

## THE IMPACT OF POLITICAL CONNECTIONS AND BUSINESS GROUPS ON CASH HOLDINGS

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### ABSTRACT

*Having political relations can affect the behavior of companies in terms of efficiency. One of the benefits of political relations of companies is their access to cash resources. These resources can be affected in companies that are members of the business group due to intra-group transactions. Accordingly, in this study, the impact of political connections and business groups on the level of cash holdings has been investigated. In this research, 118 companies listed on the Tehran Stock Exchange in the period 2014-2020 have been studied. To test the hypotheses, panel regression models were used. The research findings show that there is a positive relationship between political connections and the level of cash holdings and a significant negative relationship between dependence on business groups and the level of cash holdings.*

**KEYWORDS:** *Political Connections, Business Groups, Cash Holdings.*

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### 1. INTRODUCTION

Cash holdings play an important role in emerging markets because they affect companies' ability to raise capital for business operations and their investment decisions (Francis, Hasan, Song, & Waisman, 2013). Although firms in both developed and emerging markets need to make decisions about the appropriate level of cash holdings, companies in emerging markets have greater concerns regarding alternative, external sources of funding because of lower liquidity and less access to bank loans and financial markets for their bonds and common equity (Nasdaq, 2017). Keynes (1936) proposed three main motives for holding cash: transactional (to cover current transactions); precautionary (to deal with unforeseen future events); and speculative (to invest). Three theories have been developed to explain corporate cash holdings and capital structure. According to Myers's (1977) trade-off theory, firms incur opportunity costs when holding excess cash but must pay the cost of debt if they do not have cash on hand. Myers and Majluf (1984), who developed the pecking order theory, explained that when firms see promising investment opportunities, they prefer internal (cash) to external (debt, equity) funding because internal sources of funding require the lowest costs. In the free cash flow theory, which extends agency theory, Jensen (1986) proposed that control over cash empowers corporate managers, who thus may hold onto larger-than-optimal levels of cash in conflict with the interests of shareholders or may squander company cash in their own interests. Although these theories have been more or less verified in empirical studies, it should be remembered that theories advanced in developed markets, such as the United States and the United Kingdom, may not be applicable to emerging markets (Al-Najjar & Belghitar, 2011; Brenes, Madrigal, & Requena, 2011; Tahir, Alifiah, Arshad, & Saleem, 2016) because of differences in economic and financial contexts. Emerging markets do not enjoy established capital markets with the high levels of liquidity, regulatory requirements,

and market capitalization that are common in developed countries (Nasdaq, 2017). The OECD (2017) stresses that institutional differences such as the political system, equity market, banks, regulatory agencies, and legal framework affect the financial decisions of firms in developed countries and emerging markets. Businesses and investors must consider these factors.

In developed countries, firm size is negatively related to cash holdings because larger companies have greater access to funding than smaller ones, and therefore less need to hold onto cash (Akben-Selcuk&Altioik-Yilmaz, 2016; Hill, Fuller, Kelly, & Washam, 2013). For example, Cai, Zeng, Lee, and Ozkan (2016) found that group-affiliated firms tend to hold significantly less cash than their unaffiliated counterparts. In emerging markets, firm size is positively related to cash because firms are more diversified and a parent company may have several subsidiaries (Al-Najjar&Belghitar, 2011; Shabbir, Hashmi, & Chaudhary, 2016). Further, business groups, which are common in many emerging markets, serve as a nonmarket mechanism used by firms to overcome a weak institutional context (Khanna & Palepu, 2000b). La Porta, Lopez-de-Silanes, and Shleifer (1999) also found pyramidal structures in the control of firms and participation in management by families or the state, especially in economies with weak shareholder protection. Studies have also offered differing opinions regarding the connections between political connections and cash holdings. In emerging markets, political connections can help firms secure bank loans or become publicly listed (Bao, Johan, & Kutsuna, 2016; Yang, Lian, & Liu, 2012). Some have claimed that political connections reduce the need to hold onto cash (Claessens, Feijen, & Laeven, 2008; Faccio, 2006, 2010; Hill et al., 2013). Political connections are particularly common in China, the world's largest emerging market country, and one in which the Communist Party dominates. Most firms in China are owned by business groups, and the majority of these are politically connected to either the central or local government (Khanna & Palepu, 2000a; Yang et al., 2012). Our study investigates the effects of an internal force (the corporate structure of the business group) and an external force (political connections) on the cash holdings of Chinese firms.

This study makes a threefold contribution to the literature. First, it extends our understanding of the impact of political connections on the level of cash holdings. The uniqueness of China's capital market (e.g., market inefficiency and firms' lack of capital) and its specific network characteristics (e.g., ties with government as a critical resource) make it a different setting in which to examine this influence. Second, this paper argues that the business group (BG) may moderate the relation between political connectedness and cash holdings. Finally, we also attempt to compare the theoretical predictions with empirical evidence. The results of this study may help investors understand how political connections and business group structure affect cash holdings in Chinese firms.

We chose China as the sample country for this study because of its high population, rapid economic growth, and large trade surplus, which make it the largest emerging market. With 1.3 billion people, China accounts for 17.6% of the total 7.4 billion world population (World Bank, 2016b). From 1995 to 2015, it averaged a gross domestic product (GDP) growth of 9.48% (World Bank, 2016a). Moreover, given that China has had the largest trade surplus of any nation in the world since 2000, Chinese firms have had ample opportunity to accumulate a great amount of cash (FRED, 2016).

China's unique economic environment is particularly desirable for examining cash holding theories because of the prevalence of political connections and the BG corporate structure (parent companies with subsidiaries), which could affect a firm's financial decisions. By the end of 2009, 95.3% of all listed companies in China operated within BGs (Zhang, Lu, Zhang, & Jiang, 2015). Moreover, in terms of political connectedness, four large state-owned-enterprise (SOE) banks—Bank of China, Construction Bank of China, Agriculture Bank of China, and International

Commercial Bank of China—dominate the country's financial markets (Allen, Qian, & Qian, 2005). SOE companies can easily obtain funding from SOE banks, and most large companies rely on bank loans (Megginson, Ullah, & Wei, 2014). In short, political connection is also associated with ease of financing. Additionally, both firm size and corporate structure affect firms' access to loans, and thus their cash holdings

(Boubakri, El Ghoul, & Saffar, 2013). To the best of our knowledge, this is the first study to examine empirical evidence demonstrating the importance of political connections in determining the ease of acquisition and amount of cash holdings for

business groups in China. The remainder of this paper is organized as follows. Section 2 includes the literature review and hypothesis development. The data collection and measurement of variables are discussed in section 3. Section 4 presents the empirical results. Section 5 concludes the paper.

## **2. Institutional Background, Prior Literature, and Hypothesis Development**

### **2.1. Political Connections and Cash Holdings**

Faccio (2006) found that corporate political connections are widespread around the world, especially in countries with emerging economies where regulations regarding political conflicts of interest are relaxed. Since larger firms tend to build higher levels of political connectedness than smaller ones (Agrawal & Knoeber, 2001; Faccio, 2006; Johnson & Mitton, 2003), large firms in emerging markets often find it easier to get external capital, such as bank loans (Allen et al., 2005; Bao et al., 2016).

Boubakri et al. (2013) and Chaney, Faccio, and Parsley (2011) have suggested that agency problems are more likely to occur in politically connected (PC) firms than non-politically connected ones in emerging countries. The influx of funds raises the level of liquid assets and increases the number of managers who act at the shareholders' expense. Further, Caprio, Faccio, and McConnell (2013) proposed that in emerging countries with weaker legal property protection, firms adjust their asset holdings to protect their assets from government seizure. They found a negative relation between corporate holdings of liquid assets and political corruption. However, scholars hold varying opinions about the effect of political connection on firms' cash holdings. Some researchers have argued that political connection has a negative relationship with cash level. Faccio (2010) found that PC companies in developed countries hold onto less cash because they have political support and relationships with government agencies. In emerging countries, Al-Najjar (2013) found that companies with significant political support hold less cash since they have government support in financially critical periods.

Others, however, have contended that political connection has a positive correlation with cash holdings. Kusnadi and Wei (2012) found that managers of PC firms in emerging markets, as well as firms in countries with weak legal protection of investors and prevalent corruption, are inclined to hoard more cash than nonpolitical firms. Given China's inefficient legal environment and unique business practices, we inferred that politically-connected firms suffer severe agency problems and managers hold more cash to act self-interest.

### **2.2. Business Groups and Cash Holdings**

Khanna and Palepu (2000a) proposed that in emerging markets, companies' form business groups as a defense against inadequate investor protection, legal enforcement, and information disclosure. In effect, the BG serves as an internal financial market in which funds can move from parent company to subsidiaries or among the affiliated firms for operational or investment purposes (Bena & Ortiz-Molina, 2013). Business groups may thus reduce their members' need for cash on hand (Schiantarelli & Sembenelli, 2000).

The rapid growth and rise in importance of China as an emerging market economy provides a natural platform for analyzing issues related to the role of the business group (BG). To become a business group in China, the parent company must provide capital of over 50 million yuan (US\$6 million) and must have at least five affiliated companies. Moreover, the total capital of the parent and its affiliated companies must exceed 100 million yuan (US\$12 million). He, Mao, Rui, and Zha (2013) noted rapid growth in the total number of business groups over the past few decades. According to the State Statistical Bureau (2002A–2007A), as of 2006, there were 2,856 officially recognized business groups in China, with 27,950 directly owned first-tier subsidiaries, employing around 30 million people and accounting for almost 60% of national industrial output (He et al., 2013). The ecology of business groups in China is substantially different from those of the so-called Big Six keiretsu in Japan or the top 30 chaebols in South Korea (Chang & Choi, 1988; Chang & Hong, 2000). The size distribution of the groups and the identity of their ultimate controlling shareholders are different from those in other emerging markets or developed economies. China has a number of state-dominated business groups, established for purposes of economic development and social distribution, to carry out national goals. However, because of market failures and the lack of a well-developed legal and regulatory system in China, family- or natural person-dominated business groups have also been becoming more common. However, the evidence regarding the effects of BGs on cash holding is inconsistent. He et al. (2013) found that in China, BG-affiliated firms have a lower risk of incurring cash shortages when faced with investment opportunities because they are able to obtain funding within the BG. Furthermore, Cai et al. (2016) found that group-affiliated Chinese firms held significantly less cash than their nonaffiliated counterparts. This is consistent with both the trade-off theory and the pecking order theory. Firms with quicker access to funding have the freedom to hold less cash. However, less financially constrained state-owned enterprises (SOEs) are slower to respond with decreased cash holdings than non-SOEs.

Studies also show varying assessments of the relationships among firm size, liquidity, and corporate cash holdings. Al-Najjar (2013) asserted that larger firms in emerging countries tend to hold less cash in general, that firms with leverage also

hold onto less cash, and that cash holdings are lower when firms have easy access to funding. Shabbir et al. (2016) found that, in emerging markets, company size was positively correlated with increased cash holdings, and leverage (bank loans) with decreased cash holdings. In contrast, Uyar and Kuzey (2014) observed that firms with higher liquidity and larger firm size held less cash. Given all this evidence, we propose the following hypothesis:

**Hypothesis 1.** There is a negative relationship between affiliation with business groups and the level of cash holdings of the company.

### 2.3. Relationship among Political Connections, Business Groups, and Cash Holdings

Studies have offered two explanations as to why business groups seek to maintain cash holdings. The predominant view is based on the free cash flow

hypothesis: the pyramidal structure of business groups worsens information asymmetry between managers and shareholders and exacerbates the agency problem,

giving managers an incentive to control more cash. The other argument claims that business groups can take advantage of internal capital markets to overcome the financial constraints characteristic of underdeveloped financial markets, so managers in such groups hold less cash. The trade-off between these forces may partly depend on other institutional factors, for example political connections. He et al. (2013) found that, in China, privately owned business groups are more likely to use internal capital markets than are groups controlled by the central government. Cai et al. (2016) also found that state ownership moderates the benefit received from such an internal

capital market, and Firth, Lin, and Wong (2008) found that, in China, the distribution of loans is skewed toward firms with political connections. Chen, Sun, Tang, and Wu (2011) found that political connections significantly reduced investment efficiency in SOEs but not in non-SOEs. Furthermore, Chen, Ding, and Kim (2010), analyzing firm-level data from 17 jurisdictions from 1997 to 2001, found that it was harder to predict the earnings of firms with political connections than those of firms without such connections. Apparently, having government ties deepens the problems of adverse selection and information asymmetry between managers and shareholders. In other words, the cost of political connectedness overcomes the benefit of the internal capital market to the business group, pushing managers to strengthen cash holdings. It should be noted that China has been criticized for its weak investor protection and internal corporate governance structure (Jiang & Kim, 2015). This means that, for firms in business groups with government ties, managers can use their own discretion to hold onto higher levels of cash holdings even to the point of harming the firm's value. We therefore conclude that firms are more likely to suffer from agency cost problems when they are members of a business group holding higher levels of cash and having political connections:

**Hypothesis 2.** There is a positive relationship between political connections and the level of cash holdings of the company.

### 3- RESEARCH METHOD

This research is applied in terms of correlation method and purpose. Also, because this article describes what is or describes the existing conditions without interference (and not to the specific requirement and recommendation) and due to the fact that value judgments in this study are low, the present study is in the category of descriptive accounting research. Are. In addition, due to the fact that historical information will be used to test its hypotheses, it is classified in a quasi-experimental research group. It should be noted that SPSS software (version 21) and Eviews (version 9) were used for statistical analysis.

### 4- Models and How To Measure Variables

According to the main title of the research on the effect of political relations and business groups on the level of cash accumulation, The model and method of measuring variables and the hypothesis test model based on the research of Theo et al. (2018) are presented as follows:

**Hypothesis 1:**  $CASH_{it} = \beta_0 + \beta_1 BG_{it} + \beta_2 CASH_{it-1} + \beta_3 SIZE_{it-1} + \beta_4 LEV_{it-1} + \beta_5 MB_{it} + \beta_6 CF_{it} + \beta_7 CAPEX_{it-1} + \beta_8 DIV_{it-1} + \beta_9 CFVOL_{it-1} + e_{it}$

**Hypothesis 2:**  $CASH_{it} = \beta_0 + \beta_1 PC_{it} + \beta_2 CASH_{it-1} + \beta_3 SIZE_{it-1} + \beta_4 LEV_{it-1} + \beta_5 MB_{it} + \beta_6 CF_{it} + \beta_7 CAPEX_{it-1} + \beta_8 DIV_{it-1} + \beta_9 CFVOL_{it-1} + e_{it}$

#### 4-1- How to measure the level of cash holdings

The measurement of this variable is as follows.

Cash: Cash in the financial statements

Cash equivalents = Cash equivalents = assets that are rapidly converted to cash.

net assets: net assets calculated as follows: (cash + cash equivalent) - total assets

#### 4-2- How to Measure Company Political Connections

In general, Fascio(2006) has defined how political relations are measured in this way. Political relations of the company means that at least one of the major shareholders (a shareholder who

owns at least 10% of the voting shares of the company) or one of the senior officials (CEO or Vice President) of the company with the person of the President, Vice President and Head of Office The president is in contact or a member of parliament or close to one of the senior politicians (ministers). After specifying this important, the virtual variable 1 (one) is offered to the companies that have the mentioned conditions (have political relations) and the virtual variable 0 (zero) is provided otherwise (they do not have political relations).

#### 4-3- How to Measure Affiliation with A Business Groups

The independent variable in this research is dependence on the business group, to measure which, if the company is affiliated with business groups, the virtual variable 1 (one) is used, otherwise the virtual variable zero (0) is used (Pour Heidari and Deldar,2012).

#### 4-4- Control Variables

Following the research of Opler et al. (1999), the control variables are considered as follows:

Cash t-1: The level of cash accumulation of the previous year, which is calculated as follows:

$(\text{Last year cash} + \text{equivalent to last year cash}) / \text{Total assets of last year}$

Size t-1: The size of the company, which is calculated through the natural logarithm of net assets in the previous year.

Lev t-1: is the financial leverage of the company, which is calculated as follows:

$(\text{Current liabilities} + \text{long-term liabilities}) / \text{Net assets in the past year}$

M / B t: which is calculated through the stock market value to the book value of the company's shares;

CF t: which is calculated from the ratio of income before interest and taxes and depreciation on the net assets of the company;

Capex t-1: is the cost of the company's capital, which is obtained from the changes in tangible fixed assets of the year under review and last year divided by the assets of the previous year under review.

DIVID t-1: Payment of dividends to the company. If the company has paid cash dividends from virtual variable 1 (one) and otherwise (has not paid cash dividends) virtual variable 0 (zero) is provided.

CFVol t-1: Cash flow risk, which is calculated through a 4-year standard deviation of operating cash flow.

#### 5- Society and Statistical Sample

The statistical population of this research includes all companies listed on the Tehran Stock Exchange and the statistical sample includes companies that have all the following characteristics:

1- In order to observe their comparability, the financial year of the companies should end at the end of March of each year.

2-During the research period, they have not stopped their activities and have not changed their financial period.

3-All the information needed by companies for research is available.

4- Not be part of banks and financial institutions (investment companies, financial intermediation, holding companies and leasing companies).

5- Accepted on the stock exchange before 2014 and continue until 2020.

Applying the above conditions, 118 companies have been included in the statistical sample of this research.

## 6- RESEARCH FINDINGS

### 6-1-Descriptive Statistics Of Research Variables

The results of descriptive analysis of research variables are presented in Table (1).

**TABLE (1) DESCRIPTIVE STATISTICS OF RESEARCH VARIABLES IN THE WHOLE**

Kurtosis	Skewness	Std. Dev.	Minimum	Maximum	Median	Mean	Variable
2.191	0.281	0.076	0.001	0.335	0.036	0.063	cash holdings (CASH)
14.699	3.015	0.066	0.001	0.518	0.030	0.051	cash holdings Last year (CASH_1)
4.332	0.679	1.419	10.491	19.313	14.116	14.260	Company size (SIZE_1)
19.617	2.684	0.283	0.090	3.145	0.610	0.624	Financial leverage (LEV_1)
6.455	1.933	3.862	-1.533	16.320	2.406	3.736	Market value to stock book value (MB)
4.266	0.185	0.155	-1.516	0.657	0.141	0.161	Revenue to Corporate Assets (CF)
10.366	2.439	0.083	-0.218	0.379	0.006	0.031	Capital Cost (CAPEX_1)
6.063	1.457	0.057	0.004	0.396	0.077	0.090	Cash flow risk (CFVOL_1)

**TABLE (2) DESCRIPTIVE STATISTICS OF THE FREQUENCY OF RESEARCH VARIABLES**

	Mean	Variable
Year of companies without political connections: 723		political connections (PC)
Year of companies with political connections: 103		
Year of companies without affiliation to the business groups: 317		business groups (BG)
Year of companies with affiliation to the business groups: 509		
Year of companies paying of cash dividends: 617		Payment of cash dividends (DIV_1)
Year of companies without Payment of cash dividends: 209		

According to the descriptive statistics, the above indices can be divided into central indices, dispersion and other indices, of which the central indices are the mean and median indices, the dispersion indices are the standard deviation index and the other indices are The index is maximum, minimum, skewness and elongation. In short, Insummary, the average financial leverage shows that the statistical sample companies provided 62.4% of their debt structure and the rest of their equity component for their capital structure. This can be due to two reasons. The

first reason: Statistical sample companies have a high credit rating in terms of financing. The second reason is that raising capital through equity is probably more binding. Also, the frequency of the company's political relations variable shows that the year - companies that have political relations are 103 views and the year - companies that do not have political relations are 723 views.

## 6-2- Test of Normality of Distribution of Research Dependent Variable

Since in this research, in order to estimate the model parameters, the ordinary least squares method is used and this method is based on the assumption that the dependent variable of the research has a normal distribution, so it is necessary to test the normality of the distribution of dependent variables.

**TABLE (3) RESULTS OF THE STUDY OF THE NORMALITY OF THE DISTRIBUTION OF DEPENDENT VARIABLES**

K-S test results (normality)						Variable
Sig. (2-tailed)	Kolmogorov-Smirnov Z	Minimum	Maximum	Std. Dev.	Mean	
0.129	0.887	0.001	0.335	0.076	0.063	cash holdings (CASH)

According to Table (3) after the normality test, the significance level of K-S statistic for the dependent variable (cash holdings) increased to higher than 0.05, so hypothesis H0 that the distribution of the variable is normal is accepted and indicates it. The dependent variable of the research has a normal distribution, therefore parametric statistical methods are used to test the research hypotheses.

## 7-Test Results Of Research Hypotheses

Given that the main question of the researcher is the impact of political connections and business groups on the level of cash holdings, so hypotheses are formulated, the results of which are as follows:

### 7-1- Test Results Of the First Main Hypothesis

**Hypothesis 1.** There is a negative relationship between affiliation with business groups and the level of cash holdings of the company.

**TABLE (4) RESULTS OF MODEL ESTIMATION FOR THE FIRST MAIN HYPOTHESIS OF THE RESEARCH**

Statistics VIF	Prob	Statistics t	Coefficient	Variable name and symbol
1.076	0.017	-2.360	-0.098	business groups (BG)
1.122	0.000	6.171	0.248	cash holdings Last year (CASH_1)
1.068	0.031	2.125	0.011	Company size (SIZE_1)
1.477	0.038	2.072	0.025	Financial leverage (LEV_1)
1.079	0.398	0.845	0.000	Market value to stock book value (MB)
1.421	0.000	7.747	0.152	Revenue to Corporate Assets (CF)
1.018	0.023	-2.232	-0.055	Capital Cost



				(CAPEX_1)
1.476	0.374	0.888	0.006	Payment of cash dividends (DIV_1)
1.139	0.001	3.141	0.141	Cash flow risk (CFVOL_1)
-	0.150	-1.440	-0.115	Constant
1.845	Durbin-Watson	7.655 (0.000)	Statistics F (Sig)	
8.150 (0.128)	Jarque-Bera (Probability)	0.579	(R-squared)	
Prob. 0.210		1.593	Godfrey	
Prob. 0.000		3.681	White	
Prob. 0.000		203.251	H-hausman	
Prob. 0.000		2.232	F-limer	

The test results of the first main hypothesis are presented in Table (4), the significant level of F-limer statistic is less than the accepted error level (5%), so the panel data method is preferable to the solid data method. Also, due to the fact that the significant level of H-Hausmann statistic was less than the accepted error level (5%), the regression method with fixed effects is preferable to the regression method with random effects. In the next step, according to the significance level of White statistic, is 0.000 and regression has variance heterogeneity. Accordingly, the least modified squares have been used to solve the problem. In the next step, Godfrey statistic was also tested, so the significance level of this statistic is more than the accepted error level (5). This indicates that regression does not have a serial autocorrelation problem. Then, considering that the F statistic (0.000) has a significance level below (5%), so regression has explanatory power. The coefficient of determination of the model also indicates that 61.4% of the variable changes Cash accumulation level, Explained by the variables entered in the model. Also, in examining the classical regression assumptions, the results of the Jarkobra test indicate that the residuals obtained from the model estimation have a normal distribution at the 95% confidence level. So that the significance level of this test is greater than 0.05 (0.128). Also considering that the statistic value of the Watson camera is between 1.5 and 2.5 (1.845) Therefore, it can be said that in the model, there is no problem of residual self-correlation.

Finally, according to the significance level of the dependency variable to business groups (independent variable) which is below 0.05 (0.098), so there is a negative and significant relationship between dependence on business groups and the level of cash accumulation of the company. Among the control variables, there was a significant positive relationship between the level of cash accumulation last year, company size, financial leverage, ratio of income to company assets and cash flow risk with the level of cash accumulation and a significant negative relationship between capital expenditure and cash accumulation level. has it. Finally, with the alignment test between the research variables, the value of VIF (variance inflation factor) statistic for all variables is less than 5 and indicates that there is no severe alignment problem between the research variables.

## 7-2- Test results of the second main hypothesis

**Hypothesis 2.** There is a positive relationship between political connections and the level of cash holdings of the company.

**TABLE (5) RESULTS OF MODEL ESTIMATION FOR THE SECOND MAIN HYPOTHESIS OF THE RESEARCH**

Statistics VIF	Prob	Statistics t	Coefficient	Variable name and symbol
1.032	0.000	8.169	0.049	political connections (PC)
1.123	0.000	6.654	0.255	cash holdings Last year (CASH_1)
1.069	0.029	2.142	0.011	Company size (SIZE_1)
1.421	0.034	2.062	0.024	Financial leverage (LEV_1)
1.078	0.237	1.181	0.000	Market value to stock book value (MB)
1.429	0.000	7.356	0.139	Revenue to Corporate Assets (CF)
1.017	0.035	-2.041	-0.048	Capital Cost (CAPEX_1)
1.476	0.557	0.586	0.004	Payment of cash dividends (DIV_1)
1.138	0.015	2.429	0.105	Cash flow risk (CFVOL_1)
-	0.152	-1.433	-0.107	Constant
1.900	Durbin-Watson	8.860 (0.000)	Statistics F (Sig)	
8.150 (0.128)	Jarque-Bera (Probability)	0.614	(R-squared)	
Prob. 0.255		1.368	Godfrey	
Prob. 0.000		6.232	White	
Prob. 0.000		178.427	H-hausman	
Prob. 0.000		1.997	F-limer	

The test results of the first main hypothesis are presented in Table (5), the significant level of F-limer statistic is less than the accepted error level (5%), so the panel data method is preferable to the solid data method. Also, due to the fact that the significant level of H-Hausmann statistic was less than the accepted error level (5%), the regression method with fixed effects is preferable to the regression method with random effects. In the next step, according to the significance level of White statistic, is 0.000 and regression has variance heterogeneity. Accordingly, the least modified squares have been used to solve the problem. In the next step, Godfrey statistic was also tested, so the significance level of this statistic is more than the accepted error level (5). This indicates that regression does not have a serial autocorrelation problem. Then, considering that the F statistic (0.000) has a significance level below (5%), so regression has explanatory power. The coefficient of determination of the model also indicates that 61.4% of the variable changes Cash accumulation level, Explained by the variables entered in the model. Also, in examining the classical regression assumptions, the results of the Jarkobra test indicate that the residuals obtained from the model estimation have a normal distribution at the 95% confidence level. So that the significance level of this test is greater than 0.05 (0.128). Also considering that the statistic value of the Watson camera is between 1.5 and 2.5 (1.900)

Therefore, it can be said that in the model, there is no problem of residual self-correlation.

Finally, according to the significance level of the company's political relations variable (independent variable) which is below 0.05 (0.049), so there is a positive and significant relationship between political relations and the level of cash accumulation of the company. One of the control variables between the level of cash accumulation last year, size of the company, Financial Leverage, Ratio of income to company assets And cash flow risk There is a significant positive relationship with the level of cash accumulation and a significant negative relationship between the cost of capital and the level of cash accumulation. Finally, with the alignment test between the research variables, the value of VIF (variance inflation factor) statistic for all variables is less than 5 and indicates that there is no severe alignment problem between the research variables.

## 8- CONCLUSIONS AND RESEARCH SUGGESTIONS

Having political relations can affect the behavior of companies in terms of efficiency. One of the benefits of political relations of companies is their access to cash resources. These resources can be affected in companies that are members of the business group due to intra-group transactions. In this regard, this study examines the impact of political relations and business groups on the level of cash accumulation in Tehran Stock Exchange companies. Findings show that there is a positive relationship between political relations and the level of cash accumulation and a significant negative relationship between dependence on business groups and the level of cash accumulation. Also, there is a positive relationship between a combination of political relations and business dependence with the level of cash accumulation There is meaning. Regarding the analysis of the research results, it can be said that powerful political companies, considering the presence of political people in their shareholders, can receive sufficient credit by applying pressure from banks and financial institutions. Also, due to the legitimacy of the company in the political space, these companies have advantages such as more market share, less payment of taxes, easier financing, more stock value, etc., which all cases can Lead to better performance and cash flow to the company. On the other hand, the ruling and powerful shareholders of business groups use internal information (with the aim of reducing the level of information asymmetry) to increase the share of profitable companies and transfer profits between group members by conducting intra-group transactions. This leads to enabling group member companies to raise cash from other locations, including low-risk financing. Accordingly, in these companies, managers are less willing to maintain the level of cash accumulation and use more cash resources to increase the value and equity of the company. This is more evident in the presence of political power and the company's presence in the business group.

According to the results, users of financial statements should always pay attention to variables such as political relations when analyzing to buy shares of companies.

Because this variable leads to an increase in the level of cash accumulation. Also, given that the goal of managers is to provide the trust of company owners Therefore, they should consider the issue of seeking to establish political relations in order to increase the level of cash accumulation. In addition, the stock exchange organization should adopt rules and regulations to determine the true value of companies, clarify their information and better understand their performance. That economic units have balanced political relations in all companies This will lead to optimal performance among all companies equally. It should be noted that this is important for the economic unit of optimal resources of cash. It is suggested in relation to business groups and the level of cash accumulation Economic units in general should seek to form a business group so that this leads to non-maintenance of cash Which can be used to increase company value and profitability. The results of the present study also contain useful information for economic managers, financial analysts, researchers and students; Because the impact of political relations and business groups on the level of cash accumulation in Tehran Stock Exchange companies is of

great importance.

## REFERENCES

1. Agrawal, A., & Knoeber, C. (2001). Do some outside directors play a political role? *Journal of Law and Economics*, 44(1), 179–198.
2. Akben-Selcuk, E., & Altioğlu-Yilmaz, A. (2016). Determinants of corporate cashholdings: Firm level evidence from emerging markets. In: Ü. Hacıoğlu, H. Dinçer, & N. Alayoğlu. (Eds.), *Global business strategies in crisis: Contributions to management science* (pp. 417–428). New York: Springer.
3. Al-dhamari, R., & Ku Ismail, K. N. I. (2015). Cash holdings, political connections, and earnings quality: Some evidence from Malaysia. *International Journal of Management Finance*, 11(2), 215–231.
4. Allen, F., Qian, J., & Qian, M. (2005). Law, finance, and economic growth in China. *Journal of Financial Economics*, 77(1), 57–116.
5. Al-Najjar, B. (2013). The financial determinants of corporate cash holdings: Evidence from some emerging markets. *International Business Review*, 22(1), 77–88.
6. Al-Najjar, B., & Belghitar, Y. (2011). Corporate cash holdings and dividend payments: Evidence from simultaneous analysis. *Managerial and Decision Economics*, 32(4), 231–241.
7. Bao, X., Johan, S., & Kutsuna, K. (2016). Do political connections matter in accessing capital markets? Evidence from China. *Emerging Markets Review*, 29, 24–41.
8. Bena, J., & Ortiz-Molina, H. (2013). Pyramidal ownership and the creation of new firms. *Journal of Financial Economics*, 108(3), 798–821.
9. Boubakri, N., El Ghouli, S., & Saffar, W. (2013). Cash holdings of politically connected firms. *Journal of Multinational Financial Management*, 23(4), 338–355.
10. Brenes, E. R., Madrigal, K., & Requena, B. (2011). Corporate governance and family business performance. *Journal of Business Research*, 64(3), 280–285.
11. Cai, W., Zeng, C., Lee, E., & Ozkan, N. (2016). Do business groups affect corporate cash holdings? Evidence from a transition economy. *China Journal of Accounting Research*, 9(1), 1–24.
12. Caprio, L., Faccio, M., & McConnell, J. J. (2013). Sheltering corporate assets from political extraction. *Journal of Law and Economic Organization*, 29(2), 332–354.
13. Chaney, P. K., Faccio, M., & Parsley, D. (2011). The quality of accounting information in politically connected firms. *Journal of Accounting and Economics*, 51(1), 58–76.
14. Chang, S. J., & Choi, U. (1988). Strategy, structure and performance of Korean business groups: A transactions cost approach. *Journal of Industrial Economics*, 37, 141–158.
15. Chang, S. J., & Hong, J. (2000). Economic performance of group-affiliated companies in Korea: Intragroup resource sharing and internal business transactions. *Academy of Management Journal*, 43, 429–448.
16. Chen, C. J., Ding, Y., & Kim, C. F. (2010). High-level politically connected firms, corruption, and analyst forecast accuracy around the world. *Journal of International Business Studies*, 41(9), 1505–1524.
17. Chen, J., Leung, W. S., & Goergen, W. (2017). The impact of board gender composition on dividend payouts. *Journal of Corporate Finance*, 43, 86–105.
18. Chen, S., Sun, Z., Tang, S., & Wu, D. (2011). Government intervention and investment efficiency: Evidence from China. *Journal of Corporate Finance*, 17(2), 259–271.
19. Claessens, S., Feijen, E., & Laeven, L. (2008). Political connections and preferential access to finance: The role of campaign contributions. *Journal of Financial Economics*, 88(3), 554–580.
20. Faccio, M. (2006). Politically connected firms. *American Economic Review*, 96(1), 369–386.

21. Faccio, M. (2010). Differences between politically connected and nonconnected firms: A cross-country analysis. *Financial Management*, 39(3), 905–928.
22. Fan, J. (2016). The value of political connections in China: Government officials on the board of directors. Retrieved from [papers.ssrn.com](https://papers.ssrn.com). Federal Reserve Bank of St. Louis (FRED). (2016). China's trade surplus since 2000. Retrieved from <https://fredblog.stlouisfed.org/2016/05/chinas-trade-surplus-since-2000/>
23. Firth, M., Lin, C., & Wong, S. M. L. (2008). Leverage and investment under a state-owned bank lending environment: Evidence from China. *Journal of Corporate Finance*, 14, 642–653.
24. Francis, B., Hasan, I., Song, L., & Waisman, M. (2013). Corporate governance and investment–cash flow sensitivity: Evidence from emerging markets. *Emerging Markets Review*, 15, 57–71.
25. Greene, W. H. (2008). *Econometric analysis* (6th ed.). Upper Saddle River, NJ: Prentice Hall.
26. Harford, J., Mansi, S. A., & Maxwell, W. F. (2008). Corporate governance and firm cash holdings in the U.S. *Journal of Financial Economics*, 87, 535–555.
27. He, J., Mao, X., Rui, O. M., & Zha, X. (2013). Business groups in China. *Journal of Corporate Finance*, 22, 166–192.
28. Hill, M. D., Fuller, K. P., Kelly, G. W., & Washam, J. O. (2013). Corporate cash holdings and political connections. *Review of Quantitative Finance and Accounting*, 42(1), 123–142.
29. Jensen, M. C. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *American Economic Review*, 76(2), 323–329.
30. Jiang, F., & Kim, K. A. (2015). Corporate governance in China; A modern perspective. *Journal of Corporate Finance*, 32, 190–216.
31. Johnson, S., & Mitton, T. (2003). Cronyism and capital controls: Evidence from Malaysia. *Journal of Financial Economics*, 67(2), 351–382.
32. Keynes, J. M. (1936). *The general theory of employment, interest and money*. London: Macmillan and Co.
33. Khanna, T., & Palepu, K. (2000a). Is group affiliation profitable in emerging markets? An analysis of diversified Indian business groups. *Journal of Finance*, 55(2), 867–891.
34. Khanna, T., & Palepu, K. (2000b). The future of business groups in emerging markets: Long-run evidence from Chile. *Academy of Management Journal*, 43, 268–285.
35. Kusnadi, Y., & Wei, K. C. J. (2012). The effects of political connections on the level and value of cash holdings: International evidence. Working paper, Singapore Management University.
36. La Porta, R., Lopez-De-Silanes, F., & Shleifer, A. (1999). Corporate ownership around the world. *Journal of Finance*, 54(2), 471–517.
37. Megginson, W. L., Ullah, B., & Wei, Z. (2014). State ownership, soft-budget constraints, and cash holdings: Evidence from China's privatized firms. *Journal of Banking and Finance*, 48, 276–291.
38. Myers, S. C. (1977). Determinants of corporate borrowing. *Journal of Financial Economics*, 5(2), 147–175.
39. Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, 13(2), 187–221.
40. Nasdaq. (2017). What is the difference between a developed, emerging, and frontier market? Retrieved from <http://www.nasdaq.com/article/what-is-the-difference-between-a-developed-emerging-and-frontier-market-cml40649>
41. Opler, T., Pinkowitz, L., Stulz, R., & Williamson, R. (1999). The determinants and implications of corporate cash holdings. *Journal of Financial Economics*, 52(1), 3–46.
42. Organization for Economic Cooperation and Development. (2017). Chinese economic performance in the long run: Institutional differences between Europe and China. Retrieved from <http://www.oecd.org/dev/chinese-economic-performance-in-the-long-run-institutional-differences-between-europe-and-china.htm>

43. Schiantarelli, F., & Sembenelli, A. (2000). Form of ownership and financial constraints: Panel data evidence from flow of funds and investment equations. *Empirica*, 27(2), 175–192.
44. Shabbir, M., Hashmi, S. H., & Chaudhary, G. M. (2016). Determinants of corporate cash holdings in Pakistan. *International Journal of Organizational Leadership*, 5(1), 50–62.
45. Tahir, M. S., Alifiah, M. N., Arshad, M. U., & Saleem, F. (2016). Financial theories with a focus on corporate cash holding behavior: A comprehensive review. *International Journal of Economics and Financial Issues*, 6(3S), 215–219.
46. Uyar, A., & Kuzey, C. (2014). Determinants of corporate cash holdings: Evidence from the emerging market of Turkey. *Applied Economics*, 46(7–9), 1035–1048.
47. Yang, J., Lian, J., & Liu, X. (2012). Political connections, bank loans and firm value. *Nankai Business Review International*, 3(4), 376–397.
48. Zhang, H., Lu, Z., Zhang, R., & Jiang, G. (2015). Insider ownership, subsidiary cash holdings, and economic consequences: Evidence from listed Chinese companies. *Emerging Markets Finance and Trade*, 51(Suppl. 1), S174–S195.