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Effect of IPO Market Timing Strategies in Short-Terms and Long-Terms on Capital Structure in the Case of Iranian Privatization Organization

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Abstract: This research surveys and examines Initial Public Offerings (IPOs) market timing on capital structure in the case of the Iranian privatization organization as Initial Public Offerings (IPOs). The main objective of the research is to understand factors which effects of Market timing on capital structure in Iran IPOs. According to market timing theory, companies determine share price through timing share issue in market. Managers issue shares when market to book ratio increase so that managers believe that time is great for issuing shares. Therefore, temporary fluctuation in market value can cause the permanent changes on capital structure. Initial Public Offering (IPOs) is the most important external financial in companies. A total number of 48 IPO's companies were targeted during period 2007-2012. The financial data has been collected among exchange companies, Over the Counter (OTC) companies and Auction companies in Iranian privatization organization in which issue shares for first time during above period. It has been use OLS regression for analyzing the secondary data. So, it has been concluded that there is significant relationship between Initial Public Offerings (IPOs) market timing and capital structure.

Key words: Initial public offerings, market timing, capital structure, temporary fluctuation, financial data, OTC

INTRODUCTION

Initial Public Offering (IPO) is one of the most crucial decisions in the life of a firm. There are managerial and economic reasons for making this decision by Zingales (1995) and Pagano and Panetta (1998), Chemmanur and Fulghieri (1999), Stoughton *et al*. (2001). Why and how firms conduct initial public offerings (IPOs)? Two empirical studies of reasons for going public by Pagano and Panetta (1998) compare Italian firms that go public to firms that stay private. Brau *et al*. (2003) compare US firms that go public to US private firms that choose to be bought in a takeover.

The initial public offering is considered to be one of the most significant events in the life cycle of a company (Celikyurt *et al*., 2010; Latham and Braun, 2010). According to Latham and Braun (2010) there are substantial risk associated with the undertaking of an IPO for both managers and the firm. Making the transition from public to private can take anywhere from 9-18 months, requiring a huge commitment in terms of time, effort and resources on behalf of the organization. Not to mention, the financial costs tend to average approximately 7-14% of the gross proceeds (Latham and Braun, 2010). And once senior executives make the decision to go forward with an IPO there is no guarantee the firm will succeed. The US capital markets experience a 20% withdrawal rate of firms that previously announced an IPO, inflicting a multitude of additional losses (Latham and Braun, 2010). Thus, the decision-making process of whether or not to take a company public is burdened with the responsibility of properly assessing and weighting the sizeable benefits and costs of a successful IPO along with the devastating losses of a failure.

Literature review

Market timing theory: Ibbotson and Jaffe (1975) have shown that IPOs tend to cluster both in time and in industries (Ritter, 1984; Ibbotson *et al*., 1994; Ibbotson and Ritter, 1988). Ritter (1988, 1984, 1991) and others show that IPOs come in waves. Timing is driven by the attractiveness of the IPO market. Lowry and Schwert (2002) argue that recent first-day stock performance of firms going public leads other firms to decide to go public. Choe *et al*. (1993) argue that firms prefer to go public when other good firms are currently issuing. Choe *et al*. (1993) and Lowry (2003) argue that firms go public when they reach a certain point in the business growth cycle and need external equity capital to continue to grow.

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Ritter and Welch (2002) go on to argue that there is the Market-timing theories that firms postpone IPOs if founders feel they are undervalued by Lucas and McDonald (1990), Firms avoid IPOs when few other good firms are issuing (Choe *et al*., 1993), IPOs occur during windows of opportunity by issuing shares (Loughram and Ritter, 1995) and IPOs are more likely after public market valuations have increased (Ritter and Welch, 2002) that according to Brau each argue that firms time their IPOs to maximize the firm value. Most IPO firms do not have urgent funding needs (Pagano and Panetta, 1998) instead, firm's equity-issue decisions seem to be driven mainly by market timing attempts (Baker and Wurgler, 2002, 2000). Furthermore, hot versus cold market IPO firms do not appear to differ in their growth prospects or future operating performance. Lowry and Schwert (2002) and Benveniste *et al*. (2003) find that firms attempt to time IPO market conditions. Baker and Wurgler (2002) suggest issuers may be timing investor sentiment. Alti (2005) presents that IPO market timing by the followers emerges as an equilibrium-clustering pattern. High offer price realization trigger more new IPOs than the low price realization does as the high price is more informative and therefore reduces the informational asymmetry to a greater extent and the IPO market timing obtains as an equilibrium outcome.

Colak and Gunay (2009) analyze the strategic waiting tendencies of IPO firm and they argue that the waiting can be a part of the market timing strategy of the private firms. They explain how a good IPO firm may benefit from strategically delaying its issuance to obtain more information about the market conditions. Their model has novel predictions about the issuance order of IPOs with different qualities and the composition of the firms in each stage of an expanding cycle. Their empirical results show that the pioneering IPOs are not usually the best ones within an expanding IPO cycle. They find out that IPOs of S and P500 caliber quality mostly prefers to issue during the mid-stages of a typical expanding IPO cycle. They show that IPOs engage in timing due to strategic motives and not necessarily due to reasons related to market overvaluation by Baker and Wurgler (2002), Pagano and Panetta (1998) or peaking cash flows by Benninga. If IPO firms do underperform post-IPO then sentiment and market timing models are able to explain the performance (Ritter, 1991, Loughran *et al*., 1994, Baker and Wurgler, 2000; Loughran and Ritter, 2002; Ljungqvist *et al*., 2006).

The market timing hypothesis was presented by Baker and Wurgler (2002). This corporate finance theory has behavioral finance influences and is based on the assumption that the company selects the financing that is regarded most cost efficient at the point in time capital is needed. When the market-to-book value is high the management is inclined to issue new stocks. When the market-to-book value is low repurchasing of stocks are regarded more favorable. The capital structure is thus an accumulated result of earlier attempts to utilize arbitrage possibilities at the market. Baker and Wurgler's research results are that market timing has a large and persistent effect on US companies. Capital structures in the year 2000 is found to be depending on variations of market to book ratios in 1990 and earlier and the impact found has a half-life exceeding 10 years. If the assumption is made that the company issues equity in perfect correlation with good news presented then there would be no asymmetry but Baker and Wurgler believes in an irrational behavior giving arbitrary potential for management. The results are significantly interesting but are only the first part, the second just as thorough part is how Baker and Wurgler presents and interprets their result. They use the tradeoff, pecking order and managerial entrenchment theories to do this. And mostly so to identify whether there is an optimal capital structure for the firm to aim at over time. They find that yes, the tradeoff theory assumes an optimal level but the cost of deviation is small and the cost of adjustment high. Regarding the pecking order; no, there is no optimal capital structure hence the cost of deviation is found negligible. Managerial entrenchment is identified but the effects non-decisive so; no optimum is found. Baker and Wurgler conclude that the market-timing hypothesis is the dominating force overpowering all other theories in impact and importance.

As described earlier Baker and Wurgler (2002) were the first to formulate the market timing theory of capital structure. They found that in the US the effect of equity market timing on capital structure is significant not only in the short-term but also persistent over time. There are other studies that do not find a long-lasting effect of market timing on capital structure. Kayhan and Titman (2007) confirms that leverage changes are consistent with the market timing theory but unlike Baker and Wurgler they do not find a persistent effect on capital structure. In an examination of Dutch firms by Bie and Haan evidence of market timing is found but there is no long-lasting persistency of the effect. The same result is found in the Shenzhen market in the study by Tian *et al*. (2008). Mahajan and Tartaroglu (2008) found that in all G-7 countries leverage of firms is negatively correlated to the historical market-to-book value which is in line with the market timing theory. Like many others they are not convinced about the long-lasting effect of market timing. Of special interest is the results found in the research paper by Hogfeldt and Oborenko (2005) where Baker and

Wurgler's approach is used concerning measure and time period on the swedish market. The focus is although, somewhat different since they are concentrating on the ownership distribution as an explanatory determinant for capital structure. The results are that market timing is not important to all swedish firms and that a more likely explanation of capital structure is the enhanced pecking order where "new equity is issued only when internal equity and debt is insufficient while public offers are not used since compensating transfers from incumbents to external shareholders needed" (Hogfeldt and Oborenko, 2005).

Capital structure theories: Modigliani and Miller (1958) stirred things up in the late fifties and an intense capital structure debate was initiated that is still very much alive. They demonstrated that in a perfect capital market the capital structure per se does not affect the value of the company. Later they enhanced these thoughts when they published a paper taking the taxes and the tax shield in to account and the benefits of debt financing is strengthened. This implies that the equilibrium point is adjusted but the researchers also recognize that "real world problems of financial strategy" must be taken into consideration. In 1977, Miller publishes a study still maintaining that "the value of the firm in equilibrium will be independent of its capital structure". Bankruptcy cost and agency cost that actually was already mentioned in the study of 1958 are still considered small relative to the tax savings they are balancing (Miller, 1977a, b).

Stein (1996) suggests a new theory of capital structure 'market timing theory of capital structure'. The supporting theories chosen where utilized in the original market timing theory work by Baker and Wurgler (2002). Furthermore, their followers have established these supporting theories as they are used in all the other published studies of market timing. Consensus is reached regarding the theories from miller and modigliani as well as the pecking order and the tradeoff theory as a necessary framework to visualize the effects of market timing. The research in the field of corporate financials regarding capital structures utilize these theories to sort out and position almost every offspring or aspect thereof that they look in to. One mayor challenge is that since every researcher build and support their own contribution with a selection of other reports and fragments thereof the importance of being critical to this selection and to our own has been immense. And in the review of the IPO literature, Ritter and Welch (2002) discuss three broad reasons why firms go public; first, firms need to raise additional external equity for capital structure reasons and to fuel growth. Second, principals desire an increase in liquidity. Third and generally considered subordinate to the first two explanations, firms could have nonfinancial reasons such as prestige, market recognition, analyst coverage and media attention.

The tradeoff theory: The tradeoff theory indicates that there is an optimal capital structure to be found by weighting the pros and cons of increased debt foremost by weighting the value of an increased tax shield to the risk of distress costs. The risk of distress increases very little when the leverage increases at low levels hence presenting an attractive option. With higher leverage the risk accelerates until an optimum tradeoff level is reached as mentioned by Miller (1977a, b). The tradeoff theory embraces numerous theories regarding all aspects of different debt levels.

Pecking order theory: This theory claims that the firms preferred order of financing is first internal then loan and last issuing of new stocks, i.e., organic through retained earnings, leverage and lastly issuing equity. The theory was initiated by Donaldson (1961) and the formation of the theory is accredited Myers (1984). Myers point refers back to the theories by Modigliani and Miller (1958, 1963), Black (1976) "The Dividend Puzzle" The target dividend ratios are specified to match the investment opportunities of the firm even though dividends have a strong signaling effect and a "sticky" character. According to this theory the debt to equity proportions does not have a target level since equity is both at the beginning and the end in the pecking order; since the first equity is internal and the last choice is also equity but externally received. In the middle is first debt and then convertible bonds or other types of hybrid securities. Myers (1984, 1977) remains critical since he has found many firms that issues equity when they easily could have received debt at investment grade interest rate. However, the clear majority of firms rely on internal finance to cover capital expenditure and debt to cover the majority of external finance. The importance of asymmetric information and the real option value of participation in potential positive NPV engagements are further developed by Myers in cooperation with Majluf in the same year (Myers and Majluf, 1984). They include the issue of ownership concentration and the market for corporate control. They have the approach that every project with positive NPV should be engaged regardless of funding. The information asymmetry between managers and investors is assumed and management is acting in the interest of old shareholders. Investors are well aware of the situation with asymmetric information (Akerlof, 1970) due to the inside information possessed by the company, hence

calculating with the assumption that the firm is issuing equity only as a last resource or at a point in time where the valuation of the firm is high. Besides other management restraining and ownership protecting benefits of debt the monitoring effect is also important since the bank is an external actor who scrutinizes the security the company constitutes and is considered to have a strong signaling effect (Ross, 1977).

The managerial entrenchment theory: Baker and Wurgler interprets this theory as managements possibility to entrench themselves by refusing debt and timing equity issuing while highly valued. In the original study by Zwiebel (1996) they start off by the basic reasoning of pros with management having access to funds for good investments and cons that they can also commit to bad ones. The disciplinary role of debt that forces management to be efficient is mentioned as a way to mitigate the interesting proof found that managerial rather than shareholder optimum exists. Managements face an alleged tradeoff between empire building and fear of default/take over. The managerial entrenchment and constraints of debt affected by the management's possibility to undo restraints initially imposed on them gives a further dynamic angle by Zwiebel (1996).

Market timing theory of capital structure: Baker and Wurgler (2002) were the first to formulate the market timing theory of capital structure. Prior research documents that individual financing decisions depend on market-to-book. And they document the cumulative effect of the history of market-to-book ratios on capital structure. The main questions here are whether market-to-book affects capital structure through net equity issues as market timing implies and whether market-to-book has persistent effects that help to explain the cross section of leverage. They examine the propensity of managers to 'time the equity market's by using the Book-to-Market ratios (M/B) and the historical market-to-book ratio (external finance weighted historical market-to-book ratio, EFWAMB) as the measure of market timing to study the American listed firms during the period of 1968-1999. They find out that the market timing is significantly related to the capital structure and the fluctuations in market valuations have large effects on capital structure that persists for at least a decade.

Mittoo and Zhou (2006) examine market timing and its effects on capital structure based on a sample of Canada and Dutch listed firms by using EFWAMB as the measure of market timing, respectively. Their results demonstrate that market timing does have an impact on the capital structure but the impact in Canada and Dutch market does not persist for a long time. Kayhan and Titman (2007) improve the measure of market timing, through splitting by Baker and Wugler (2002)'s EFWAMB into two parts; Yearly Timing (YT) and Long Term (LT). Kayhan and Titman (2007) point out that using M/B or EFWAMB as the measure of market timing is not accurate. Mahajan and Tartaroglu (2008) use M/B and EFWAMB as the measure of market timing to test the market-timing hypothesis of capital structure in major industrialized countries (G-7). They find that in all G-7 countries, except Japan, undo the effect of equity issuance and the impact of equity market timing attempts on leverage is short lived.

MATERIALS AND METHODS

The research purpose is the applied research in which has been aimed to solve the existing problems. In this section has been explained research methodology that can be include research objectives, research hypotheses, research type, research method, research population, research sample, data collection and research hypotheses examine and analyze. The main objective formulated for the research is to evaluate role played by IPO's market timing on capital structure in corporate finance. The sub-objectives are to recognize and determine of market value to book value ratio has reverse relationship with leverage and IPO market timing affect in short-term on capital structure. According to Baker and Wurgler (2002), it has been asked how Initial Public Offerings (IPOs) market timing affects capital structure in the case of Iranian IPOs Companies. The sub-question is whether market timing has a short-run or a long-run impact on capital structure. Other sub-question is whether market-to-book ratio has reverse relationship with leverage. Research hypotheses pursue the research question as mentioned.

Main hypothesis is "IPO market timing effects on capital structure". And sub-hypotheses are: market-to-book ratio has reverse relationships with leverage. IPO market timing has short-run or long run effects on capital structure. So, we have used Baker and Wurgler approach in the case of examining IPOs in Iranian Privatization Organization. Data related to research hypotheses were collected and analyzed through balance sheet, profit and loss account statements and cash flow statements in Iranian privatization organization.

Research variables have been examined as are follows: the research variables are capital structure as dependent variable and IPO market timing as independent variable. Therefore, leverage has been used for measuring capital structure. And "external

finance weighted-average" market-to-book ratio has been used for measuring IPO market timing as Baker and Wurgler pointed.

It has been restate the research gap identified by the researcher as: despite large volume of literature available and reviewed, it is observed the period considered viz. 2007-2012 has not been adequately and systematically covered in Iranian Organization Privatization. It has therefore, been necessary to research the IPO's during the stated period.

The research design implemented for the research in order to meet the stated objectives and to bridge the research gap identified that can be briefly outlined as a comprehensive literature review is carried out to understand various facets of the research theme. Select historical data related to all IPO's during the period 2007-2012 has been obtained and studied through financial statements at Iranian privatization organization. Data obtained through secondary data or financial statements data has been independently as well as jointly analyzed. This has been linked with the literature survey and inferences drawn.

To design the main sample as mentioned above all companies going for IPO during period 2007-2012 have been viewed as target population for this study with all Iranian privatization organizations. A total number of 48 IPO companies were targeted during above period. The financial data has been collected among exchange companies, Over the Counter (OTC) companies and Auction companies in Iranian privatization organization in which issue shares for first time during this period. The data related to performance of IPO's has been collected through the Iranian Privatization Organization (IPO), i.e., www.ipo.ir and Tehran Stock Exchanges (TSE), i.e., www.tse.ir. The information used has been: market-to-book ratio, PPE, assets, EBITDA, sales and debt. It has been used Excel and Eviews Software package for analyzing the secondary data:

- H_0: main hypothesis is the effects of IPO market timing on capital structure which Rajan and Henri (1995) model has been used to examine it:

$$EFWAM_t^{BW} = \sum_{t=1}^{t-1} \frac{e_s + d_s}{\sum_{r=1}^{t-1} e_r + d_r} \times M/B_s$$

Where:

e = Equity shareholders
d = Debt
M/B = Market value to book ratio
S_r = First year during sample period

- H_1: first hypothesis is the reverse relationships of market-to-book ratio with leverage which Baker and Wurgler (2002) has been used to examine it:

$$\left(\frac{D}{A}\right)_t - \left(\frac{D}{A}\right)_{t-1} = \alpha + b\left(\frac{M}{B}\right)_{t-1} + C\left(\frac{PPE}{A}\right)_{t-1} + d\left(\frac{EBITDA}{A}\right)_{t-1} + e\log(sales)_{t-1} + f\left(\frac{D}{A}\right)_{t-1} + u_t$$

Where:

D/A = Debt to total assets ratio
M/B = Market to book ratio
PPE/A = Net tangibility divided by total assets or net plant, property and equipment divided by total assets
EBITDA = Earnings before interest, tax, depreciation divided by total assets
Log (sales) = The log of the net sales

- H_2: second hypothesis is the IPO market timing has short-run or long-run effects on capital structure which Kayhan and Titman (2007) has been used to examine it:

$$FD = \Delta e + \Delta d$$

$$BW = \sum_{s=0}^{t-1} \frac{FD_s}{\sum_{r=0}^{t-1} FD_r} \times (M/B)_s$$

$$yT = c\hat{o}v\ (\overline{FD},\ \overline{M/B})$$

Where:

Δe = Changes in equity shareholders
Δd = Changes in debts

Variables: The selection of variables used is taken from earlier research in order to ensure comparable results. Control variables are also added that have been found to be correlated with leverage in several developed countries (Rajan and Zingales, 1995). Earlier research uses two measures of leverage; book leverage and market leverage. Both explained in more detail below. The use of total assets as denominator in the variables is to make the observations more comparable between firms and years.

Dependent variables: First two measures of leverage is presented and after that the three components of change in leverage are presented which are used to test wherein a potential effect of over and undervaluation lies by putting it into relation to the different determinants of change in leverage.

Book leverage: Book leverage is defined as book value of debt to total assets where book value of debt is total

assets less book value of equity. Firm-years observations where the book leverage is above one is excluded (Baker and Wurgler, 2002). Market leverage: to calculate the market leverage the denominator is changed compared to book leverage in order to reflect the market value of assets. Market leverage is defined as book value of debt to total assets less book value of equity plus market value of equity. Market value of equity is defined as common shares outstanding time's price (Baker and Wurgler, 2002). Net equity issues; calculated by subtracting change in retained earnings divided by total assets from change in book value of equity divided by total assets. Book value of equity equals total assets less total liabilities and preferred stock plus deferred taxes and convertible debt (Baker and Wurgler, 2002). Net debt issues; simply calculated as change in book value of debt divided by total assets (Baker and Wurgler, 2002).

Independent variables (M/B): This ratio is often seen as a proxy of investment opportunities but may also be related to market mis-pricing of equity (Rajan and Zingales, 1995). According to the market timing theory M/B should be negatively correlated with leverage and changes in equity. In accordance with Baker and Wurgler (2002) firm-years with an M/B ratio exceeding 10 will be dropped. This variable will also be used as a control variable for growth opportunities in the regression when the historic M/B measure is used to account for the effect of equity mis-pricing (Baker and Wurgler, 2002).

Control variables: In order to round out a benchmark a set of three control variables are added which have been found to be correlated with leverage in several developed countries (Rajan and Zingales, 1995). The variables also used to explain leverage are as following: LogSales; the size of the company is potentially something that could influence their capital structure for example are big companies more diversified and could hence be considered safer debt holders. The logarithm of sales is used as a proxy for size in accordance with previous research (Baker and Wurgler, 2002; Mahajan and Tartaroglu, 2008). PPE/TA; this is a measure of tangibility which might be correlated to leverage since the more tangible assets a company owns the larger debt it should be able to hold. This is due to the fact that assets could serve as collateral and therefore decrease the agency cost of debt (Baker and Wurgler, 2002; Rajan and Zingales, 2008). As stated above, the use of total assets as denominator has been to enhance the comparability between different firms and years. EBITDA/TA; another factor that might be correlated with leverage is profitability since it is associated with the availability of internal funds (Baker and Wurgler, 2002). This would according to the pecking order theory be associated with less leverage (Myers, 1984; Myers and Majluf, 1984). EBITDA is also scaled with total assets to increase the comparability.

Regression models to use OLS estimates in a linear model involves fulfillment of a specific set of assumptions. One of these assumptions is that the error term should be normally distributed. The Jarque-Bera test has been executed to test for normality (Brooks, 2002) with the result of strong significance of the null hypothesis that normality in the disturbances exists in all regressions that is done in this investigation. The statistical software used in this investigation has its limitations. The classical tests of heteroscedasticity is not possible to conduct when working with unbalanced panel data in e-Views, instead white's (diagonal) heteroscedasticity consistent standard error estimates has been used to correct for potential problems with heteroscedasticity (Brooks, 2002).

RESULTS AND DISCUSSION

Data analyze: In this research have been used two measures such as descriptive statistics and inferential statistics for analyzing data. Descriptive statistics are included central tendency (or statistical averages) measure such as mean and median. And it has been also used dispersion measure such as Standard Deviation (SD). It has been examined the below forecasting models for testing hypotheses as inferential statistics.

Test for autocorrelation by using the durbin-watson statistic: Use to test for the presence of autocorrelation in residuals. Autocorrelation means that adjacent observations are correlated. If they are correlated then least-squares regression underestimates the standard error of the coefficients; your predictors can seem to be significant when they may not be. For example, the residuals from a regression on daily stock price data might depend on the preceding observation because one day's stock price affects the next day's price. The Durbin-Watson statistic has been conditioned in the order of the observations (rows). Minitab assumes that the observations are in a meaningful order such as time order. The Durbin-Watson statistic determines whether or not the correlation between adjacent error terms is zero. To get a conclusion from the test, you will need to compare the displayed statistic with lower and upper bounds in a table. If D>upper bound no correlation exists; if D<lower bound, positive correlation exists; if D is in between the 2 bounds, the test is inconclusive (Table 1).

Table 1: Summary descriptive statistics of firm characteristics and financing decisions

Statistics	M/B	PPE/A	EBITDA/A	LOG(S)	EFWAMB	D/A	yt
Panel A. listed companies (Before IPO)							
Mean	2.617723	0.240815	0.150703	28.90732	6.766882	0.661631	
Median	1.262776	0.052676	0.024796	29.69156	2.155527	0.648927	
SD	3.232157	0.254397	0.320121	2.484261	15.62051	1.146956	
N	31	31	31	31	31	31	
After IPO							
Mean	3.217540	0.254986	0.197297	28.50588	-0.785665	0.690516	3.217763
Median	1.315789	0.147129	0.171429	28.66064	2.460251	0.709677	1.288889
SD	4.411609	0.280710	0.198982	1.486190	81.98646	0.363855	4.323251
N	31	31	31	31	31	31 31	
Panel B. over the counter companies (Before IPO)							
Mean	5.322270	0.998991	-0.096962	5.77E+10	10.06099	0.851978	
Median	2.447731	0.442214	0.005758	5.42E+10	1.940190	0.727012	
SD	7.508768	1.814950	0.363901	3.89E+10	34.05147	1.491492	
N	39	39	39	39	39	39	
After IPO							
Mean	4.533783	0.874208	0.038340	1.28E+11	0.264336	0.853019	13.20438
Median	1.520009	0.270190	0.008735	4.47E+10	1.506560	0.835753	10.35294
SD	8.676625	1.784353	0.122595	1.43E+11	18.61223	0.726548	20.58182
N	39	39	39	39	39	39 39	
Panel C. companies (Before IPO)							
Mean	93.69417	0.922285	-0.064531	4.20E+11	329.1420	1.318435	
Median	2.856033	0.392949	0.003176	6.41E+10	0.370978	0.723648	
SD	501.0819	1.521987	0.249394	9.08E+11	1858.362	3.369482	
N	32	32	32	32	32	32	
After IPO							
Mean	5.221714	0.467818	0.047919	8.79E+11	12.43088	0.567694	-71.97973
Median	2.072586	0.218514	0.038601	1.17E+11	1.373235	0.618515	-1.691270
SD	9.061131	0.663553	0.083639	1.79E+12	56.09990	0.315295	237.80510
N	32	32	32	32	32	32 32	

Table 1 reports the mean, median, standard deviations of firm year observations of the IPO and non-IPO firms. That has been included all of the IPOs and non-IPOs before and after IPOs.

Market-to-Book ratio (M/B) is defined as book debt plus market value of equity divided by assets. Asset tangibility (PPE) is defined as net plant, property and equipment divided by assets. Measure Tangible assets that means, 'Fixed Assets/Total Assets' (Rajan and Zingales, 1995) and others use '(Fixed Assets+Inventory)/Total Assets' (Hu *et al*., 2008). Profitability is measured by (EBITDA/A) which is earnings before interest, taxes, depreciation divided by assets. Measure of profitability that means, someone use 'EBIT/Total Assets' (Baker and Wurgler, 2002) and others use 'Revenue/Total Assets' (Hu *et al*., 2008). Firm size (log(S)) is measured by operating revenue divided by assets. EFWAMB is defined as the measure of market timing to test the market timing hypothesis of capital structure. D/A is defined as the changes in book debt divided by assets. Using 'total liabilities/total asset's as the measure of capital structure includes the influence on the capital structure given by operational liabilities. While using 'financial liabilities/net operational asset's as the measure of capital structure which is calculated based on the management balance sheet is more effective to reveal the impact of market timing on capital structure in the financing decision-making. 'Total liabilities/total assets' (D/A) as the measure of capital structure. Measure standard balance sheet that means 'Total liabilities/total assets = (Operational Liabilities+ Financial Liabilities)/(Operational Liabilities+Financial Liabilities+Book Value of Equity)'.

Interpretation: It can be said that the numbers have benefited slightly dispersion due to the level of mean, median and standard deviation (Table 2).

Another important way of examining the variables is to test for potential multi-co-linearity which is done by producing a correlation matrix (Brooks, 2002). The correlation (r) is a measure of the linear relationship between two variables. The correlation matrix of n random variables X_1, ..., X_n is the n×n matrix whose i, j entry is corr (X_i, X_j). If the measures of correlation used are product-moment coefficients, the correlation matrix is the same as the covariance matrix of the standardized random variables X_i/σ (X_i) for i = 1, ..., n. This applies to both the matrix of population correlations (in which case "σ" is the population standard deviation) and to the matrix of sample correlations (in which case "σ" denotes the sample standard deviation). Consequently, each is necessarily a positive-semi definite matrix. The correlation matrix is symmetric because the correlation between X_i and X_j is the same as the correlation between X_j and X_i. As shown in Table 2 the correlation between the variables are highly acceptable and not indicating any co-linearity.

Table 2: Correlation matrix

Statistics	M/B	PPE/A	EBITDA/A	LOG(S)	EFWAMB	D/A
Panel A. listed companies (Before IPO)						
M/B	1	0.057147266	-0.121519140	-0.307260851	-0.138580217	0.004068289
PPE/A	0.057147266	1	-0.200561175	-0.078163587	-0.000342790	0.032495558
EBITDA/A	-0.121519140	-0.200561175	1	-0.204929549	-0.073675460	-0.065354124
LOG(S)	-0.307260851	-0.078163587	-0.204929549	1	0.0944573438	0.252968490
EFWAM	-0.138580217	-0.000342790	-0.073675460	0.094457343	1	0.390651398
D/A	0.004068289	0.032495558	-0.065354124	0.252968490	0.390651398	1
After IPO						
M/B	1	0.483509536	-0.067432770	-0.092862985	0.0671163096	0.028256556
PPE/A	0.483509536	1	0.200184684	-0.521555367	-0.008671591	0.194516414
EBITDA/A	-0.067432770	0.200184684	1	-0.300930811	-0.095508856	0.070136951
LOG(S)	-0.092862985	-0.521555367	-0.300930811	1	0.358244192	-0.114447762
EFWAM	0.067116309	-0.008671591	-0.095508856	0.358244192	1	-0.017302170
D/A	0.0282565567	0.194516414	0.070136951	-0.114447762	-0.017302170	1
Panel B. over the counter companies (Before IPO)						
M/B	1	-0.183024863	0.040901535	0.365649229	0.503374199	0.009190208
PPE/A	-0.183024863	1	-0.051668524	0.059016263	-0.455119497	0.230933752
EBITDA/A	0.040901535	-0.05166852	1	-0.038454228	0.065063058	-0.681052160
LOG(S)	0.365649229	0.059016263	-0.038454228	1	0.145743369	0.012370362
EFWAM	0.503374199	-0.45511949	0.065063058	0.145743369	1	-0.07025223
D/A	0.009190208	0.230933752	-0.681052160	0.012370362	-0.070252231	1
After IPO						
M/B	1	0.008555647	0.0438663553	0.074235617	0.479493929	0.601396814
PPE/A	0.008555647	1	0.7120054864	0.139002116	0.072280770	0.122255253
EBITDA/A	0.043866355	0.71200548	1	0.161589511	0.098764743	0.208201235
LOG(S)	0.0742356170	0.139002116	0.161589511	1	-0.433234653	0.36971737
EFWAM	0.479493929	0.0722807707	0.098764743	-0.433234653	1	0.0884705158
D/A	0.601396814	0.122255253	0.208201235	0.369717376	0.0884705158	1
Panel C. auctions companies (Before IPO)						
M/B	1	-0.047948397	0.096809215	-0.08015690	0.0098678041	-0.050085827
PPE/A	-0.047948397	1	-0.117682280	0.505166	-0.06696552	0.446909221
EBITDA/A	0.096809215	-0.11768228	1	0.13218575	0.049289465	-0.557935429
LOG(S)	-0.080156906	0.505166958	0.132185758	1	0.675336187	-0.054106635
EFWAM	0.009867804	-0.06696552	0.0492894651	0.675336187	1	-0.057290176
D/A	-0.050085827	0.446909221	-0.557935429	-0.05410663	-0.057290176	1
After IPO						
M/B	1	0.0380177979	0.238165901	-0.0475568563	0.0874210836	0.0743098780
PPE/A	0.0380177979	1	0.0908680487	0.7540357946	0.0178589580	0.1755482222
EBITDA/A	0.2381659017	0.0908680487	1	0.1946623835	0.296039106	-0.196892957
LOG(S)	-0.047556856	0.7540357946	0.1946623835	1	0.400867795	0.2815569111
EFWAM	0.0874210836	0.0178589580	0.2960391066	0.4008677951	1	-0.059059055
D/A	0.074309878	0.175548222	-0.196892957	0.281556911	-0.059059055	1

Table 3: Limier test for listed companies

IPO	Index	df	Prob.	Critical value
Before	4.710666	13, 35	0.0001	95.2
After	1.642146	16, 11	0.2041	2.62

Interpretation: To obtain a clearer analysis on whether a significant statistically relationship between the two variables exists or nor if the correlation coefficient is used. Correlation test shows that the variables have the choice of weak correlation (Table 3).

Interpretation of limier test for listed companies: According to prob. of F-statistic, it can be seen that critical value of F-statistics for selected listed companies before the IPO was 2.95 at 95% and the calculated F-statistic is greater than the critical value. Thus, the null hypothesis concerning the equal y-intercepts for these companies is not accepted and the model should be estimated using panel data. According to prob. of F-statistic, it can be seen that critical value of F-statistics for selected listed companies after the IPO was 2.62 at 95% and the calculated F-statistic is less than the critical value. Thus, the null hypothesis concerning the equal y-intercepts for these companies is accepted and the model should be estimated using pool method (Table 4).

Table 4: Hausman test for listed companies

IPO	Index	df	Prob.	Critical value
Before	11.549841	5	0.0415	11.07

Interpretation of hausman test for listed companies: Since, the critical value of χ^2-statistic at 0.05 levels is 11.07 and the value is less than the χ^2-statistic, the null hypothesis concerning the random effects is rejected. Therefore, it is necessary to estimate the models as fixed effects (Table 5).

Table 5: Estimated model to prove the main hypothesis and first sub-hypothesis of listed companies (capital structure and financing decisions)

IPO	Sign	Coefficient	SD	t-values	Prob.
Before					
C	+	-0.611734	0.130204	-4.698273	0.0001
(M/B)(T-1)	-	0.007680	0.007607	1.009472	0.3224
(PPE/A)(T-1)	+	0.404928	0.066443	6.094402	0.0000
(EBITDA/A)(T-1)	+	0.738070	0.193898	3.806493	0.0008
LOG(S)(T-1)	+	0.024174	0.005358	4.511872	0.0001
(D/A)(T-1)	+	0.825928	0.068198	12.11082	0.0000
EFWAM	+	0.004219	0.001491	2.829863	0.0222
After					
C	-	-0.001203	0.000342	3.519278	0.0015
(M/B)(T-1)	+	0.015592	0.002105	7.408401	0.0000
(PPE/A)(T-1)	+	0.007616	0.005717	1.332059	0.1936
(EBITDA/A)(T-1)	+	0.000326	9.47E-05	3.447555	0.0018
LOG(S)(T-1)	+	0.011130	0.002306	4.826942	0.0000
(D/A)(T-1)	-	-0.001203	0.000342	3.519278	0.0015
EFWAM	+	0.000459	0.000122	3.775912	0.0010

The coefficient of determination: 0.762622; Durbin-Watson Test: 1.933899; The adjusted coefficient of determination: 0.640541; F-test: 6.246883; Prob. (F-statistic): 0.000002; The coefficient of determination: 0.349812; Durbin-Watson Test: 1.82; The adjusted coefficient of determination: 0.242643

Analysis of the main hypothesis and first sub-hypothesis for listed companies

The interpretation of all coefficients before the IPO: All estimated coefficients except the y-intercept and log(s) are significant on the dependent variable. Also, the adjusted coefficient of determination (R^2) of the model is obtained as 0.64 that shows the explanatory power of the model. t-statistic indicates that whether the coefficients of all selected variables are significant or not? In other words is each of the independent variables effective on the dependent variable or not? Prob. of t-statistics shows that in the above equation all the coefficients except the y-intercept and the log(s) are significant at 95 and 90% levels. The amount of F-statistic implies that whether the coefficients of all independent variables are effective on the dependent variable or not? Prob. of this number should be <0.05 to be accepted. As can be seen the estimated amount of statistic is F = 6.24 and p = 0.0. Thus, we can say that all the coefficients of the independent variables are generally effective on the dependent variable. Variable coefficient C (y-intercept) represents the amount of factors affecting the model that were not entered the model as independent variables were remained fixed effects in the error. Its estimated amount is 0.34. In other words, other factors that were not considered and are fixed effects in the error are as 0.34. Durbin-Watson amount shows the lack of self-correlation in the model. As can be seen with respect to the sign and prob of EFWAM statistic the weighted average market value of the book has a significant positive relationship before and after the IPO. And the effect of weighted average market value of the book is more after the IPO.

The interpretation of the coefficients after IPOs: All estimated coefficients on the dependent variable are significant. The adjusted coefficient of determination (R^2) of the model was obtained as 0.42 that shows the low explanatory power of the model. Prob. of t-statistic in the above equation shows that all coefficients are significant at 95 and 90% levels. D-W: Durbin-Watson amount shows the lack of self- correlation in the model (Table 6).

Table 6: Limier test for OTC companies

IPO	Index	df	Prob.	Critical value
Before	214.388907	13, 23	0.0000	2.60
After	382.285525	12, 21	0.0000	2.25
Critical value	Prob	df	Index	
2.6	0.0000	(13,23)	214.388907	Before IPO
2.25	0.0000	(12,21)	382.285525	IPO

Table 7: Hausman test for OTC companies

IPO	Index	df	Prob.	Critical value
Before	2784.935088	6	0.0000	12
After	721.6092200	7	0.0000	14

Interpretation of limier test for OTC companies: According to prob. of F-statistic, it can be seen that critical value of F-statistics for selected OTC companies before the IPO was 2.6 at 95% and the calculated F-statistic is greater than the critical value. Thus, the null hypothesis concerning the equal y-intercepts for these companies is not accepted and the model should be estimated using panel data. According to prob. of F-statistic, it can be seen that critical value of F-statistics for selected OTC companies after the IPO was 2.25 at 95% and the calculated F-statistic is less than the critical value. Thus, the null hypothesis concerning the equal y-intercepts for these companies is accepted and the model should be estimated using panel data (Table 7).

Interpretation of hausman test for OTC companies: Since, the critical value of χ^2-statistic at 0.05 levels is 12 and 14 and the value is less than the χ^2-statistic, the null hypothesis concerning the random effects is rejected. Therefore, it is necessary to estimate the models as fixed effects (Table 8).

Table 8: Estimated model to prove the main hypothesis and first sub-hypothesis for listed companies (capital structure and financing decisions)

IPO	Sign	Coefficient	SD	t-values	Prob.
Before					
C	-	-0.578153	0.223948	-2.581634	0.0167
(M/B)(T-1)	-	-0.097006	0.051923	-1.868265	0.0745
(PPE/A)(T-1)	+	1.842982	0.141308	13.04233	0.0000
(EBITDA/A)(T-1)	-	-2.566183	0.319877	-8.022398	0.0000
LOG(S)(T-1)	+	0/06	5.96E-13	2.816319	0.0098
(D/A)(T-1)	-	-0.998754	0.005101	-195.7899	0.0000
EFWAM	+	0.000626	0.001065	0.58743	0.5635
After					
C	-	-1.476537	1.208414	-1.22188	0.2353
(M/B)(T-1)	-	-0.007379	0.042336	-0.174296	0.8633
(PPE/A)(T-1)	+	1.252021	0.035662	35.10816	0.0000
(EBITDA/A)(T-1)	+	2.032554	0.223982	9.074635	0.0000
LOG(S)(T-1)	+	0.019093	0.047901	0.398591	0.6942
(D/A)(T-1)	-	-0.038451	0.016952	-2.268144	0.0340
EFWAM	+	0.003573	0.001258	2.840338	0.0079

The coefficient of determination: 0.997816; Durbin-Watson Test: 1.808375; The adjusted coefficient of determination: 0.996107; F test Prob.: 583.8673; (F-statistics): 0.000002; The coefficient of determination; 0.997933; Durbin-Watson: 1.82; F-test Prob.: 596.8673; (F-statistics): 0.00000; The adjusted coefficient of determination: 0.996259

Analysis of the main hypothesis and first sub-hypothesis for OTC companies, The interpretation of all coefficients before the IPO: All estimated coefficients except the y-intercept and log(s) are significant on the dependent variable. Also, the adjusted coefficient of determination (R^2) of the model is obtained as 0.99 that shows the explanatory power of the model. Prob. of t-statistics shows that in the above equation. All the coefficients except the y-intercept and the log(s) are significant at 95 and 90% levels. As can be seen the estimated amount of statistic is F = 583 and p = 0.0. Thus, we can say that all the coefficients of the independent variables are generally effective on the dependent variable. Variable coefficient C (y-intercept) represents the amount of factors affecting the model that were not entered the model as independent variables were remained fixed effects in the error. Its estimated amount is -0.57. In other words other factor that was not considered and is fixed effects in the error is as 0.57. Durbin-Watson amount shows the lack of self-correlation in the model.

As can be seen with respect to the sign and prob of EFWAM statistic the weighted average market value of the book has a significant positive relationships before and after the IPO. And the effect of weighted average market value of the book is more after the IPO. When the model is as double-log, the coefficients mean elasticity (sensitivity). In other words, the coefficients represent the percentage of changes in the dependent variable per one percent change in the independent variable. But if the model is simple without any log, the coefficients will be shown as single in other words for every one unit change in the independent variable, dependent variable changes as one unit. If the model is semi-log, changes will be only displayed as effect.

Table 9: Limier test for auction companies

IPO	Index	df	Prob.	Critical value
Before	91.1989560	15.10	0.0000	5.47
After	748.155632	15.90	0.0000	6.50

Table 10: Estimated Hausman test for auction companies

IPO	Index	df	Prob.	Critical value
Before	1361.310254	6	0.0000	0.5912
After	22.13325000	7	0.0024	0.1400

The interpretation of all coefficients after the IPO: All estimated coefficients on the dependent variable are significant. The adjusted coefficient of determination (R^2) of the model was obtained as 0.99 that shows the low explanatory power of the model. Prob. of t-statistic in the above equation shows that all coefficients are significant at 95 and 90% levels. D-W; Durbin-Watson amount shows the lack of self- correlation in the model. As can be seen the estimated amount of statistic is F = 596 and p = 0.0. Thus, we can say that all the coefficients of the independent variables are generally effective on the dependent variable. As can be seen with respect to the sign and prob of EFWAM statistic the weighted average market value of the book has a significant positive relationship before and after the IPO. And the effect of weighted average market value of the book is more after the IPO (Table 9).

Interpretation of Limier test for auction companies: According to prob of F-statistic, it can be seen that critical value of F-statistics for selected listed companies before the IPO was 5.47 at 95% and the calculated F-statistic is greater than the critical value. Thus, the null hypothesis concerning the equal y-intercepts for these companies is not accepted and the model should be estimated using panel data (Table 10).

Table 11: Estimated model to prove the main hypothesis and first sub-hypothesis of auction companies

IPO	Sign	Coefficient	SD	t-values	Prob.
Before					
C	_	-9.6	4.506753	-2.132798	0.0587
(M/B)(T-1)	_	-0.00029	0.000167	-1.755507	0.1097
(PPE/A)(T-1)	+	0.4521	0.271231	16.67164	0.0000
(EBITDA/A)(T-1)	_	-0.150789	0.808504	-0.186504	0.8558
LOG(S)(T-1)	_	-0.00235	3.8	-0.604641	0.5589
(D/A)(T-1)	+	0.023	2.6	0.889768	0.3945
EFWAM	+	0.001858	0.000698	2.661773	0.0238
After					
C	+	0.540162	3.27	16523.88	0.0040
(M/B)(T-1)	+	0.002355	1.61	1.46	0.0000
(PPE/A)(T-1)	_	-0.056644	6.85	-82	0.0230
(EBITDA/A)(T-1)	+	0.424763	3.9	1.09	0.0030
LOG(S)(T-1)	+	0.0027	1.11	2.42	0.0060
(D/A)(T-1)	_	-1.0028	1.79	-5.59	0.0000
EFWAM	_	-0.0189	2.93	-64	0.0056

The coefficient of determination: 0.98; Durbin-Watson Test: 1.98; The adjusted coefficient of determination: 0.98; F-test Prob. (F-statistic): 0.312; The coefficient of determination: 0.96; Durbin-Watson Test: 2.05; The adjusted coefficient of determination: 0.97; F-test Prob. (F-statistic): 2150.000

Interpretation of hausman test for auction companies: Since, the critical value of χ^2-statistic at 0/05 level is 12.59 and 14 and the value is less than the χ^2-statistic the null hypothesis concerning the random effects is rejected. Therefore, it is necessary to estimate the models as fixed effects (Table 11).

Analysis of the main hypothesis and second sub-hypothesis for auction companies, the interpretation of all coefficients before the IPO: All estimated coefficients except the y-intercept and log(s) are significant on the dependent variable. Also, the adjusted coefficient of determination (R^2) of the model is obtained as 0.98 that shows the explanatory power of the model. As can be seen the estimated amount of statistic is F = 2.31 and p = 0.0. Thus, we can say that all the coefficients of the independent variables are generally effective on the dependent variable. Variable coefficient C (y-intercept) represents the amount of factors affecting the model that were not entered the model as independent variables were remained fixed effects in the error. Its estimated amount is -9.6. In other words, other factor that was not considered and is fixed effects in the error is as -9.6. Durbin-Watson amount shows the lack of self-correlation in the model. When the model is as double-log, the coefficients mean elasticity (sensitivity). In other words, the coefficients represent the percentage of changes in the dependent variable per one percent change in the independent variable. But if the model is simple without any log, the coefficients will be shown as single in other words for every one unit change in the independent variable, dependent variable changes as one unit. If the model is semi-log, changes will be only displayed as effect. As can be seen with respect to the sign and prob of EFWAM statistic the weighted average market value of the book has a significant positive relationship before and after the IPO. And the effect of weighted average market value of the book is more after the IPO.

Table 12: Limier test for listed companies

IPO	Index	df	Prob.	Critical value
After	1.290661	13, 36	0.2631	2.34

The interpretation of the coefficients after IPOs: All estimated coefficients on the dependent variable are significant except PPE/A. The adjusted coefficient of determination (R^2) of the model was obtained as 0.24 that shows the low explanatory power of the model. Prob. of t-statistic in the above equation shows that all coefficients except PPE/A are significant at 95 and 90% levels. D-W; Durbin-Watson amount shows the lack of self-correlation in the model (Table 12).

Second sub-hypothesis

Interpretation: According to prob. of F-statistic, it can be seen that critical value of F-statistics for selected listed companies after the IPO was 2.34 at 95% and the calculated F-statistic is less than the critical value. Thus, the null hypothesis concerning the equal y-intercepts for these companies is accepted and the model should be estimated using pool method (Table 13).

Analysis of the second sub-hypothesis for listed companies: All estimated coefficients except the y-intercept and log(s) are significant on the dependent variable. Also, the adjusted coefficient of determination (R^2) of the model is obtained as 0.49 that shows the explanatory power of the model. Prob. of t-statistics shows that in the above equation. All the coefficients except the y-intercept and the log(s) are significant at 95 and 90% levels. As can be seen the estimated amount of

Table 13: Estimated model to prove the second sub-hypothesis of listed companies

After IPO	Sign	Coefficient	SD	t-test	Prob.
C	_	-0.018140	0.005716	-3.173349	0.0026
YT	+	0.005364	0.001418	3.783522	0.0004

The coefficient of determination: 0.490063; F-test: 6.060088; Durbin-Watson Test: 1.878436; The adjusted coefficient of determination: 0.49.0001; Prob. (F-statistic): 0.017394

Table 14: Limier test for OTC companies

IPO	Index	df	Prob.	Critical value
After	0.957391	12, 25	0.5110	2.42

Table 15: Estimated model to prove the second sub-hypothesis of OTC companies

After IPO	Sign	Coefficient	SD	t-test	Prob.
C	+	0.097868	0.000528	185.42230	0.0000
YT	+	0.000341	2.57E-05	13.24528	0.0000

The coefficient of determination: 0.697233; F test: 4.42; Durbin-Watson test: 1.878436; The adjusted coefficient of determination: 0.539794; Prob. (F-statistic): 0.0000

Table 16: Limier test for auction companies

IPO	Index	df	Prob.	Critical value
After	0.913119	-15.15	0.5687	4.4

Table 17: Estimated model to prove the second sub-hypothesis of auction companies

After IPO	Sign	Coefficient	SD	t-test	Prob.
C	+	0.028233	0.005369	5.258459	0.0000
YT	+	0.255	4.77E-06	5.355105	0.0000

The coefficient of determination: 0.25; F-test: 7; Durbin-Watson test: 2.11; The adjusted coefficient of determination: 0.25; Prob. (F-statistic); 0.0000

statistic is F = 6.06 and p = 0.0. Thus, we can say that all the coefficients of the independent variables are generally effective on the dependent variable. Variable coefficient C (y-intercept) represents the amount of factors affecting the model that were not entered the model as independent variables were remained fixed effects in the error. Its estimated amount is -0.018. In other words, other factor that was not considered and is fixed effects in the error is as -0.018 (Table 14).

Interpretation: According to prob. of F-statistic, it can be seen that critical value of F-statistics for selected listed companies after the IPO was 2.4 at 95% and the calculated F-statistic is less than the critical value. Thus, the null hypothesis concerning the equal y-intercepts for these companies is accepted and the model should be estimated using pool method (Table 15).

Analysisof the second sub-hypothesis for OTC companies: All estimated coefficients except the y-intercept and log(s) are significant on the dependent variable. Also, the adjusted coefficient of determination (R^2) of the model is obtained as 0.53 that shows the explanatory power of the model. Prob. of t-statistics shows that in the above equation. All the coefficients except the y-intercept and the log(s) are significant at 95 and 90% levels. As can be seen the estimated amount of statistic is F = 4.42 and p = 0.0. Thus, we can say that all the coefficients of the independent variables are generally effective on the dependent variable. Variable coefficient C (y-intercept) represents the amount of factors affecting the model that were not entered the model as independent variables were remained fixed effects in the error. Its estimated amount is 0.096. In other words, other factor that was not considered and is fixed effects in the error is as 0.096. D-W; Durbin-Watson amount shows the lack of self- correlation in the model (Table 16).

Interpretation: According to prob. of F-statistic, it can be seen that critical value of F-statistics for selected listed companies after the IPO was 4.4 at 95% and the calculated F-statistic is less than the critical value. Thus, the null hypothesis concerning the equal y-intercepts for these companies is accepted and the model should be estimated using pool method (Table 17).

Analysis of the second sub-hypothesis for auction companies: All estimated coefficients except the y-intercept and log(s) are significant on the dependent variable. Also, the adjusted coefficient of determination (R^2) of the model is obtained as 0.25 that shows the explanatory power of the model. Prob. of t-statistics shows that in the above equation. All the coefficients except the y-intercept and the log(s) are significant at 95 and 90% levels. As can be seen the estimated amount of statistic is F = 7 and p = 0.0. Thus, we can say that all the coefficients of the independent variables are generally effective on the dependent variable. Variable coefficient C (y-intercept) represents the amount of factors affecting the model that were not entered the model as independent variables were remained fixed effects in the error. Its estimated amount is 0.028. In other words, other factor that was not considered and is fixed effects in the error is as 0.028. D-W; Durbin-Watson amount shows the lack of self- correlation in the model.

CONCLUSION

In the process of each study, the research results are of particular importance because they can help to solve existing problems or improve the status quo and achieve an ideal situation. Basic concepts were extracted through literature review and then the statistical tests were performed and findings were obtained. This chapter utilizes the research findings, evaluates the hypotheses and explains the results and finally some suggestions are presented for future research. The purpose of this research is applied with the purpose of solving problems in organizations. Research method is causal-comparative

in which there are variables which cannot be manipulated. For data collection, listed companies use Rahavard Novin Software and OTC and auction companies use the financial statements used in the privatization organization of Iran. Eviews software was used for data analysis and statistical method is done with the implementation of panel data, hybrid data, cross-sectional data and time-series data with OLS regression. So, analysis of actual financial decisions are based on the whether the company willing to finance domestic lending and borrowing by issuing equity rather than external financing means that the market value is higher than book value? Or do companies want to redeem shares when the market is less than market value? Analysis of long-term stock returns following corporate investment decisions indicate that average stock market timing is successful. The ratio of market value to book value has an inverse relationship with financial leverage. In exchange model without adjustment costs, market value leverage is inversely related to the office in other words, an increase in the ratio of market value to book value of the asset is reduced leverage or debt ratio the equity will increase (Hoekman *et al*., 2003).

Studies show that the actual proportion of the office market has an inverse relationship with leverage in the states. This relationship is so strong spatial the design used in the actual calculation of the office market in most countries will be assessed. Inverse relationship between leverage ratio and the actual market value of the book is consistent with the hypothesis that stock market timing, But Mahajan and Tartarglo argued that the evidence of these findings are consistent with dynamic models of trade and adjustment costs. Contrary to their statements and Baker and Wurgler (2002) demonstrated that the current market to book ratio has an inverse relationship with leverage is the United States of America (Stevens, 2002). Results show that Over-The-Counter (OTC) and auction companies are divided into three categories in order to implement a homogeneous condition for estimating models. To estimate the models, firstly the limier test was done for equal y-intercepts.

Listed companies with p = 0.0001, OTC with p = 0.000 and auction with p = 0.000 indicate that the null hypothesis based on the equal y-intercept before the IPO is rejected and models should be estimated as fixed or random effects models should be estimated. To choose fixed or random effects, Hausman test was used. Listed companies with p = 0.04, OTC with p = 0.000, auction with p = 0.000 show that fixed effects model should be used.

Over-the-counter companies with p = 0.000 show an auction with p = 0.000. Listed companies with p = 0.2 and the null hypothesis based on the equal y-intercept is accepted and there is no need for fixed or random effects test, so that the Hausman test was used for selecting the fixed or random effects. OTC companies with p = 0.000, auction with p = 0.000 show that the fixed effects model should be used. Software output results show that the first hypothesis on the effect of initial public stock timing on capital structure. For approved listed companies, for OTC companies the hypothesis was rejected before the IPO and accepted after the IPO. In auction companies the hypothesis was accepted before the IPO and rejected after the IPO.

The initial public offering has a short-term on capital structure. For the second sub-hypothesis at first the limier test and then the Hausman test were performed. The results of the second sub-hypothesis: timing of initial public offerings in the period following the IPO in the short term on capital structure as been accepted in all three categories of the company.

LIMITATIONS

In all of the research that is done, the constraints are an integral part of the research because the same restrictions provide new areas for future research. This research was also no exception. The lack of an efficient capital market in Iran as a confounding factor can affect the results that cannot be controlled by the investigator. This is one of the bottlenecks in the implementation of studies that rely on the capital market. Due to the lack of an organized market for debt, the impossibility of issuing bonds by companies and the limited access to financing via bank loans, it seems that the corporate executives do not have much leeway in capital structure decisions. These restrictions may affect the results. The issue of shares of nominal value and non-identification of shares may affect research findings. The problems of collecting data include the access to financial problems, time consuming and costly data collection and also a few books and articles have been written about this issue in the country.

SUGGESTIONS

Now a days the true information is proposed as an important strategic source in all directions as a major source of increasing returns for shareholders and investors. Information has always been seen as a competitive advantage, therefore the available information to the shareholders will create additional efficiencies for them. For analysts, analysts always use information to access and evaluate the current or future financial performance of the company: for Iranian privatization

organization, one of the major institutions in the financial sector of the economy is the privatization organization and stock exchange that plays an important role in the realization of functions of the financial sector of the economy including collecting savings, stagnant, massive funding and allocating capital to facilitate effective investment and corporate finance through the provision and facilitation of trade in financial instruments for private organizations and participants in the securities market. Thus the availability of updated information and research can help the privatization organization and stock exchange. For researchers and students, researchers and students as the future makers of present and future must always have sufficient information, thus the study will help them to further research. For future research given the importance of capital structure, it is necessary to make efforts to create a debt market where the markets can meet their financial needs. Investigating the stability of the market timing theory effect on capital structure and discussing the strategies to make the debt market could be on the agenda for future research.

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