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The Investigation of Status Quo Bias Existance in Listed Investment Companies in Tehran Stock Exchange

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Abstract: The purpose of this study is investigating the Status Quo Bias (SQB) from suggested biases in behavioral finance. People who are subject to a SQB tend to choose an alternative that was chosen previously (i.e., their status quo) even if it is not the optimal choice any more. Status quo bias existence was investigated in this study using Ruenzi and Kempf (2005) model among investment companies listed in Tehran's Stock Exchange during 2003-2010. The data is collected quarterly from investment companies. Also, Stata10.0 software package is used for statistical analysis. The result shows the existence of a SQB is not found in Tehran Stock Exchange.

Keywords: Behavioral finance, status quo bias, flow, investment companies

INTRODUCTION

It is assumed that in traditional economics finance model, the decision makers act reasonable and always they are looking for excepted utility maximization, but behavioral models are models in which perfect rationality assumption is not paied attention. These models don't see the investor's decisions without bias. biases means deviate from efficient decisions. Because of limited time and cognition sources, We cannot get some data from environment and analysis it efficiently. Thus unavoidable bias will happen. Generally, it is possible that people make mistakes in making decision and cognition (Pampin, 2006), In short behavioral biases as systematic errors has bean defined a in judgment. Among this, status quo bias in emotional bias, encourages people to perform alternatives decoration to leading a such a selection that confirms the present situation, in other words, these people do not tend to change their environment. This emotional disorder causes to investors with no attention about investments per for unit which is risky and bad return. It means that investors accept risks or they perform so conservative. It has been investigated related areas investment related until now. But united a serious researches has been were not considered about investment companies and the manner of activity in Tehran's stock exchange. Considering that Iran is an advancing country particularly has young investment market and it is non consistent structurally.

LITERATURE REVIEW

This study investigates status quo bias among investment companies. Individual are subject to a statu quo bias, if they tend to select an sub-optimal alternative, just because that alternative was chosen before. For example, an investor is subject to a statu quo bias if she buys a specific stock just because she did so in a previous investment decision, even if this stock is suboptimal given the investor's situation at hand. It is well documented in the literature, that individual are subject to a SQB when it comes to making financial decision (Ruenzi, 2005).

Samulson and Zeckhouser (1988) examine the pension plan decision of Harward employees and find that they are influenced by SQB. And Americ and Zeldes (2001) investigated the relation between investors age and selection portfolio from TIAA-CREE database and report that the composition of their portfolios is rarely and only slightly changed. Agnew *et al*. (2003) investigated US investors' selection in a 7000 collection of retirement accounts in 401 k huge plan from April 1994 to Agust 1998 and report the investors are subject to status quo bias. Ruenzi (2005) investigated the extent of status quo bias in a real world repeated decision situation and they reported the status quo bias positively on the number of alternatives. Masatlioglu and Ok (2005) illustrated the visible view preferences and they considered the present situation as a reference point for preferences and

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reframing the classic preferences, they improve the reasonable selection theory which is based on classic preferences view and this reforming theory accepts presence of status quo bias.

Masatlioglu and Uler (2008) investigated comparatively between status quo bias influence and decoy option. Decoy effect is an attractive effect which is an desirable and influencies on other selection's pretty. Society center libratory at New York university in December 2004 and their experimental data shows that status quo has a stronger impact on individual choice behavior compared to decoy option. Barber *et al*.,(2006) have studied about investor's behavior and the relation between people's decision through time durations which can be witness of status quo bias among investors, Dean (2008) suggest a model about status quo bias based on peoples decision avoidance. This model indicates that people choose present situation because of avoidance of difficult decisions. Jiabiao and other (2009) investigated the impact on investors' status quo bias from perspective of framing effect and investor emotion using the experimental method. Result show that investors' status quo bias is higher in the price differential frame than in the ratio frame of the investable portfolio and status quo bias is lower in the positive emotion investor and higher the negative emotion. Riell and Teper (2010) suggested probabilistic dominance model for status quo bias at uncertain situation. According their model, an alternative replacing status quo which only if it yield a better outcome than status quo with sufficiently high probability.

All of these results can be interpreted as supportive of the existence of a status quo bias.

EMPIRICAL MODEL

We examine the extent of the status quo bias in the investment companies by looking at the influence of pervious net inflow on present net inflow. However, as there are many other variables that have proven to influence company growth, a model relating current company growth to pervious to company growth exclusively would be too simplified. We know that investors base their investment decision on pervious performance (Siri and Tufano, 1998), but also other companies related characteristics. Therefore, we will test the following model of Ruenzi (2005):

$$\text{Flow}_{i,t} = f(\text{Flow}_{i,t-1}\ \text{per}_{i,t-1}\text{control}) \quad (1)$$

where, $\text{Flow}_{i,t}$ denotes the growth of company i in season t which is duo to the inflow of new money. $\text{Perf}_{i,\ t-1}$ denotes of the performance of company in season, t-1. Controls a vector of control variable.

Dependent variable: Based on pervious study (Siri and Tufano, 1998; Chevalier and Ellison, 1997), we define the external growth of company i in season t that is duo to inflow of new money as:

$$Folw_{i,t-1} = TNA_{i,t} - TNA_{i,t-1}(1+r_{i,t}) / TNA_{i,t-1} \quad (2)$$

where, $\text{TNA}_{i,\ t-1}$ are the asset under management of company i at the end of season and $r_{i,t}$ is the rate of return of company i in season t.

Independent variable: Our main independent variable of interest is the growth of the company in the season year, $\text{Flow}_{i,\ t-1}$. If the external growth of a company positively depends on its' external growth in the pervious season, this indicates that company investment are subject to a SQB. First of all, it is a well-established fact that the growth of a company depends on its performance (Smith, 1987). We use ordinal rank based on raw returns as performance measure.

We now turn to description of the variable contained in Controls:

$\text{Age}_{i,t}$ denotes the age of company i in season *t*.

$\text{TNA}_{i,t-1}$,The size of company i in season t is given by its asset under management,

$\text{Std}_{i,\ t-1}$ denotes the annualized standard deviation of company i's return in t.

The turnover rate, $\text{TO}_{i,t}$ is also factor potentially influencing company growth.

$\text{TO}_{i,t}$ Computed in following manner:

$$\text{T O}_{I,t} = \frac{\text{collected stock value and transferred in each season}}{\text{Whole market value of portfolio that season}} \quad (3)$$

$\text{Flow}_{i,t}^{seg}$ shows cash flow in sections, to compute this variable first the most general of portfolio of each company is identified and so its industry. Then by company rate growth industry index is determined inter sectional Flow. Fur the manner for investment companies which have some public portfolio, market's return in applied as a intersegment criterion flow.

$\text{Numb}_{i,t}$ This variable is identified by computing the number of companies which accept investments and they are at the end of each season at investment portfolio Company.

Our complete Empirical model reads:

$$\begin{aligned} Flow_{i,t} &= \beta_0 + \beta_1.Flow_{i,t-1} + \beta_2.Perf_{i,t-1} \\ &\beta_3.Std_{i,t-1} + \beta_4.\ln TNA_{i,t-1} + \beta_5.\ln Age_{i,t-1} \\ &+ \beta_6.TO_{i,t-1} + \beta_7.Flow_{i,t^{seg}} + \beta_8.\ln Number_{i,t} \\ &+ \varepsilon_{it} \end{aligned} \quad (4)$$

Convexity of the performance flow relationship: Chevalier and Ellison (1997) and Siri and Tufano (1998), among others, show that the relationship between $Perf_{i,t-1}$ and $Flow_{i,t}$ is convex. To account for this convexity, we add $perf^2_{i,t-1}$ in our regression (Barber *et al*., 2004):

$$\begin{aligned} Flow_{i,t} &= \beta_0 + \beta_1 . Flow_{i,t-1} + \beta_2 . Perf_{i,t-1} \\ &+ \beta_3 . Perf^2_{i,t-1} + \beta_4 . Std_{i,t-1} + \beta_5 . \ln TNA_{i,t-1} \\ &+ \beta_5 . \ln Age_{i,t-1} + \beta_7 . TO_{i,t-1} + \beta_8 . Flow_{i,t^{seg}} \\ &+ \beta_9 . \ln Number_{i,t} + \varepsilon_{it} \end{aligned} \quad (5)$$

METHODOLOGY AND ANALYSIS

This researcher's accepted investment companies' statistic society in Tehran's stock exchange 2003 until Agust 2010. In more details researcher observed 30 season or periods during 7 years and half. From there portfolio foretime is evaluated during at least 4-5 years period and investigating the output monthly or seasonal.

Then for investigating it's performance in 2010, the companies which were accepted in market exchange in 2005 are eliminated. At present time, 50 investment companies filtered through this reseal and they've been left out. Moreover, some of the investment companies were omitted because of having a little portfolio. Finally 15 companies remained. Study field has two traits. First they are part of active investment companies in Tehran's stock exchange and second, portfolio percent ratio to whole portfolio the investigated period, Won't be zero at all. Test findings have been evaluates by linear regression and Generalized Method of Moments (GMM) and illustrated at Table 1. At this fig negative (positive) variable's coefficients indicates inverse relation with final finance flow. At one side, the adoption of GMM evaluators relates to applied tools' crudity. To investigate and solve this problem especial suggested test by Allano and Band (1995) is applied. This test called "Sarjan" and it evaluates the reliability of whole applied tools. Based on Wald test fine lings at Table 2, null hypothesis based on zero assumption in all coefficients a will rejected at 1% meaningful levels. So coefficients' reliability is confirmed. Sarjan statistic test denied correlation a variables assumption. Based on this test's findings, applied variable's tools are valid and finally their results are confirmed to explain.

Considering Table 2, some variables are meaningful at second model opposed to first model which the probable cause would be convex relation between finance flow and performance. Variable coefficient $Flow_{i,t-1}$ is not meaningful in any models because the meaningfulness number of this variable (p-value) is higher from 5% significant level. Thus a particular relation cannot be defined between at beginning and end of period's flow.

Table 1: The estimation flow model

Model (1)		Model (2)		
p-value	coefficient	p-value	coefficient	variables
0.0300	5.630-	0.050	-5.4400	$_0\beta$
0.1410	0.190	0.538	0.1230	$Flow_{i,t-1}$
0.0042	0.860	0.000	$_1$0.86-00	$Perf_{i,t-}$
0.0410	0.510	0.428	0.44-00	$\ln TNA_{i,t-1}$
0.0040	0.039-	0.000	0.63-00	$TO_{i,t-1}$
0.5700	1.120-	0.260	0.9700	$Std_{i,t-1}$
0.0470	1.940-	0.491	0.0960	$\ln Age_{i,t}$
0.0060	0.120	0.411	0.0458	$Flow_{i,t}^{seg}$
0.0720	0.126-	0.011	0.126-0	$\ln Numb_{i,t}$
0.0000	1. 270			$perf^2_{i,t-1}$
390		390		observation

Table 2: Reliability test models

Wald test		Test sargan		
p-value	t-statatic	p-value	j-statatic	Models
0.000	117.30	0.37	6.60	Model (1)
0.000	369.00	0.52	6.41	Model (2)

The presence of status quo bias is not confirmed at investment companies.

At the other side, variable coefficients performance is positive at both models and statistically significant at the 5% level which illustrates positive effect of before periods' output on future finance flows.

Furthermore, company measure's variable coefficient in $TNA_{i,t-1}$ which is the company criteria measure, is meaningless at first model. Yet the variable coefficient is positive and meaningful in 95% confidence interval at the second model. Thus a meaningful relation can be expressed between this variable are company's $Flow_{i,t}$. While Siri and Tufano (1998) and Chevalier and Ellison (1997) findings' had confirmed a negative relation. This positive relation means that bigger investment companies will experience more flow ratio to smaller companies in future.

$Std_{i,t}$ coefficient is not meaningful in any models because the meaningfulness number of this variable (P-Value) is higher from 5% significant level. Besides that, $TO_{i,t}$ coefficient are meaningful in both models at 95% confidence interval. So it can be defined a specific relation between this variable and dependant variable.

Statistic t and coefficient of companies' age is meaningless at 95% confidence interval while in second model age coefficient variable is meaningful relation between company's age and finance flow.

In the words more primitive companies experience slower growth. Moreover, $Flow_{i,t}^{seg}$ variable coefficient is meaningless in first model at 95% confidence interval, In spite of being meaningful and positive of variable coefficient in second model indicates a positive relation between flow at the end of the season and intersegment flow variable. The more investment in flow of company the more inflow. $Numb_{i,t}$ coefficient is meaningful and positive at both models. So there is a positive relation

between accepting investment companies number and investment company's flow.

Moreover $perf^2_{i,\ t-1}$ coefficient which were added because of convex relation between performance and flow, it is negative and meaningful at 95% confidence interval. As a result presence of this convex relation is confirmed. In addition, matrix width number at both models is meaningful at 95% confidence interval.

CONCLUSION

Individual who are subject to a status quo bias tend to choose an alternative that was chosen previously (i.e. their status quo) even if it is not the optimal choice any more. This study aims to investigate the status quo bias between accepted investment companies in Theran Stock Exchange. The findings show that a specific relation cannot be between the Flow at the beginning and at the end of the season. So based on Ruenzi and Kempf (2005) there is no status quo bias among studied companies Overall this study contribute to a better understanding of the behavior of investment companies and biases they are subject to when it comes to making investment decision.

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