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Impact of Stock Market on Economic Growth of Emerging Nations

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Abstract: *The paper incorporates the study of relationship of stock market indices with respective economic growth parameter of BRICS nations. The BRICS nations are emerging economies of the world which are drawing huge investment influxes in their economies. This study tries to examine whether the stock market performance impacts economic growth of Brazil, Russia, India, China and South Africa. Under this study, the stock market indices of these emerging nations IBOVESPA (Brazil), RTSI (Russia), Sensex (India), SHCOMP (China) and JSE/FTSE (South Africa) inspectsimpulsiveness of the stock markets. We have used annual GDP (in USD) and stock exchange indices data for the time span of 2000-2014. This offersvaluable data for the empirical analysis. We embark on co-efficient of correlation to recognize the relationship between GDP (in USD) of each BRICS nation and their respective stock exchanges' index. The results illustrate that there is a considerable integration between BRICS' GDP and stock markets. Thereby concluding that the growth in financial as well as capital markets would play a significant role in growth of emerging economies.*

Keywords: *BRICS nations, Stock market performance, GDP, Economic Growth, EmergingEconomies*

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I. Introduction:

Emerging Economies

"EmergingEconomies"arethoseeconomieshavinggushineconomicgrowththat decipheredinto fieryreturns for investors. In prolongation, Emerging countries are the countries whose economies are in a excelling rate of growth in terms of their financial markets and rate of inflation. These countries demonstrate higher capacity than the developed countries to provide investors with ample openingstoaccomplishhigherreturnsontheirportfolioofinvestments.The unique featuresoftheemergingeconomiesarethetrivialsizeoftheeconomy,GNP/Capital ismuch lower than in developed countries, a lessened opening for accepting foreign investors, high spontaneity in the exchange rate indicating greater risk in trading of financial instruments. In biggest emerging economies like China and India, the monetary and financial market is not well-developed to make available prospective investors,optimum conditions for the deduction of transactions. Apart from these, the settlement process of trading system of transactions needs to soothe in these countries. In this category, we find emerging economies as: Brazil, Russia, India, China and the South Africa. Basically, the economies of emerging countries are at the commencement of the trail requiring capital to support the entry on snowballing growth path as well as to reinforce their financial markets in terms of market scrutiny.

Under globalization, world financial markets and economics are progressivelyunited due to free flow capital and international trade. Further, globalization has augmented co-movement in stock prices across international markets. This movement fuelsresistance to market shocks. Therefore, shockwavescoining in one market is not only affected by its own market but are also spread to other equity markets. Hence, any evidenceconcerning the economic fundamentals of one country gets spread to other markets and thus affects the other's stock markets. There are contradictory views relating to how correlation of international stock markets changesoveraperiodoftime.Oneopinion isthatcorrelationsacrossinternationalstockmarkets arenotconstantovertimeduetochangesineconomics,politicalandmarketenvironments among countries.In our study, we have enclosed the five emerging economies: Brazil, Russia, India, China and South Africa, also called as BRICS nations. The BRIC, an acronym coined by Goldman Sachs in 2001 for Brazil, Russia, India and China - four countries that, in 2009, accounted for a full 40% of the world's population and an estimated 25% of its GDP. Recently, South Africa has also joined the band wagon leading to its name as BRICS.

With the likely exception of Russia, the BRICS members are all developing or newly developed countries, but they are notable by their large, fast-growing economies and importantstimulus on regional and global affairs. BRICS is a unique alliance with shared opportunities and common challenges. The general agreement is that the term was first conspicuouslyusedinaGoldmanSachsreportfrom2003,whichspeculatedthatby2050thesefive economies would be better-off than most of the current major economic supremacies. The jointterritoriesoftheBRICScountriesaccount form early30percentoftheworld'stotal land area and they are home to 42 percent of the world's total residents. In 2010, the group backed 18 percent of the world's GDP and 15 percent of global trade. BRICS is playing gradually an important role in world economy.

These countries are being measuredas second-tier investments ecstasy, heraldedby the developed markets of the west. Investors still have to know where and how to allot their emerging market assets – and they have to be fully cognizant of the risks.

BRICS

Brazil is the largest economy in Latin America and is a chiefexporter of energy products.In fact, the country's financial and commodity market passages with the fluctuations in the oil market. Recent findings by the Atlantic Campos Basin, some 50 miles offshore, have supplemented great volume to Brazil's crude exports.

Russiaisalsoholdinggreatstockofoilandother commodities,whiletherestof its businesses have wriggled in the shift from a planned economy to a free market system. In addition, the country has been able to provide for its foreign debt and is sedentary to leaps of central bank reserves. During the 2000s (the climb of Vladimir Putin) Russia's GDP had more than doubled, ascending from 22ndlargest in the world to eighth.

Indiahasbeenagloballeaderinmanufacturingindustriesandlatelymovedintothe service-oriented industries. In contemporary times, lot of business involving tech and customer support operations have been subcontracted to India. The higher education system resulting in English speaking labor force who are prepared to work at low-wages, has developed a vast, new Indian younger middle class population.

ChinaisthelargestBRICSmemberintermsofbothpopulationandGDP.The countrywithher foreignreservesaddingto$2trillionin2009, present-day iswelllocatedto fund allofitsbusinesscapitalcostsinyearstocome. For the restofthe21st Century, China has been the journey's end for western multinationals to form or partner with the Chinese government on the way toexpansion of an Asian manufacturing base.

South Africa has a relativebenefit in the production of agriculture, mining and manufacturing productsconnectingtothese sectors. SouthAfrica hasmovedfroma primary and secondary economyinthemid – twentiethcenturytoan economydrivenchieflybythetertiarysectorinthepresentday. SouthAfrica'sgross domestic product (GDP) augmented by 4.1% in the fourth quarter of 2014.

BRICScountrieshasaddedtowardsdevicesofglobaleconomicgrowth worldwidein terms of manufacturing, marketing, law management, consumer durable product, technical product, construction, politics, employment and financial activities.

Brazil Stock Market (Ibovespa)

The IBOVESPA is a major INDEX OF STOCK MARKET which trails the performance of around 50 most liquid stocks traded on the Sao Paulo Stock Exchange in Brazil. It is a gross total return weighted index. The index has a base value of BRL 100 as of January 2, 1968. Since 1968, The IBOVESPA Indexhasbeenaccustomed11timesbyafactorof100in1983andbyfactorof10in1985,1988, 1989, 1990, 1991, 1992, 1993, 1994, and 1997. Total return index comprising the most representative companies in the market, both by market cap and traded volume. It is the benchmarkindexofSãoPaulo StockExchange.Itistheoldest IBOVESPAindex,anditisbeing broadcast since 1968. Stocks in Brazil had a positive performance during the last month of study. Brazil Stock Market (BOVESPA), rallied 373 points or 0.69 percent during the last 30 days. From 1976 until 2013, Brazil Stock Market (BOVESPA) averaged 23557 points in indices reaching an all-time highof73517 points in indices inMayof2008and a recordlowof points in indices inJanuaryof1976.

Russia Stock Market (Rtsi)

Moscow stock exchange index RTSI has displayed a fluctuating fashion during the last decade. Russia Stock Market (RTSI), rallied from 172.31 in January, 2000 to 790.71 in Dec, 2014. From 1995 until 2014, Russia Stock Market (RTSI) reached an all-time high of 2303.34 points in indices in June of 2008 and a record low of 43.81 points in indices in September of 1998. The RTS Index, RTSI, the official Moscow Exchange indicator, was first calculated on September1,1995. The RTSI is a capitalized-weightedcompositeindexcalculatedbasedonpricesofthe50mostliquidRussianstockslistedonMoscowExchange.TheIndexiscalculatedinrealtimeanddenominatedinUSdollars.

India Stock Market (Sensex)

The SENSEX(BSE30)isamajor index of stock market whichtrails the performance of30 major companies listed on the Bombay Stock Exchange. The companies are chosen based on the liquidity, trading volume and industry representation. The SENSEX, is a free-float market capitalization-weighted index. The Index has a base value of 100 as of 1978-79. Stocks in India hadapositiveperformanceduringthelastonedecade.From1979until2013,IndiaStock Market(SENSEX)averaged5852 points in indices reachinganall-timehighof21005points in indices in November of 2010 and a record low of 113 points in indices in December of 1979.

China Stock Market (Shcomp)

TheSHCOMPisamajor index of stock market whichtrackstheperformanceofallA-sharesand B-shares listed on the Shanghai Stock Exchange, in China. It is a capitalization-weighted index. The SHCOMP has a base value of CNY100 as of December 19, 1990. Stocks in China had a positive recital during the period of study. From 1990 until 2013, China Stock Market (SHCOMP)averaged1671 points in indices reachinganall-timehighof6092 points in indices in October of 2007 and a record low of 100 points in indices in December of 1990.

South Africa Stock Market (Ftse/Jse)

The FTSE/JSE Africa Index Series is designed to represent the performance of South African companies, providing investors with a comprehensive and complementary set of indices, which measuretheperformanceofthemajorcapitalandindustrysegmentsoftheSouthAfrican market. Stock Market in South Africa averaged 19596.74 points in indices from 1995 until 2015, reachinganall-timehighof53374.88 points in indices inFebruaryof2015andarecordlowof4319.95 points in indices in September of 1998.

Economic growth

In less than 40 years, the BRICS' economies collected together could be larger than the G6 in US Dollarterms.By2025theycouldaccountforoverhalfthesizeoftheG6.Currentlytheyareworthlessthan15%.InUSdollar terms,ChinacouldsurpassGermanyinthen nextfouryears,Japanby2018 and the US by 2039. India's economy could be bigger than all but the US and China in 30 years. Russia would overtake Germany, France, Italy and the UK. For the dimension of economic growth, we have taken GDP at purchaser's price. It is calculated as the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not to be included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data is in current U.S. dollars.

II. Literature Review

The paper attempts to go through the available researches for analyzing the performance and evaluation of BRICS stock market. There is a shortage of studies on BRICS investment in World, the following is a glance of the available literature for designing the objectives:

William L. Huth et al have opined that economic interdependence between nations has been the attention of considerable research. In their opinion, a particular avenue of international interrelationship that has established a great deal of recent consideration is the integration of international stock markets. Enlarged trade between nations suggests that domestic corporate profitability will be swayed by economic conditions in other countries. If international stimulus is prevalent between particular markets then it is probable that measures of overall market performance will be related. Hazem A. Marashdeh et al examine the extent of stock market integration among the Gulf Cooperation Council (GCC) countries. The results of the empirical tests suggest that the GCC stock markets are not fully integrated and there still exist arbitrage opportunities between some of the markets in the region.

On the other hand, the results show nevidence of co-integration between the GCC stock markets and developed markets, which suggests that international investors can broaden their portfolio and acquire long-run gains by investing in the GCC markets. LucíaCuadroSáez et al analyse whether, and to what extent, emerging market economies (EMEs) have systemic standing for global financial markets, above and beyond their guidance during crises episodes. Using a novel database of exogenous economic and political shocks for 14 systematically relevant EMEs, they find that EME shocks not only have a statistically but also economically significant impact on global equity markets. The economic importanceof EME shocks is in particular accentuatedby their extraordinarily determinedeffectsovertime.Ravazzoloetalobserverealandfinanciallinks concurrent at theregionaland globallevelforagroupofPacific-Basincountriesby analyzing thecovariance of excess returns on national stock markets over the period 1980-1998. They find overpowering evidence at the regional and global level and for all sub-periods that financial integration is escorted byeconomicintegration.This seemstosuggest that economicintegration provides a network for financial integration, which enlightens, at least partly, the high degree of financial integration instituted in this study and in other studies for this region even in the presence of foreign exchange controls.

Objectives Of The Study

- To analyze the volatility of indices of BRICS Nations.
- To analyze the performance of stock markets of Brazil, Russia, India, China and South Africa
- To analyzethe trend of economic growth viz. GDP of BRICS Nations
- To analyzethe co-integration of GDP of BRICS with other respective indices.

III. Research Methodology

Null Hypothesis

H0 = There is no significant relationship between GDP of BRICS Nations.
H01 = There is no significant relationship between Stock Market Indices of BRICS Nations.
H02 =ThereisnosignificantrelationshipbetweenGDPandstockmarketindicesofeach respective BRICS nations.

Alternate Hypothesis

H1 = There is significant relationship between GDP of BRICS Nations.
H2 = There is significant relationship between Stock Market Indices of BRICS Nations.
H3=ThereissignificantrelationshipbetweenGDPandstockmarket indicesofeachrespectiveBRICS nations.

Data And Methodology

The basis of this entire study is secondary data. The data set includes monthly closing prices of the emerging nation stock indices; The IBOVESPA (Brazil), RTSI (Russia), Sensex (India), SHCOMP (China) and JSE/FTSE(SouthAfrica). These indices have been obtainedfromdifferentsources.Brazil,Russia,China, South Africa stock markets monthly closing prices obtained from bseindia.com, Investing.com, and Tradingeconomics.com for the same period. The statistical toolsused in the study are Stationarity Test (Augmented Dickey Fuller Test), Descriptive Statistics Correlation and Multi-Correlation Test. Toidentifytherelationship among the variables of the study,theco-efficientofcorrelation is calculated. It is a parametric test of finding the association between two variables. It measures the strength as well as the direction of a linear relationship. If a given variable X is an exact linear function of the other variable Y, a positive relationship exists, i.e., the correlation is 1 and a negative association exists if the correlation is -1. The correlation is 0, if there is no relationship between two variables, then the variables are independent.But thecausability is not depicted by correlation, as sometimes a causal relationship might not exist.

IV. Data Analysis (Result And Discussion)

Trend of Stock Market Indices of BRICS Nations

Theinvestments when made in the stock market of theemergingmarkets involveshigher risks than investments made in a matured economy. Therisk involved in stock marketsis the degree of volatility associated with the investment in financial markets, observed over a periodoftime.Volatilityisacriteriaof measuringriskassociatedwithinvestmentsinthestockmarket that can be analysed by different factors: political risk, foreign exchange risk, inflation rate. However, as per the principle of high risk-high return, investors who undertake the risks of investing in emerging markets, have the opportunity to earn more than on mature markets. The investorsfrom outside our economy make huge profits by investing in these emerging stockmarkets.

Trend of performance of indices of Stock Market Indices of BRICS Nations

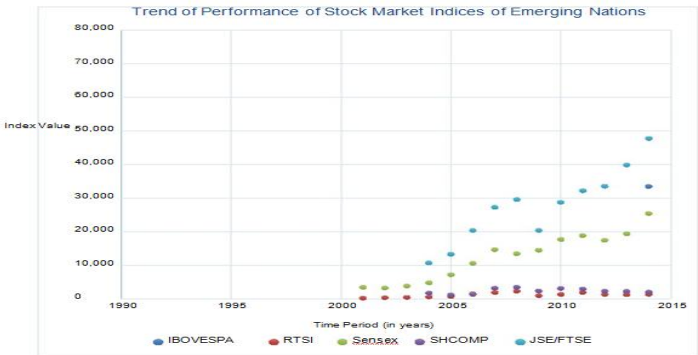


Figure 1. Trend of Performance of Stock Market Indices of Emerging Nations

It has been realised that the existence of a pulsating financial market helps stakeholders of a nation to aquire funds and manage their financial risks in a cost-effective and efficient manner. Additionally, well entrenched financial markets also connect domestic savers and foreign investors withthosedomesticbusinesseswhoneedriskordebtcapital.Apartfromthese, as per the World Federation of Exchanges, there are plenty of opportunities yet to be explored in terms of basket of products to be offered in respective financial markets. During the period 2000-2013, capital markets in the BRICS experienced fluctuations, which also varied within the group. Thes tockmarket performanceoftheBRICSnationsthroughaperiodof 2000-2013is quiet interesting to study as the significant rise in equity indices was observed betweenthe years 2000 and 2008.Except for thetwoyearsmentioned,equityindicesroseinall the BRIC Seconomies.Duringthisperiod,theprice–earningsratio(PE)asanindicatorofcapital markets in the BRICS had been relatively stable.

The potency of these stock markets measured interms of market capitalization to GDP of BRICS economies gradually deepened over the years. The ratio which was as low as 3.6 per cent in 1990 for Brazil, reached a high of 74 per cent in 2010 partly showing the growth achieved by the Brazilian economy during the given period.

The subsequent ratios during the same period in the Indian economy were 12.2 per cent and 93.4 per cent, respectively. China and Russia, both of which initiated off with a comparatively a little deep base, got entombed. InChina,themarketcapitalization-to-GDPratioin1995was5.8per cent,whichjumpedto81percentin2010.ThecorrespondingratioswithrespecttoRussiawere 4.0 per cent and 67.9 per cent, respectively.

Table 1: Descriptive Statistics of Stocks Return

Statistic (STKRET)	Minimum Statistics	Maximum Statistics	Mean Statistics	Median	Std. Deviation statistics	Skewness	Kurtosis
Ibovespa	11268	69305	41072.07	41012	21110.19	-0.057849	1.539622
RTSI	172.3100	1906.970	1026.549	976.5850	686.5975	0.026228	1.305851
Sensex	3262.330	21170.68	12157.05	11717.11	6903.315	0.008974	1.418187
SHCOMP	1161.060	5261.560	2327.892	2157.700	1095.020	1.354039	4.632222
FTSE/JSE	8925.690	40482.92	23672.49	25447.73	10188.57	0.021090	1.936920

Source: Authors' Calculation from data taken from different Stock Exchange

Combinedexternal financing ofcapitalmarketsintheBRICSfrombonds,equitiesandloansin absolute terms during the timeperiod 2000-2013 raised significantly. The economic integration in case of the BRICS financial markets with the global markets and global investors.

Financial Performance of BRICS capital markets during Sub-Prime Crisis

Level of advancement of capital markets defines the financial growth of an economy. Intensity in the capital markets can be observed with the range in the products offered and the number of participants. Accessibility of products and the openness of the markets in BRICS signify that the financialmarketshaveapotentialwhichisyettobegrabbed.Mainly,capital markets offer for the buying and selling of long tenure debt or equity backed securities. Capital markets direct the wealth of savers to those who can put it to long term effective use, such as firms in the private and public sector aiming at long term investments.

During the current crisis, the equity market of BRICS economies performed well. A relative look at the performance of diverse equity market indices of BRICS markets clearly symbolize that businesses have revived strongly from the assault of the financial crisis.

The primary market serves as the affix of risk capital enhancing activities in an economy contributingtoideasofbusinessestopublicly tradedmarketarenas.Aglanceatthe number of such primary issues that take place in the market shows that the primary markets have rebounced back from a major decline that happened during 2008 post the recent financial crisis that gnarled the risk capital base internationally.

II. Advancement in EconomyofBRICSNations

According to a statement from the International Monetary Fund (IMF, 2012), several economies are measured to be in transition in July 2012 such as Argentina, Brazil, Bulgaria, Chile, China, Colombia, Estonia, Hungary, India, Indonesia, Latvia, Lithuania, Malaysia, Mexico, Pakistan, Peru, Philippines, Poland, Romania, Russia, South Africa, Thailand, Turkey, Ukraine and Venezuela. Numerous economists proliferate that the economies of emerging nations will be those that will enhance the world economy and that they will be the new strength in the world, in a precise time-frame.Inourstudy,wehaveexposedthemostgrowingemergingeconomiesaspredetermined in the name BRICS. It can be seen from the subsequent table and figure that the performances achievedbythesefiveemergingnations,bothpre-and posttheperiodofsub-prime crisis.Theeconomicdevelopmentofemergingnationsenabletheworldeconomyonaffirmative economic growth rates.

Table 2: GDP (in US dollars) of EMERGING ECONOMIES

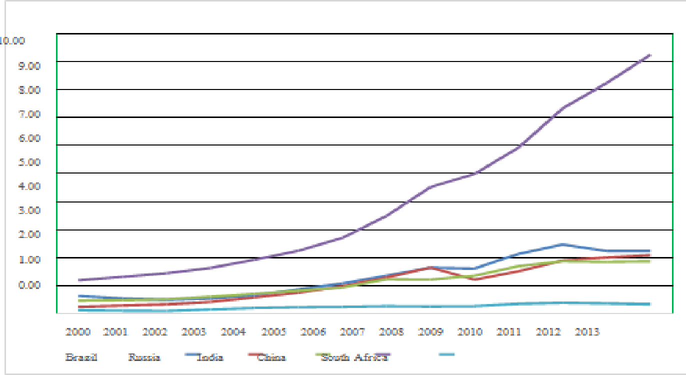
Year	Brazil	Russia	India	China	South Africa
2000	644,701,831,101.40	259,708,496,267.30	476,609,148,165.20	1,198,474,937,919.30	132,877,640,153.00
2001	553,582,178,386.20	306,602,673,980.10	493,954,333,981.30	1,324,806,909,018.30	118,478,986,833.50
2002	504,221,228,974.00	345,110,438,693.60	523,968,561,883.90	1,453,827,558,024.40	111,100,858,130.20
2003	552,469,288,267.80	430,347,770,733.20	618,356,467,437.00	1,640,958,734,587.30	168,219,325,183.60
2004	663,760,341,880.30	591,016,690,742.90	721,585,608,183.50	1,931,644,329,934.30	219,092,936,699.40
2005	882,185,702,547.20	764,000,901,159.60	834,215,013,605.90	2,256,902,590,825.30	247,051,562,311.20
2006	1,088,916,819,852.90	989,930,542,278.70	949,116,769,619.60	2,712,950,885,444.10	261,007,039,378.90
2007	1,366,823,994,658.70	1,299,705,247,685.80	1,238,700,195,645.10	3,494,055,942,162.30	286,171,830,700.00
2008	1,653,508,561,457.10	1,660,844,408,499.60	1,224,097,069,459.70	4,521,827,271,025.60	273,141,750,192.80
2009	1,620,188,056,416.90	1,222,643,696,991.90	1,365,372,433,341.30	4,990,233,518,751.70	284,183,101,099.80
2010	2,143,067,871,759.90	1,524,916,112,078.90	1,708,458,876,829.90	5,930,502,270,313.00	365,208,432,989.40
2011	2,476,694,763,271.20	1,904,793,021,649.10	1,880,100,141,185.10	7,321,891,954,608.10	403,894,316,554.70
2012	2,248,780,912,395.70	2,017,470,930,421.10	1,858,744,737,180.50	8,229,490,030,100.00	382,337,636,447.50
2013	2,245,673,032,353.8	2,096,777,030,571.3	1,876,797,199,132.6	9,240,270,452,047.0	350,630,133,297.4

Source: World Bank National Accounts Data

Table2showsthatChinahastheutmostaveragerevenueofUS$401.7Billionwhile SouthAfrica has the lowest average revenue of US $ 29.4 billion over a period of 2000 to 2013.Each of the five countries saw their GDP rise annually, China, whose GDP improved by roughly 6 times since 2003. The BRIC countries have been undergoing an economic boom over the past several years and therefore have seen noteworthy gains in the fabricationofgoodsandservices.Moreover,eachofthe fiveemerging nations hadoneofthe top10 largest grossdomesticproductsin 2013,producingmorethandevelopedcountries such as Canada and Australia. Unemployment rates have also been likewise low in these countries,withtheexceptionof India, China,RussiaandBrazil enable an unemployment rate ofroughly6percentorlessin2013,demonstratingtheireconomiesarestillchallengingworkers in order to produce.

In spite ofChinahavingthe largestpopulationintheworld,workisalwaysindemanddueto cheap labor and lower costs for several manufacturing companies worldwide. However, there have been frequentcomplaintsofpoorworkingconditionsinChinesefactories and much disapproval from the general public. As a result, numerous companies are taking into consideration diminishing production of their goods in these factories. It can be seen from the trend of GDP of BRICS in the following graph.

Figure 2: The progress of economic advancement in emerging nations in the developing world



2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013
Brazil Russia India China South Africa
Source: World Bank National Accounts Data

III. Relationship among Stock Market Indices of BRICS Nations

Table 6: Multiple Correlation among Stock Market Indices of BRICS Nations

	IBOVESPA	RTSI	SENSEX	SHCOMP	JSE/FTSE
IBOVESP	1				
RTSI	0.71916770	1			
SENSEX	80.95653850	0.76167	1		
SHCOMP	70.37511782	80.45503	0.406283	1	
JSE/FTSE	0.639202893	90.822018	0.780045	0.246008	1

Table 5: Significance of Relationship between Indices of BRICS Nations

INDICES	Relationship Between Stock Indices	Co-Efficient Of Correlation
IBOVESPA And RTSI	No Relationship	-0.649075262
IBOVESPA And SENSEX	Significant Relationship	0.900295426
IBOVESPA And SHCOMP	Non-Significant Relationship	0.293598142
IBOVESPA And JSE/FTSE	Significant Relationship	0.888825389
RTSI And SENSEX	Significant Relationship	0.72113506
RTSI And SHCOMP	Significant Relationship	0.665939158
RTSI And JSE/FTSE	Non-Significant Relationship	0.326786436
SENSEX And SHCOMP	Non-Significant Relationship	0.45873282
SENSEX And JSE/FTSE	Significant Relationship	0.936156168
SHCOMP And JSE/FTSE	Non-Significant Relationship	0.8456

Theabovetablesillustratetheco-efficientofcorrelationamidStockmarketindicesofEmergingeconomies (BRICS).Theassociationbetweenfewindicesisnoteworthyandsomearenon-significant.

To clarify, the coefficient of correlation (r) between IBOVESPA and RTSI is negative, IBOVESPA and SHCOMP is non-significant whereas IBOVESPA with SENSEX and JSE/FTSE is noticeably significant. In addition, r in case of RTSI with reverence to SENSEX and SHCOMP is also significant but correlation between RTSI and JSE/FTSE is insignificant. Also to be measured that the value of r between SENSEX and SHCOMP, and SHCOMP and JSE/FTSE is notofmuchofsignificance. Last but not the least theassociationbetweenSENSEXandJSE/FTSE issignificantlyhigh.Inthelightoffor the most part, the valuesofrshowingpositivecorrelationbetween variousindices,weshouldrejectthenullHypothesisH0[1] andacceptthealternatehypothesis H2 establishing significant association between Stock Market Indices of BRICS Nations.

IV. RelationshipbetweenGDPof Emerging Economies (BRICS)

The Emerging Nations (BRICS) are studied collectively as each of the nation is at similar stage of newly advanced economic progress. Growth has been driven by each country's ability to change its political system and follow capitalism. In total, each nation contains enormous natural resources andlargepopulations.Inaddition,thefourBRICScountriescoverover25%oftheworld's land coverage, hold about 40% of the world's population and report for about 17% of the world market.

Inspite of rapid growth, each BRICS nation by now accounts for a large share of world GDP; China is the second leading economy in the world, while Brazil is the 7th, India is the 10th and Russia is the 11th. As outcome, the collective economies could eclipse the combined economies of the existing wealthiest nations by 2050. Underneath this picture, it is anticipated that China and India will becometheleadingworldwidesuppliersofmanufacturedgoodsandservices,withBraziland Russia gaining supremacy as suppliers of raw materials. Brazil is dominant in soy and iron ore andalsoholdshuge oilreserveswhileRussiahasvastsuppliesofenergyresources, mainly oil and natural gas.

Table 6: Matrix of Multiple Correlation among GDP of Emerging Nations (BRICS)

	Brazil	Russia	India	China	South Africa
Brazil	1				
Russia	0.96602	1			
India	0.98908	0.96973	1		
China	0.95871	0.95497	0.96998	1	
South Africa	0.94966	0.93832	0.96527	0.895595001	1

We suggest an evaluation of GDP of five member states of the BRICS. Table 6 depicts that the GDP are comparable among themselves, like various indicators of macro- economic nature of these states. Throughout our analysis, we found that there has been a elevated degree of correlation between the emerging nations. Hence, we would refuse the null hypothesis HO and accept the other hypothesis H1 connecting to the noteworthy relationship between GDP of BRICS.

V. Associationsbetweengdpandindex Of Stock Marketofrespectiveemergingnations (Brics)

Table 7: Co-efficient of Correlation between GDP and index of stock market of respective Emerging Countries

BRICS GDP and Market Indices	Co-efficient of Correlation between GDP and index of stock market of respective BRICS Nations
Brazil' GDP and IBOVESPA	0.857155233
Russia GDP and RTSI	0.846608301
India's GDP and Sensex	0.770042713
China's GDP and SHCOMP	0.861692198
South Africa and JSE/FTSE	0.790388222

From the given table, it is evident that the associationamong GDP of each BRICS country has elevated correlation to the stock market indices IBOVESPA, RTSI, Sensex, SHCOMP and JSE/FTSEcorrespondingly.Thus, wefinishuprejectingthenullHypothesisHO^2 andacceptingthe alternate Hypothesis H3.

Table 8: Matrix of Stationary Tests of Stock Return and GDP of Emerging Economies using Augmented Dickey Fuller Test

Variables	**Probabilities**
Brazil GDP	0.0906 (at first difference)
Brazil Index	0.0014(at first difference)
Russia GDP	0.0201 (at first difference)
Russia Index	0.0215(at first difference)
India GDP	0.0436(at first difference)
India Index	0.0034(at first difference)
China GDP	0.0003(at first difference)
China Index	0.0022(at first difference)
South Africa GDP	0.0551(at first difference)
South Africa Index	0.0810(at first difference)

The outcome of stationarity tests are given in Table 8. It concludes non stationarity of BRICS indices,thereforewereiteratestationaritytestsonreturnseries(estimatedasfirstdifference)which are also provided in Table 8. The table describes the sample price series and GDP that have been experienced using Augmented Dickey Fuller (ADF) 1981.

Table 9: Regression Results

			Coefficient			Coefficient (Stock			
Brazil	GDP	Stock	147.8254	0.6300566	0.5415	0.027654	5.347417	0.0002	0.722186
Russia	GDP	Stock Return	23.16659	1.5959844	0.1388	0.08083	6.597836	0.00001	0.798282
India	GDP	Stock Return	28.6644	1.95910	0.0759	0.006822	6.121112	0.0001	0.773046
China	GDP	Stock Return	258.7401	21.63238	0.1309	0.045549	0.717279	0.4882	0.044682
South Africa	GDP	Stock Return	12.17262	14.419833	0.0022	0.000761	6.515511	0.0002	0.841433

Table 9 confirms that economic development of Brazil, Russia, India and South Africa depends upon the performance of stock returns. Although, this is not the case with China showing insignificant value of the stock return.

V. Results

The outcome of this research study analyzed the view that, there is a considerable integration between BRICS' GDP and stock markets. The three main objectives of our analysis has been found to be met by accommodating the alternative hypothesis of association between GDP of BRICS, Stock market IndicesofBRICSandGDPandstockmarketsofBRICSNations. Consequentlywecouldzip down on the proclamation that there is a momentous relationship between stock markets and GDP of BRICS and the association of these two parameters per se.

VI. Conclusion

CollectiveGDP in the BRICS has improved multifold over the years. According to IMF, BRICS stock markets indices may double by 2020as their allocated shareof world gross domestic product raises to about 27%. The vigor of the BRICS nations lies in its strong demographic indicators. With risinginhabitantsof working age, higher literacy rates, mounting industrialization,corporatization, variedproficiency sets, enhanced social wellbeing, health etc., BRICS economies leveraging its fiscalsegment and capital markets. It also forms one of the capable markets for the World allowing for the elevated consumer profiles.

The brisk economic development and demographics of BRICS are predictable to give rise to a large middle class whose utilization would help drive the BRICS' economic expansion and development of the global economy. In the time to come, it is projected that the BRICS would be changed into large comprehensive suppliers of manufacturedgoodsandservicesaswell asmainsuppliersandconsumersofproduce. Thus, the BRICS have the potential to evolve into a powerful economic bloc. In recent years, the BRICSnationshavebeentakingadvantageoftheirabundantpopulationandresourcesand on the whole, achieving steady economic growth. BRICScountrieshencewillneedtoworktogethercloselytoevolvestrategiesforthefuture. Thiscouldincludeassistanceinawiderangeofissueslikeenergy,foodsecurityandway in to natural assets, climate transform, global supremacy, and global trade policies.

As per the Grant Thornton IBR statement published in 2012 net 72% of BRICS businesses leader anticipaterevenuestolift,comparedwith37%intheG7and43%internationally.L ikewise,58%of those in the BRICS anticipate to see their profits mount, well above the G7 i.e. 26% and international average of 31%. The strong trade confidence signifies that the BRICS economies are possibly to remain vibrant andwould attract finance from across the globe in addition to their own domestic investors. Sustenance of the vibrancy in the BRICS economy lies in how it unlocks the potential of its capital markets and the leverages its financial sector. Given the potential growth in capital markets enabling expansion of their private sector BRICS could appearas momentous growth driver in the predicament affect international economy in their endeavor to revitalize.

Thefinancialsectorgrowthinthesenationsshallperk uptradeandcapitalflows along with amplified technology transfers and mobility of labour.Thecombinedstrengthoftheemergingeconomies namely, Brazil,Russia,India,ChinaandSouthAfrica is of ever mountingsignificance to the effectiveness of the global economy. At the same time as mature nations crosswise the globe tackle with soaring budget deficits, feeble growth and intensifying unemployment, the BRICS are expanding rapidly, enlivening people out of poverty and driving the global economy.

The mode in which leaders in the bothered euro zone in recent times pleaded with these markets for funds to assistease the sovereign debt crisis marks yet another ultimate step in the alteration of economic supremacy from 'west' to 'east'.Thegrowingfinancialmarketandthemountingcapitalmarketbothshallactasenhancing factors for the emerging economies advancement.

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