

International Journal of Advance Research in Computer Science and Management Studies

Research Article / Survey Paper / Case Study

Available online at: www.ijarcsms.com

Special Issue: National Conference on Management, Economics & Social Science (NCMESS 2018)

Organized by: Department of Business Administration, ST. JOSEPH'S COLLEGE (AUTONOMOUS), Tiruchirappalli - 620002, India

A Study on Share Price Risks in Brics Stock Exchanges

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Abstract: BRICS (Brazil, Russia, India, China and South Africa) appear as pillars of relative political stability and economic prosperity. Their economic strengths outweigh their weaknesses, presenting relatively reasonable economic risks. The BRICS also seem to finance their official, commercial and trade debt obligation, thus demonstrating relatively moderate financial risks. They are committed to advance “the reform of international financial institutions”, have pledged to work together on “political and economic issues such as energy and food security” and to cooperate to promote “fundamental research and the development of advanced technologies.” The BRICS together currently account for more than a quarter of the world's land area, more than 40% of the world's population and about 15% of global GDP. These countries are deemed to be at a similar stage of newly advanced economic development. China's GDP is expected to pass that of the U.S. by 2026. Goldman Sachs expects the BRICS' total nominal GDP (excluding South Africa) to exceed \$128 trillion in 2050, compared to \$66 trillion for the G7 countries together at the corresponding time. It also expects the four BRICs (excluding South Africa) to account for 41% of the world's market capitalization by 2030.

I. STATEMENT OF THE PROBLEM

The stock market is witnessing heightened activities and is increasingly gaining importance. This study aims at investigating and analysing the risks among the BRICS countries to their respective national stock markets. This study help to know the nature of risk and to verify how risk affects the BRICS countries stock markets. It is very helpful for the individual investors to know the behaviour of stock market and how to reduce risk which affects the stock prices in different stock exchanges among BRICS.

II. SIGNIFICANCE OF THE STUDY

This study contemplates and elaborates the relationship between share price and risk. This study is helpful to know how the risk affects the stock prices. This study also defines the nature of volatility of price and describes how the nature of risk affects the BRICS countries stock markets.

III. OBJECTIVE OF THE STUDY

- To estimate the risk volatility based on the market Indices share prices in BRICS stock market.
- To find out the trends in Stock market Indices volatility of BRICS countries.
- To analyse the price changes of stock exchanges from 2013 and 2014.

IV. HYPOTHESIS OF THE STUDY**Research Hypothesis:**

H₀: There is no relationship between share price and risk among BRICS' Stock Exchanges.

H_a: There is a relationship between share price and risk among BRICS' Stock Exchanges.

ADF Test Hypothesis:

H₀: Unit root exists and the movements are non-stationary.

H_a: Unit root does not exist and the movements are stationary.

PERIOD OF THE STUDY

The period of the study ranges for a period of two years from 1st January 2013 to 31st December 2014.

V. RESEARCH METHODOLOGY**RESEARCH DESIGN**

The methodology used in the study is analytical and descriptive in nature where the researcher has to use facts or information already available and study the characteristics of the selected stock exchanges among the BRICS countries and thereby analyze to make a critical evaluation of the study.

DATA COLLECTION

The present study is mainly based on secondary data that have been collected from the database maintained by BRICS Stock Exchanges websites and from various other websites. The paper examined the BRICS countries Stock Indices over the period of two years starting from 1st January 2013 to 31st December 2014. Daily adjusted closing value on the day has been used.

TOOLS USED FOR ANALYSING DATA

The tools used for analysing the data are:

- Descriptive Statistics
- Autocorrelation
- Augmented Dickey Fuller Test

LIMITATIONS OF THE STUDY:

- The time period considered is limited to 2 years.
- Out of many indices, only the indices for which data is available for 2 years has been chosen by the researcher.

The following table gives the country and the exchange with the name of its indices.

Country Name	Stock Exchange Name	Indices Name
Brazil	Sao Paulo Stock Exchange	BOVESPA
Russia	Moscow Exchange	MICEX
India	Bombay Stock Exchange	BSE
China	Hang Sang Exchange	HSE _x
South Africa	Johannesburg Stock Exchange	JSE

VI. REVIEW OF LITERATURE

Zhang et al. (2013) provided strong evidence that the recent global financial crisis changes the conditional correlations between the developed (U.S. and Europe)

markets and the BRICS stock markets. They also find that 70% of the BRICS stock markets' conditional correlation series demonstrate an upward long-run trend with the developed stock markets since the global crisis.

Dimitriou et al. (2013) find an increasing co-movement between the BRICS and U.S. markets during the post-crisis period (from early 2009 onwards), implying that the dependence is larger in bullish than in bearish markets. This might indicate a low probability of simultaneous breakdown of the markets.

Bekiros (2013) uses linear and nonlinear causal linkages to analyze the volatility spillovers among the U.S., the EU and the BRIC markets and find that the BRICs have become more internationally integrated and contagion is further substantiated since the U.S. financial crisis.

Mun and Brooks (2012) who explore the roles of news and volatility in explaining the changes in correlations between the national stock markets during the global financial crisis. They show that the majority of the correlations are better explained by volatility rather than by news. They find that for stock returns, news and volatility are equally important, but for the bond returns and stocks and bonds jointly, the role of news is less important than the volatility for the BRIC nations in the 2005–2010 period.

Reddy and Wadhwa (2012) made an attempt to understand the integration of BRIC emerging markets which are gaining prominence in the investment community with the USA. The data for the study is considered from 1st April 2000 to 31st January 2010. The results indicated that there is a varying degree of cointegration among the BRIC and US nations which is mainly due to the trade relations between these countries.

Morales (2011) finds evidence of weak integration among Chinese financial markets, energy markets and the U.S. stock market. Morales shows that the Brazilian, Indian and Russian markets are more sensitive to international shocks arisen from U.S. markets and also to oil market instability.

BRICS

BRICS is the acronym for an association of five major emerging national economies: Brazil, Russia, India, China and South Africa. The grouping was originally known as "BRIC" before the inclusion of South Africa in 2010. The BRICS members are all developing or newly industrialized countries, but they are distinguished by their large, fast-growing economies and significant influence on regional and global affairs; all five are G-20 members and one (Russia) is a G8 member. Since 2010, the BRICS nations have met annually at formal summits. Russia currently holds the chair of the BRICS group, and will host the group's seventh summit in July 2015.

STOCK EXCHANGE

Stock Exchange (also called Stock Market or Share Market) is one important constituent of capital market. Stock Exchange is an organized market for the purchase and sale of industrial and financial security. It is convenient place where trading in securities is conducted in systematic manner i.e. as per certain rules and regulations. It performs various functions and offers useful services to investors and borrowing companies. It is an investment intermediary and facilitates economic and industrial development of a country.

BOVESPA

The BM&F BOVESPA in full, (*Bolsa de Valores, Mercadorias&Futuros de São Paulo*) is a stock exchange located at São Paulo, Brazil. Founded on August 23, 1890 by Emilio Rangel Pestana. Total volume in BOVESPA segment reached 228,100,922 trades, from 220,550,582 in 2013; and average daily volume was 919,762, surpassing the 889,318 of 2013. Market capitalization of the 363 stocks listed on BM&FBOVESPA reached BRL 2.24 trillion at the end of 2014, compared with BRL 2.41 trillion for 363 stocks at the end of 2013.

MICEX

Moscow Exchange is the largest exchange group in Russia, operating trading markets in equities, bonds, derivatives, the foreign exchange market, money markets and precious metals. Moscow Exchange was established on 19 December 2011 by merging the two largest Moscow-based exchanges, the Moscow Interbank Currency Exchange (MICEX) and the Russian Trading System (RTS), hence the name "Moscow Exchange MICEX-RTS". Moscow Exchange ranks among the world's top 25 exchanges by total volume of equities traded, and also among the 10 largest exchange platforms by bonds and derivatives trading.

BSE

Established in 1875, BSE (formerly known as Bombay Stock Exchange Ltd.), is Asia's first & fastest Stock Exchange with the speed of 200 micro seconds and one of India's leading exchange groups. The companies listed on BSE command a total market capitalization of USD 1.68 Trillion as of March 2015. It is also one of the world's leading exchanges- 5th largest in March 2015 for Index options trading.

HIS

The Hang Seng Index is a freefloat-adjusted market capitalization-weighted stock market index in Hong Kong. HSI was started on November 24, 1969, and is currently compiled and maintained by HSI Services Limited, which is a wholly owned subsidiary of Hang Seng Bank, the largest bank registered and listed in Hong Kong in terms of market capitalisation.

JSE

The Johannesburg Stock Exchange (JSE) offers secure, efficient primary and secondary capital markets across a diverse range of securities, supported by our post-trade and regulatory services. JSE is the market of choice for local and international investors looking to gain exposure to the leading capital markets in South Africa and the broader African continent.

The JSE is currently ranked the 19th largest stock exchange in the world by market capitalisation and the largest exchange in the African continent.

Risk

The Websters Dictionary says that "Risk" is the possibility of something unpleasant happening or the chance of encountering loss or harm. Risk, in the present context, means the uncertainty of future cash flows. The objective of the companies is believed to be maximization of shareholders' wealth. Hence the possibility of the growth rate of the shareholders' wealth falling short of the set targets can be considered as the risk a corporate faces.

Statistical Measures of Risk

The following statistical measures are the more intuitive approach that can be used by investors in order to evaluate the magnitude of their investment risks.

Beta

While standard deviation determines the volatility of a fund according to the disparity of its returns over a period of time, beta, another useful statistical measure, determines the risk of a fund in comparison to that of its index or benchmark. A fund with a beta very close to 1 means the fund's performance closely matches the index or benchmark. A beta greater than 1 indicates greater volatility than the overall market, and a beta less than 1 indicates less volatility than the benchmark.

R-Squared

The R-squared of a fund advises investors if the beta of a security is measured against an appropriate benchmark. Measuring the correlation of a fund's movements to that of an index, R-squared describes the level of association between the fund's volatility and market risk, or more specifically, the degree to which a fund's volatility is a result of the day-to-day fluctuations experienced by the overall market.

R-squared values range between 0 and 100, where 0 represents the least correlation and 100 represents full correlation. If a fund's beta has an R-squared value that is close to 100, the beta of the fund should be trusted. On the other hand, an R-squared value that is close to 0 indicates that the beta is not particularly useful because the fund is being compared against an inappropriate benchmark.

Mean

The mean (or average) is the most popular and well known measure of central tendency. It can be used with both discrete and continuous data. The mean is equal to the sum of all the values in the data set divided by the number of values in the data set. So, if we have n values in a data set and they have values x_1, x_2, \dots, x_n , the sample mean, usually denoted by \bar{x} , is:

$$\bar{x} = \frac{(x_1 + x_2 + \dots + x_n)}{n}$$
. This formula is usually written in a slightly different manner using the Greek capital letter, Σ , pronounced

"sigma", which means "sum of...":
$$\bar{x} = \frac{\Sigma x}{n}$$
. An important property of the mean is that it includes every value in your data set as part of the calculation. In addition, the mean is the only measure of central tendency where the sum of the deviations of each value from the mean is always zero.

Standard Deviation

Most of the investors should be aware that standard deviation is the typical statistic used to measure volatility. As with many statistical measures, the standard deviation essentially reports a fund's volatility, which indicates the tendency of the returns to rise or fall drastically in a short period of time. A security that is volatile is also considered higher risk because its performance may change quickly in either direction at any moment. The standard deviation of a fund measures this risk by measuring the degree to which the fund fluctuates in relation to its mean return, the average return of a fund over a period of time. The current value of the standard deviation can be used to estimate the importance of a move or set expectations. 68% of the observations fall within one standard deviation. 95% of the observations fall within two standard deviations. 99.7% of the observations fall within three standard deviations. Using these guidelines, traders can estimate the significance of a price movement.

Skewness

Skewness is a measure of the degree of asymmetry of a distribution. The skewness value can be positive or negative, or even undefined. If the result of the computation is greater than zero, the distribution is positively skewed. If it's less than zero, it's negatively skewed and equal to zero means it's symmetric.

Kurtosis

Kurtosis is a measure of whether the data are peaked or flat relative to a normal distribution. A normal distribution has kurtosis exactly 3. Any distribution with kurtosis equal to 3 is called mesokurtic. A distribution with kurtosis lesser than 3 is called platykurtic. Compared to a normal distribution, its central peak is lower and broader, and its tails are shorter and thinner. A distribution with kurtosis greater than 3 is called leptokurtic. Compared to a normal distribution, its central peak is higher and sharper, and its tails are longer and fatter.

Scatter Plot

Scatter Plots (also called scatter diagrams) are used to investigate the possible relationship between two variables that both relate to the same event. A scatter plot can suggest various kinds of correlations between variables with a certain confidence interval. Correlations may be positive (rising), negative (falling), or null (uncorrelated). If the pattern of dots slopes from lower left to upper right, it suggests a positive correlation between the variables being studied. If the pattern of dots slopes from upper left to lower right, it suggests a negative correlation. A line of best fit (alternatively called 'trendline') can be drawn in order to study the correlation between the variables.

Unit root test

Unit root test tests whether a time series variable is non-stationary using an autoregressive model. A well-known test that is valid in large samples is the augmented Dickey–Fuller test. Another test is the Phillips–Perron test. These tests use the existence of a unit root as the null hypothesis. The ADF Unit Root Test is based on the following three regression forms

1. Without Constant and Trend

$$\Delta Y_t = \delta Y_{t-1} + u_t$$

2. with Constant

$$\Delta Y_t = \alpha + \delta Y_{t-1} + u_t$$

3. with Constant and Trend

$$\Delta Y_t = \alpha + \beta T + \delta Y_{t-1} + u_t$$

Autocorrelation Function (ACF) and Correlogram

The correlation of a series with its own lagged values is called autocorrelation or serial correlation. A rule of thumb for selecting the lag length is to compute ACF up to one-third to one-quarter the length of the time series. The best is to start with sufficiently large lags and then reduce them by some statistical criterion. The ACF at lag k , denoted by ρ_k , is defined as

$$\rho_k = \frac{y_k}{y_0}$$

$$= \text{covariance at lag } k / \text{variance}$$

Figure showing scatter plot of Beta values in BRICS

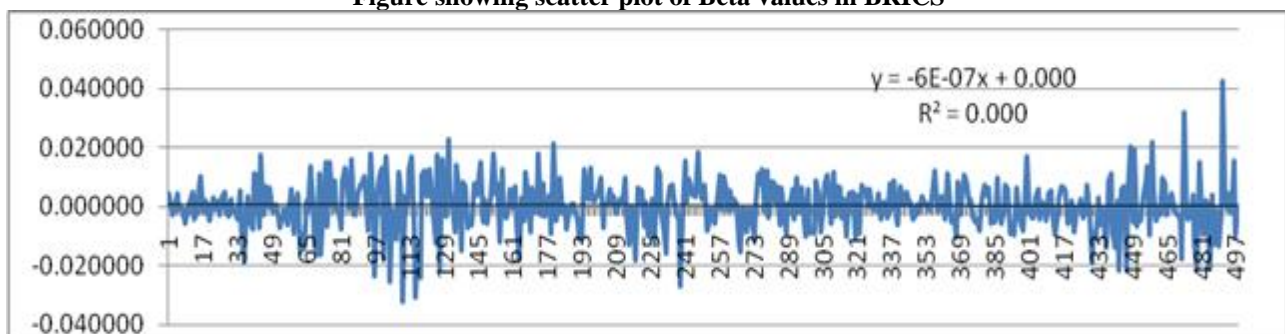


Figure shows the scatter plot of JSE during the year 2013 and 2014 by which the beta value is lesser while comparing to other countries stock market.

Figure showing scatter plot of R² values in BRICS

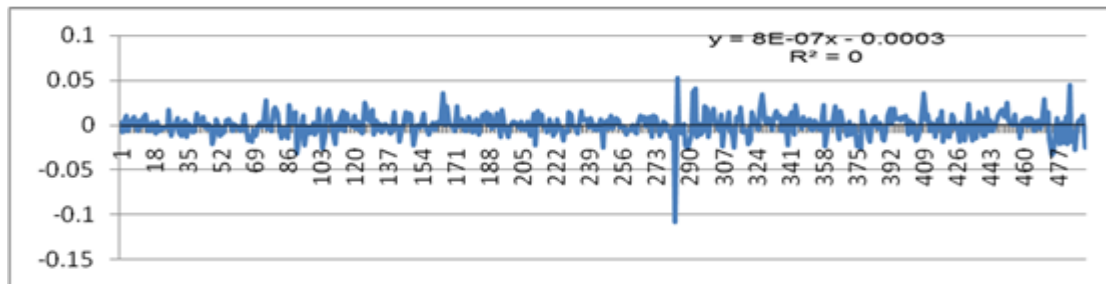


Figure shows the scatter plot of MICEX during the year 2013 and 2014 by which the R² is greater while comparing to other countries stock market.

Mean of BRICS Stock Market

Countries	Mean
BOVESPA	53,217.56
MICEX	1,435.05
BSE	22,150.88
HIS	22,906.37
JSE	45,447.34

Table shows that during the period of 2013 and 2014, BOVESPA has highest Mean of 53,217.56 and the MICEX has lowest Mean of 1,435.05.

Standard Deviation of BRICS Stock Market

Countries	Standard Deviation
BOVESPA	3,973.88
MICEX	68.52
BSE	3,103.95
HIS	951.1202
JSE	4,224.57

Table shows that during the period of 2013 and 2014, the share prices of JSE varies greatly since it has the highest standard deviation and the share prices of MICEX has a less variation from the mean as it has the lowest standard deviation.

Kurtosis of BRICS Stock Market

Countries	Kurtosis
BOVESPA	0.44
MICEX	0.71
BSE	1.04
HIS	0.57
JSE	1.37

Table shows that during the period of 2013 and 2014, the kurtosis values of all the stock markets are less than 3. So the distribution is platykurtic.

Skewness of BRICS Stock Market

Countries	Skewness
BOVESPA	0.12
MICEX	-0.31
BSE	0.67
HIS	-0.20
JSE	-0.06

Table shows that during the period of 2013 and 2014, the skewness values of MICEX, HSI and JSE stock markets are less than zero and the distribution is negatively skewed. The other stock markets such as BOVESPA and BSE having values greater than zero are positively skewed.

Table showing ADF test values of BOVESPA

ADF Test Statistic	-11.16992	1% Critical Value*	-3.4460	
		5% Critical Value	-2.8677	
		10% Critical Value	-2.5701	
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(INDIA(-1))	-0.994953	0.089074	-11.16992	0.0000
D(INDIA(-1),2)	0.146285	0.076846	1.903607	0.0576
D(INDIA(-2),2)	0.033249	0.063236	0.525789	0.5993
D(INDIA(-3),2)	0.031823	0.049289	0.645646	0.5188
D(INDIA(-4),2)	-0.050596	0.022188	-2.280362	0.0230
C	-16.14325	9.234668	-1.748114	0.0811

Table shows that the tau statistic values of BOVESPA during the year 2013 and 2014 are less than the critical values at 1 percent, 5 percent and 10 percent. Hence the null hypothesis is rejected. Therefore, the movement in share price in Brazil Stock Exchange is Stationary. The Durbin-Watson Statistic is valued at 1.98 which is close to the value 2 that affirms that the movement is stationary.

Table showing ADF test values of MICEX

ADF Test Statistic	-10.30228	1% Critical Value*	-2.5699	
		5% Critical Value	-1.9401	
		10% Critical Value	-1.6160	
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(RUSSIA(-1))	-1.066699	0.103540	-10.30228	0.0000
D(RUSSIA(-1),2)	0.053239	0.091542	0.581579	0.5611
D(RUSSIA(-2),2)	0.070226	0.078414	0.895571	0.3709
D(RUSSIA(-3),2)	0.020096	0.064246	0.312792	0.7546
D(RUSSIA(-4),2)	-0.001569	0.043625	-0.035962	0.9713
R-squared	0.508228	Mean dependent var	0.038169	
Adjusted R-squared	0.504139	S.D. dependent var	25.38454	
S.E. of regression	17.87514	Akaike info criterion	8.614934	
Sum squared resid	153689.5	Schwarz criterion	8.658002	
Log likelihood	-2088.429	Durbin-Watson stat	1.999488	

Table 4.12 shows that the tau statistic values of MICEX during the year 2013 and 2014 are less than the critical values at 1 percent, 5 percent and 10 percent. Hence the null hypothesis is rejected. Therefore, the movement in share price in MICEX Stock Exchange is Stationary. The Durbin-Watson Statistic is valued at 1.99 which is close the value 2 that affirms that the movement is stationary.

Table showing ADF test values of BSE

ADF Test Statistic	-10.74000	1% Critical Value*	-3.4459	
		5% Critical Value	-2.8677	
		10% Critical Value	-2.5700	
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(CHINA(-1))	-1.067722	0.099415	-10.74000	0.0000
D(CHINA(-1),2)	0.141273	0.087936	1.606551	0.1088
D(CHINA(-2),2)	0.118914	0.074866	1.588357	0.1129
D(CHINA(-3),2)	0.038985	0.061519	0.633712	0.5266
D(CHINA(-4),2)	0.041257	0.044993	0.916978	0.3596
C	-0.308255	9.342962	-0.032993	0.9737
R-squared	0.467678	Mean dependent var	-0.326923	
Adjusted R-squared	0.462224	S.D. dependent var	283.1638	
S.E. of regression	207.6532	Akaike info criterion	13.52169	
Sum squared resid	21042480	Schwarz criterion	13.57273	
Log likelihood	-3333.857	F-statistic	85.74761	
Durbin-Watson stat	1.990541	Prob(F-statistic)	0.000000	

Table shows that the tau statistic values of BSE during the year 2013 and 2014 are less than the critical values at 1 percent, 5 percent and 10 percent. Hence the null hypothesis is rejected. Therefore, the movement in share price in BSE is Stationary. The Durbin-Watson Statistic is valued at 2.00 affirms that the share price movement is stationary.

Table showing ADF test values of HSI

ADF Test Statistic	-10.01210	1% Critical Value*	-3.4461	
		5% Critical Value	-2.8678	
		10% Critical Value	-2.5701	
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(HONGKONG(-1))	-0.962816	0.096165	-10.01210	0.0000
D(HONGKONG(-1),2)	0.003355	0.086423	0.038826	0.9690
D(HONGKONG(-2),2)	0.015196	0.076374	0.198963	0.8424
D(HONGKONG(-3),2)	0.074452	0.062934	1.183009	0.2374
D(HONGKONG(-4),2)	0.035776	0.045387	0.788241	0.4309
C	0.052322	0.092743	0.564165	0.5729
R-squared	0.483471	Mean dependent var	-0.003909	
Adjusted R-squared	0.478091	S.D. dependent var	2.824547	
S.E. of regression	2.040546	Akaike info criterion	4.276581	
Sum squared resid	1998.638	Schwarz criterion	4.328263	
Log likelihood	-1033.209	F-statistic	89.85598	
Durbin-Watson stat	2.004303	Prob(F-statistic)	0.000000	

Table shows that the tau statistic values of HSI during the year 2013 and 2014 are less than the critical values at 1percent, 5 percent and 10 percent. Hence the null hypothesis is rejected. Therefore, the movement in share price in HSI is Stationary. The Durbin-Watson Statistic is valued at 1.99 which is close the value 2 that affirms that the share price movement is stationary.

Table showing ADF test values of JSE

Table shows that the tau statistic values of JSE during the year 2013 and 2014 are less than the critical values at 1percent, 5 percent and 10 percent. Hence the null hypothesis is rejected. Therefore, the movement in share price in South Africa Stock Exchange is Stationary. The Durbin-Watson Statistic is valued at 2.00 affirms that the share price movement is stationary.

Figure Correlogram of Brazilian BOVESPA

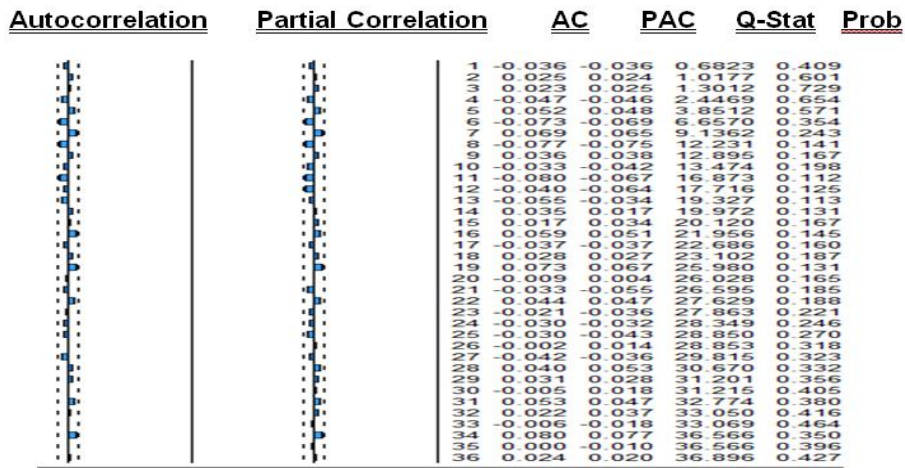


Figure show that the correlogram of Brazil BOVESPA has white noise, which indicates that the BOVESPA is stationary.

Figure Correlogram of Russian MICEX

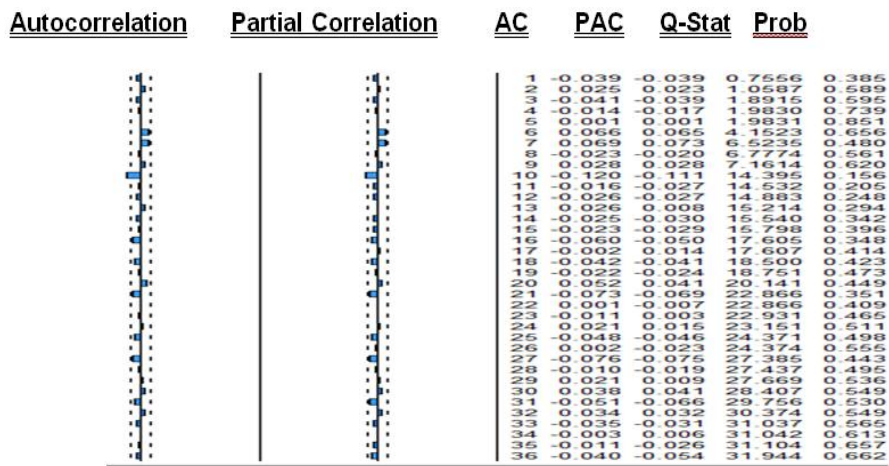


Figure show that the correlogram of Russia MICEX has white noise, which indicates that the MICEX is stationary.

Figure Correlogram of Indian BSE

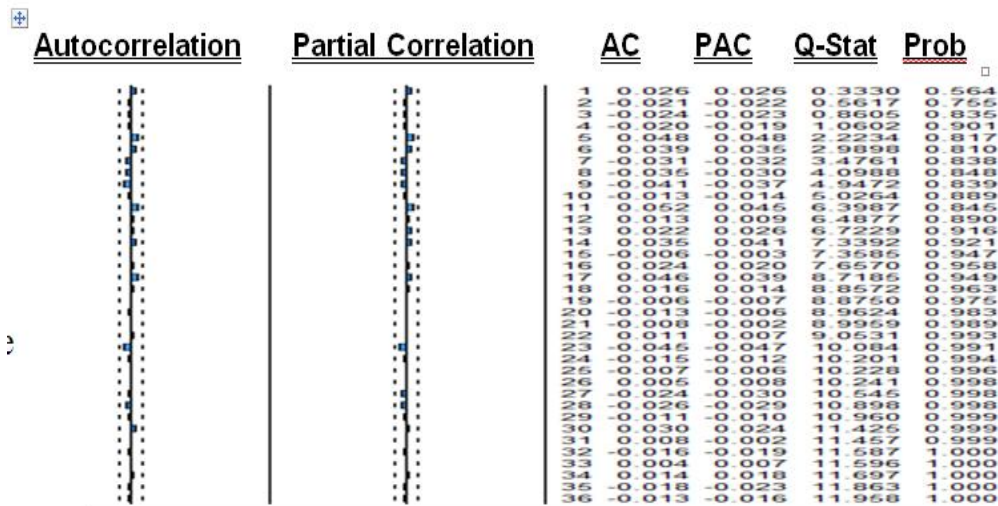


Figure show that the correlogram of India BSE has white noise, which indicates that the BSE is stationary.

Figure Correlogram of China HSI

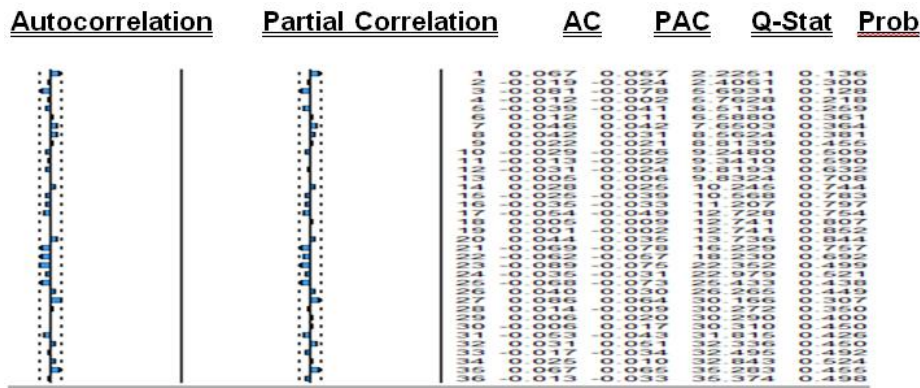


Figure show that the correlogram of China HSI has white noise, which indicates that the HSI is stationary.

Figure Correlogram of South African JSE

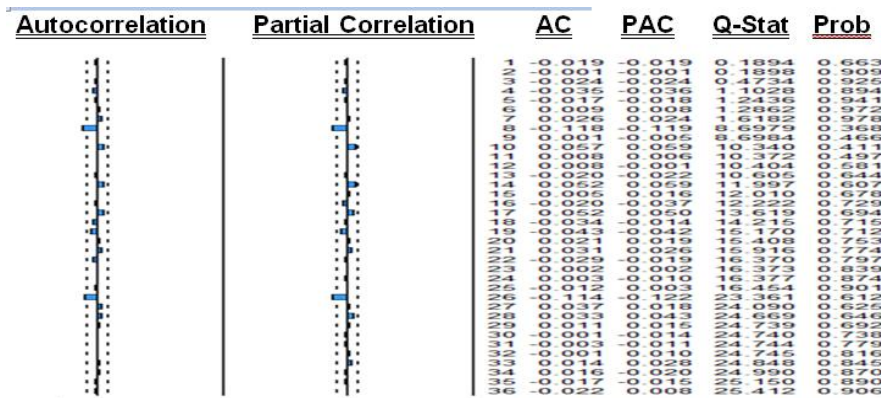


Figure show that the correlogram of South Africa JSE has white noise, which indicates that the JSE is stationary.

VII. FINDINGS

The findings of the study are as follows:-

1. In BOVESPA , beta of the closing price have a negative value explains that the risk is higher and R² values of both closing price and log value explains the explained part is very less.
2. In MICEX , beta of the closing price have a negative value explains that the risk is higher and R² values of both closing price and log value explains the explained part is very less.
3. In BSE , beta of the closing price have a positive value explains that the risk is lesser and R² values of both closing price and log value explains the explained part is very less.
4. In HSI , beta of the closing price have a positive value explains that the risk is lesser and R² values of both closing price and log value explains the explained part is very less.
5. In JSE , beta of the closing price have a positive value explains that the risk is lesser and R² values of both closing price and log value explains the explained part is greater.
6. JSE is the most volatile stock market and the explained part is greater among the other countries stock market.
7. BOVESPA has the highest and MICEX has the lowest mean.

8. JSE has the highest and MICEX has the lowest standard deviation.
9. The kurtosis values of all the stock markets have the platykurtic distribution.
10. BOVESPA, BSE are positively and MICEX, HSI, JSE are negatively skewed.
11. The tau statistic values of BOVESPA shows that the movement in share price is Stationary.
12. The tau statistic values of MICEX shows that the movement in share price is Stationary.
13. The tau statistic values of BSE shows that the movement in share price is Stationary.
14. The tau statistic values of HSI shows that the movement in share price is Stationary.
15. The tau statistic values of JSE shows that the movement in share price is Stationary.
16. The correlogram of Brazil BOVESPA has white noise, which indicates that the BOVESPA is stationary.
17. The correlogram of Russia MICEX has white noise, which indicates that the MICEX is stationary.
18. The correlogram of India BSE has white noise, which indicates that the BSE is stationary.
19. The correlogram of China HSEx has white noise, which indicates that the HSEx is stationary.
20. The correlogram of South Africa JSE has white noise, which indicates that the JSE is stationary.

VIII. SUGGESTIONS

1. The global financial crisis has assailed the international economies thus the BRICS. Decline in global economic rates resulted in declining economic growth in BRICS as well. To safeguard economic gains, BRICS member states must consider promotion of growth and development initiatives with its integration to that of progressive integrations in areas of trade, foreign investments and capital markets to overcome and boycott the negative effects of the 2008 economic crunch.
2. BRICS must promote the improvement of living conditions and or Human Development Index (HDI) for its respective citizens by sustainable and inclusive economic growth and development by reducing inequality, corruption, poverty, unemployment, crime etc by promoting justice, transparency, self-employment, better education, better healthcare, better infrastructures etc.
3. BRICS at the moment is operating in a political schema. BRICS has to make a concentrated effort to become more decentralized as to enable promotion of greater intra-BRICS collaboration among businesses, institutions, civilians, militaries, healthcare, space technologies, ICT and other core competencies each respective member possess so that these competencies can be leveraged amidst its members where one and all could reap the benefits of the leveraged integration. BRICS should also invest capital, time and human effort in joint research among member states, which will pave way for world class research.
4. The competition which awaits the new multinationals (from BRICS Countries) is fierce. There is not a single global company that has not placed these emerging powers within their radar. They represent a portion of their investments in the coming years. Strategic planning, risk management, talent development, and operating efficiency are to be emphasized in economic decision making.
5. BRICS growth is very rapid, and difficulty in acquiring a qualified talent pool is one of the most serious flaws and threats faced by BRICS. Unskilled workers may be plentiful in emerging societies, but skilled managers are scarce and hard to retain or they are immigrants working in developed countries. In China, barely two million local managers have the

managerial and English-language capabilities needed. Emerging Markets should endeavour to multiply the number of leaders tenfold

IX. CONCLUSION

The study leads to the conclusion that the returns from the stock exchanges in Brazil, Russia, India, China, South Africa namely – BOVESPA, MICEX, BSE, HSI, JSE are stationary in nature. The researcher arrived at this conclusion by performing the correlogram and the Unit Root Test in order to further confirm the same. The results show that the risk at BOVESPA and MICEX is greater. All the other stock exchanges are less risky. JSE is the most volatile stock market during the period of the study, and the volatility of other stock markets are less during the period of the study from 2013 to 2014.

Risk is an inherent part of investing. One does not get something for nothing after all. But with a little planning and careful consideration, the investor can significantly reduce risk and increase earnings in the market.

The investor should focus on diversifying and spreading risk across many sectors. He should pick stocks that have historically accurate forecasts and take a look at earnings reports and choose those that consistently rise between quarters and years. The investor should also look for low beta stocks that outperform the market.

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