

Impact of Macro Variables on Karachi Stock Exchange

Rabia N* and Khakan N

University of Lahore, Lahore, Pakistan

Abstract

In this paper we have discussed that stock market of any country act as a predictor of the economy. We have discussed about the role of Pakistani stock markets. There is different topic of stock market in Pakistan but we are discussing Karachi stock exchange. In the case of Pakistan scenario it can be say that Pakistani stock market is act as the true predictor of economic activities. In this paper the impact of macro variables on Karachi stock exchange was studied. Karachi stock exchange is very interesting topic for the discussion. Karachi stock exchange is known as one of the oldest stock exchange of Asia and largest stock exchange of Pakistan. Karachi stock exchange is the dependent variables and inflation, interest rate and exchange rate are the independent variables. The increase and decrease the stock prices will affect the performance of the economy. In this paper researcher want to found out the fundamental macro variables which have impact on stock exchange and also want to found out that what are the impact of these variables on the government policies like monetary and fiscal policy. Multiple regression models were used which show dependent and independent variables have weak relationship. The interest rate, inflation rate, and exchange rate weak relationship shows with stock market. Exchange rate has insignificant relation with stock market therefore foreign investment is risk free. In Pakistan exchange rate, interest rate and inflation rate have no relationship with stock market of Karachi.

Keywords: Fiscal policy; Monetary policy; Asia; GDP; Interest rate; Inflation

Introduction

Karachi stock exchange is very interesting topic for the discussion. In this paper we have find out impact of macro variables on Karachi stock exchange. Karachi stock exchange is known as oldest stock exchange of Asia. Karachi stock exchange is the largest stock exchange of Pakistan. Stock market means the prices of securities which are traded in stock exchange. Stock exchange has a vital role for the fostering capital formation. Stock exchange has a main role for the healthy economy of any country. Stock exchange is work as a channel between stock investors and stock borrowers. In the words simple stock market is place where we can trade securities. According to different approaches states that stock market contain two types of investors. One approach says that investors use their different techniques to overcome the stock market prices and market is insufficient there. The second approaches says that all the investors have the same information and cannot beat the stock prices and the share price depends upon the effect of macro variables. The stock market performance is affected because macroeconomic variables are fluctuation in nature. In Thailand stock exchange and stock return have positive relationship. With the help of determination of value of demand and supply we can know prices of securities which are traded in stock market as daily basis. The fluctuation in stock market due to different factors like economic and political behavior of country. Karachi stock exchange also reacts due to these factors. In simple words during business hours buyers and sellers exchange their holdings. Stock exchange is the place where investors seek reward in the shape of capital gain. Exchange investment projects is useful to mobilizes the nation's saving. Stock market is the channel between savings and borrower's. According to leading stocks of world reported that negative growth ranging from Pakistan 50.8% and china 2.7% during the fiscal year. Since the last decade the Pakistani stock market was highly disturbed due to financial crises. In March 2005 stock market was crashed in year 2005. The second collapse was observed in year 2006. The biggest crash in the may 2008 to January 2009 it was the worst crash in the history of Pakistan. Karachi stock exchange was dropped more than 12 thousand points. There are many reasons due

to which prices of demand and supply increases and decrease and have impact on market behavior. According to different researches increase in inflation will increase in the income of demand and supply. The main reason for inflation of any country is there is inverse relationship between demand and supply. According to different economist view which increase in prices of things will indicate the inflation. In other words inflation means expansion of money supply. Many researchers have proved that the rate on inflation has impact on the stock market volatility. Commonly we can say inflation has two main parts 1) expected inflation 2) unexpected inflation. Expected inflation rate is plan one year to year between economists and consumer. Unexpected inflation means that what we can expect between economic and consumers. In this study has shown that main effect of unexpected inflation is due to redistribution of wealth. After the World War 2 in USA the inflation rate is between 3% to 6% for many years which has impact on the performance of the stock market inflation created natural bias. Due to inflation in the world every country has worst stock market. In this paper also explores that if government could not control the inflation then worst stock market ratio will increase. In the high inflation many assets failed to keep up. Government should control it soon otherwise stock will be collapse over 95%. Moreover, many studies has shown that in the period of high inflation dividend will increase in consumer prices. For the policy point of review stock prices and inflation has relationship. The stock market is reflecting from the macroeconomic variable therefore it is efficient. There are two way causation between stock market performance and inflation. Inflation

*Corresponding author: Rabia N, University of Lahore, Lahore, Pakistan, Tel: +92 42 111 865 865; E-mail: rabianajaf@hotmail.com

Received September 04, 2015; Accepted October 09, 2015; Published October 17, 2015

Citation: Rabia N, Khakan N (2015) Impact of Macro Variables on Karachi Stock Exchange. J Tourism Hospit 4: 173. doi:10.4172/21670269.1000173

Copyright: © 2015 Rabia N, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

is due to increase rate and volatility. Inflation has very huge impact on the economic competitiveness. This study has shown that how there is relationship between interest rate and inflation rate. According to different hypothesis high inflation shows high uncertainty. The inflation and stock prices have multiple relationship and we cannot consider impact of inflation on stock prices a single factor. Modern economy has common feature is called stock market. Stock market is famous for the development of the economy. After the stock market failure government has enable of raise financing for new projects. The status of investment in stock market is long term. Any variable which has impact on economy also impact of stock exchange. According to different economists inflation is one of the factors which have negative impact of stock exchange. We can measure stock market performance with the help of market capitalization. In this paper we discuss the following issue like 1) what is correlation between stock market and inflation 2) how much correlation between stock market liquidity and inflation. In all the countries inflation caused by monetary authorizes. Therefore, we can say impact of inflation on the stock market has implications on policy market. All the studies shown that stock market performance has effect on the economy. The basic characteristics of this Indian economy that it has strong economic growth. A unique feature of this economy is that it has become second faster economy of the world. In the financial year 2008, 2010 the GDP growth has average near about 6.8%. The target growth rate is 8% and the growth of Indian s service sector was 9.5% in 2008-2009. The best feature of Indian economy that it has high growth. In recent years Asian economy was facing crisis and Indian economy has proven its strength. According to different research foreign exchange reserves has record level in June. In June 2009, the foreign exchange reserves were reach a record level of 300 u\$ dollar. In may 2002, the Indian rupees were in strength as compared to dollar u\$1=rs 43.5. In 2004, the inflation rate contained at 5.5% in 2006 the inflation rate was at 6% and slow down at the beginning of the year 2009 was 9%.

Problem statement

Macro variables have impact on the stock exchange (Figures 1-3).

Scope of study

The scope of this study is find nature and strength of relation between stock return and inflation, and interest rate (Table 1a).

Objectives

- 1) What are the relationship between stock market and inflation?
- 2) What are the relationship between stock market and interest rate?
- 3) What are the relationship between stock market and exchange rate?

The Research Framework of This Paper

The research framework of this paper can be clearly explained in Figure 4.

Literature Review

Different researches have proved that inflation has very negative impact on stock exchange.

LMSC menace [1] has used the monthly data of Sri lank a stock exchange and from the result of null hypothesis shows that macro variables has no effect on stock markets.

Studies have shown that inflation rate affect stock price in all the economy but the relationship between unexpected inflation and stock price still not clear.

According to Fisher [2] studied the fisher hypothesis was exactly apply to stock return and according to different inverse relationship between stock return to unexpected inflation.

Fame and Schwert [3] studies says that there is direct relationship between activity and stock return.

Bakshi and Chen [4] there is no correlation between inflation and stock prices.

Gaps in literature

- 1) This literature review is just focus on the macroeconomic outcomes not tell properly about the process of these impact.
- 2) In this literature has not shown the positive impact of the macro variables like positive impact of inflation on the economy.
- 3) In this literature has just focused on the developing country not focused on the under developing country.
- 4) In this literature has not shown that what the government is doing against these problems.

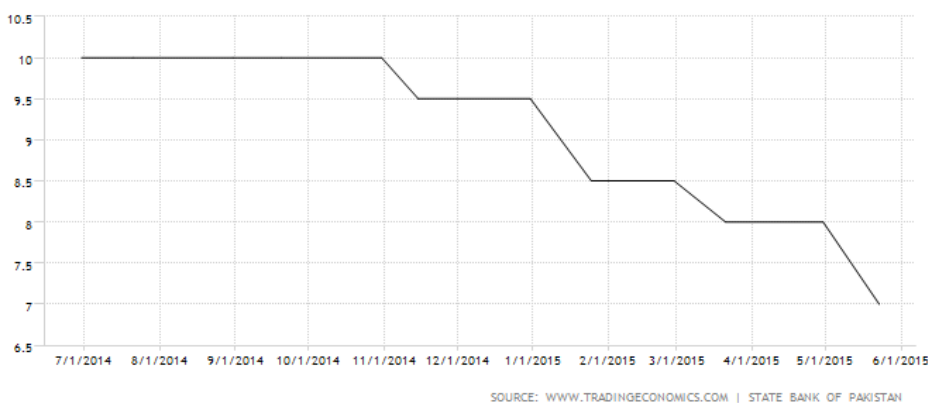


Figure 1: Pakistan Interest Rate.

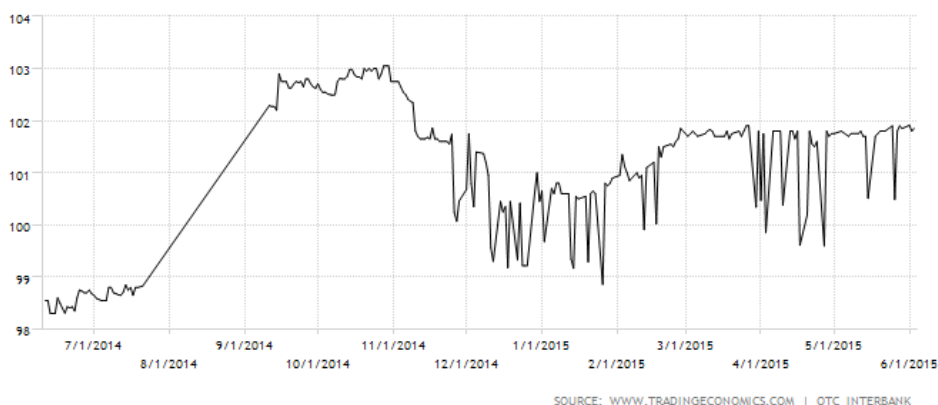


Figure 2: Pakistan Rupee.



Figure 3: Pakistan Inflation rate.

No.	Market	%
1	United States	47.7
2	Japan	10.3
3	United Kingdom	10.4
4	France	4.3
5	Canada	3.4
6	Germany	2.8
7	Switzerland	2.7
8	Italy	2.2
9	Australia	2.1
10	Netherlands	2.1

Source: Wren Research.

Table 1a: Top Ten Biggest Stock Markets in the World (% of Total).

Methods and Data Collection

Karachi stock is known as the leading stock exchange of Pakistan. Mostly investors used this market as a benchmark. In 1991 due to better performance Karachi stock exchange has got 1000 points. Karachi stock market is affected many macro variables like interest rate, inflation rate, exchange rate. All the variables have influences but crucial variables like inflation rate, exchange rate, interest rate etc. Mostly, rational investors focus on these variables. State bank of Pakistan has done solution about

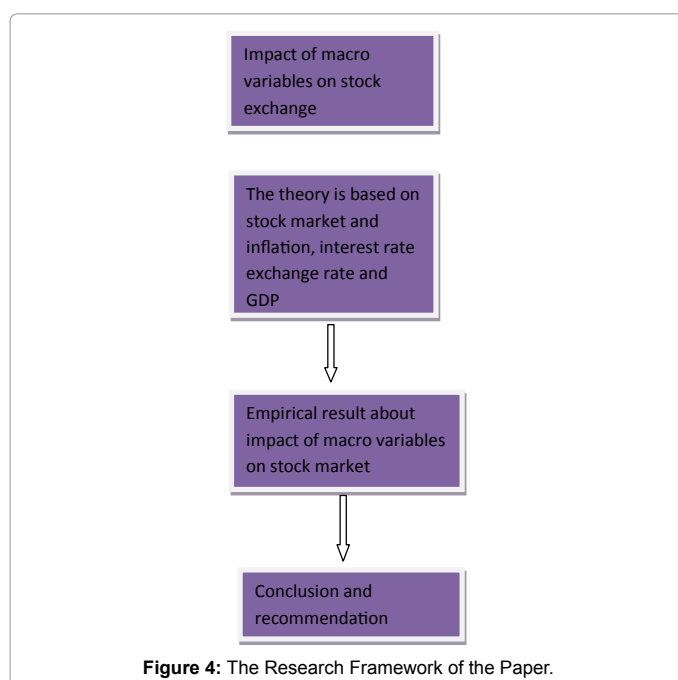


Figure 4: The Research Framework of the Paper.

this problem they increase and decrease federal fund rate for the control of money supply. In this paper we take Karachi stock exchange as dependent variable and other as independence variables (Figure 5).

Methodology

In this paper used multiple linear regression model for found out the result between dependent and independent.

Multiple regression models:

$$S = \alpha + \beta_0 ER + \beta_1 INF + \beta_2 IR + \mu t$$

S= Stock Market Returns

ER= Exchange Rate

INF= Inflation Rate

IR= Interest Rate

μt = Error Term

In this study, for the evaluation of exchange rate we have taken Pakistani rupee to us dollar. Most of the investors invest their money in foreign currency and converted their profit in Pakistan rupees. Profit of investors change due to exchange rate therefore it is important to find out the association between exchange rate and stock market returns. CPI means inflation indicator CPI is helpful to measure the prices of goods and services. CPI is the indicator which is used o measure of inflation rate. Interest rate have different kinds which means cost of borrowing.

Data description

In this paper we are trying to found out impact of exchange rate, inflation, and interest rate on stock market. Secondary data is used for this purpose. We got date of exchange rate and inflation rate from federal bureau and interest rate from state bank of Pakistan. The research study covers the data from 2008 to December 2013.

Data analysis

In this paper multiple linear regression models is used for research model. For some variables data were not parametric so we used log

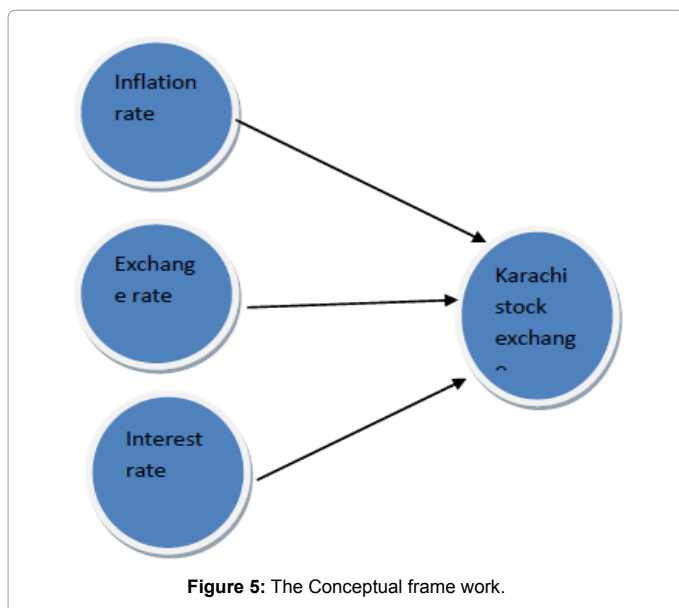


Figure 5: The Conceptual frame work.

Model	R	R Squares	Adjusted Squares	R	Std. Error of the Estimate
1	0.265a	0.080	0.029		0.0763250

Table 1b: Summary of Regression Model.

Model	Coefficients (Unstandardized)		Coefficients (Standardized)		Sig.
	B	Std. Error	Beta	T	
Constant	-.039	.076		-.534	.765
AER	.000	.001	-.123	-.264	.771
AINF	.000	.000	.265	2.396	.267
AIR	.004	.003	.308	2.473	.245

Table 2: Coefficient B and a. Dependent Variable: V1.

transformed for making the data normal.

Regression summary shows that r square is 8% which shows that 8% change in stock market due to changes in inflation; interest rate and exchange rate. Standard error of model is 8.6% r square shows that there is weak linkage between stock returns and dependent variables (Table 1b).

Table 2 shows that exchange rate coefficient is 0.000 which shows there is significant relationship it means there is not relationship between exchange rate and stock market. Inflation rate is .000 it is insignificant which shows that there is no relationship between inflation rate and stock market return. Last variable coefficient is 0.004 which shows that result is not significant. All three variables show insufficient relationship between stock market.

Conclusion

We have discussed the brief summary of the paper that changes in the macroeconomic variable have impact on the stock exchange prices in any nation. There are no of variables which have impact on the stock prices. There are three types of stock exchange in Pakistan economy 1) Islamabad stock exchange 2) Karachi stock exchange 3) Lahore stock exchange. Karachi stock exchange is one of biggest stock exchange of Pakistan economy and it has capacity to capture 76% of the capital market of Pakistan. Karachi stock exchange is the backbone of our economy. In this research paper we examined that what is impact of exchange rate, interest rate and inflation on the Karachi stock exchange. We used multiple regression models which show dependent and independent variables have weak relationship. The interest rate, inflation rate and exchange rate weak relationship shows with stock market. Exchange rate has insignificant relation with stock market therefore foreign investment is risk free. In Pakistan exchange rate, interest rate and inflation rate have no relationship with stock market of Karachi.

Policy Recommended

Practitioners and analysts should try to prediction about the future stock prices. They should find out the stock market movement. Investors should forecast how financial market changes. Practitioners and analysts should try to prediction about the future stock prices. They should find out the stock market movement. Investors should forecast how financial market changes. Investment in business operation is very charming business activity. For the outperformance of the market analyst always predict about the stock market and practitioners have role to measurement about risk. All of them try to find relationship between macro variables and stock exchange, on the other hands

policymakers should make monetary policy for the adjustment of KSE.

References

1. <http://www.lmsc.net/winter-2001-2002.pdf>
2. Fisher I (1930) Explains the Theory of Interest. MacMillan, New York.
3. Fama E, Schwert G (1977) Relationship between Asset Returns and Inflation. Journal of Business 56: 201232.
4. Bakshi GS, Chen Z (1996) What is the impact of Inflation, Asset Prices, and the Term Structure of Interest Rates in Monetary Economies. Review of Financial Studies 9: 241-275.