The Financial Determinants of Corporate cash Holdings of Listed Companies at Tehran Stock Exchange (TSE)

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Abstract
This study examines the determinants of financing on the company's liquidity sources in the listed companies in Tehran Stock Exchange. The research method is regression descriptive. The data and information are based on information from listed companies in Tehran Stock Exchange. The research methodology in the event is ex post facto and the data is based on secondary data. The data collection has been regression descriptive based on panel data. The sample is 81 listed companies in Tehran Stock Exchange. The significance of the coefficient of determination, correlation coefficient and t-test has been analyzed using Eviews and Excell to analyze the data and the research hypotheses. Research findings are as follows; there is not a significant relationship between the amount of leverage ratios, the amount of liquidity and the liquidity sources of the listed companies in Tehran Stock Exchange. There is a significant relationship between profitability, dividend payments and the size of the listed companies. Finally research conclusions it shows evidence that dividend payments and dividend policy affect the company's liquidity resources. Also, there are great similarities between developed and developing countries on the determinants of corporate finance so that the capital structure, dividend payments and firm size are important factors in determining cash.

Key Words: Financing Determinants, Liquidity Sources, Tehran Stock Exchange

1. Introduction
The amount of cash assets holding by listed companies is a subject of growing attention in a wide number of investigations. Stock exchange has an important role in attracting investment in financing companies. Since these markets have a great role in allocating resources and national resources, their efficiency will be in the direction of the economic development of the community. People try to obtain information on the listed companies in the Tehran Stock Exchange (TSE) so as to buy or sell stocks. Therefore, information will play a crucial role. With the rapid development of technology and easy access to information through computers and networks, data transmission and the use of information in decision making have taken on a new dimension. On the one hand, companies and individuals exchange information and on the other hand, shareholders of the capital market answer the needs of the people more quickly. Establishment of appropriate mechanisms of corporate governance is major initiatives to optimize the use of resources, promote accountability, transparency; fairness and respect for the rights of all shareholders participate.

2. Literature Review
In literature review, cash assets reveal the relationship between cash holdings and other factors. Level of liquidity holding by companies and its optimization has been the subject of accounting studies. Determinants of financing according to the model used in this study are as follows: leverage ratios,
dividend payments, profitability, liquidity levels and the size of the company. Each of these terms is detailed in Chapter II and sources of liquidity are considered as the dependent variable in this study.

According to Khan and Jain (2004), Leverage refers to the use of an asset or source of funds which involves fixed costs or fixed returns. As a result, the earnings available to the shareholders/owners are affected as also their risk. There are three types of leverage, namely, operating, financial, and combined. Those are as follows: Leverage associated with asset acquisition or investment activities is referred to as the operating leverage. It refers to the firm’s ability to use fixed operating costs to magnify the effect of changes in sales on its operating profits (EBIT) and results in more than a proportionate change in earnings before interest and tax with change in the sales revenue. Degree of operating leverage is computed in two ways: (i) Percentage change in earnings before interest and tax /Percentage change in sales and (ii) (Sales – Variable Costs)/ earnings before interest and tax. The degree of operating leverage is a measure of the business/operating risk of the firm. Financial leverage is related to the financial activities of a firm. It results from the presence of fixed financial changes (such as interest on debt and dividend on preference shares). It is defined as the ability of a firm to use fixed financial charges to magnify the effect of changes in earnings before interest and tax on the earnings per share. Financial leverage involves the use of funds obtained at a fixed cost in the hope of increasing the return to the equity-holders. Combined leverage is the product of operating and financial leverage. It indicates the effect that changes in sales will have on earnings per share. It is a measure of the total risk of the firm.

Many companies report high and growing levels of cash on their balance sheets. Studies by Kim et al. (1998) and Harford et al. (2008) found that cash and short-term investments are assigned approximately eight percent of the total assets of the company.

In the literature, cash assets are the relationship between cash holdings and other factors. Level of liquidity holding by companies and its optimization has been the subject of accounting research. Keynes (1936) discusses three major benefits associated with the cash asset maintenance: Cash assets an conduct regular and routine business transactions (transactions motive), can deal with unexpected contingencies, such as the loss of a considerable losses (precautionary motive for holding cash) and flexible internal financing for future working capital when external resources are not available or expensive (motive for using promissory notes). Keeping cash assets comes with some costs. Costs related to the maintenance of cash include the following three cases: Low efficiency due to lower acquisition costs of liquidity (Keynes 1936), possible tax losses (Miller 1991), and greater potential for less capital investments than optimal due to agency costs (Haberman 1984, Jensen 1986, Harford 1999).

Agency theory makes up the theoretical basis of accounting research today. This theory results from the separation of management and ownership interests in the modern corporate context in which owners are out of the company and not involved in management decisions of companies. The basic assumption of this theory is the action of individuals to maximize their personal benefit which can sometimes be in conflict with maximizing profits of firms and their shareholders. One of the assumptions of agency theory is that managers try to maximize their wealth through monitoring of various agency costs, since there is conflict of interest between the manager and owner. In this theory, the structure of the contracts is investigated to coordinate the interests of managers and owners (Scott 2007). Agency problems are one of the most important determinants of corporate cash.

According to the theory, the optimal level of corporate cash is set with keeping balance between costs and benefits of keeping cash (Johnny et al. 2004). There are many benefits to keeping cash assets: First, the functional form of reserve assets are precautions to deal with the unexpected loss and increased restrictions on foreign financing which decreases the likelihood of facing financial crises. Second, even at the financial restrictions, having assets in cash allows the optimal investment policy. Finally, cash can serve as an internal source of financing and decreases the need for external financing fees or bearing the cost of full assets in cash to reduce financial problems. The final cost of the assets holding in cash is the opportunity cost of capital which is established due to lower returns on assets holding in cash and not using it in profitable activities.
Pecking order theory is defined as also the Pecking Order Model; the Pecking Order Theory is an approach to defining the capital structure of a company, as well as how the business goes about the process of making financial decisions. First developed by Majluf and Myers in 1984, the theory seeks to explain how companies prioritize their financing sources. The general idea is that companies will tend to take the course of least resistance, obtaining financing from sources that are readily available, and then steadily moving on to sources that may be more difficult to utilize. While the specifics of the Pecking Order Theory are somewhat involved, the general idea can be explained by using the example of a local business entity. When it comes to financing the operation, the business is likely to make use of its internal resources first, such as using funds in a savings or other interest bearing account to manage operational costs or to order more stock or raw materials for use in the operation. When this first line of financing is exhausted or not available for some reason, the business will then turn to lenders or investors as a means of generating the funds needed to keep the company going. When no other options are available, the business may choose to make use of the equity found in any assets held by the business.

According to the theory, corporate prefer financing from inside to external financing sources which are too sensitive information (Drobetz et al. 2010). Thus, in discussing finance, corporate provide investment resources from the first source of retained earnings. Then, they use low-risk debt and risky debt, and finally equity for financing. Consequently, since the management prefers internal resources, external sources of financing would be preferred to accumulating cash tends in the first stage, and not refer to the outside of the company (Ferreira and Villa 2004).

The quality of earnings is one of the most important factors influencing cash retention for companies. The main role of accounting information in financial markets is to establish criteria for the allocation of capital. Accounting profit is one of the accounting information which is useful for summary measure of firm performance. Accounting profit is a measure of compensation rewards for managers in debt contracts, firm profitability, forecasting future earnings, risk, investment in firm or giving credit to enterprises that are participating in the financial periodicals used by investors and creditors (Dechow 1994).

Matsumoto (2002) measured performance based on the measured rate of change in the production and concluded that the level of production is related to management of profit. Frankel et al (2002) considered the ratio of assets as an index measuring corporate performance and concluded that the ratio affects profit management. Most literature on liquidity sees it as a concept that seems to be simple but its understanding in the context of liquidity, measurement and calculation is complex. One of the main functions of the capital market is to provide liquidity. Indeed, while secondary markets provide liquidity through price discovery and risk transfer capacity, they reduce capital costs.

Lipson and Mortal continued their research in 2009 and found that there is a strong correlation between liquidity and capital structure decisions. Increased liquidity increases the equity. These results indicate that companies which are more prone to liquidation have benefitted from lower distribution costs and turn to stock companies for financing and those whose shares have more liquidity, tend to use less financial leverage. Moses (1987) argues that as corporations become larger, their executive managers are further motivated to manage their corporate profits. As corporations become larger, managers become more responsible towards shareholders. Beatty et al (2002) concluded that larger companies compared to small ones make use of profit management more. Matsumoto (2002), Barton et al. (2002) and Frankel et al (2002) argue that as the size of a company becomes larger; it is more likely to achieve fictitious predefined criteria of profit.

Mokhtarian (2004) in a study entitled "Evaluation of Factors influencing the decisions made by investors in the Tehran Stock Exchange" used an analytical approach to investigate the factors influencing investment decision when buying stocks. The obtained results showed that the majority of investors have little interest in risky transactions, and current events have a greater impact on investment decisions. Zare (2002) in his study on potential factors affecting stock liquidity in Tehran Stock Exchange came to the conclusion that in listed companies in Tehran Stock Exchange, large capacity of stock liquidity and trading volume is of highest value and second, it is associated with the
value of the company, which shows the depth of the stock exchange. Mehrani et al. (2013) examined
the relationship between conservatism in financial reporting and the level of cash holdings in 54 listed
firms in Tehran Stock Exchange for the period between 2005-2010. The results showed that during the
study period, the level of conservatism has no influence cash holdings.

3. Research Methodology
The method used in this research is regression descriptive and data are based on financial information
of listed companies in Tehran stock exchange. The research method of this study was ex post facto,
which means has been used that past data or secondary data. The data collection has been regression
descriptive based on panel data. The significance of the coefficient of determination, correlation
coefficient and t-test has been analyzed by using Eviews and Excell to analyze and testing the data and
the research hypotheses. The correlation analysis includes all of the ways in which it is tried to find out
and determine the relationship between different variables using regression and correlation model.
The listed companies in Tehran Stock Exchange have been considered as the population to perform
this study. The sample has been selected from the listed companies which include the 81 companies
that have been active during the period 2007- 2010. The research attributes are as follows: (i) The end
of their Fiscal year is March 20. (ii) They are not Finance Corporate (such as banks and insurance
companies). (iii) They are listed in the Stock Exchange by 2007. (iv) Their fiscal year will not change
during the period of the study. (v) Their financial information is available.

4. Data Analysis
Main hypothesis: There is a significant correlation between the determinants of financing and sources
of liquidity in the listed companies in the stock market.
Sub-Hypotheses are as follows: (1) There is a significant relationship between financial leverage and
liquidity resources in the companies in Tehran Stock Exchange. (2) There is a significant relationship
between the payment of dividends and cash resources in the companies in Tehran Stock Exchange. (3)
There is a significant relationship between profitability and liquidity resources in the companies in
Tehran Stock Exchange. (4) There is a significant relationship between liquidity and cash resources
in the companies in Tehran Stock Exchange. (5) There is a significant relationship between firm size and
liquidity resources in the companies in Tehran Stock Exchange.
To evaluate the proposed hypotheses, the following regression model has been used:
Cash_{it} = \beta_0 + \beta_1\text{LEV}_{it} + \beta_2\text{DPO}_{it} + \beta_3\text{ROE}_{it} + \beta_4\text{LIQ}_{it} + \beta_5\text{SIZE}_{it} + \epsilon_{it}
Where there is;
LEV: Leverage Ratio, the ratio of total debt to total assets
DPO: Dividend payout ratio measured by the earnings per share divided by earnings per share
ROE: Net income divided by the amount of profit on equity
LIQ: The amount by which the asset’s net cash liquidity is measured by the ratio of current liabilities
SIZE: Natural logarithm of total assets
Descriptive statistics of variables used in this study is presented in Table (1). The reported statistics
include the mean, median, maximum, minimum and standard deviations to describe the variables used
in this study.

Table 1: Descriptive statistics of the research

<table>
<thead>
<tr>
<th>Index</th>
<th>CASH</th>
<th>LEV</th>
<th>Dpo</th>
<th>LIQ</th>
<th>SIZE</th>
<th>ROE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median</td>
<td>0.068102</td>
<td>0.647947</td>
<td>0.971686</td>
<td>0.891744</td>
<td>13.85622</td>
<td>0.660029</td>
</tr>
<tr>
<td>Mean</td>
<td>0.04634</td>
<td>0.642162</td>
<td>0.70324</td>
<td>0.802551</td>
<td>13.41289</td>
<td>0.066151</td>
</tr>
<tr>
<td>Max</td>
<td>0.704044</td>
<td>1.840803</td>
<td>6.000427</td>
<td>3.678873</td>
<td>19.9914</td>
<td>22.55343</td>
</tr>
<tr>
<td>Min</td>
<td>0.001103</td>
<td>0.155143</td>
<td>0.008628</td>
<td>0.150067</td>
<td>10.89713</td>
<td>-0.30488</td>
</tr>
<tr>
<td>standard deviation</td>
<td>0.081247</td>
<td>0.230876</td>
<td>0.980044</td>
<td>0.523021</td>
<td>2.085668</td>
<td>2.774109</td>
</tr>
</tbody>
</table>

Table 2: To estimate the sample model

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Abbreviated symbols</th>
<th>Obtained coefficient</th>
<th>Probable p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leverage ratios</td>
<td>LEV</td>
<td>-0.0025</td>
<td>0.7928</td>
</tr>
<tr>
<td>Dividends paid</td>
<td>DPO</td>
<td>-0.0057</td>
<td>0</td>
</tr>
</tbody>
</table>

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Liquidity of assets & LIQ & -0.0057 & 0.197  
profitability & ROE & 0.03 & 0  
Natural logarithm of all assets & SIZE & -0.0026 & 0  
Determination coefficient & R-Square & 84.5%  
Number of sample & N & 81  
F statistic & & 12.39  

First, the results of the F tests and Hausman test confirm model estimation using fixed effects; in other words, obtained F is greater than F in the table, thus the hypothesis $H_0$ is rejected stating the equality of the intercepts. The OLS method cannot be used to estimate the model. Chi-square statistics were calculated to show no confirmation of random effects in the model. Probability of F statistics presented above show the significance of the model at 99%. All variables except Leverage Ratio and liquidity of assets are significant at 99%. To test the first hypothesis; there is no significant relationship between the financial leverage and liquidity sources in the listed companies. According to Table 2, the P-value obtained is 0.7928 and its value is greater than 0.05. The coefficient for leverage ratios given in Table 2 is the value of 0.002562. It means that companies with high levels of debt are less able to save more cash. Leverage ratios for firms could be an alternative to holding cash. To test the second hypothesis, there is a significant relationship between the payment of dividends and capital resources of the listed companies in Tehran Stock exchange. Because according to the table, P-value obtained from Table 2 are 0.000 and its value is less than 0.05. Coefficient obtained according to the amount of fixed effects and the procedure given in Table is 0.0057 to show a negative effect of the independent variable on the dependent variable of liquidity resources of the companies. As dividends payments are reduced, the cash resources of the listed companies in the sample of 81 companies increased. To test the third hypothesis, there is a significant relationship between the level of profitability and liquidity sources of the listed companies. According to table 2, the obtained P-value is 0.000 and its value is less than 0.05. Also, the coefficient obtained in this study for the independent variable is 0.0030. Therefore, according to the hierarchical model of financing cash from financing sources and profitability activities, to test the fourth hypothesis, there is no significant relationship between the level of liquidity and capital resources of the listed companies. Because according to the P-value obtained from Table 2 is 0.1970 and its value is 0.05. Thus, according to Table 2, fixed effects obtained from tests of coefficient for the independent variable of liquidity assets is -0.0057. Cash assets cause companies to have less confidence in the capital market. To test the fifth hypothesis, there is a significant relationship between firm size (natural logarithm of assets) and liquidity sources of listed companies. According to Table 4 and 2, the obtained P-value is 0.000. Thus, according to Table 2 obtained from the fixed effect test, the coefficient for the independent variable size is -0.0026. This means that the effect of firm size on the future yield of net worth assets is negative, contrary to the results of Oler and Picconi (2009), The coefficient of determination obtained in this study is 0.854, equivalent to 85.4%. This means that at 99% confidence level, with a 1% change in the independent variable, 85.4% change is achieved in the dependent variable.

According to the results of the research hypotheses, tests of fixed effects and the coefficients of the independent variables in this model were as follows:

$$Cash_{it} = 0.0813 - 0.0025LEV_{it} - DPO_{it} 0.0057 + 0.0030 ROE_{it} - 0.0057LIQ_{it} - 0.0026 Siz_{it}$$

The results of this study in regard with the negative relationship of leverage ratios on cash resources are in accordance with the prediction of hierarchical theory. It states that when retained earnings are more than investments, cash drops and liabilities raise.

5. Findings
The findings from this study regarding testing the hypotheses, research questions and objectives, lead to rejection of the hypothesis and confirmation of three hypotheses: Accordingly, Hypothesis 1 is rejected. There is no relationship between liquidity and cash resources in the companies in Tehran Stock Exchange. Hypothesis 4 is also rejected as there is no relationship between financial leverage
and liquidity resources in the companies in Tehran Stock Exchange. However, given the other assumptions and research purposes, there is a significant relationship between the dividend paid and the amount and size of the company, company's profitability and liquidity sources of the listed companies in Tehran Stock Exchange. This suggests that shareholders understand the importance of the factors affecting cash assets. According to the presented model, cash assets of each company can be predicted according to given criteria.

6. Conclusions
The results from the findings provide further insight into the lead cause of decision to keep taking cash from the fields of international grounds. The dividend payments, profits and firm size have a positive impact on cash, and the relationship is significant. It is worth noting that these results may be because some of the independent variables vary in importance across the country. Some companies are less affected. It is an expected result because these countries have different institutional settings. Cash surplus increases the cumulative abnormal returns of the companies, which show the demand for the need of the companies for cash. It can be concluded that due to the inefficiency of markets, greater levels of cash deviations on performance will be obtained. Investors and entrepreneurs are able to predict it in full effect this year. Our observation confirms that firms with higher leverage keep less cash and is in accordance with the major theories that the opportunity cost of cash is higher for the companies that have higher leverage.

Due to transactional and cautionary motivations, companies attempt to maintain cash assets. The amount of assets and financial factors in this research are examined with the aim of helping owners understand the average level of cash holdings. According to the agency theory and the conflict of interest between shareholders and managers, cash assets can be more or less preserved. Leading to lower profitability (keeping more cash assets) or deficit cash assets (cash assets held less).

Research Limitations are as follows: (i) Information for some companies is not available. (ii) Swelling and ups and downs of the stock market during the sample period have been overlooked. (iii) Limitation of the study period. (iv) Due to the lack of relevant information on the websites and the library stock, some companies were deleted from the sample.

Research Recommendations are as follows: (i) Examine the determinants of financing and other sources of liquidity in timescales. (ii) Conduct research with longer time period. (iii) The repetition of this study to consider other variables that influence the financing determinants. (iv) Repeat this study in each of the different industries separately (v) Investigate the relationship between shareholder protection and cash.

References
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