Various Financing Resources and Future Abnormal Stock Returns

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Abstract

The main goal of this paper is to investigate the relationship between various financing methods and the way of using proceeds provided from these methods with abnormal returns of 172 listed firms in Tehran Stock Exchange During a five year period. The firms can provide their fiscal sources by two ways of internal and external sources. Because the expenses of internal financing sources are different from external financing sources and this point, itself, affects the stock's return. Consequently the problem of the manner of firm's financing is very important for investors and especially for stock holders. Of course, only providing of fiscal sources as a bridge for next responsibility and may be more important i.e optimal allocation of these sources and funds to the investing designs is justifiable. This research is an empirical study, which investigates the relation between accounting and financial variables by using Spearman's correlation coefficient. The results of this research show that net change in total financing and its components (i.e. internal financing and external financing) have no significantly negative relation with abnormal returns. However, there is significantly positive relation between internal financing and Abnormal Returns. Also, there is significantly negative relation between change in externally financed net operating assets and Abnormal Returns. Finally, there is no significantly negative relation between change in internally financed net operating assets and abnormal returns.

Keywords: Abnormal returns, internal financing, external financing, net operating assets.

Introduction

Usually, most firms start their commercial activates by a little asset and after accepting in negotiable papers, for developing of activities and operating of developing Designs, need to cash[1]. On the other hand, yet based on Commerce principle, the firms are allowed to use the different methods of financing like borrowing from bank, Propagating of debt security and stock propagating (for financing sources from outside the firm) and interest and selling of assets having the necessary qualifications (as a source of internal financing)[2].

Based on the research of Sloan and Richardson[3] firms can invest (consume) financed funds (from the place of internal and external sources) in two total sets of fiscal and operating assets. Investing of financed fu in profitable projects (i.e. investing in operating assets) causes to increase of future cash funds and consequent decrease of future risk of firm that for decrease of future risk, the investors should expect to gain the few return[4]. So there is a negative relationship between financed funds that are invested in operating asset. And stock return. But if the financed funds are invest in fiscal assets, this negative relationship with stock return gets to its least amount. Consequent investing of financed funds in operating assets, is more desirable than investing of those funds in fiscal assets. In this research, the investing of financed funds in operating assets is considered as a successor variable.

Scott[5] stated that the return of negotiable papers is identified by market agent and a unique agent of firm. Inflation rate is from market agents and firm's financing is from especial agents related to firm. For we can divide the return related to the total market from firm's especial agents, we have used the simple market model. In this model, the abnormal return is achieved by the difference of actual return of firm's stock and its expected return (as the same of market portfolio return) that is useable in this research.

Research Literature

Rani et al[6] in their research under the topic of " Innovative Mode of Financing and Abnormal Returns to Shareholders of Indian Acquiring Firms" that conducted during the years 2003 to 2008 came to this conclusion that when the acquiring firms for pay dividends with the aim of financing if one use the combination of cash and stock they will observe positive relation with stock's abnormal returns.

Joseph et al[7] in their research under the topic of "An Empirical Analysis of Interactions among Failure Risk Proxies,External Financing, and Stock Returns" reached to this conclusion that there isn't a meaningful relationship between net financing change by debt and past abnormal return of stock.

Wang et al[8] reached to this conclusion that there is a positive relationship between net independent variables of change in

external financing, financing exchanges by stock and financing exchanges by debt and dependent variable of future abnormal return of stock. Bradshaw et al[9] reached to this conclusion that there is a meaning negative relationship between net change in external financing and future return of stock, in a manner that 10% increase in external financing exchanges causes a decrease of stock's abnormal return to the measure of -2%.

Zhang et al[10] achieved to a strong negative relationship between net change in operative assets and stock's future abnormal return. Sloan and Richardson[3] in their research under the topic of " External Financing and Future Stock Return " reached to this conclusion, that there is a negative relationship between net change in external financing and future abnormal return of stock, that this relationship in comparison of the relationship between each of external financing classes and future abnormal return of stock is stronger.

Chaplinsky and Hansen[11] found that the stock price at the time of the presentation of unexpected debt sheet decreased meaningfully. Yet, this negative effect on stock price is lower than the effect that the notice of new stock publishing puts on stock price.

Masulis and Korwar[12] in their research under the topic of "Seasoned Equity Offerings: An Empirical Investigation" reached to this conclusion that the publishing of new stock causes the decrease of stock price. This conclusion is whole some with Mayers and Majluf[13] which stated that the firms publish new stock if these valuable papers are priced more than actual.

Chul and Morton[14] stated that because of the lock of informational symmetry among managers and investors about growth and investing opportunities firms, the market may evaluate the firm's new stock lower than actual and causes to transmit of wealth from available stock holders to the new stock holders.

Research Assumptions

The first main assumption: the relationship between the net change in financing and future abnormal return of stock is negative.

The first secondary assumption: the relationship between the net change in external financing and future abnormal return of stock is negative.

The second secondary assumption: the relationship between the net change in internal financing and future abnormal return of stock is negative.

The second main assumption: The relationship between net change in financed operative assets from the place of external sources and future abnormal return is negative.

The third main assumption: The relationship between net change in financed operative assets from the place of internal sources and future abnormal return of stoke is negative.

The Definition of Research Variables

Independent variable: ΔFin: change in total financing, which itself divides into two groups of change in external financing (ΔXFin) and change in internal financing[15].

ΔXFin: Net change in external financing which is based on balance sheet approach equal the sum of change in debts which are made for financing (ΔDEBT) and provided stoke asset from the place of the out- organizational sources (cash claims and product of the owners of stock (ΔEQUITY).

ΔIFin: Net change in internal financing, which this variable is, based on a balance sheet approach equal the change in the rights of the owners of the stock during the period after the reduction of cash product and stock holder's claims in the same period.

NoA: Net operative assets, which the intention of operative assets (oA), is the total assets of firm (A) after the reduction of the cash assets and short-term investments (CASH)[16]. When the debts which aren't made by the aim of financing, are reduced, the net operative assets are gained. From the practical point of view, NOA equal OA after the reduction of the saving are the advantages of personnel's termination of service.

ΔEXNOA: Net change in provided operative assets from the external resources which is calculated by using of the relation1:
ΔEXNOA $=\Delta$A $-$ (ΔIFin $+ \Delta$CASH) or ΔNOA $-\Delta$IFin   (1)

ΔINOA: Net change in provided operative assets from the internal resources which is calculated by using of relation2:
ΔINOA $=\Delta$A $-$ (ΔXFin $+ \Delta$CASH) or ΔNOA $-\Delta$XFin   (2)

Dependent variable: AR_{t+1}: For calculating of the rate of the firm's stock abnormal return in the research time period, the simple market model has been used. Because, in this model, it is assumed that the market return (R_m) is the consequent of the process of return expectation of firm's stock in each time period. So, the difference of the actual return of firm I in time period $t(R_{i,t})$ with market return in the same period $t(R_{m,t})$, is the indicator of an abnormal return($AR_{i,t}$).

$$AR_{i,t} = R_{i,t} - R_{m,t} \qquad (3)$$

$$R_{i,t} = \frac{[P_1 - P_0] + D + \dfrac{(P_1 - F) \times N_c}{N_0} + \dfrac{P_1 \times N_r}{N_0}}{P_0} \qquad (4)$$

In this formula, P_1 is the price of each stock at the end of each period, p_0, the price of each stock at the first of each period ,D, the cash return of each stock (based on the number of stock at the first of each period), F, nominal value of each stock, N_c, the number of increased stock from the place of cash product and claims, N_r, the number of increased stoke from the place of

savings or stored return, and N_o, the number of stock at the first of period.

$$R_{m,t} = \frac{\text{TEDPIX } t - \text{TEDPIX } t - 1}{\text{TEDPIX } t - 1} \tag{5}$$

$TEDPIX_t$ = The index of price return and cash interest of stock in period $_t$, $TEDPIX_{t-1}$ = The index of price return and cash interest of stock in period $_{t-1}$

The analyst should know the type of the distribution of those variables. For this purpose, the Kolmogorov-Smirnov has been used.

Since the results of the Kolmogorov-Smirnov, have not being normal of data for all assumptions of this research, so the spearman test for investigation of the correlation of each of independent and dependent variables at the error level 5% by using of the spss 16.0 soft ware, has been used.

Test of Assumptions and the Results of Research

The first main assumption states: "The relationship between net change in financing and stock's future abnormal return is negative".

Table-1
Test of meaningfulness of correlation coefficient of the variably first main assumption

Variables (5 years period)	Spearman's Correlation Coefficient	Sig	Relationship	Result
AR_{t+1}				At the error level 5% isn't meaningful
ΔFin_t	-0.05	0.143	Negative	

AR= Stock's abnormal return, ΔFin= Net change in financing

By attention to the table number 1, we see that there isn't a meaningful negative relationship between the variables of stock's abnormal return and net change in total financing at the error level 5%.

The first secondary assumption states: "The relation ship between net change in external financing and stock's future abnormal return is negative."

Table-2
Test of meaningfulness of correlation coefficient of the variably first secondary assumption

Variables(5 years period)	Spearman's Correlation Coefficient	Sig	Relationship	Result
AR_{t+1}				At the error level 5% isn't meaningful
$\Delta XFin_t$	-0.04	0.245	Negative	

AR= Stock's abnormal return, ΔXFin= Net change in external financing

By attention to the table number 2, we see that there isn't a meaningful negative relation ship between the variables of stock's abnormal return and net change in external financing at the error level 5%.

The second secondary assumption states: "The relationship between net change in internal financing and stock future is negative."

Table-3
Test of meaningfulness of correlation coefficient of second secondary assumption variables

Variables (5 years period)	Spearman's Correlation Coefficient	Sig	Relationship	Result
AR_{t+1}				At the error level 5% is meaningful
$\Delta IFin_t$	0.07	0.040	positive	

AR= Stock's abnormal return, ΔIFin= Net change in internal financing.

By attention to the table number 3, we see that there is a meaningful positive relationship between the variables of stock abnormal return and net change in internal financing at an error level 5%.

Second main assumption states: "The relationship between wet change in provided operative assets from the place of external sources and stock future abnormal return is negative.

Table-4
Test of meaningfulness of the correlation coefficient of second main assumption variables

Variables (5 years period)	Spearman's Correlation Coefficient	Sig	Relationship	Result
AR_{t+1}				At the error level 5% is meaningful
$\Delta EXNOA_t$	-0.075	0.028	Negative	

AR= Stock's abnormal return, ΔEXNOA= Net change in provided operative assets from the place of external sources.

By attention to the table number 4, we see that there is a meaningful negative relationship between the variables of stock abnormal return and net change in provided operative assets from the place of external sources at an error level 5%.

The third main assumption states: "The relationship between net change in provided operating assets from the place of internal sources and stock future abnormal return is negative"

By attention to the table number 5, we see that there isn't meaningful positive relationship between the variables of stock abnormal relationship between the variables of stock abnormal return and net change in provided operative assets from the place of internal sources at error level 5%.

Table-5
Test of meaningfulness of the correlation coefficient of third main assumption variables

Variables (5 years period)	Spearman's Correlation Coefficient	Sig	Relationship	Result
AR_{t+1}	0.022	0.514	Positive	At the error level 5% isn't meaningful
$\Delta INOA_t$				

AR= Stock's abnormal return, ΔINOA= Net change in provided operative assets from the place of internal sources.

Conclusion

By attention to this, that the methods of external financing couldn't make the necessary return for stockholder's economical unit, the firms inevitably should provide their necessary fund by the methods of internal financing (accumulate ed and saved interest) and also other Changes in the structure of the asset of their necessary funds (parabolic interest). By attention to the gained results, if we invest the financed funds from the place of external sources in operative assets, we will have the decrease of stock future return and consequently the decrease of firm's value and stockholder's wealth. As a result, it is better that the usable funds for investing in operative assets be provided from the place of firm's internal resources. Of course, it should be paid to this importance that the firm's return is affected by other factors like firm's size, that this itself can be among the reasons of not achieving for gaining of necessary return, because, it is possible that the proceeded financing and investing of these financed resources reflect their effect on stock return in next years.

Reference

1. Morady Gohareh Mehdy, Shams Gharneh Naserand Aminnayeri Majid., Cash Management in Production Planning: An Approachfor Iranian Industries, *Research Journal of Recent Sciences*, 3(**1**), 23-32 (**2014**)

2. Seyednezhadfahim S.R., Eghdami E., Yosefnezhad S. and Maleki M., Investigating the Procedure of Financial Factors in Successful Companies, *Research Journal of Recent Sciences*, 2(**3**), 44-48 (**2013**)

3. Scott R. and Richard S., External Financing and Future Stock Return,*Working Paper*, the Wharton School (**2003**)

4. Aggarwal Vijender, Aggarwal Rachna and Khanna Parul., Micro Finance and Risk Management for Poor in India, *Research Journal of Recent Sciences*, 1(**2**), 104-107 (**2012**)

5. Scott, William Robert, Financial Accounting Theory, Third Edition,Termeh Publication (**2003**)

6. Rani N. and Surendra S. Yadav, Innovative Mode of Financing and Abnormal Returns to Shareholders of Indian Acquiring Firms, *Accepted Paper Series* (**2012**)

7. Joseph P. Ogden and Julie Fitzpatrick., An Empirical Analysis of Interactions among Failure Risk Proxies, External Financing, and Stock Returns, *Working Paper* (**2009**)

8. Wang T. and Georgios Papanastasopoulos, Accruals and the Performance of Stock Returns Following External Financing Activities, *Working Paper* (**2009**)

9. Bradshaw M.T, Richardson S.A. and Sloan R.G., The Relation between Corporate Financing, Analytics' Forecasts and Stock Returns, *Journal of Accounting and Economics,* **42**, 53-85 (**2006**)

10. Hirshleifer Hou, Teoh and Zhang, Information in Balance Sheet about Future Stock Returns: Evidence from Net Operating Asset, *Journal of Accounting and Economic,* **38** (**2004**)

11. Chaplinsky S. and Hansen R.S., Partial Anticipation, the Flow of Information and the Economic Impact of Corporate Debt Sales, *Review of Financial Studies*, **6(3), (1993)**

12. Masulis R. and Korwar A., Seasoned Equity Offerings: An Empirical Investigation, *Journal of Financial Economics*, **15**, 91-118 (**1986**)

13. Myers S.C. and Majluf N., Corporate Financing and Investment Decisions When Firms Have Information That Investors Do Not Have, *Journal of Financial Economics*, **13(2) (1984)**

14. Chul P. and Morton P., Internal Vs External Funding Sources and Earning Response Coefficients, *Review of Quantitative Finance and Accounting,* **16**, 33-52 (**2001**)

15. Muhammad Naveed, Ahmad Raza Bilal, Ahmad Ur Rehman, Noraini Bt, Abu Talib and Melati Ahmad Anuar., Evidence of Capital Structure Discipline in Financial Markets: A Study of Leasing and Insurance Companies of Pakistan, *Research Journal of Recent Sciences*, **2(1**), 7-12 (**2013**)

16. Javad Heydarzadeh, Hoseyn Jabbari and Hasan Ghodrati, The Study of the Relationship between Product Market Competition and Capital Structure of Companies Which is accepted inTehran Stock Exchange, *Research Journal of Recent Sciences*, **3(1**), 33-37 (**2014**)