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Influence of Overconfidence on Investment Decision

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Abstract
The Purpose of this research is to investigate the behavioral biases of investment advisors – The effect of overconfidence. The methods implied were descriptive distribution, reliability test, factor analysis and regression analysis.Peoples tend to perceive their initial performance better than it actually is, after learning the outcome. The test of this study shows the peoples tend to overestimate their initial capacity to choose the better performing asset from two alternatives or estimate the return of asset, after learning the realization.The results of overconfidence imply that people are overconfident. The evidence setting to narrow limits, effect is strong. Regression results show that significant F(P=.000)vale shows that the overall models are the good fit and all the variable included in these models are significantly explaining the variation.
Keywords: Behavioral Biases, Overconfidence, Investment Decision, Regression Analysis, Reliability Test, Descriptive Analysis.

INTRODUCTION

This study focuses on individual investor's decision making. It mainly draws on the heuristics and biases elements of the behavioral finance literature. By compelling an expressive opinion, we are mostly interested in how investors make their investment decision in an actual domain setting, as different to normal/optional behavior projected by normative financial concepts. This study includes the outcomes of the research on investment decisions from the grounds of behavioral finance and cognitive psychology, and is founded on review of present readings, which themselves were conducted using several research methods.

Background & Motivation

The study of individual investors and their behavior has received a lot during the last review, and is becoming increasingly the focus of interest of many scientists, not just limited to economists. However, the particular way of seeing the individual investor has become a topic of great classic change with the presence of the findings and methodology of psychology in financial research.

Overconfidence

Efficient system for the provision of funds and how to run the business in the early stages is very important to maintain a large-scale SME sector. Delivery of these tools, some of the major problems discussed by Cressey (2002). Glowing planned market hypothesis have faced in terms of willing theoretical relationships Cable and Shane (1997) investigated on rough material between stockholders and entrepreneurs (Prasad 2000, Lee 2001, Certo 2001). Collaborate in the value of the behavioral features of monetary behavior has established quickly Thaler (1992).

This study investigated the cognitive response assessment of investment behavior. Their main concerns with self-confidence is a condition in which the decision-maker has a tendency to judge the quality of his own decisions more than others, and their decision-making capacity exceeding recommendations statistical output is appropriate. This shift has a lot of intimations to the competent investment

Contribution

The already published research works based on a behavioral basis of investment decisions of individuals mainly focuses on the assortment of individual stocks. Odean (1998, 1999), Barber and Odean (2001) and furthermore studies describe that the selection of stocks by individuals is dependent on a number of behavioral biases. However only a small percentage of work has been done which focus on the relationship of decision making biases of individuals to their mutual fund investments. The knowledge of the effects of behavioral biases on an inverters decision is important for a number of reasons.

Structure of the Study

The measurement of behavioral biases impact on investment decision is effective through a questionnaire designing. After the designing of questionnaire the important stage is to choose the data collection. In this study we collect the feedback from the professional that is related to finance and investment field.

REVIEW OF LITERATURE

Philip A. Wickham wrote the article "On the confidence in the new start-up success probability judgment" (2010). Determination of this article was to examine the effect of overconfidence on the assertiveness of stockholders in the investment reappraisal. For this purpose the econometric analysis methodology in the following variable asymmetry familiarity task information between investor and entrepreneur, source credibility, market discipline and the issue of ambiguity used. The study concluded that the decision maker's attitude toward risk depends on if

they are offered opportunities for success or are asked to generate their own chance. He says risk aversion decreases in the latter case, even if the decision maker is not an expert, but said an independent expert is providing exogenous probability.

Kris wrote the article "Male and female auditors' overconfidence" (2011). Its purpose was to study whether different gender in audit profession has different confidence level. Calibration tests overconfidence in male and female auditors**.** The research could not draw any clear picture and it did not find any difference in the confidence level of different genders in auditor population. However some curious findings came into light and it was noted that audit firms with female partners actually charged higher fees as compared to their male counterparts. Therefore this research needs further study to make a vivid conclusion.

Dr. Daniel researched on the topic "Aspects of investor psychology" (2009). The purpose of the article was to study the preferences, beliefs and biases that investment advisor should know about the investors. In this research three approaches are used to make analysis of decision namely normative analysis, descriptive analysis and prescriptive analysis. It is concerned with a rational solution to the decision problem, how people actually make a decision and focused on practical advice and help that people could use to make more rational decisions. The research concluded that investors should be guided by a clear picture of emotional and cognitive weaknesses to make investment decisions.

MATERIAL & METHODS

Measuring the impact of behavioral biases in investment decision is applicable to the design of the questionnaire. After the questionnaire design stage is important to choose the data collection. In this study we collect the opinion of professionals that relates to finance and investment field.

Variables

The researcher used to determine the impact of variable on investment decision that is Overconfidence.

Hypothesis

Ho: There is no significant impact of overconfidence on investment decision

HI: There is the significant impact of overconfidence on the investment decision

The decision in phase 1 and phase 2 are same or not, based on overconfidence. Basically we compared the two phases of correspondent and determined the effect of decision making.

The measurement of behavioral biases impact on investment decision is effective through a questionnaire designing. After the designing of questionnaire the important stage is to choose the data collection. In this study we collect the feedback from the professional that is related to finance and investment field.

Data

The information from the experimental study is composed from the control specialist's field study. In these assessments asked for contributors to complete the questionnaire. The modification embraces two periods. Time among two investigations of around two months. The first stage survey comprises questions of history, rational - and three parts inventory experimental estimation task. Questions background information including gender, education and financial experience related questions. The coherent experimental portfolio includes eighteen statements about the style of individual thought. Constructed on the responses the respondent thinking style was strained. The answer to these statements is given on one to five scale. In the assessment mission respondents return chart that contains two active expansion index entire return over the past 12 months is. It asks the respondent to choose the best performance of the assets of the couple during a period of about two months and rated the strength of their view (IE the certainty that your selection wins) on a one to five scale. In addition they are asked to give an estimate for the return of the best performing asset and set a 90% confidence interlude limits for this return. The assets braces are used Karachi stock exchange vs. Bombay stock exchange, GBP £ vs. USD $ and Gold vs. Silver.

Methods

In this research the researcher used six types of test that is descriptive test for the explanations of general information, reliability test for checking that other questions are measuring the value or not. It's also for the checking of reliability of the data. A factor analysis test used for the explanation of grouped data, the chi-square for the comparison of phase 1 and phase 2 better performing asset selection and investment decision, frequency distribution and bar charts for the presentation of the data and regression for the determination of impact of Independent variable on the dependent variable.

RESULTS AND DISCUSSIONS

This chapter provides the demographic details and research results the respondents of the study. The tables and graphic representations of the variables have been provided. The demographic variables are comprised of age, experience, education and management levels of the respondents. General explanation of all respondents' feedback of the tables of appendix A.

Descriptive Analysis on Asset Selection & Expected Returns

We begin our review with the lowest level of measurement—the nominal level. Recall that variables measured at

the nominal level are categorized by qualitative differences. Gender, race, religious preference, and political party are examples of nominal variables. The categories of nominal variables are discrete, and although we can say that each category is different, we cannot measure the difference between the categories quantitatively.

The 2004 presidential election campaign brought the role of women in politics to the attention of the public and created renewed interest in the subject among social scientists. In Chapter 1 we suggested that research questions are frequently derived through familiarity with professional literature. In 1994 Laura van Assendelft and Karen O'Connor1 examined existing literature on women in politics and discovered the following: Most studies found that women lack the political ambition to run for public office. The majority of women who do run for office have been active in local political party organizations.

Reliability Test

Sam we are using reliability & validity test on questionnaires, to analyze the reliability of the all questions.

Explanation of Table 1.2

Table 1.1 shows the reliability test result that show the data is 88.4% reliably and valid the standard of reliability test is, data should be more than 75% reliable.

Linear Regression Analysis

Regression analysis is commonly used to check the impact of independent variable on dependent variable. It's also explain the relationship of variables.

Table 1.1

Regression Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	-0.125	0.365	-0.344	0.733
Overconfidence	0.17	0.147	1.156	0.254
		Effect Specification		
R-squared	0.7779	Adjusted R-squared		0.589
F-statistic	34.692	Prob(F-statistic)		0
		Durbin-Watson stat		2.871

The significant F(p=0.000) value shows that the overall models are the good fit and all the variables included in these models are significantly explaining the variation.

The coefficient of determination $R^2 = 0.779$ shows that 77.9 % variation of dependent variable has been explain by the variation of independent. Durbin Watson in case of fixed effect model is 1.499 and in case of random effect model is 2.871 which is near to 2 so our all model is not misspecified but random effect model value is near to 2 as compare to fixed effect model.

Conclusion

This section summarize the result of this empirical study in addition this section discuss the implications of the results. The purpose of the study is to investigate three behavioral biases; hindsight bias, overconfidence and optimism bias. This biases are studied by comparing observations from different phases of the survey to each other. Hindsight bias is observed by differences between initial answers and the recollections. Overconfidence is studied using initial answers and realized results. The test of this study shows the peoples tend to overestimate their initial capacity to choose the better performing asset from two alternatives or estimate the return of and asset, after learning the realization. Peoples tend to underestimate their initial confidence I they find out they have been successful. Investment advisors are is generally less exposed to hindsight bias than advisors have the strongest tendency to exaggerate their initial ability to product asset returns, after learning the realization. The exaggeration reinforce with experience.

The regression determined that the significant F(p=0.000) value shows that the overall models are the good fit and all the variables included in these models are significantly explaining the variation.

Recommendations

The researcher determined that behavioral biases has the impact on investment decision. Investment decision is very important in finance the investors should be known about biases and their impact or relation with decision making.

The researcher determined that overconfidence behavior has significant impact on professional decisions that is not favorable indication for investors. Investment decision should be on the bases of past performance or related analysis, should not be because of experience and or other biases related factors.

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APPENDICES A

Table 1.2

Expected Returns & Analysis of Assets selection Descriptive

Assets	Particulars	Mean	Std. Deviation	Phase
Stock Return	Expected returns	12.55	10.024	1st Phase
	Upper Limit	17.19	12.378	
	Lower limit	8.63	7.778	
Commodity Return	Expected returns	13.62	12.026	
	Upper Limit	16.77	12.881	
	Lower limit	8.17	7.378	
Currency Return	Expected returns	12.3	12.726	
	Upper Limit	15.9	13.055	
	Lower limit	7.69	8.156	
Stock Return	Expected returns	9.9	7.43	Memory Recall
	Upper Limit	14.4	7.216	
	Lower limit	7.02	5.844	
Commodity Return	Expected returns	9.34	6.196	
	Upper Limit	12.65	4.205	
	Lower limit	6.78	3.458	
Currency Return	Expected returns	9.9	9.315	
	Upper Limit	12.56	6.76	
	Lower limit	5.98	4.354	
Stock Return	Expected returns	8.73	6.693	2nd Phase
	Upper Limit	13	6.189	
	Lower limit	6.14	5.288	
Commodity Return	Expected returns	8.84	6.53	
	Upper Limit	12.81	4.716	
	Lower limit	6.14	3.627	
Table 1.2	Expected returns	8.88	8.35	
	Upper Limit	12.65	5.318	
	Lower limit	5.38	3.529	
Valid N (list wise)				

QUESTIONNAIRES
PHASE 1

The questionnaire contains two sides ask for background information second side contains related questions.
Name:_____
Your age:
a) 18 to 24 years b) 25 to 34 years c) 35 to 49 years
d) 50 to 64 years e) 65 years or more
Gender: ● Male ● Female
Last 4 digit of your mobile No._____
Q3) You're Qualification
1. Bachelor 2. Master 3. M.Phil. 4. PHD 5. ACCA 6. CA
Q.1) Have you made any stock market investment by yourself? ☐ Yes ☐ No
Q.2) Your work experience in finance field?
a) 1 to 5 years b) 5 to 10 years c) 10 to 15 years d) 15 to 20 years
e) 20 years or more
Answer the following statements by circulating the choice that best describes you on the scale.
Scale Specification:
1: Strongly Agree2: Agree 3: Neutral 4: Disagree 5: Strongly Disagree

1)	Thinking hard and for a long time about some things give me little satisfaction	1 2 3 4 5
2)	I trust my initial feelings about me	1 2 3 4 5
3)	I prefer to do something that challenges my thinking abilities rather then something that requires little thought	1 2 3 4 5
4)	I believe in trusting my feelings	1 2 3 4 5
5)	I prefer complex to simple problems	1 2 3 4 5
6)	I try to avoid situations that require thinking in-depth situations about something	1 2 3 4 5
7)	When it comes to trusting people, I can usually rely on my gut feelings	1 2 3 4 5
8)	My initial impressions about peoples are almost right	1 2 3 4 5
9)	I don't like have to do lot of thinking about anything	1 2 3 4 5
10)	I can usually feel when a person right or wrong even I can't explain how I know?	1 2 3 4 5
11)	I prefer past performance of any stock in investment decision	1 2 3 4 5
12)	I have 100% confidence on my judgment	1 2 3 4 5
13)	I prefer past success and failure on stock history in investment decision	1 2 3 4 5
14)	I believe my investment decision could not be risky	1 2 3 4 5
15)	I strongly follow the suggestions of my investment advisors without any Exploration	1 2 3 4 5
16)	I always relayed on my luck while making investment decision	1 2 3 4 5
17)	I always prefer market trend in investment decisions	1 2 3 4 5
18)	I always learn to my past failures or mistakes	1 2 3 4 5

19) What would you prefer for investment
a) Gold b) Oil c) Stock d) Silver e) Banks

The following section shows the development of three assets pairs from the past 12 months. Your task is to choose the better performing asset from the pair during the period of 1st Jan, 2012 to 31st Dec, 2012. And classify the strength of your view. In addition you are asked to give an estimate for the return of better performing asset and set 90% confidence interval limit for the return.

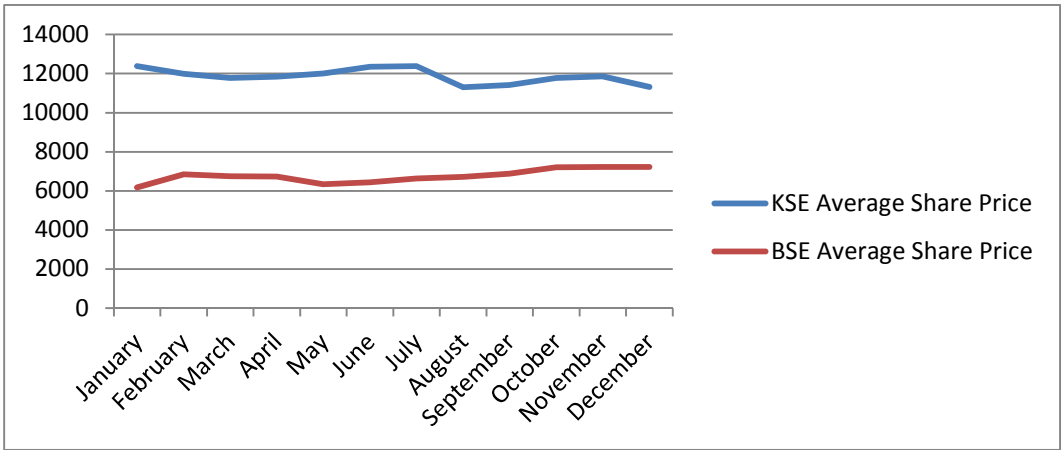

Figure 1: Average index of Karachi Stock Exchange and Bombay Stock Exchange

Better performing asset on the period, circulate
KSE BSE
Strength of your view in circulate asset
Pure Guess 1 2 3 4 5 Strong View
Estimated return of the winner, % _____
Upper limit for the return, % _____
Lower limit for the return, % _____

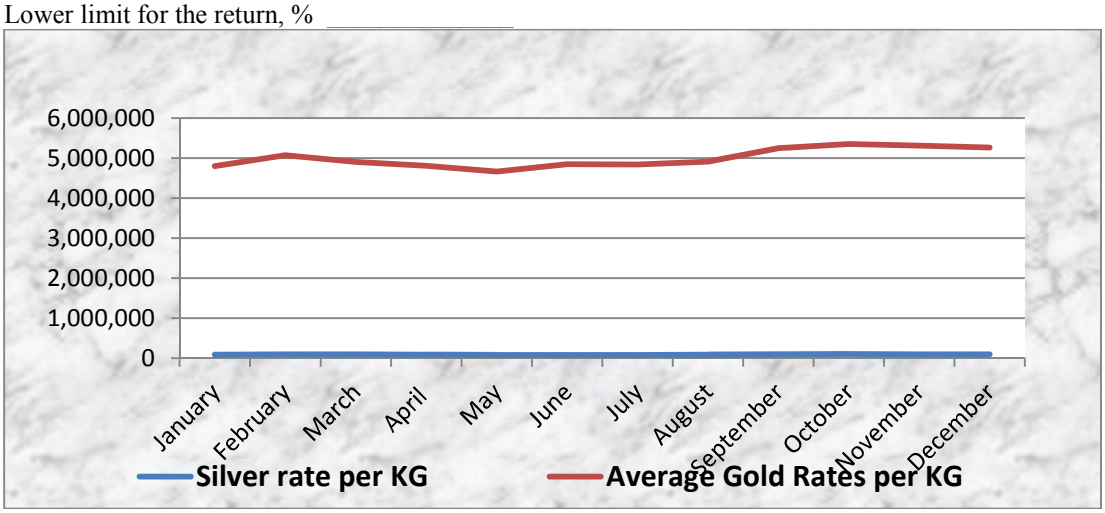

Figure 2: Average per KG price chart of silver and gold in Pak Rupee

Better performing asset on the period, circulate
Gold Silver
Strength of your view in circulate asset
Pure Guess 1 2 3 4 5 Strong View
Estimated return of the winner, % _____
Upper limit for the return, % _____
Lower limit for the return, % _____

Average price chart of US Dollar and Grand Britain Pound in Pak Rupee

Better performing asset on the period, circulate
USD GBP
Strength of your view in circulate asset
Pure Guess 1 2 3 4 5 Strong View
Estimated return of the winner, % _____
Upper limit for the return, % _____
Lower limit for the return, % _____

Thank you for participating

QUESTIONNAIRES
PHASE 2

Matching code (last four digit of your phone number):_____

Need to match your 1st phase answer

In first stage of the study you were asked to choose the better performing asset from the period of Jan, 2012 to Dec, 2012. In addition you were asked to estimate the return of the better performing asset and set 90% confidence interval limits for the return. Here you can see the realize return (assets with higher return is in bold formatting i.e. the winner)

Karachi stock return: +4% Bombay stock return: +2%
USD return: +0.09% GBP return: -0.8%
Gold return: +2.11% Silver return: 0.69%

Now try to remember the answers and estimates you gave last time your task now is to fill the answers from the 1st phase to the boxes below. It is very important that your answer now even though you could not remember you initial answer very well. If so please estimate /control your initial answers. Classify also how well you can remember your initial answers

i) My Selection for better performing assets, circulate:
KSE BSE
Strength of your view in circulate asset
Pure Guess 1 2 3 4 5 Strong View
Estimated return of the winner, % _____
Upper limit for the return, % _____
Lower limit for the return, % _____

ii) My Selection for better performing assets, circulate:
Gold Silver
Strength of your view in circulate asset
Pure Guess 1 2 3 4 5 Strong View
Estimated return of the winner, % _____
Upper limit for the return, % _____
Lower limit for the return, % _____

iii) My Selection for better performing assets, circulate:
USD GBP
Strength of your view in circulate asset
Pure Guess 1 2 3 4 5 Strong View
Estimated return of the winner, % _____
Upper limit for the return, % _____
Lower limit for the return, % _____

The following selection shows the development of three assets pairs from the past 18 months. Your task is to choose the better performing asset from the pair during the period of Jan, 2012 to Jun, 2013 and classify the strength of your view. In addition you are asked to give an estimate for the return of the better performing asset and set a 90% confidence interval limits for the return (i.e. limits between which the return is with 90% probability.

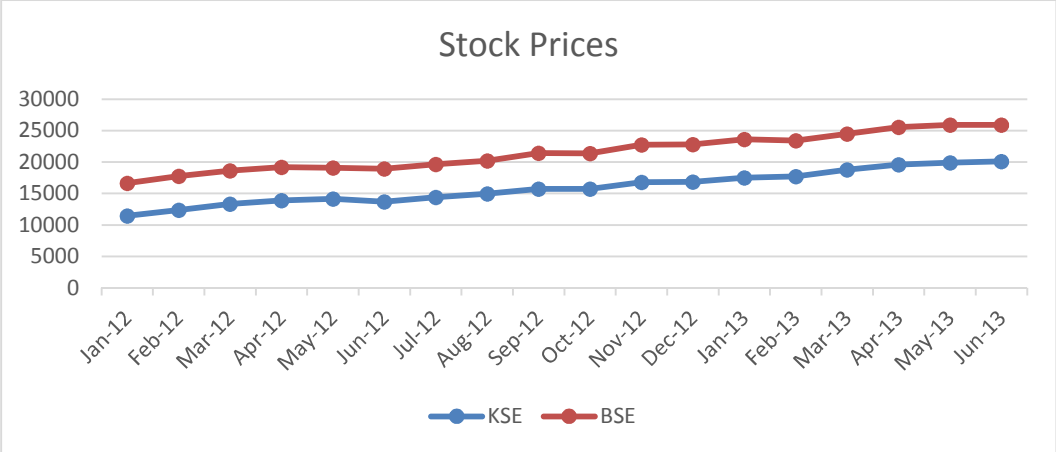

Figure3: Average index of Karachi Stock Exchange and Bombay Stock Exchange

Better performing asset on the period, circulate
KSE BSE
Strength of your view in circulate asset
Pure Guess 1 2 3 4 5 Strong View
Estimated return of the winner, % _____
Upper limit for the return, % _____
Lower limit for the return, % _____

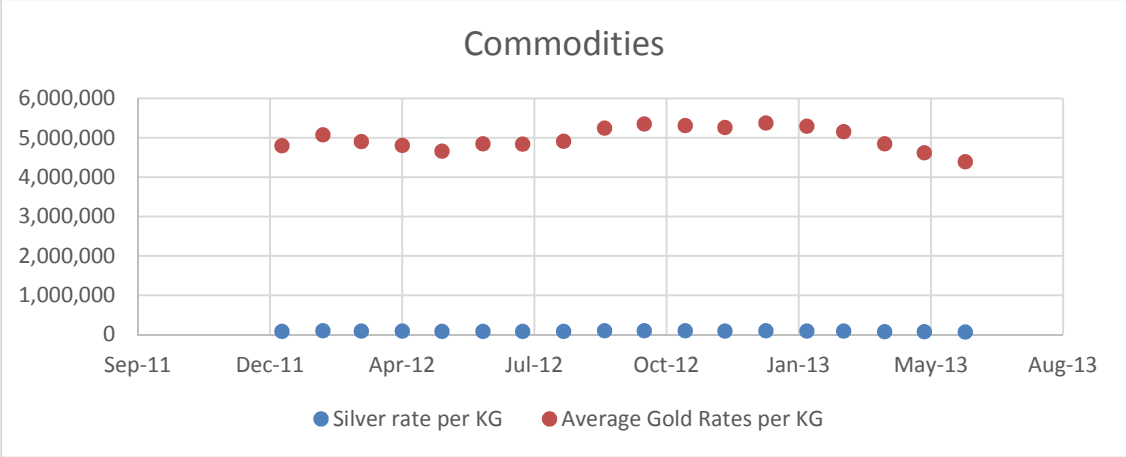

Figure4: Average per KG price chart of silver and gold in Pak Rupee

Better performing asset on the period, circulate
Gold Silver
Strength of your view in circulate asset
Pure Guess 1 2 3 4 5 Strong View
Estimated return of the winner, % _____
Upper limit for the return, % _____
Lower limit for the return, % _____

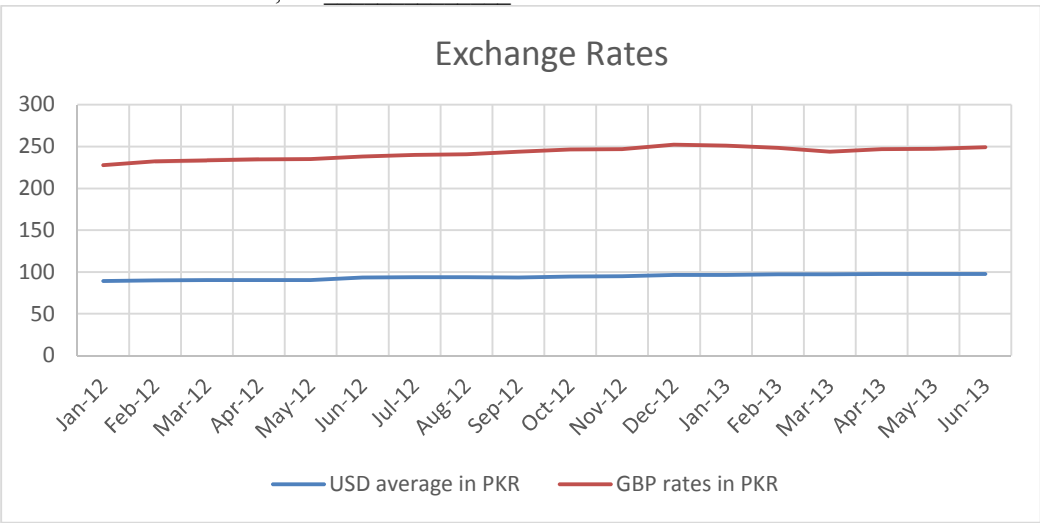

Figure5: Average price chart of US Dollar and Grand Britain Pound in Pak Rupee

Better performing asset on the period, circulate
USD GBP
Strength of your view in circulate asset
Pure Guess 1 2 3 4 5 Strong View
Estimated return of the winner, % _____
Upper limit for the return, % _____
Lower limit for the return, % _____

Thank you for participating