the business performance. Healy and Palepu (2001) state that companies with poor profitability or performance will have incentives to hide unfavorable information. This means that when the company's profitability is better, in order to convey positive information to investors, it will actively disclose more information. It is believed that the higher the information transparency of the company, the higher the number of followers and the forecasting accuracy of analysts regardless of the type of information (Waymire, 1986; Lang and Lundholm, 1996; Basu, Hwang, and Jan, 1998; Hope, 2003a; Wang Shaobin and Xu Mingye, 2011). While analysts have more incentives to predict profitable companies (McNichols and O'Brien, 1997), they have less incentive to obtain private information, and private information is less accurate. Therefore, this study expects that the better the profitability of the company, the lower the forecast error.

(5) Big 4 Audit firms (*BIG4*)

Previous study support that the audit quality of accounting firms is positively related to firm size, and that large firms are more likely to restrain corporate management's earnings management behavior (Dopuch and Simunic, 1982; Moore, and Scott, 1989). Moreover, Sighvi and Desai (1971), and Archambault and Archambault (2003) also believe that in order to maintain the reputation of Big 4 auditors, there will be incentives for companies to disclose more information in their annual reports.

In addition, Behn, Choi and Kong (2008) show that if the auditors are Big 5 auditors, the accuracy of the analyst's earnings forecast is higher and the degree of dispersion is smaller. Because companies disclose information more honestly, analysts have more public information, and the accuracy of public information is higher, while the accuracy of private information is lower. Therefore, this study will set up dummy variables to measure the auditors. When the company is audited by Big 4 auditors, taken a value of 1 and otherwise 0.

(6)Year (*YEAR*) and Industry (*INDUSTRY*)

Since analyst forecasting behavior is easily affected by year and industry characteristics, this study controls industry and year.

3.4 Research period and sample data information

This research focuses on the listed companies on the Taiwan Stock Exchange from 2012 to 2020. Analyst forecast information and control variables are collected from Taiwan Economic News (TEJ). The information on the political links of the board members is collected manually from the previous important cadres published by various political parties in Taiwan. The sample content includes the list of the Party (Vice) Chairman, the Central Standing Committee, the Central Executive Committee, the Central Judges, Party Representatives, and County and City Chairmen; the government Some of them include the central government (the chief or deputy chiefs or political commissars of various ministries of the Executive Yuan over the years, the chiefs or deputy chiefs of various departments of the Presidential Office, and the chiefs or deputy chiefs of various ministries and councils of the provincial government) and representatives of public opinion (the county mayors, Legislative members, representatives of the National Assembly, county and city councilors, and provincial councillors), and from the National Congress website, Wikipedia , provincial councils, provincial governments, the Central Election Commission, as well as the DPP, KMT, Taiwan Alliance Party, People First Party and other party officials Collected on the website one by one. The sample of this study is selected from the listed companies publicly issued by the Taiwan Stock Exchange and the OTC Exchange.

The sample period is from 2012 to 2020. The published annual report information collects samples for nine years. The relevant selection process of the samples is shown in Table 1. The initial number of samples obtained is 7,014, excluding 299 from the financial, insurance and securities industries. There are 3,310 forecast data, and the missing value of delisting and related variable data during the research period is finally deducted, resulting in a total of 2,285 valid samples.

Table 1 Sample Selection Process

Initial observations 2012-2020	7,014
Exclude: Finance, insurance and securities	(299)
Incomplete data on political connections, incomplete analyst forecast data	(3,310)
Incomplete data on other financial variables	<u>(1,120)</u>
Total study sample	<u>2,285</u>

4. Empirical results

4.1 Descriptive Statistical Analysis

This study aims to investigate the influence of political relations on the quality of analysts' forecast information. Table 2 Panel A summarizes the descriptive statistics of each variable in this study, with a total of 2,285 empirical samples. First of all, the average of analysts' public information accuracy (*PUBLIC*) is 0.681, the median is 0.176, and the standard deviation is 13.467 ; The average precision of analysts' private information (*PRIVATE*) is 6.891, the median is 0.505, and the standard deviation is 49.370. It can be seen from the above that the precision of analysts' private information varies greatly. In terms of independent variables, the average number of directors with political connections (*POLITICAL*) is 0.464, which means that about 46% of directors of listed companies in Taiwan have political ties. In terms of control variables, the average company size (*SIZE*) was 7.242, and the median was 7.129; the average financial leverage ratio (*LEV*) was 43.112, and the median was 43.840, indicating that the average debt ratio of the sample companies during the study period was about 43%; The average number of growth opportunities (*GROWTH*) is 0.881, and the median is 0.622; the average number of return on assets (*ROA*), which measures the profitability of the company, is 13.697, and the median number is 12.490, which means that the profitability of the sample company is about 13%. ; The average number of whether it is checked by the big four accounting firms (*BIG4*) is 0.917, which means that more than 90% of the sample companies are checked by the big four accounting firms in the current year.

Panel B in Table 2 divides the sample into two groups of companies with political affiliation and those without political affiliation, and conducts the difference test of the mean and the median respectively, so as to observe whether there is a difference between the variables after grouping. It can be seen from Panel B that the accuracy of analyst public information (*PUBLIC*) is larger for companies without political ties, the accuracy of analyst private information (*PRIVATE*) is larger for companies with political ties, and the analyst forecast error (*ERROR*) are equal. As for the control variables, company size (*SIZE*), financial leverage ratio (*LEV*) and whether it is a Big Four accounting firm audit (*BIG4*) is larger for politically connected companies, growth opportunities (*GROWTH*) and asset returns that measure company profitability The ratio (*ROA*) is larger for firms that do not have political ties.

Table 2 Sample descriptive statistics

	minimum	median	maximum value	average	standard deviation
strain number					
<i>PUBLIC</i>	-433.333	0.176	122.667	0.681	13.467
<i>PRIVATE</i>	0.000	0.505	1433.333	6.891	49.370
<i>ERROR</i>	-0.003	0.000	0.003	0.000	0.000
independent variable					
<i>POLITICAL</i>	0.000	0.000	1.000	0.464	0.499
control variable					
<i>SIZE</i>	5.785	7.129	9.364	7.242	0.638
<i>LEV</i>	4.050	43.840	91.560	43.112	16.457
<i>GROWTH</i>	0.026	0.622	17.390	0.881	0.915
<i>ROA</i>	-19.740	12.490	96.450	13.697	8.378
<i>BIG 4</i>	0.000	1.000	1.000	0.917	0.276

Variable Definition: PUBLIC = Analyst Public Information Accuracy. PRIVATE = Analyst Private Information Accuracy. ERROR = analysis Teacher prediction error. POLITICAL = corporate political connection, the board has a political connection to 1, otherwise it is 0. SIZE = company size, taking the natural logarithm of total assets at the beginning of the period. LEV =debt ratio, calculated by dividing the book value of total liabilities by the book value of total assets at the end of the year . GROWTH= Growth opportunities, measured by dividing a company's stock market value by its book value. ROA =Profitability measures the profitability of a company in terms of return on assets. Whether BIG 4 =is checked by the Big Four accounting firm, it is set to 1, otherwise it is 0.

4.2 Regression results

(1) The impact of politically connected firms on the accuracy of analysts' disclosures

The valid sample of this study is 2,285. Based on the derived hypothesis, regression model analysis is carried out to explore the influence of Taiwanese corporate political relations on the quality of analysts' forecast information. Table 3 shows the empirical results of analysts' public information accuracy (*PUBLIC*) on corporate political ties (*POLITICAL*), *it can be found that the coefficient of the POLITICAL* variable of corporate directors is significantly negatively correlated (coefficient estimated value = -0.993, $p = 0.097$), which is in line with the expectation of Hypothesis 1 , which means that when the directors of the company have political connections, the accuracy of the information disclosed by analysts is lower, that is, when the directors have political connections, they are less willing to disclose the information about the potential interests they have obtained. Or the directors of the company are only willing to let specific stakeholders know, resulting in information asymmetry, which makes it impossible for analysts to obtain sufficient and appropriate public information, so that the accuracy of the information is low.

In terms of control variables, whether it is the Big Four audit firm (*BIG4*) and the analyst's public information accuracy (*PUBLIC*) showed a significantly negative value (coefficient estimate = -2.117 , $p = 0.057$), indicating that it is significantly different from the analyst's public information Accuracy is inversely correlated, while Company Size (*SIZE*), Financial Leverage Ratio (*LEV*), Growth Opportunity (*GROWTH*), and Return on Assets (*ROA*) for Profitability are not as close to Analyst Public Information Accuracy (*PUBLIC*) significant level. Only the Big Four accounting firms (*BIG4*) are significant control variables . *The possible reason is that the public information covers a wide range and has far-reaching influence. Therefore, after adding control variables, there is only a small part of control noise, but the scope of influence is not large.*

Table 3 The impact of politically connected firms on the accuracy of analysts' published information

Dependent Variable = <i>PUBLIC</i>				
	Expected Sign	Coefficient	t-statistic	p-value
<i>POLITICAL</i>	-	-0.993	-1.659	0.097*
<i>SIZE</i>		0.006	0.012	0.990
<i>LEV</i>		-0.021	-1.001	0.317
<i>GROWTH</i>		-0.077	0.219	0.827
<i>ROA</i>		-0.008	-0.189	0.850
<i>BIG 4</i>		-2.117	-1.903	0.057*

<i>YEAR</i>	omit	omit	omit
<i>INDUSTRY</i>	omit	omit	omit
Adj. R ²	0.010		

1.Note : 1. N=2,285

2. The definitions of all variables are the same as in Table 2.

3. Significance is a two-tailed test ; ***, **, * represent the significance levels of 1%, 5% and 10%, respectively.

(2) Impact of Politically Connected Firms on the Accuracy of Analysts' Private Information

Next, replace the analyst's public information accuracy (*PUBLIC*) with the analyst's private information accuracy (*PRIVATE*), and look at its impact on the company's political connection (*POLITICAL*), the relevant empirical results are shown in Table 4 , the results indicate that the company has political connections The coefficient of the (*POLITICAL*) variable is significantly positive (estimated coefficient=5.733, p=0.009), which supports Hypothesis 2 and is consistent with the findings of Verrecchia (1982) and Lang and Lundholm (1996), that is, if analysts cannot Analysts will be more motivated to turn to private information through personal channels when the company has accurate public information, that is, when the company is politically connected, because the disclosure of its public information is incomplete, or because the directors of the company intend to benefit a specific interest In order to reduce the prediction error , analysts will make more efforts to use channels to obtain specific private information, and the accuracy of private information is higher.

As for the control variables, company size (*SIZE*), financial leverage ratio (*LEV*), growth opportunities (*GROWTH*), return on assets for profitability (*ROA*) and Big Four audit firm audit (*BIG4*) accuracy of analyst private information (*PRIVATE*) showed no significant relationship .

Table 4. Impact of Politically Connected Firms on the Accuracy of Analysts' Private Information

Dependent Variable = <i>PRIVATE</i>			
	Coefficient	t-statistic	p-value
<i>POLITICAL</i>	5.733	2.619	0.009***
<i>SIZE</i>	-0.182	-0.093	0.926
<i>LEV</i>	-0.133	-1.706	0.102
<i>GROWTH</i>	-0.898	-0.696	0.486
<i>ROA</i>	-0.109	-0.750	0.453
<i>BIG 4</i>	3.590	0.882	0.378
<i>YEAR</i>	omit	omit	omit
<i>INDUSTRY</i>	omit	omit	omit
Adj. R ²	0.013		

1.Note : 1. N=2,285

2. The definitions of all variables are the same as in Table 2.

3. Significance is a two-tailed test ; ***, **, * represent the significance levels of 1%, 5% and 10%, respectively.

(3) The impact of politically connected firms on analyst forecast error

In terms of overall information, Barron et al. (2002) found that the influence of the accuracy of public information is greater than that of private information. Therefore, this study explores the impact of overall information on analysts' forecast errors (*ERROR*) on corporate political connection (*POLITICAL*) The relevant empirical results are shown in Table 5. The research shows that the coefficient of the company's political connection (*POLITICAL*) variable is not significant, indicating that analysts' forecast errors may be affected by the pull of analysts' public and private information at the same time, resulting in analysts' forecasts. The error is not significant.

In terms of control variables, company size (*SIZE*) and analyst forecast error (*ERROR*) have a significant positive correlation (coefficient estimate = 0.000, p = 0.000), indicating that large companies have more uncertainty in their information, leading to analyst errors The greater the profitability; the return on assets (*ROA*) of profitability and the analyst forecast error (*ERROR*) are significantly positively correlated (coefficient estimated value = 9.454, p = 0.000), indicating that the company with better operating performance, its earnings are composed of The higher the complexity, the biased analyst forecasts ; while growth opportunities (*GROWTH*), Big Four audit (*BIG4*) and financial leverage ratio (*LEV*) have no significant relationship to analyst forecast errors (*ERROR*).

Table 5 The impact of politically connected firms on analyst forecast error

Dependent Variable = <i>ERROR</i>			
	Coefficient	t-statistic	p-value
<i>POLITICAL</i>	-1.045	-0.973	0.331
<i>SIZE</i>	0.000	11.049	0.000***
<i>LEV</i>	-3.492	-0.915	0.360
<i>GROWTH</i>	-2.510	-0.396	0.692
<i>ROA</i>	9.454	13.254	0.000***
<i>BIG 4</i>	-2.667	-0.133	0.894
<i>YEAR</i>	omit	omit	omit
<i>INDUSTRY</i>	omit	omit	omit
Adj. R ²		0.162	

1.Note : 1. N=2,285

2. The definitions of all variables are the same as in Table 2.

3. Significance is a two-tailed test ; ***, **, * represent the significance levels of 1%, 5% and 10%, respectively.

4.4 Sensitivity Analysis: Excluding Government Control

The sensitivity test of this study aims to explore whether the exclusion of companies that are fully controlled by the government makes a difference to the above empirical results, and will test the

effects on the accuracy of analysts' public information, the accuracy of analysts' private information, and analysts' forecast errors. The original total number of valid samples was 2,285. After deducting 9 government-controlled companies, the new total number of valid samples was 2,277.

(1) Impact of Politically Connected Businesses on the Accuracy of Analysts' Disclosures - Excluding Government Control

of Table 6 below is the result of the accuracy of the information disclosed by the analyst to the analyst with the political connection. It can be found that after deducting the government control, the coefficient of the political connection (*POLITICAL*) variable of the company is negative and does not reach a significant level, but it is marginally significant (Coefficient estimated value=-0.972, $p=0.105$), the possible reason is that the government also plays an important role in the information of companies and analysts, and the complete removal of information that would affect analysts' publicity, so that the original sample became insignificant.

In terms of control variables, similar to the empirical results in Table 4, only whether it is the Big Four accounting firm audit (*BIG4*) and the analyst's public information accuracy (*PUBLIC*) reached a significant level (coefficient estimate=-2.143, $p=0.057$), while Company Size (*SIZE*), Financial Leverage Ratio (*LEV*), Growth Opportunities (*GROWTH*), Return on Assets for Profitability (*ROA*) are insignificant for Analysts' Public Information Accuracy (*PUBLIC*).

(2) Impact of Politically Connected Firms on the Accuracy of Analysts' Private Information - Excluding Government Control

firm's political ties on the accuracy of analysts' private information after excluding government-controlled firms are summarized in the second column of Table 6. The results indicate that after excluding government-controlled firms , the coefficient of the firm's political ties (*POLITICAL*) variable is positive and significant (estimated coefficient = 5.909, $p = 0.007$), this result is consistent with the results in Table 5, again verifying that when companies have political connections, due to insufficient disclosure of information or information asymmetry caused by company directors, As a result, the specific private information obtained by the channel used by analysts in order to reduce their forecasting bias is highly accurate.

In terms of control variables, it is similar to the previous empirical results, but the financial leverage ratio (*LEV*) and the precision of analysts' private information (*PRIVATE*) become significant (coefficient estimate = -0.130, $p = 0.093$), both of which are negative Relatedly, the lower the debt ratio, the higher the accuracy of the analyst's private information. The remaining control variables are not much different from those in Table 5. Company size (*SIZE*), growth opportunity (*GROWTH*), profitability, return on assets (*ROA*) and the Big Four audit (*BIG4*) did not show a significant relationship with the precision of analyst private information (*PRIVATE*) .

(3) Impact of Politically Connected Firms on Analyst Forecast Error - Excluding Government Control

third column of table 6 summarizes the influence of corporate political ties and analysts' forecast errors after excluding government-controlled companies. It can be seen from the results that after excluding government-controlled companies, the control variable of corporate political ties (*POLITICAL*) is negative and not significant. The results in Table 6 are similar, and it is possible that government-controlled enterprises have no effect on analysts' forecast errors.

In terms of control variables, the whole is consistent with Table 6, and there is no significant difference. Company size (*SIZE*) , return on assets (*ROA*) of profitability and analyst forecast error (*ERROR*) are significantly positively correlated ; growth opportunities (*GROWTH*) is significantly negatively correlated with analyst forecast error (*ERROR*), while Big Four audits (*BIG4*) and financial leverage ratio (*LEV*) have no significant relationship with analyst forecast error (*ERROR*).

Table 6 The influence of politically connected firms on the quality of analyst forecast information - excluding government control

Dependent Variable	<i>PUBLIC</i>	<i>PRIVATE</i>	<i>ERROR</i>
<i>POLITICAL</i>	-0.972 (-1.621)	5.909** (2.693)	-0.000 (-1.218)
<i>SIZE</i>	-0.045 (-0.071)	0.143 (0.061)	0.000*** (12.250)
<i>LEV</i>	-0.020 (-0.962)	-0.130* (-1.683)	-5.670 (-1.503)
<i>GROWTH</i>	9.548 (0.168)	-0.000 (-0.196)	-5.662*** (-5.575)
<i>ROA</i>	-0.012 (-0.306)	-0.139 (-0.964)	0.000*** (14.696)
<i>BIG 4</i>	-2.143* (-1.903)	3.302 (0.801)	-6.350 (-0.367)
<i>YEAR</i>	omit	omit	omit
<i>INDUSTRY</i>	omit	omit	omit
Adj. R ²	0.010	0.014	0.162

1. Note : 1. N=2,277

2. The value in () is t.

3. All variables are defined as in Table 2.

4. Significance is a two-tailed test ; ***, **, * represent the significance levels of 1%, 5% and 10%, respectively.

5. Conclusions and Suggestions

Taiwan's economic system belongs to the relationship-based system and has a well-established and robust democratic election system. This study intends to explore the impact on the quality of analysts' forecasting information when companies have political ties through Taiwan's unique environment. In the information market, there are two types of information available for analysts to perform financial (earnings) forecasts, namely public information and private information. It is public information reported by the general public; if analysts use their own experience, knowledge, and ability to explain, it is private information (Barron, Kile, Lim, and Stevens, 1998), and company directors play the role of information providers in the information market. The role of the analyst, that is, in determining the degree of corporate information disclosure, and when the corporate is politically connected, how does it affect the quality of the information analysts predict?

The empirical results of this study found that when companies have political connections, the

accuracy of the information disclosed by analysts is low. The exposure of information of interest will lead to additional supervision, and companies will reduce the degree of information disclosure. On the other hand, when a company has political connections, because of its opaque information, analysts cannot obtain complete public information, and instead collect private information, which leads to the situation that analysts' private information is more accurate. Regarding the future research direction, because the sample used in this research is Taiwan securities firm analysts, the analyst environment in Taiwan is relatively immature compared to Europe and the United States, and there is a lack of independent individual analysts. The empirical results of the independent analysts and the independent individual analysts can be further studied and discussed, and the relevant research can also be carried out in Europe and the United States where the analyst environment is more mature. Analysts are used as a comparison to see if their characteristics will produce different results.

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