INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE, ECONOMICS & MANAGEMENT

IJRCM

IJRCM

A Monthly Double-Blind Peer Reviewed (Refereed/Juried) Open Access International e-Journal - Included in the International Serial Directories

Indexed & Listed at:

Ulrich's Periodicals Directory ©, ProQuest, U.S.A., EBSCO Publishing, U.S.A., Cabell's Directories of Publishing Opportunities, U.S.A., Open J-Gage, India [link of the same is duly available at Inflibnet of University Grants Commission (U.G.C.)], Index Copernicus Publishers Panel, Poland with IC Value of 5.09 & number of libraries all around the world.

Circulated all over the world & Google has verified that scholars of more than 2401 Cities in 155 countries/territories are visiting our journal on regular basis.

Ground Floor, Building No. 1041-C-1, Devi Bhawan Bazar, JAGADHRI – 135 003, Yamunanagar, Haryana, INDIA

http://ijrcm.org.in/

CONTENTS

CALL FOR MANUSCRIPTS

Weinvite unpublished novel, original, empirical and high quality research work pertaining to recent developments & practices in the area of Computer, Business, Finance, Marketing, Human Resource Management, General Management, Banking, Education, Insurance, Corporate Governance and emerging paradigms in allied subjects like Accounting Education; Accounting Information Systems; Accounting Theory & Practice; Auditing; Behavioral Accounting; Behavioral Economics; Corporate Finance; Cost Accounting; Econometrics; Economic Development; Economic History; Financial Institutions & Markets; Financial Services; Fiscal Policy; Government & Non Profit Accounting; Industrial Organization; International Economics & Trade; International Finance; Macro Economics; Micro Economics; Monetary Policy; Portfolio & Security Analysis; Public Policy Economics; Real Estate; Regional Economics; Tax Accounting; Advertising & Promotion Management; Business Education; Management Information Systems (MIS); Business Law, Public Responsibility & Ethics; Communication; Direct Marketing; E-Commerce; Global Business; Health Care Administration; Labor Relations & Human Resource Management; Marketing Research; Marketing Theory & Applications; Non-Profit Organizations; Office Administration/Management; Operations Research/Statistics; Organizational Behavior & Theory; Organizational Development; Production/Operations; Public Administration; Purchasing/Materials Management; Retailing; Sales/Selling; Services; Small Business Entrepreneurship; Strategic Management Policy; Technology/Innovation; Tourism, Hospitality & Leisure; Transportation/Physical Distribution; Algorithms; Artificial Intelligence; Compilers & Translation; Computer Aided Design (CAD); Computer Aided Manufacturing; Computer Graphics; Computer Organization & Architecture; Database Structures & Systems; Digital Logic; Discrete Structures; Internet; Management Information Systems; Modeling & Simulation; Multimedia; Neural Systems/Neural Networks; Numerical Analysis/Scientific Computing; Object Oriented Programming; Operating Systems; Programming Languages; Robotics; Symbolic & Formal Logic and Web Design. The above mentioned tracks are only indicative, and not exhaustive.

Anybody can submit the soft copy of his/her manuscript **anytime** in M.S. Word format after preparing the same as per our submission guidelines duly available on our website under the heading guidelines for submission, at the email address: infoijrcm@gmail.com.

GUIDELINES FOR SUBMISSION OF MANUSCRIPT

1. **COVERING LETTER FOR SUBMISSION**:

DATED: _____________

THE EDITOR
IJRCM

Subject: **SUBMISSION OF MANUSCRIPT IN THE AREA OF**.

(e.g. Finance/Marketing/HRM/General Management/Economics/Psychology/Law/Computer/IT/Engineering/Mathematics/other, please specify)

DEAR SIR/MADAM

Please find my submission of manuscript entitled '____' for possible publication in your journals.

I hereby affirm that the contents of this manuscript are original. Furthermore, it has neither been published elsewhere in any language fully or partly, nor is it under review for publication elsewhere.

I affirm that all the author (s) have seen and agreed to the submitted version of the manuscript and their inclusion of name (s) as co-author (s).

Also, if my/our manuscript is accepted, I/We agree to comply with the formalities as given on the website of the journal & you are free to publish our contribution in any of your journals.

NAME OF CORRESPONDING AUTHOR:
Designation:
Affiliation with full address, contact numbers & Pin Code:
Residential address with Pin Code:
Mobile Number (s):
Landline Number (s):
E-mail Address:
Alternate E-mail Address:

NOTES:
a) The whole manuscript is required to be in ***ONE MS WORD FILE*** only (pdf. version is liable to be rejected without any consideration), which will start from the covering letter, inside the manuscript.
b) The sender is required to mentionthe following in the **SUBJECT COLUMN** of the mail:
New Manuscript for Review in the area of (Finance/Marketing/HRM/General Management/Economics/Psychology/Law/Computer/IT/Engineering/Mathematics/other, please specify)
c) There is no need to give any text in the body of mail, except the cases where the author wishes to give any specific message w.r.t. to the manuscript.
d) The total size of the file containing the manuscript is required to be below **500 KB**.
e) Abstract alone will not be considered for review, and the author is required to submit the complete manuscript in the first instance.
f) The journal gives acknowledgement w.r.t. the receipt of every email and in case of non-receipt of acknowledgment from the journal, w.r.t. the submission of manuscript, within two days of submission, the corresponding author is required to demand for the same by sending separate mail to the journal.

2. **MANUSCRIPT TITLE**: The title of the paper should be in a 12 point Calibri Font. It should be bold typed, centered and fully capitalised.

3. **AUTHOR NAME (S) & AFFILIATIONS**: The author (s) **full name**, **designation**, **affiliation** (s), **address**, **mobile/landline numbers**, and **email/alternate email address** should be in italic & 11-point Calibri Font. It must be centered underneath the title.

4. **ABSTRACT**: Abstract should be in fully italicized text, not exceeding 250 words. The abstract must be informative and explain the background, aims, methods, results & conclusion in a single para. Abbreviations must be mentioned in full.

5. **KEYWORDS**: Abstract must be followed by a list of keywords, subject to the maximum of five. These should be arranged in alphabetic order separated by commas and full stops at the end.

6. **MANUSCRIPT**: Manuscript must be in ***BRITISH ENGLISH*** prepared on a standard A4 size ***PORTRAIT SETTING PAPER***. It must be prepared on a single space and single column with 1" margin set for top, bottom, left and right. It should be typed in 8 point Calibri Font with page numbers at the bottom and centre of every page. It should be free from grammatical, spelling and punctuation errors and must be thoroughly edited.

7. **HEADINGS**: All the headings should be in a 10 point Calibri Font. These must be bold-faced, aligned left and fully capitalised. Leave a blank line before each heading.

8. **SUB-HEADINGS**: All the sub-headings should be in a 8 point Calibri Font. These must be bold-faced, aligned left and fully capitalised.

9. **MAIN TEXT**: The main text should follow the following sequence:

   INTRODUCTION

   REVIEW OF LITERATURE

   NEED/IMPORTANCE OF THE STUDY

   STATEMENT OF THE PROBLEM

   OBJECTIVES

   HYPOTHESES

   RESEARCH METHODOLOGY

   RESULTS & DISCUSSION

   FINDINGS

   RECOMMENDATIONS/SUGGESTIONS

   CONCLUSIONS

   SCOPE FOR FURTHER RESEARCH

   ACKNOWLEDGMENTS

   REFERENCES

   APPENDIX/ANNEXURE

   It should be in a 8 point Calibri Font, single spaced and justified. The manuscript should preferably not exceed ***5000 WORDS***.

10. **FIGURES &TABLES**: These should be simple, crystal clear, centered, separately numbered & self explained, and **titles must be above the table/figure**. **Sources of data should be mentioned below the table/figure**. It should be ensured that the tables/figures are referred to from the main text.

11. **EQUATIONS**:These should be consecutively numbered in parentheses, horizontally centered with equation number placed at the right.

12. **REFERENCES**: The list of all references should be alphabetically arranged. The author (s) should mention only the actually utilised references in the preparation of manuscript and they are supposed to follow **Harvard Style of Referencing**. The author (s) are supposed to follow the references as per the following:

- All works cited in the text (including sources for tables and figures) should be listed alphabetically.
- Use (**ed.**) for one editor, and (**ed.s)** for multiple editors.
- When listing two or more works by one author, use --- (20xx), such as after Kohl (1997), use --- (2001), etc, in chronologically ascending order.
- Indicate (opening and closing) page numbers for articles in journals and for chapters in books.
- The title of books and journals should be in italics. Double quotation marks are used for titles of journal articles, book chapters, dissertations, reports, working papers, unpublished material, etc.
- For titles in a language other than English, provide an English translation in parentheses.
- The location of endnotes within the text should be indicated by superscript numbers.

PLEASE USE THE FOLLOWING FOR STYLE AND PUNCTUATION IN REFERENCES:

BOOKS

- Bowersox, Donald J., Closs, David J., (1996), "Logistical Management." Tata McGraw, Hill, New Delhi.
- Hunker, H.L. and A.J. Wright (1963), "Factors of Industrial Location in Ohio" Ohio State University, Nigeria.

CONTRIBUTIONS TO BOOKS

- Sharma T., Kwatra, G. (2008) Effectiveness of Social Advertising: A Study of Selected Campaigns, Corporate Social Responsibility, Edited by David Crowther & Nicholas Capaldi, Ashgate Research Companion to Corporate Social Responsibility, Chapter 15, pp 287-303.

JOURNAL AND OTHER ARTICLES

- Schemenner, R.W., Huber, J.C. and Cook, R.L. (1987), "Geographic Differences and the Location of New Manufacturing Facilities," Journal of Urban Economics, Vol. 21, No. 1, pp. 83-104.

CONFERENCE PAPERS

- Garg, Sambhav (2011): "Business Ethics" Paper presented at the Annual International Conference for the All India Management Association, New Delhi, India, 19–22 June.

UNPUBLISHED DISSERTATIONS AND THESES

- Kumar S. (2011): "Customer Value: A Comparative Study of Rural and Urban Customers," Thesis, Kurukshetra University, Kurukshetra.

ONLINE RESOURCES

- Always indicate the date that the source was accessed, as online resources are frequently updated or removed.

WEBSITES

- Garg, Bhavet (2011): Towards a New Natural Gas Policy, Political Weekly, Viewed on January 01, 2012 http://epw.in/user/viewabstract.jsp

IMPACT OF CONSUMER PRICE INDEX, REAL EFFECTIVE EXCHANGE RATE INDEX, PER CAPITA INCOME AND DISCOUNT RATE ON PAKISTAN'S STOCK MARKET INDEX

MUHAMMAD TOSEEF ASLAM
RESEARCH SCHOLAR
SUPERIOR UNIVERSITY
LAHORE

DR. MUHAMMAD RAMZAN
DIRECTOR LIBRARIES
LAHORE UNIVERSITY OF MANAGEMENT SCIENCES
LAHORE

ABSTRACT

Stock market indexes and macro-economic variables have significant relationship and it has been a topic of keen interest for researchers, academics and professionals all over the world. Various studies on this topic have been conducted and revealed a little ambiguous but more well-known relationship of macro-economic variables with stock exchanges. This study focuses upon the relationship of macro-economic variables and their impact on Karachi Stock Exchange index (KSE100). The study is about explaining the impacts of four independent macro-economic variables i.e. real effective exchange rate index, discount rate, per capita income and consumer price index on a dependent variable KSE 100 index. The study covers the time period from 1992 to 2012 and data analysis has been performed by Statistical Package for Social Sciences (SPSS) on time series data of 21 years. The results of the study explain a positive impact of consumer price index and effective real exchange rate index on KSE 100 index. Negative impact has been manifested by discount rate and consumer price index (inflation) on KSE 100 index. Independent variables of the model explain 92% of variation on stock market at high level of significance. The study also suggests that government should take remedial measures to control inflation and discount rate in favor of economy. Government should announce such monetary policy that could control inflation and discount rate for long-run benefit of country. Government should also take measures to stop the currency depreciation to boost economy and KSE index. Policies for appreciation of currency lead the country towards high rate of capital flow from abroad that is a key issue in any developing capitalistic economy like Pakistan.

KEYWORDS

Pakistan Stock Market Index, Macroeconomic Variables, Time Series Data, Currency Appreciation, Consumer Price Index, Real Effective Exchange Rate, Per Capita Income.

INTRODUCTION

The role of stock markets is considered indispensable in the development and growth of any modern economy. It is hard for an economy to prosper in the absence of stock markets. These markets help an economy towards the mobilization of its domestic resources and channelize them towards the productive investment (Comincioli, 1995). The performance of stock market is gauged by looking at the movements in its index, which is affected by multiple factors. These factors may include companies' specific, domestic (macroeconomic, social & political) and international factors.

The focus of this particular study is to identify the impact of certain macroeconomic variables on the stock market index of Pakistan. Currently, three stock exchanges are functioning in Pakistan named as Karachi Stock Exchange (KSE), Lahore stock Exchange (LSE) and Islamabad Stock Exchange (ISE). For conducting this study, KSE-100 index has been taken as sample. Karachi Stock Exchange (KSE) was inaugurated in 1947 but KSE-100 index was introduced in 1991 which transferred on electronic processing system in1998 later on.

There are multiple macroeconomic variables that can leave impacts on stock market index of Pakistan such as inflation, exchange rates, gross domestic products (GDP), interest rates, foreign exchange remittances, domestic & international oil prices, money supply, trade balances, country reserves, foreign direct investment etc. Most significant and vital economic variables that may affect the developing countries including Pakistan are Consumer Price Index, Real effective Exchange Rate Index, Per Capita Income and Discount rate. There are a number of studies, which have revealed the impact of these variables on stock market index but this particular research will focus to trace down the effects of some of these variables specifically on KSE-100 index. The relationship between macroeconomic variables and stock market index has always been a source of immense attraction for finance practitioners since many years.

An upward movement in price of goods and services in an economy is termed as Inflation. It generally occurs due to increasing demand of goods and services exceeding their money supply. The purchasing power of people is affected by inflation, which results in less saving leading to an increased money supply. As a matter of fact, limited savings decrease the economic growth by restricting the investment in the economy. For assessing the impact of inflation on the economy, Consumer Price Index (CPI) has been used in this study. The weighted average of prices of consumer goods and services is termed as CPI. It is calculated by using changes in prices for each item and then averaging them.

Real effective Exchange Rate Indexes the weighted average of a country's currency adjusted for the effects of inflation relative to an index or basket of other major currencies. The weights are determined by comparing the relative trade balances with each other country within the index in terms of one country's currency.

Per Capita Income is a measure of the amount of money earned per person in a certain country. It is used as a means of evaluating the quality of life and living conditions in different areas of the country. It can be calculated by dividing a country's national income by its population.

Discount rate is the interest rate central banks charge to commercial banks for providing credit/loan to commercial banks. In order to control inflation, it is used as a tool of monetary policy i.e. central bank increases the discount rate for commercial banks in the times of elevated inflation. It is used for controlling excessive money supply in the country. The banks cut down the provision of loans to the customers when they are left with limited funds, which ultimately affect further businesses and investments. This study will assess how discount rate can have an impact on investment in stock market and how it is related to stock market index.

The motive of the paper is to explore the influence of selected macroeconomic variables i.e. inflation, Real effective Exchange Rate Index, Per Capita Income and Discount rate on KSE 100 index. Various studies have been conducted in the past in order to identify the relationships by using different macroeconomic variables according to researchers' choice like Taulbee (2001), Nishat & Shaheen (2004), Sing (2009), Sohail and Hussain (2011) and Ali (2011). However, it is continuing discussion whether macroeconomic variables significantly affect the stock market index or not.

LITERATURE REVIEW

Findings of a study by Nishat and Shaheen (2004) revealed a relationship between specific macroeconomic variables and the performance of KSE. For this purpose, they took the data of Karachi Stock Exchange from 1973 to 2004. They employed the vector error correction model to find out the relationship

between the macroeconomic variables and KSE performance. They found a causality relationship between economy and the stock market. Analysis of results indicated that inflation had a negative impact whereas industrial production had a positive impact on the prices of stocks in Pakistan.
Ahmad Z, Ahmad Z, Khan S and Javaid U (2011) conducted a study to find out the relevant variables that causes the stock price movements in KSE. For this purpose, they build ARIMA model to identify the relevant macroeconomic variables and their impacts on stock price movement. They used time series data from 1961 to 2009, which was collected from World Economic Indicators. The result of the Study showed a negative and significant impact of inflation and exchange rate on the stock prices and a positive but weak (insignificant) influence of economic growth on the equity prices KSE.
Ali et al (2009) conducted a study to test the causal relationship between equity prices and some macroeconomic variables in Pakistani stock exchanges. For study purpose, they took data from Federal Bureau of Statistics of Pakistan and KSE from June 1990 to December 2008 in order to analyze the causal relationship between selected macro-economic variables (indicator) and equity prices. They adopted different statistical techniques including unit root ADF test, Granger's causality test and Johansen's co-integration test. The result of the study showed co-integration between stock exchange prices and industrial production index. However, there was not found any causal relationship between exchange rate, inflation and stock exchange prices in Pakistan.
Leea C, Doong S and Choua P examined the relationship between equity price and currency exchange rate along with the exploration of their correlation influenced by the stock market volatility. For this purpose, they used Conditional Correlation and Generalized Autoregressive Conditional Heteroscedasticity methods. They took the weekly data from Indonesia, Korea, Malaysia, Philippines, Taiwan and Thailand for the period 2000 to 2008. The study found out that there were significant price spillovers from stock market to foreign exchange market in Indonesia, Korea, Malaysia, Thailand and Taiwan. The correlation between stock market and foreign exchange market was found affected by the stock market volatility. It was analyzed that the correlations used to become higher in Asian emerging countries except in Philippines when their stock market became volatile.
T. Patra and S. Poshakwale (2006) conducted a study to examine the short run as well as the long run equilibrium relationship between a set of macroeconomic variables (trading volume, money supply, inflation and exchange rate) andequity prices in the emerging Greek stock market. Granger causality, Co-integration methods and the Error-Correction Model were used to find out the relationship. For this purpose they took the data of Greek stock market from 1990 to 1999.
It was cleared from analysis that trading volume, money supply and inflation have prominent short run as well as long run equilibrium relationship with equity prices in stock exchange of Athens. There was no causal relationship witnessed between the exchange rates and stock prices. It was also found that the inflation had a negative impact on the equity prices and the exchange rate had a weak relationship with stock prices.
Pal K and Mittal R (2011) conducted a study to test the long-term association between selected macroeconomic variables (exchange rate, interest rate, inflation rate, and gross domestic savings) and capital markets of India. For this purpose, they used the quarterly data from January 1995 to December 2008. Statistical techniques of Unit root test, the co-integration test and error correction mechanism (ECM) were applied in order to determine the relationship. The results of the study revealed that inflation, foreign exchange rate and interest rate have significant impact on Indian stock markets but GDS was observed as insignificant on the other hand.
Akbar et al (2012) conducted a study to examine the relationships between KSE100 index and some specific macroeconomic variables. For this purpose, they gather the data for period starting from 1999 to 2008. They used error correction model (ECR), analyzed and filtered the data by different statistical techniques like granger causality test to make the relationship clear between macro-economic variables and stock prices in KSE100 index. As a result of sophistical statistical techniques on this data researcher found macro-economic variables and equity prices were unidirectional causality. It was obvious that Stock price were positively related with M2 (money supply) and interest rate whereas foreign currency exchange reserve and inflation were negatively related.
Akmal S (2007) conducted this study to investigate the relationship between inflation and stock market price. For this purpose, data was collected about the variables from 1971 to 2006. ARDL, co-integration, Error Correction Approach technique was used to analysis the data. The study showed that the stock prices are hedged against inflation in long-run but in short-run this practice did not prevail.
Abdalla I and Murinde V (2010) conducted the research to find out the interaction between stock prices and exchange rates in emerging financial markets. The researchers take the data from Philippines, Pakistan, Korea, and India. For the purpose of study data has been taken from IFC stock price index and the real effective exchange rate over 1985:01to1994:07. They applied some new econometric techniques to a BVAR model of stock prices and exchange rates in order to test for Granger-causality between the two variables. The results have found that exchange rate impact the stock prices in Korea, Pakistan and India. Whereas stock prices Granger-cause exchange rates in the Philippines.
Kolari j and Anari A (2001) conducted a study to examine the fisher effect on the stock prices. They used stock and goods price data from six industrial economies. They used different statistical techniques to analysis the data. The study revealed that long-run elasticity of stock prices with respect to goods prices remained above and range of the price is from 1.04 to 1.65 that supported the Fisher effect. It ultimately led us to conclude that inflation has a short-run negative impact on stock returns but chances of positive in long run.

OBJECTIVES
Objectives of this paper are to trace association between macro-economic variables and KSE 100 index by using regression technique. The paper will also focus on determining the nature and strength of relationship between macro-economic variables and KSE 100 index along with tendency of their movements.

METHODOLOGY
Time series data of selected variables has been gathered on annual basis from 1991 to 2012 in this analysis. This paper traces the effects of independent variables (consumer price index, per capital income, discount rate and real effective exchange rate index) on dependent variable (KSE 100 index). It is assumed in this study that all other variables, which can influence KSE 100 index, remain constant during the analysis time period. This assumption will also guide for better understanding of OLS technique. Least Squares (NLS and ARMA) technique has been used in my quantitative analysis.

DATA COLLECTION SOURCES
The time series analysis in the study is based on secondary data retrieved from different reliable sources, which has been used to trace and compile the data for analysis. Real exchange rate index and CPI data has been taken form World Bank Indicators (WDI) of Pakistan published by World Bank. Discount rate average data has been gathered from SBP and Federal Bureau of Statistics. KSE index data has been retrieved from KSE website and SBP published reports. The year 2005 has been taken as base year for CPI and Real Exchange Rate Index whereas KSE 100 index is monthly average data of financial year.

MODEL SPECIFICATION
$KSEI = \alpha+\beta_1\ PCI + \beta_2 Dis + \beta_3\ REXI + \beta_4 CPI + \varepsilon$
KSEI = Karachi stock exchange index (base year 1991)
PCI = Per Capita income % of GDP of Pakistan
Dis = Discount Rate
REXI=Real Exchange Rate Index (base year 2005)
CPI = consumer price index (inflation level, base year 2005)
ε = error term
Validity of instrument and reliability of data are key issues in secondary data analysis. Reliability and validity are pillars upon which Research Empire is built and generalization foster afterwards. High Value of Durban Watson (2.23) shows that there is no issue of auto correlation among residuals. It may also be inferred form the result that data is unbiased form autocorrelation problem. There is a strong position to claim that residuals have also normal distributions, which have been measured by K-S test. Value of K-S test (67%) is more than the level of significance (alpha), hence confirms the test result.
Another test of homoscedasticity reveals that residual have zero mean value. Extensive quantitative data reliability techniques confirm the claim of unbiasness.

HYPOTHESIS

Null hypothesis: REX index, CPI, Dis and PCI have no significant impact on KSE 100 index

P. value is less than 1% in the analysis, which refers to the failure of acceptance of null hypothesis. So, it can be said that independent variables in the study have significant impact on KSE 100 index.

E-Views software has been used to ascertain the stationarity issue in the data by implying unit root test. All the independent variables in the analysis are stationary at some level i.e. first level of difference or on second level of difference. Major data analysis has been performed by statistical Package for Social Sciences (SPSS) i.e. normality test, autocorrelation testing, homoscedasticity at 5% of level of significance that is norm of good secondary data analysis.

DATA ANALYSIS

The model in our study is based on classical linear regression and provides satisfactory unbiased results by fulfilling its assumptions. These assumptions have also been tested by various tests i.e. K-S test, Normality test, Durban Watson tests and unit root tests. Therefore, it can be concluded that:

- Model has linearity in the parameters
- Model has no multicollinearity issue
- All the variables are stationary

EMPIRICAL FINDINGS

Data in table 1 reveals that the model under study is statistically significant. P value of model is less than 1% at high level of significance.

TABLE 1: RESIDUALS STATISTICS [a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	75.7224	11279.2891	4941.6186	4169.86225	21
Residual	-3272.86328	2497.68408	.00000	1215.80515	21
Std. Predicted Value	-1.167	1.520	.000	1.000	21
Std. Residual	-2.408	1.837	.000	.894	21

a. Dependent Variable: KSEI

This result clearly shows that the independent variables have significant impact on Karachi stock market index.

TABLE 2: MODEL SUMMARY [b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.960[a]	.922	.902	1359.31148	2.234

a. Predictors: (Constant), CPI, Dis, Rex, PCI

b. Dependent Variable: KSEI

This model has also high explanatory power of .92, which means that 92% of variation of index level have been explained by chosen independent variables i.e. REX index, CPI, Dis and PCI. Only 8% variation is caused by other variable that are not included in the model.

HIGHLIGHTS OF RELATIONSHIPS

Per capita income (PCI) and real exchange rate index (REX) have positive relation to KSE 100 index. Inflation (CPI) and Discount rate have negative relationship with KSE 100 index.

TABLE 3: COEFFICIENTS [a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	-64386.440	11725.860		-5.491	.000
	Dis	-699.688	125.950	-.596	-5.555	.000
	PCI	122.179	20.992	1.753	5.820	.000
	Rex	177.706	58.728	.336	3.026	.008
	CPI	-75.134	24.743	-.908	-3.037	.008

a. Dependent Variable: KSEI

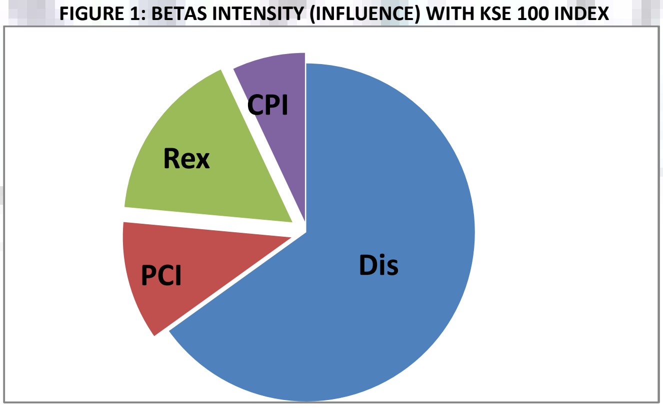
Regression coefficient (Beta) of CPI shows negative relationship with KSE index. One percent increase in inflation can decrease 75 points in index level of market by keeping other market factors constant.

Positive beta of per capita income depicts that 1 dollar increase of PCI of Pakistan can boost the KSE index level up to 122 point.

Positive regression beta of Real Exchange rate index also gives the hint to forecast that 1% increase in currency appreciation can boost 177 points of KSE 100 index.

Most influencing factor in the model is discount rate that can badly affect KSE 100 index. It means that 1% increase in discount rate may decrease 699 points market index.

FIGURE 1: BETAS INTENSITY (INFLUENCE) WITH KSE 100 INDEX



Betas intensity (influence) with KSE 100 index

The estimated regression model is:

KSEI = -67917.842 +122.179 PCI – 699.688 Dis – 177.706 REXI + 75.134 CPI

CONCLUSION AND FINDINGS

The key intention of the study is to judge the impact of selected macro-economic variables on Karachi stock exchange 100 indexes. A wide range of statistical data reliability techniques have been utilized in order to get clear-cut picture of the relationship between dependent and independent variables by overcoming all the assumptions of regression analysis and getting resulted values free from biasness. The findings of the study explain the tendency, nature of dependency and strength of relationship among variables.

The study has high value of explanatory power on less than one percentage of P. value, which makes the study more predictable with accuracy. Joint effect of independent variables on dependent variable has been ascertained with the help of F-test. Probability of F-test reveals that independents variables jointly affect the KSE 100 index at very low probability that is desirable in this analysis and give us confidence to predict the effect of findings.

The study reveals that discount rate and inflation have negative relation whereas per capita income and real effective exchange rate have positive relation with KSE 100 index on high level of significance. Discount rate can severely influence KSE index whereas inflation can affect minimal by our findings. Per capita income and real exchange rate index have average influence on KSE 100 index. Therefore the findings of this study help us to conclude how effectively our economy can manage its macro indicators in best interest of stock market's growth which is most desirable in any capitalistic economy for smooth and progressive operation. My findings would also help monetary policy makers to establish a long run policy by viewing the effects of selected variables on secondary markets. The results of study have been aligned with literature on different market indexes all over the world and researches of this topic verify the nature of relationship that increases the value of the findings.

RECOMMENDATIONS

The study will help the professionals and policy makers to get further insight of economy by viewing the phenomena through different angels. Macro-economic variables play a role of booster for stock market indexes in any capitalistic economy. By controlling inflation and discount rate, index level can be increased in the economy, which can increase government revenue and provide investor confidence in secondary markets. Growth of any economy is tied up with the stock market of the country in short-run as far as in long-run. So, low inflation and low discount rate announced by government can increase the investment activities in economy along with high level of KSE index that is compulsory for economic development of Pakistan.

Government should adopt the following policies for the betterment of economy and KSE index:

- Interest rate volatility should be reduced by developing a well-designed monetary policy.
- Such policy should be adopted through which per capita income may increase and generate surplus investable wealth.
- Exchange rate fluctuations of Pakistani Rupees (PKR) should be minimized in order to avoid the currency depreciation for meeting short-run objectives. Long-run currency appreciation will bring foreign direct investment in Pakistan owing to benefits i.e. market return plus currency appreciation return.

In a nutshell, government should pay special attention to selected macro-economic variables i.e. discount rate, inflation, exchange rate and per capita income to boost the KSE index that would ultimately lead the country toward prosperity.

REFERENCES

1. Ahmad, Z., Ahmad, Z., Khan, M. S., & Javaid, U. (2012). Capturing the stock price movements at Karachi Stock exchange: Are macroeconomic variables relevant? African Journal of Business Management, 3026-3034.
2. Abdalla, I., & Murinde, V. (1997). Exchange rate and stock price interactions in emerging financial markets: evidence on India, Korea, Pakistan and the Philippines. Applied Financial Economics, 25Ð 35.
3. Akbar, M., Ali, S., & Khan, M. F. (2012). The relationship of stock prices and macroeconomic variables revisited: Evidence from Karachi stock exchange. African Journal of Business Management, 1315-1322.
4. AKMAL, M. S. (2007). STOCK RETURNS AND INFLATION: AN ARDL ECONOMETRIC INVESTIGATION UTILIZING PAKISTANI DATA. Pakistan Economic and Social Review, 89-105.
5. Ali, I., Rehman, K. U., Yilmaz, A. K., Khan, M. A., & Afzal, H. (2010). Causal relationship between macro-economic indicators and stock exchange prices in Pakistan. African Journal of Business Management, 312-319.
6. Anari, A., & Kolari, J. (2001). STOCK PRICES AND INFLATION. The Journal of Financial Research, 587-602.
7. Karam, p., & Ruhee, M. (2011). impact of macroeconomic indicators on indian capital markets. Journal of Risk Finance, 84 – 97.
8. Lee, C.-H., Doong, S.-C., & Chou, P.-I. (2011). Dynamic correlation between stock prices and exchange rates. Applied Financial Economics, 789–800.
9. Nishat, M., & Shaheen, R. (2004). MACROECONOMIC FACTORS AND PAKISTANI EQUITY MARKET. The Pakistan Development Review, 4-43.
10. Patra, T., & Poshakwale, S. (2006). Economic variables and stock market returns: evidence from the Athens stock exchange. Applied Financial Economics, 993–1005.
11. Sohail, N., & Hussain, Z. (2012). Macroeconomic Policies and Stock Returns in Pakistan: A Comparative Analysis of Three Stock Exchanges. INTERDISCIPLINARY JOURNAL OF CONTEMPORARY RESEARCH IN BUSINESS, 905-918.
12. Hsing, Y. (2011). The Stock Market and Macroeconomic Variables in a BRICS Country and Policy Implications. International Journal of Economics and Financial Issues,1(1), 12-18.
13. Taulbe, N. (2001). Influences on the Stock Market: Examination of the Effect of Economic Variables on S&P 500. The Park Place Economist, 9(1).
14. Ali, B. M. (2011). Impact of Micro and Macroeconomic Variables on Emerging Stock Market Return: A Case on Dhaka Stock Exchange (DSE). Interdisciplinary Journal of Research in Business, 1(5).
15. Karachi Stock Exchange (n.d.). Stock index data. Retrieved from http://www.kse.com.pk
16. State Bank of Pakistan (n.d.). Discount rates. Retrieved from http://www.sbp.org.pk/
17. Federal Bureau of Statistics (n.d.). Discount rates. Retrieved from www.pbs.gov.pk/
18. World Development Indicators (n.d.). Data Pakistan. Retrieved from http://data.worldbank.org/country/pakistan

APPENDIX

TABLE 4: COLLINEARITY DIAGNOSTICS [a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions				
				(Constant)	Dis	PCI	Rex	CPI
1	1	4.758	1.000	.00	.00	.00	.00	.00
	2	.205	4.819	.00	.03	.00	.00	.04
	3	.034	11.775	.00	.50	.00	.01	.03
	4	.002	48.582	.03	.21	.09	.66	.15
	5	.000	121.994	.97	.26	.91	.33	.79

Dependent Variable: KSEI

TABLE 5: UNIT ROOT TEST OF REAL EXCHANGE RATE

Null Hypothesis: D(REX) has a unit root			
Exogenous: Constant			
Lag Length: 0 (Automatic - based on SIC, maxlag=4)			
		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-4.123741	0.0054
Test critical values:	1% level	-3.831511	
	5% level	-3.029970	
	10% level	-2.655194	

TABLE 6: UNIT ROOT TEST OF DISCOUNT RATE

Null Hypothesis: D(DIS) has a unit root			
Exogenous: Constant			
Lag Length: 0 (Automatic - based on SIC, maxlag=4)			
		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.171543	0.0380
Test critical values:	1% level	-3.831511	
	5% level	-3.029970	
	10% level	-2.655194	

TABLE 7: UNIT ROOT TEST OF PER CAPITA INCOME

Null Hypothesis: D(PCI,2) has a unit root			
Exogenous: Constant			
Lag Length: 0 (Automatic - based on SIC, maxlag=4)			
		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-5.527987	0.0003
Test critical values:	1% level	-3.857386	
	5% level	-3.040391	
	10% level	-2.660551	

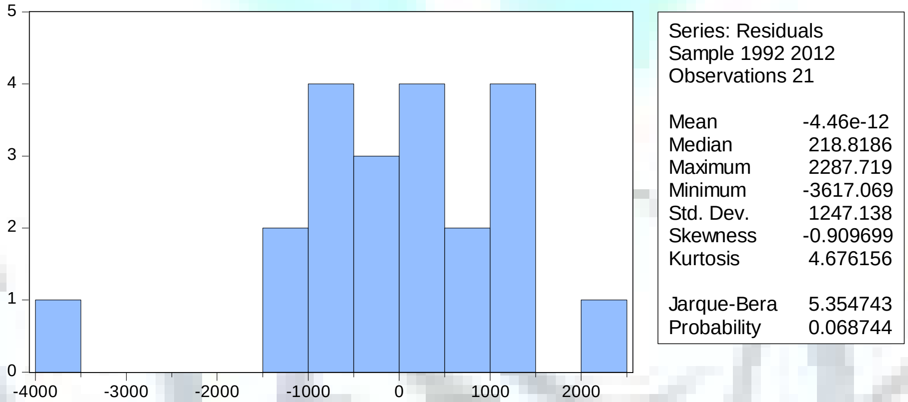
TABLE 8: HETEROSKEDASTICITY TEST: BREUSCH-PAGAN-GODFREY

F-statistic	4.486765	Prob. F(4,16)	0.0127
Obs*R-squared	11.10224	Prob. Chi-Square(4)	0.0254
Scaled explained SS	11.84611	Prob. Chi-Square(4)	0.0185

TABLE 9: BREUSCH-GODFREY SERIAL CORRELATION LM TEST

F-statistic	0.253120	Prob. F(2,14)	0.7799
Obs*R-squared	0.732860	Prob. Chi-Square(2)	0.6932

FIGURE 2: NORMALITY TEST (JB)



REQUEST FOR FEEDBACK

Dear Readers

At the very outset, International Journal of Research in Commerce, Economics and Management (IJRCM) acknowledges & appreciates your efforts in showing interest in our present issue under your kind perusal.

I would like to request you to supply your critical comments and suggestions about the material published in this issue as well as on the journal as a whole, on our E-mail **info@ijrcm.org.in** for further improvements in the interest of research.

If you have any queries please feel free to contact us on our E-mail infoijrcm@gmail.com.

I am sure that your feedback and deliberations would make future issues better – a result of our joint effort.

Looking forward an appropriate consideration.

With sincere regards

Thanking you profoundly

Academically yours

Sd/-

Co-ordinator

ABOUT THE JOURNAL

In this age of Commerce, Economics, Computer, I.T. & Management and cut throat competition, a group of intellectuals felt the need to have some platform, where young and budding managers and academicians could express their views and discuss the problems among their peers. This journal was conceived with this noble intention in view. This journal has been introduced to give an opportunity for expressing refined and innovative ideas in this field. It is our humble endeavour to provide a springboard to the upcoming specialists and give a chance to know about the latest in the sphere of research and knowledge. We have taken a small step and we hope that with the active co-operation of like-minded scholars, we shall be able to serve the society with our humble efforts.

Our Other Journals