Capital Markets & Economic Growth: A Tale of BRICS Countries

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The GDP growth of any economy acts as a proxy of the overall growth of that economy. This paper attempts to investigate the significance of economic growth based on economic factors. Several factors contribute to the economic growth. Moreover, foreign direct investment (FDI) bridges the gap of saving and investment in the capital formation and thus supports for economic growth. In this paper, we examine the significant effect of the economic indicators on the GDP growth and the extent of influence. The focus of this paper is also to check if the significant economic indicators of GDP growth is consistent across the economies. We consider the data of fifteen economic indicators for BRICS countries over a period of 1990 to 2018. For this purpose, we employ Karl Pearson's correlation and regression model. The result reveals that final consumption expenditure, gross capital formation, general government final consumption expenditure affect the GDP growth of Brazil, gross capital formation, general government final consumption expenditure affect the GDP growth of Russia whereas the foreign direct investment, gross capital formation (annual % growth), gross savings (% of GDP) affect the GDP growth of China. The household final consumption expenditure per capita growth and gross capital formation affect significantly the GDP growth of India. Final consumption expenditure, household final consumption expenditure, gross savings (% of GDP), affects South Africa's GDP growth. The result of this paper has important implications for the policy makers.

Keywords: Foreign Direct Investment, Economic Growth, Capital Formation, BRICS Countries, Gross Saving

INTRODUCTION

The size of any economy is measured from its GDP. The GDP growth rate also indicates the speed of the growth of any economy. Thus, we consider GDP and its growth as the proxy of overall growth of any economy. The economic growth of a country depends on several factors like social, political, economic and cultural parameters. Capital formation, saving-investment ratio, literacy level & education, private consumption expenditure, government expenditure, etc are the basic socio-economic factors that broadly affect the economic growth. The developing economies face capital deficiency as their investment needs are always higher than the domestic savings and thus they need the external support, which may come in

the form of foreign direct investment (FDI). According to world investment report of World Bank (2018), some of the developing economies are growing at a higher rate than that of the developed economies. These economies belong to the category of emerging economies. Some emerging economies like Brazil, Russia, India, China and South-Africa (BRICS) have a growth even during the global recession of 2007 – 2012. In 2016, the BRICS economic group contributed 20% of the World GDP whereas the group accounted for only 11% of FDI inflow. International Monetary Fund (IMF) also estimates that the emerging market and developing economies contributes 60% to the world GDP.

China's GDP is the highest amongst the BRICS nations & in Asian economies too. It has the second position in the GDP in the world ranking after the United States. India has the seventh position in nominal GDP whereas Brazil, Russia and South Africa stand at 8^{th}, 11^{th} and 33^{rd} position in the world respectively. Thus, they have a separate identity altogether from their continuous growth point of view. For some of the countries the growth triggers are similar whereas for some others it is different.

Moreover, the ranking of these countries are different with respect to their respective FDI inflow. Brazil, Russia, India, China and South Africa hold 7^{th}, 25^{th}, 12^{th} ,4^{th} and 68^{th} positions respectively for the year 2015(UNCTAD report 2016 & World Bank Report 2016). Both UNCTAD Report and World Bank report of 2017 reveal that Brazil, Russia, India, China and South Africa hold 7th, 15th, 11th, 3rd, and 68th positions respectively for the year 2016 for 2017 it is 4^{th}, 16^{th}, 10^{th},2^{nd}, and 81^{st} positions respectively (UNCTAD report 2016) and India's position in FDI inflow in the world ranking was 10^{th} in the year 2017-18.

The BRICS countries together make up over 40 percent of world's population. Russia and Brazil, which currently reach the highest GDP per capita values of all BRICS countries, only reach one sixth of the corresponding value of USA. The existing reports shows that the global FDI ranking of these five countries have been improving consistently. This study attempts to find the significant indicator of FDI inflow for the BRICS countries and checks whether FDI inflow is a significant indicator of the economic growth for the BRICS countries.

Some of the existing studies have been attempted to examine the effect of FDI inflow on economic growth in different context. One of the earlier studies by Feenstra and Markusen[5] (1994) examined the importance of FDI in transferring and improving the technical knowledge and the skills of the host country's factors of production in long run. Thus, FDI has a spillover effect on the production and the factors of production through positive externalities, which leads to higher growth. However, Hanson (2001) has argued that FDI has a weak positive spillover effect on the host countries. Alam (2000) has opined that FDI has a growth impact both in the economies of India and Bangladesh. Kumar and Pardhan (2001) have remarked that in the developing economies FDI is a solution to the capital deficiency from the external financial resources, which leads to economic development. Kwang & Singh (1996) using correlation and regression remarked that favorable conditions of running the business of the host country attracts more FDI. The study also highlighted that socio-political instability though difficult to measure as a qualitative variable has a negative impact on FDI. GDP growth rate and FDI inflow are directly related though not proportionate (Billingto,1999, Kravis and Lipsey, 1982, Wheeler and Mody, 1992). Studies by Davis and Weinstein, (1999 and 2003) revealed that the ease of access and the local market size of neighboring countries and their markets have a strong influence on the FDI. If the local market size is big and they are liberal to encourage globalization, then attracting more FDI is easy for them.

Yakhou & Dorweiler, (2006) documented that FDI attractiveness is significantly higher in the developing countries amongst the developed, developing and controlled economies. They supported the results of Head & Sorensen (2005), that the "developing" economies do understand the foreign investors need to gain economic growth and thus they are taking most active and prompt steps for attracting the FDI in comparison to the rest of the economies in general.

It is very essential for the investors and policy makers to understand the determinants of economic growth for the BRICS countries. In this study, we consider twenty economic indicators for the BRICS nations over a period from 1990 to 2018. Multiple regression model is built for each of the BRICS countries to identify the significant determinants of economic growth. The relevance of considering this period is that in 1991, we got liberalization, privatization and globalization in our economic reform. The

purpose of choosing BRICS countries is that these are the most developed economies and they have adopted the economic strategies for accelerating economic growth. Using the statistical and empirical analysis, this study tries to draw the insights on the following objective:

a. Identifying significant determinants of economic growth in the BRICS nation
b. Examining whether foreign direct investment is a significant governing factor of the economic growth of all the BRICS countries.

The rest of the study is organized in the following fashion: section 2 deals with literature review, in section 3 research strategy is discussed, and section 4 covers statistical analysis with interpretation and section 5 includes conclusion and implication of the study.

EXTANT LITERATURE

The financial market transactions and its process has changed largely due to globalization and availability of advanced information technology. Thus the financial markets of countries across the globe are inter connected and inter –related. This is possible due to the involvement and participation of the local markets and huge spread of financial intermediaries. (Schmukler, 2004). Easy and quick transformation of high capital movement liberalization and free flow capital across markets is possible due to advanced information technology. (Gallo, G.M, Otranto, E., 2007). A group of studies stated that a financial system with effective financial functions would contribute to the economic growth in the long term. Few noteworthy among existing studies are King and Levine,1993; Arestis & Demetriades,1997; Thiel,2001; Levine,2004; Lawrence, 2006; Shan & Jianhong,2006.

The role of stock market development on economic growth in Nigeria is studied by Achugbu (2012) and the result revealed that market capitalization and value traded ratio has a strong positive correlation with economic growth. Some other research has a contradictory result. Harris (1997) documented that stock market very weakly associated with the economic development.

Capital Market and Foreign Direct Investment on Economic Growth

Extensive literature is available on examining the impact of capital market and FDI on economic growth of a country(s).

FDI has a spillover effect on the production and the factors of production through positive externalities, which leads to higher growth. FDI transforms and improves the technical knowledge as well as the skill of the host country's factors of production for a longer period (Feenstra and Markusen, 1994). Some other studies have examined the determinants of FDI to developing countries. Time series analysis is employed for single country analysis whereas for multiple countries panel data analysis is used. (Biswas, 2002; Jadhav, 2012; Rogmans & Ebbers, 2013). Using panel data over a period of ten years Jadhav (2012) examined the role of economic, institutional and political factors in attracting FDI to BRICS countries and documented that FDI to BRICS is largely market oriented. The findings reveal that market size, openness to trade and rule of law plays significant role in attracting FDI to BRICS. Asiedu (2002) studied the determinants of FDI to developing countries in specific to Africa. He documented that low infrastructure development, return on capital and unfavorable geographic location of many sub-Saharan Africa countries are responsible for the low FDI inflow. A study by Rogmans &Ebbers (2013) focused on the determinants of FDI to the Middle East and North Africa region. He used panel data from 1987 to 2008 and the result revealed that natural resources endowment contributes negatively to FDI flows whereas trade openness has a positive effect.

Kamath (2009) studied the FDI data along with the economic growth indicators such as GDP, exchange rate, interest rate, human capital, technological factor and openness of the economy for Asian countries over a period from 1985 to 2005 by taking world investment data from world investment report 2006. He used regression analysis to find out the relevance of the studied indicators to decide the FDI inflow to India. He remarked that the model lacks relevance in the Indian context as the study period has both the pre-liberalization and post-liberalization period and thus the post liberalization information on

the economic indicators are not sufficient to measure the impact on the FDI inflow. The result reveals that the human capital influences the FDI inflow to India.

Cheng and Kwan (2000) documented that FDI inflow is positively affected by infrastructure, policy designations (i.e. SEZs) and regional income where as it is negatively affected by the wage cost in China. They have considered labour wage, per capita income, education level and policy designs along with the above-mentioned variables to examine their impacts on FDI inflow in China.

Singh and Paul (2013) compared the developing economies with the developed ones with respect to FDI inflow and documented that developing nations like India, China, Brazil, etc. attract higher quantity of inward FDI than that of the developed ones. Panigrahi & Mall (2017) used Polynomial method of second-degree quadratic equation on the time-series data to predict the ranks of different economies of Asia based on the FDI inflow to Asia. They found China, Hong Kong and Singapore are continuing at first, second and third position respectively and India has the fourth rank in achieving the inward FDI.

Studies by Ahluwalia[1] (2001) and Panigrahi, T.R. (2015) examined the association between the strength of investment climate in the Indian states and the foreign investors choice of location for bringing FDI. The states, weak in terms of investment climate, could not attract the FDI as expected whereas the states with strong investment climate attracted a significant share of FDI in India.

Several studies also went on examining the impact of capital markets and FDI on economic growth. Khetsi, Q.S, Mongale, I.P. (2015) investigated the impact of capital markets on economic growth in South Africa over a period of 1971-2013. The result reveals that there is a positive relationship between economic growth and capital markets in South Africa. Using capital market activity variables over a period of 2000-2012, Leene, T.L., Oki, J.(2017) investigated whether capital market development and directly translated to economic growth of MINT, They documented that the number of listed securities is the most impacting capital market development measure on economic growth of the MINT as a group. This indicator was seen to be negative and significantly related to GDP.

Another strand of researchers have studied the determinants, trends and patterns of FDI flows to BRICS economies. Examining the trends and patterns of FDI flows in BRICS economies during the period from 1990 to 2015, Bose, S. & Kohli, B. (2018) has documented that developed markets are still considered to be drawing the lion's share of FDI, claiming the top slots in global FDI inflows. They also documented that if the high-performing emerging markets have investor's preferred market characteristics, they can continue to attract FDI inflows. The study by Asongu, S.A., Akpan, U.S., Isihak, S.R(2018) examined the determinants of foreign direct investment to BRICS and MINT using the data over a period of 2001 to 2011. They employed pooled time-series cross-sectional analysis to estimate the model on determinants of FDI on BRICS, MINT and BRICS &MINT combined and documented that market size, infrastructure availability and trade openness are the main factors that attract FDI to BRICS and MINT. Using the panel data analysis over a period from 1989 to 2010 a study by Mercan, M., Gocer, I. (2013) examined the effect of financial development on economic growth for BRIC-T countries. The effect of FDI and trade openness on economic growth was also studied. The result shows that the effectof financial development on economic growth was positive. Employing the framework of VAR model and considering the proxy indicators of both stock market development and economic growth, Ali, A.S. (2015) examined the linkages between stock market development and economic growth. They documented that stock market development positively and significantly affects the economic growth of Russia, India and China. Granger causality model revealed the influence of stock market development of economic growth of BRICS. A study by Osaseri, G., Osamwongi, I.O. (2019) examined the impact of stock market development on economic growth of BRICS. He used panel least square based on the fixed effect estimation on the quarterly time series data over a period of 1994 to 2015. The findings revealed that stock market development shows significant impact on the economic growth and shares a positive association with the economic growth of BRICS countries.

Our study is about identifying the determinants of economic growth for the BRICS countries and to examine whether FDI is a significant and common factor of economic growth to all BRICS countries.

RESEARCH METHODOLOGY

The empirical analysis of this study includes the secondary data collected from the investment report 2018 and the World development indicators 2018 of World Bank publications for BRICS countries. In this study, we consider twenty economic indicators such as GDP growth , fixed capital formation (% of GDP), Stocks traded, total value (% of GDP), adjusted savings: consumption of fixed capital (% of GNI), gross capital formation (% of GDP), domestic credit to private sector by banks (% of GDP), gross capital formation (annual % growth), final consumption expenditure (annual % growth) , domestic credit to private sector by banks (% of GDP), general government final consumption expenditure (annual % growth), household final consumption expenditure (annual % growth), foreign direct investment, net inflows (% of GDP), gross savings (% of GDP), gross domestic savings (% of GDP). This study aims to identify the determinants of Economic growth and to examine whether FDI is a significant fact of the economic growth for all the BRICS countries.

We employed correlation analysis to check the association between the economic indicators. We used multiple regression model to investigate the significant effect of the economic indicators on the economic growth of the BRICS countries. We performed descriptive statistics to understand the basic characteristics of the economic indicators.

Stepwise Regression Model

Stepwise regression model is one of the widely used regression model. Performing a series of t-test and F-test, this regression technique builds a model by adding and removing the predictor variables. The decision of adding and removing variables are decided based on the test statistic of the coefficients estimated. In stepwise regression model, we get the standardized regression coefficient as:

$$B_{std} = b\left(\frac{Sx}{Sy}\right)$$

where, Sx, Sy are the standard deviations for the dependent and independent variable respectively. The percentage change in the square root of mean square error due to addition or deletion of specified variables is called root mean square error. The percent change in root mean square error is calculated as below:

$$\text{Percent change} = \left[\frac{RMSE\ previous - RMSE\ current}{RMSE\ current}\right] 100$$

Stepwise regression performs multiple regression a number of times, each time removing the weakest correlated variables and finally sharing most significant variables.

EMPIRICAL ANALYSIS

The objective of this study is examined using empirical and statistical analysis. The result of this study is discussed in this section.

Analysis of Economic Indicators: Case of BRAZIL

The result of descriptive analysis Table-1 (Appendix-1) reveals that there is no discrepancy in the characteristics of the variables, as far as the statistical properties are concerned. This table shows that the variables like BZA Final consumption expenditure, etc. (annual % growth), BZA General Government final consumption expenditure (annual % growth) have a higher co-efficient of variation than that of the rest of the variables.

We employed correlation analysis, to investigate the association between the economic indicators. The result shows that, Brazil's GDP has strong positive association with its gross capital formation, final consumption expenditure and household final consumption expenditure (with a coefficient of 0.865,

0.876 and 0.72 respectively). On the other hand, it has moderate association with its gross capital formation, general government final consumption expenditure and BZA gross domestic savings. (With a coefficient of 0.453, 0.541 and 0.428 respectively). This association is statistically significant at 5% level of significance. To find the significant economic indicator, we used stepwise regression and result is as follows:

TABLE 3
MODEL SUMMARY

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.876[a]	.767	.758	1.43275	.767	82.278	1	25	.000
2	.959[b]	.919	.913	.86074	.152	45.268	1	24	.000
3	.975[c]	.950	.943	.69242	.031	14.087	1	23	.001
a. Predictors: (Constant), BZA Final consumption expenditure, etc. (annual % growth)									
b. Predictors: (Constant), BZA Final consumption expenditure, etc. (annual % growth), BZA Gross capital formation (annual % growth)									
c. Predictors: (Constant), BZA Final consumption expenditure, etc. (annual % growth), BZA Gross capital formation (annual % growth), BZA General government final consumption expenditure (annual % growth)									

Table-3 displayed below shows that, final consumption expenditure; gross capital formation and general government final consumption expenditure contributed 94.3% of variability in explaining the GDP growth of Brazil. The β coefficients are in the table below and has several explanatory power.

TABLE 4
COEFFICIENTS

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.369	.348		1.060	.299	-.348	1.086
	BZA Final consumption expenditure, etc. (annual % growth)	.760	.084	.876	9.071	.000	.588	.933
2	(Constant)	.730	.216		3.380	.002	.284	1.175
	BZA Final consumption expenditure, etc. (annual % growth)	.472	.066	.543	7.134	.000	.335	.608
	BZA Gross capital formation (annual % growth)	.156	.023	.513	6.728	.000	.108	.204
3	(Constant)	.529	.182		2.910	.008	.153	.905
	BZA Final consumption expenditure, etc. (annual % growth)	**.475**	.053	.547	8.928	**.000**	.365	.585
	BZA Gross capital formation (annual % growth)	**.128**	.020	.421	6.390	**.000**	.087	.170
	BZA General government final consumption expenditure (annual % growth)	**.202**	.054	.196	3.753	**.001**	.091	.313
a. Dependent Variable: BZA GDP growth (annual %)								

It is evident from Table-4 that Brazil's GDP growth is explained by its final consumption expenditure, gross capital formation and the general government final consumption expenditure, which are statistically significant as their P-values are 0.000, 0.000, and 0.001. The result also reveal that the β coefficients for these three variables are 0.475, 0.128 and 0.202 respectively. This has high explanatory power. It signifies that for one unit change in final consumption expenditure, gross capital formation and general government final consumption expenditure, there would be an increment of 47%, 12% and 20% respectively in the GDP growth of Brazil.

Analysis of Economic Indicators: Case of RUSSIA

We performed the correlation analysis to examine the association between the economic indicators. The result of correlation analysis given in table-3 (Appendix). The result shows that Russia's GDP has significant strong positive association with its gross capital formation and final consumption expenditure with a coefficient of 0.827 and 0.725 respectively. Gross fixed capital formation and gross capital formation and consumption of fixed capital have a negative association with the GDP growth of Russia. This association is statistically significant at 5% level of significance. We performed stepwise regression to find the significant economic indicators. The result is as follows:

TABLE 5
MODEL SUMMARY

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.827[a]	.684	.671	3.83359	.684	54.082	1	26	.000
2	.906[b]	.821	.806	2.94627	.137	18.326	1	25	.000
a. Predictors: (Constant), RA Gross capital formation (annual % growth)									
b. Predictors: (Constant Gross capital formation (annual % growth), RA General government final consumption expenditure (annual % growth)									

It is clear from Table-5, gross capital formation, general government final consumption expenditure together is contributing 80% of the variation in the GDP growth of Russia. The β coefficients signifies the following interpretations:

TABLE 6
COEFFICIENTS

Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**T**	**Sig.**	**95 % Confidence Interval for B**	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.931	.738		1.261	.219	-.590	2.452
	RA Gross capital formation (annual % growth)	.216	.029	.827	7.354	.000	.156	.277
2	(Constant)	1.496	.583		2.568	.017	.294	2.699
	RA Gross capital formation (annual % growth)	.173	.025	.662	6.995	**.000**	.122	.224
	RA General government final consumption expenditure (annual % growth)	.624	.146	.405	4.281	**.000**	.323	.925
a. Dependent Variable: RA GDP growth (annual %)								

Table-6 highlights that gross capital formation, general government final consumption expenditure explains Russia's GDP growth. The β coefficients of these two variables are 0.173 and 0.624 respectively, which signifies that for 1 unit increase in these two variables, the GDP growth of Russia would increase by 17% and 62% respectively.

Analysis of Economic Indicators: Case of INDIA

The result of correlation analysis confirms that, India's GDP has significant moderate positive relation with its gross capital formation, gross fixed capital formation, private sector, gross capital formation, household final consumption expenditure per capita growth, gross savings and gross domestic savings with a coefficient of 0.602, 0.515, 0.632, 0.728, 0.648 and 0.669 respectively. Stepwise regression output explains the significant economic indicators. The result is as follows:

TABLE 7
MODEL SUMMARY

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.728[a]	.530	.511	1.53459	.530	28.194	1	26	.000
2	.912[b]	.831	.817	.93840	.301	42.857	1	25	.000
a. Predictors: (Constant), IND Household final consumption expenditure per capita growth (annual %)									
b. Predictors: (Constant), IND Household final consumption expenditure per capita growth (annual %), IND Gross capital formation (annual % growth)									

Table7 explains that 81% of the variation in the GDP growth of India is explained together by household final consumption expenditure per capita growth and gross capital formation. The coefficient table explains the change in the dependent variable for a unit change in the independent variable. Table 8 explains the result:

TABLE 8
COEFFICIENTS[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	3.549	.645		5.502	.000	2.220	4.877
	IND Household final consumption expenditure per capita growth (annual %)	.698	.131	.728	5.310	.000	.427	.969
2	(Constant)	2.791	.411		6.791	.000	1.943	3.639
	IND Household final consumption expenditure per capita growth (annual %)	.634	.081	.661	7.832	.000	.467	.802
	IND Gross capital formation (annual % growth)	.123	.019	.553	6.546	.000	.084	.161
a. Dependent Variable: IND GDP growth (annual %)								

The β coefficients of household final consumption expenditure per capita growth and gross capital formation are 0.634 and 0.0123 respectively. It reflects that the GDP growth of India would increase by 63% and 1% respectively due to one unit increase in these two components.

Analysis of Economic Indicators: Case of CHINA

China's GDP growth has a statistically significant and positive association with its foreign direct investment, net inflows with a coefficient of 0.667. It has significant moderate association with consumption of fixed capital, gross capital formation and household final consumption expenditure with a coefficient of 0.428, 0.326 and 0.395. Stepwise regression identifies the significant determinants of economic growth. Table -9 explains the result:

TABLE 9
MODEL SUMMARY

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.667[a]	.444	.422	1.88156	.444	20.004	1	26	.000
2	.791[b]	.626	.594	1.57635	.181	11.618	1	25	.002
3	.862[c]	.743	.710	1.33309	.118	10.558	1	24	.004
a. Predictors: (Constant), CHN Foreign direct investment, net inflows (% of GDP)									
b. Predictors: (Constant), CHN Foreign direct investment, net inflows (% of GDP), CHN Gross capital formation (annual % growth)									
c. Predictors: (Constant), CHN Foreign direct investment, net inflows (% of GDP), CHN Gross capital formation (annual % growth), CHN Gross savings (% of GDP)									

Table -9 depicts that foreign direct investment; net inflows, gross capital formation and gross savings explain 71% of variation in the GDP growth of China. The β coefficients has high explanatory power in the regression model. The result is as follows:

TABLE 10
COEFFICIENTS

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	5.046	1.088		4.64	.000	2.805	7.287
	CHN Foreign direct investment, net inflows (% of GDP)	1.291	.289	.667	4.47	.000	.697	1.886
2	(Constant)	3.308	1.044		3.17	.004	1.152	5.463
	CHN Foreign direct investment, net inflows (% of GDP)	.410	.244	.728	5.77	.000	.905	1.914
	CHN Gross capital formation (annual % growth)	.070	.020	.430	3.41	.002	.027	.112
3	(Constant)	-.609	2.592		-1.78	.089	-9.971	.752
	CHN Foreign direct investment, net inflows (% of GDP)	.452	.207	.750	7.01	**.000**	1.023	1.880
	CHN Gross capital formation (annual % growth)	.084	.018	.521	4.72	**.000**	.047	.121
	CHN Gross savings (% of GDP)	.168	.052	.355	3.25	**.004**	.061	.275
a. Dependent Variable: CHN GDP growth (annual %)								

It is very clear from Table-10 that China's GDP growth is significantly dependent on its net inflows of foreign direct investment, gross savings and gross capital formation. It is statistically significant as p-value for these three variables is less than $\alpha = 0.05$. This result indicates that for one unit increase in the β

coefficient of these three variables, the GDP growth of China would increase by 45%, 8% and 16% respectively.

Analysis of Economic Indicators: Case of SOUTH AFRICA

The association between the economic indicators are investigated using correlation analysis. The result shows that South Africa's GDP has strong positive association with its gross capital formation, final consumption expenditure and household final consumption expenditure with a coefficient of 0.701, 0.883 and 0.878 respectively. This output is statistically significant at 5% level of significance. The stepwise regression output is as follows:

TABLE 11
MODEL SUMMARY

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.883[a]	.779	.770	.98650	.779	88.103	1	27	.000
2	.918[b]	.843	.830	.84779	.064	9.850	1	25	.004
3	.938[c]	.880	.864	.75935	.036	6.916	1	24	.015
a. Predictors: (Constant), SA Final consumption expenditure, etc. (annual % growth)									
b. Predictors: (Constant), SA Final consumption expenditure, etc. (annual % growth), SA Household final consumption expenditure (annual % growth)									
c. Predictors: (Constant), SA Final consumption expenditure, etc. (annual % growth), SA Household final consumption expenditure (annual % growth), SA Gross savings (% of GDP)									

The result shows that final consumption expenditure, household final consumption expenditure and gross savings are the significant determinants of GDP growth in South Africa. These variables contribute 86% variability in explaining the GDP growth. The β values explains the following:

TABLE 12
COEFFICIENTS SOUTH AFRICA

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.404	.283		1.427	.166	-.179	.988
	Final consumption expenditure (annual % growth)	.772	.082	.883	9.386	.000	.603	.942
2	(Constant)	.138	.258		.534	.599	-.395	.670
	Final consumption expenditure (annual % growth)	.432	.129	.494	3.336	.003	.165	.699
	Household final consumption expenditure (annual % growth)	.375	.119	.464	3.138	.004	.128	.621
3	(Constant)	5.510	2.056		2.680	.013	1.257	9.763
	Final consumption expenditure (annual % growth)	.376	.118	.429	3.185	.004	.132	.620
	Household final consumption expenditure (annual % growth)	.354	.107	.439	3.303	.003	.132	.576
	Gross savings (% of GDP)	-.307	.117	-.209	-2.63	.015	-.548	-.065
a. Dependent Variable: SA GDP growth (annual %)								

Table-12 depicts that the final consumption expenditure, household final consumption expenditure, and gross savings explain the GDP growth of South Africa. These variables are statistically significant as their p-values are 0.004, 0.003. The result also shows that the β coefficients for these variables are 0.376, 0.354 and -0.307 respectively. This has high explanatory power. It signifies that for one unit change in final consumption expenditure and household final consumption expenditure, the GDP growth would increase by 37% and 35% respectively whereas for one unit increase in the gross saving, the GDP growth of South Africa would decrease by 30%.

CONCLUSION AND IMPLICATIONS

This research paper has examined the determinants of GDP growth of BRICS countries. We used the secondary data from the investment report 2018 and the world development indicators 2018 of World Bank publication. We consider twenty economic indicators in this study such as GDP growth , fixed capital formation (% of GDP), Stocks traded, total value (% of GDP), adjusted savings: consumption of fixed capital (% of GNI), gross capital formation (% of GDP), domestic credit to private sector by banks (% of GDP), gross capital formation (annual % growth), final consumption expenditure (annual % growth) , domestic credit to private sector by banks (% of GDP), general government final consumption expenditure (annual % growth), household final consumption expenditure (annual % growth), foreign direct investment, net inflows (% of GDP), gross savings (% of GDP), gross domestic savings (% of GDP). Stepwise regression is used to identify the significant economic indicators of GDP growth of the BRICS countries. The models employed revealed that the most common economic indicator across BRICS countries is gross capital formation followed by consumption expenditure. FDI growth is one of the key economic indicator only for China. For countries like India, Brazil, Russia and South Africa, FDI inflow is insignificant indicator of GDP growth.

The result of this study indicates that to increase the GDP growth Brazil should focus more on the final consumption & expenditure, gross capital formation & general government final consumption expenditure. For Russia to increase the GDP growth, it should frame the policies to boost general government final consumption expenditure & reduce the gross capital formation. In INDIA, the GDP growth has increased significantly due to the gross capital formation & Household final consumption expenditure. Therefore, it should focus more on these two factors instead of struggling continuously to increase the FDI inflow. Whereas for CHINA to increase the GDP growth, it should focus more on the FDI, gross capital formation & discourage gross savings. South Africa should focus more on the growth of consumption expenditure and reduction of the gross savings to increase the GDP growth & should. Therefore, policies in South Africa should be designed to encourage consumption & to discourage savings. The only factor common for all the five economies is the consumption expenditure. Therefore, to improve consumption expenditure, the other economic factors serving as the determinants to consumption expenditure are also to be improved.

The focus of the countries is to improve the economic growth as a developed country can promote the socio-economic development. This study found discrepancy in the economic indicators amongst all the BRICS countries. Therefore, each of these countries shall focus on their respective economic indicators to achieve maximum growth. This study is very useful for policy makers and investors.

ENDNOTES

1. https://unctad.org/en/PublicationsLibrary/wir2018_en.pdf
2. https://www.imf.org/external/datamapper/PPPSH@WEO/OEMDC/ADVEC/WEOWORLD
3. https://unctadstat.unctad.org/wds/TableViewer/tableView.aspx
4. https://ged-project.de/ged-blog/improving-public-understanding-of-economic-globalisation/globalization-report-2018-what-about-the-brics-countries/
5. https://unctad.org/en/PublicationsLibrary/wir2018_en.pdf
6. http://datatopics.worldbank.org/world-development-indicators/

7. Appendix Table 1
8. Appendix Table 3
9. Appendix Table 4
10. Appendix Table 5

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APPENDICES

TABLE 1
DESCRIPTIVE STATISTICS OF BRAZIL'S ECONOMIC INDICATORS FROM 1990-2017

	Brazil			Russia			India			China			South Africa		
	Mean	Std. Deviation	Co-efficient of Variation	Mean	Std. Deviation	Co-efficient of Variance	Mean	Std. Deviation	Co-efficient of Variance	Mean	Std. Deviation	Co-efficient of Variance	Mean	Std. Deviation	Co-efficient of Variance
GDP growth (annual %)	2.3	2.91	1.27	0.6909	6.69	9.68	6.59	2.2	0.33	9.63	2.48	0.26	2.38	2.06	0.87
Stocks traded, total value (% of GDP)	21.24	12.37	0.58										45.75	30.97	0.68
Adjusted savings: consumption of fixed capital (% of GNI)	8.33	0.35	0.04	20.479	13.51	0.66	10.4	0.47	0.05	15.97	4.53	0.28	13.82	1.02	0.07
Gross capital formation (% of GDP)	19.18	1.91	0.1	23.314	4.8	0.21	32.2	5.81	0.18	41.19	4.49	0.11	18.77	1.92	0.1
Gross fixed capital formation (% of GDP)	18.86	1.55	0.08	20.352	2.8	0.14	28.72	4.09	0.14	37.78	5.95	0.16	18.31	2.18	0.12
Gross fixed capital formation, private sector (% of GDP)							20.82	4.55	0.22				15.12	1.95	0.13
Domestic credit to private sector by banks (% of GDP)	49.36	22.64	0.46				36.77	12	0.33	111.61	20.55	0.18	64.71	7.57	0.12
SA Domestic credit to private sector (% of GDP)										112.08	20.02	0.18	128.59	20.98	0.16
Gross capital formation (annual % growth)	2.38	9.57	4.03	-1.112	25.59	-23.01	8.44	9.89	1.17	18.9	15.28	0.81	3.83	7.8	2.04
Final consumption expenditure, etc. (annual % growth)	2.53	3.35	1.32	3.226	6.95	2.15	6.06	3.07	0.51				2.56	2.35	0.92
Household final consumption expenditure, etc. (annual % growth)	3.04	3.45	1.13	3.126	6.68	2.14	4.36	2.29	0.52	8.98	1.92	0.21	3.03	2.55	0.84
General government final consumption expenditure (annual % growth)	1.28	2.83	2.21	-0.982	4.34	-4.42	6.15	5.07	0.82	10.5	4.93	0.47	2.54	2.53	1
Foreign direct investment, net inflows (% of GDP)	2.58	1.53	0.59	1.713	1.3	0.76	1.18	0.89	0.76	3.55	1.28	0.36	1.25	1.33	1.07
Gross savings (% of GDP)	15.94	2.83	0.18				31.69	4.85	0.15	44.63	5.23	0.12	16.84	1.4	0.08
Gross domestic savings (% of GDP)	19	2.45	0.13	31.722	4.99	0.16	29.84	4.23	0.14	44.72	4.85	0.11	19.91	1.45	0.07

TABLE 2
KARL PEARSON'S COEFFICIENTS OF CORRELATION BRAZIL'S ECONOMIC INDICATION

Pearson Correlation	GDP growth (annual %)	Stocks traded, total value (% of GDP)	Adjusted savings: consumption of fixed capital (% of GNI)	Gross capital formation (% of GDP)	Gross fixed capital formation (% of GDP)	Domestic credit to private sector by banks (% of GDP)	Gross capital formation (annual % growth)	Final consumption expenditure, etc. (annual % growth)	Household final consumption expenditure, etc. (annual % growth)	General government final consumption expenditure (annual % growth)	Domestic credit to private sector by banks (% of GDP)	Foreign direct investment, net inflows (% of GDP)	Gross savings (% of GDP)	Gross domestic savings (% of GDP)
BZA GDP growth (annual %)	1													
BZA Stocks traded, total value (% of GDP)	0.207	1												
BZA Adjusted savings: consumption of fixed capital (% of GNI)	0.005	0.351 *	1											
BZA Gross capital formation (% of GDP)	0.453*	0.186	0.491 **	1										
BZA Gross fixed capital formation (% of GDP)	0.267	0.076	0.39 *	0.869 *	1									
BZA Domestic credit to private sector by banks (% of GDP)	-0.049	-0.033	0.094	0.42 *	0.358 *	1								
BZA Gross capital formation (annual % growth)	0.865 **	0.199	0.026	0.456 **	0.25	-0.016	1							
BZA Final consumption expenditure, etc. (annual % growth)	0.876**	0.194	0.031	0.555 **	0.452 **	0.018	0.648 **	1						
BZA Household final consumption expenditure, etc. (annual % growth)	0.72 **	0.086	0.057	0.59 **	0.56 **	0.074	0.571**	0.898 **	1					
BZA General government final consumption expenditure (annual % growth)	0.541 **	0.451 **	-0.125	-0.004	-0.184	-0.017	0.452 **	0.282 *	0.029	1				
BZA Domestic credit to private sector by banks (% of GDP)	-0.049	-0.033	0.094	0.42 *	0.358	1	-0.016	0.018	0.074	-0.017	1			
BZA FDI, net inflows (% of GDP)	-0.06	0.532	0.342 *	-0.142	-0.217	-0.282	-0.101	-0.219	-0.442 **	0.337	-0.282	1		
BZA Gross savings (% of GDP)	0.274 *	-0.087	0.425 *	0.625 **	0.424 *	0.552 **	0.251	0.358 *	0.413 *	-0.075	0.552	-0.51	1	
BZA Gross domestic savings (% of GDP)	0.426	-0.024	0.383	0.623	0.361	0.364	0.344	0.487 **	0.519	0.054	0.364	-0.474	0.929	1

TABLE 3
KARL PEARSON'S COEFFICIENT OF CORRELATIONS AMONG ECONOMIC VARIABLE IN RUSSIA

Pearson Correlation		GDP growth (annual %)	Adjusted savings: consumption of fixed capital (% of GNI)	Gross capital formation (% of GDP)	Gross fixed capital formation (% of GDP)	Gross capital formation (annual % growth)	Final consumption expenditure, etc. (annual % growth)	Household final consumption expenditure (annual % growth)	General Govt final consumption expenditure (annual % growth)	Foreign direct investment, net inflows (% of GDP)	Gross domestic savings (% of GDP)
Pearson Correlation	GDP growth (annual %)	1									
	Adjusted savings: consumption of fixed capital (% of GNI)	-0.742	1								
	Gross capital formation (% of GDP)	-0.494	0.565	1							
	Gross fixed capital formation (% of GDP)	-0.46	0.34	0.784	1						
	Gross capital formation (annual % growth)	0.827	-0.548	-0.189	-0.272	1					
	Final consumption expenditure, etc. (annual % growth)	0.135	-0.069	0.102	0.022	0.051	1				
	Household final consumption expenditure (annual % growth)	0.725	-0.521	-0.205	-0.252	0.628	0.45	1			
	General government final consumption expenditure (annual % growth)	0.675	-0.686	-0.788	-0.652	0.407	-0.028	0.492	1		
	Foreign direct investment, net inflows (% of GDP)	0.588	-0.754	-0.287	-0.085	0.397	0.223	0.584	0.579	1	
	Gross domestic savings (% of GDP)	-0.019	0.119	0.522	0.177	0.272	0.542	0.195	-0.373	-0.076	1
Sig. (1-tailed)	GDP growth (annual %)										
	Adjusted savings: consumption of fixed capital (% of GNI)	0	.								
	Gross capital formation (% of GDP)	0.004	0.001	.							
	Gross fixed capital formation (% of GDP)	0.008	0.041	0	.						
	Gross capital formation (annual % growth)	0	0.002	0.173	0.085	.					
	Final consumption expenditure, etc. (annual % growth)	0.251	0.366	0.306	0.456	0.4	.				
	Household final consumption expenditure (annual % growth)	0	0.003	0.153	0.103	0	0.009	.			
	General government final consumption expenditure (annual % growth)	0	0	0	0	0.017	0.444	0.005	.		
	Foreign direct investment, net inflows (% of GDP)	0.001	0	0.073	0.336	0.02	0.131	0.001	0.001	.	
	Gross domestic savings (% of GDP)	0.462	0.277	0.003	0.189	0.085	0.002	0.165	0.028	0.352	.
N	RA GDP growth (annual %)	27	27	27	27	27	27	27	27	27	27

TABLE 4
CORRELATIONS INDIA

		GDP growth (annual %)	Adjusted savings: consumption of fixed capital (% of GNI)	Gross capital formation (% of GDP)	Gross fixed capital formation (% of GDP)	Gross fixed capital formation, private sector (% of GDP)	Domestic credit to private sector by banks (% of GDP)	Gross capital formation (annual % growth)	Final consumption expenditure, etc. (annual % growth)	Household final consumption expenditure per capita growth (annual %)	General government final consumption expenditure (annual % growth)	FDI, net inflows (% of GDP)	Gross savings (% of GDP)	Gross domestic savings (% of GDP)
Pearson Correlation	GDP growth (annual %)	1												
	Adjusted savings: consumption of fixed capital (% of GNI)	-0.061	1											
	Gross capital formation (% of GDP)	0.602	-0.133	1										
	Gross fixed capital formation (% of GDP)	0.489	-0.092	0.975	1									
	Gross fixed capital formation, private sector (% of GDP)	0.515	0.103	0.929	0.951	1								
	Domestic credit to private sector by banks (% of GDP)	0.393	0.328	0.821	0.846	0.891	1							
	Gross capital formation (annual % growth)	0.632	-0.316	0.323	0.172	0.15	-0.036	1						
	Final consumption expenditure, etc. (annual % growth)	0.1	0.227	0.239	0.322	0.328	0.376	-0.516	1					
	Household final consumption expenditure per capita growth (annual %)	0.728	0.083	0.742	0.735	0.787	0.701	0.12	0.552	1				
	General government final consumption expenditure (annual % growth)	0.334	-0.066	0.225	0.193	0.296	0.199	0.151	0.333	0.445	1			
	Foreign direct investment, net inflows (% of GDP)	0.276	0.196	0.742	0.798	0.814	0.824	-0.093	0.516	0.663	0.385	1		
	Gross savings (% of	0.648	-0.106	0.971	0.935	0.914	0.774	0.39	0.18	0.736	0.225	0.733	1	

	GDP)													
	Gross domestic savings (% of GDP)	0.669	-0.179	0.974	0.929	0.884	0.765	0.418	0.154	0.726	0.213	0.681	0.987	1
Sig. (1-tailed)	GDP growth (annual %)	.												
	Adjusted savings: consumption of fixed capital	0.382	.											
	Gross capital formation (% of GDP)	0	0.255	.										
	Gross fixed capital formation (% of GDP)	0.005	0.323	0	.									
	Gross fixed capital formation, private sector (% of GDP)	0.003	0.305	0	0	.								
	Domestic credit to private sector by banks (% of GDP)	0.021	0.048	0	0	0	.							
	Gross capital formation (annual % growth)	0	0.054	0.05	0.195	0.228	0.429	.						
	Final consumption expenditure, etc. (annual % growth)	0.309	0.128	0.115	0.051	0.048	0.027	0.003	.					
	Household final consumption expenditure per capita growth (annual %)	0	0.341	0	0	0	0	0.275	0.001	.				
	General government final consumption expenditure (annual % growth)	0.044	0.371	0.13	0.167	0.067	0.16	0.226	0.045	0.01	.			
	Foreign direct investment, net inflows (% of GDP)	0.082	0.164	0	0	0	0	0.322	0.003	0	0.024	.		
	Gross savings (% of GDP)	0	0.3	0	0	0	0	0.022	0.185	0	0.13	0	.	
	Gross domestic savings (% of GDP)	0	0.185	0	0	0	0	0.015	0.221	0	0.143	0	0	.

TABLE 5
CORRELATIONS TABLE FOR CHINA

		CHN GDP growth (annual %)	CHN Adjusted savings: consumption of fixed capital (% of GNI)	CHN Gross capital formation (% of GDP)	CHN Gross fixed capital formation (% of GDP)	CHN Domestic credit to private sector by banks (% of GDP)	CHN Gross capital formation (annual % growth)	CHN Household final consumption expenditure (annual % growth)	CHN General government final consumption expenditure (annual % growth)	CHN Domestic credit to private sector (% of GDP)	CHN Foreign direct investment, net inflows (% of GDP)	CHN Gross savings (% of GDP)	CHN Gross domestic savings (% of GDP)
Pearson Correlation	CHN GDP growth (annual %)	1											
	CHN Adjusted savings: consumption of fixed capital (% of GNI)	-0.347	1										
	CHN Gross capital formation (% of GDP)	0.108	0.752	1									
	CHN Gross fixed capital formation (% of GDP)	0.025	0.88	0.9	1								
	CHN Domestic credit to private sector by banks (% of GDP)	-0.411	0.908	0.606	0.796	1							
	CHN Gross capital formation (annual % growth)	0.326	-0.64	-0.205	-0.516	-0.58	1						
	CHN Household final consumption expenditure (annual % growth)	0.395	-0.271	0.007	-0.111	-0.355	0.309	1					
	CHN General government final consumption expenditure (annual % growth)	0.07	-0.36	-0.351	-0.402	-0.284	0.418	0.202	1				
	CHN Domestic credit to private sector (% of GDP)	-0.414	0.904	0.609	0.791	1	-0.564	-0.353	-0.279	1			
	CHN Foreign direct investment, net inflows (% of GDP)	0.667	-0.29	-0.011	0.05	-0.365	-0.142	0.276	-0.18	-0.376	1		
	CHN Gross savings (% of GDP)	0.208	0.713	0.862	0.829	0.516	-0.246	-0.025	-0.236	0.513	-0.025	1	
	CHN Gross domestic savings (% of GDP)	0.169	0.764	0.895	0.87	0.561	-0.313	-0.028	-0.274	0.557	-0.009	0.991	1
Sig. (1-tailed)	CHN GDP growth (annual %)	.											
	CHN Adjusted savings: consumption of fixed capital (% of GNI)	0.038	.										
	CHN Gross capital formation (% of GDP)	0.295	0	.									
	CHN Gross fixed capital formation (% of GDP)	0.451	0	0	.								

	CHN Domestic credit to private sector by banks (% of GDP)	0.017	0	0	0	.							
	CHN Gross capital formation (annual % growth)	0.048	0	0.153	0.003	0.001	.						
	CHN Household final consumption expenditure (annual % growth)	0.021	0.086	0.487	0.292	0.035	0.059	.					
	CHN General government final consumption expenditure (annual % growth)	0.365	0.033	0.036	0.019	0.076	0.015	0.156	.				
	CHN Domestic credit to private sector (% of GDP)	0.016	0	0	0	0	0.001	0.036	0.079	.			
	CHN Foreign direct investment, net inflows (% of GDP)	0	0.071	0.478	0.403	0.03	0.239	0.082	0.185	0.026	.		
	CHN Gross savings (% of GDP)	0.149	0	0	0	0.003	0.108	0.45	0.118	0.003	0.452	.	
	CHN Gross domestic savings (% of GDP)	0.199	0	0	0	0.001	0.056	0.444	0.083	0.001	0.482	0	.
N	CHN GDP growth (annual %)	28	28	28	28	28	28	28	28	28	28	28	28

TABLE 6
CORRELATION SOUTH AFRICA

Pearson Correlation Correlations	SA GDP growth (annual %)	SA Stocks traded, total value (% of GDP)	SA Taxes on income, profits & capital gains (% of revenue)	SA Market capitalization of listed domestic companies (% of GDP)	SA Adjusted savings: consumption of fixed capital (% of GNI)	SA Gross capital formation (% of GDP)	SA Gross fixed capital formation (% of GDP)	SA Gross fixed capital formation, private sector (% of GDP)	SA Domestic credit to private sector by banks (% of GDP)	SA Gross capital formation (annual % growth)	SA Final consumption expenditure, etc. (annual % growth)	SA Household final consumption expenditure (annual % growth)	SA General government final consumption expenditure (annual % growth)	SA Domestic credit to private sector (% of GDP)	SA Foreign direct investment, net inflows (% of GDP)	SA Gross savings (% of GDP)
GDP growth (annual %)	1															
Stocks traded, total value (% of GDP)	0.123	1														
Taxes on income, profits and capital gains (% of revenue)	-0.051	-0.283	1													
Market capitalization of listed domestic companies (% of GDP)	0.155	0.818	-0.575	1												
Adjusted savings: consumption	-0.767	-0.393	0.124	-0.395	1											

	of fixed capital (% of GNI)															
	Gross capital formation (% of GDP)	0.02	0.55	-0.142	0.594	-0.109	1									
	Gross fixed capital formation (% of GDP)	-0.261	0.509	-0.053	0.476	0.158	0.919	1								
	Gross fixed capital formation, private sector (% of GDP)	-0.043	0.65	-0.08	0.598	-0.135	0.943	0.948	1							
	Domestic credit to private sector by banks (% of GDP)	0.336	0.729	0.091	0.538	-0.567	0.513	0.445	0.649	1						
	Gross capital formation (annual % growth)	0.701	-0.14	-0.013	-0.001	-0.594	0.039	-0.29	-0.132	0.057	1					
	Final consumption expenditure, etc. (annual % growth)	0.883	0.18	-0.12	0.263	-0.746	0.132	-0.129	0.069	0.333	0.617	1				
	Household final consumption expenditure (annual % growth)	0.878	-0.031	-0.149	0.08	-0.606	-0.026	-0.279	-0.135	0.155	0.642	0.838	1			
	General government final consumption expenditure (annual % growth)	0.292	0.241	0.117	0.156	-0.339	0.136	0.152	0.218	0.322	0.029	0.513	0.095	1		
	Domestic credit to private sector (% of GDP)	0.415	0.807	-0.285	0.782	-0.671	0.536	0.383	0.613	0.894	0.157	0.425	0.238	0.263	1	
	Foreign direct investment, net inflows (% of GDP)	0.182	0.226	0.289	0.05	-0.278	0.129	0.143	0.269	0.598	-0.042	0.106	-0.031	0.263	0.424	1
	Gross savings (% of GDP)	-0.551	-0.452	0.261	-0.424	0.8	-0.034	0.158	-0.087	-0.541	-0.339	-0.409	-0.379	-0.164	-0.68	-0.305	1
	Gross domestic savings (% of GDP)	-0.555	-0.263	0.273	-0.323	0.812	0.151	0.375	0.131	-0.346	-0.449	-0.408	-0.42	-0.034	-0.528	-0.134	0.934

	Sig. (1-tailed)																
	GDP growth (annual %)	.															
	Stocks traded, total value (% of GDP)	0.27	.														
	Taxes on income, profits and capital gains (% of revenue)	0.401	0.076	.													
	Market capitalization of listed domestic companies (% of GDP)	0.22	0	0.001	.												
	Adjusted savings: consumption of fixed capital (% of GNI)	0	0.021	0.269	0.021	.											
	Gross capital formation (% of GDP)	0.46	0.001	0.24	0.001	0.295	.										
	Gross fixed capital formation (% of GDP)	0.094	0.003	0.397	0.006	0.216	0	.									
	Gross fixed capital formation, private sector (% of GDP)	0.416	0	0.345	0	0.251	0	0	.								
	Domestic credit to private sector by banks (% of GDP)	0.044	0	0.326	0.002	0.001	0.003	0.01	0								
	Gross capital formation (annual % growth)	0	0.243	0.475	0.499	0.001	0.423	0.071	0.255	0.389	.						
	Final consumption expenditure, etc. (annual % growth)	0	0.185	0.275	0.092	0	0.256	0.261	0.366	0.045	0						
	Household final consumption expenditure (annual % growth)	0	0.439	0.23	0.345	0	0.45	0.079	0.251	0.22	0	0	.				

	General government final consumption expenditure (annual % growth)	0.07	0.113	0.281	0.219	0.042	0.25	0.225	0.137	0.051	0.444	0.003	0.319				
	Domestic credit to private sector (% of GDP)	0.016	0	0.074	0	0	0.002	0.024	0	0	0.217	0.014	0.116	0.093	.		
	Foreign direct investment, net inflows (% of GDP)	0.182	0.129	0.072	0.403	0.08	0.261	0.239	0.087	0	0.417	0.299	0.44	0.092	0.014		
	Gross savings (% of GDP)	0.001	0.009	0.094	0.014	0	0.433	0.215	0.334	0.002	0.042	0.017	0.026	0.208	0	0.061	.
	Gross domestic savings (% of GDP)	0.001	0.092	0.084	0.05	0	0.225	0.027	0.257	0.038	0.009	0.017	0.015	0.434	0.002	0.252	0

TABLE 7
GDP AND RANKS OF COUNTRIES IN THE WORLD BASED AT CONSTANT PRICES

YEAR	GDP at constant (2010) prices, annual US Dollars in millions				Rank of Countries in the World based on GDP at constant (2010) prices			
ECONOMY	2014	2015	2016	2017	2014	2015	2016	2017
USA	17624193	18322673	18811150	19589613	1	1	1	1
China	10482316	11064687	11191030	12237782	2	2	2	2
Japan	4850414	4394978	4949273	4872415	3	3	3	3
Germany	3898727	3381389	3495163	3693204	4	4	4	4
United Kingdom	3034729	2896421	2659239	2631228	5	5	5	5
France	2859226	2444467	2471602	2588893	6	6	6	6
India	2042939	2145537	2270060	2575667	10	7	7	7
Brazil	2456044	1802212	1792800	2055512	7	9	9	8
Italy	2151733	1832273	1869117	1943835	8	8	8	9
Canada	1799271	1552523	1526954	1647120	11	10	10	10
Russian Federation	2063663	1368402	1284727	1577524	9	12	13	11
South Korea	1411334	1382764	1414804	1530751	13	11	11	12

Australia	1461563	1246800	1304420	1408676	12	13	12	13
Spain	1376911	1199084	1237499	1314314	14	14	14	14
Mexico	1314569	1170567	1077830	1158229	15	15	15	15
Indonesia	890814.8	860854.2	932256.5	1015539	18	16	16	16
Turkey	934167.8	859794.2	863711.7	851541.6	16	17	17	17
Netherlands	890981.3	765264.9	783528.2	830572.6	17	18	18	18
Switzerland	715840.1	686100.8	676395.7	685234.1	20	19	19	19
Saudi Arabia	756350.3	654269.9	644935.5	683827.1	19	20	20	20
Argentina	567050.1	644903.2	554861.9	637486.2	23	21	21	21
Taiwan	530514.8	525601.4	530608.4	573038.1	26	22	22	22
Sweden	574413.1	498117.6	512205.2	535607.4	21	23	23	23
Poland	545381.9	477577.4	472030	526211.9	24	25	24	24
Belgium	530808.4	455837.8	469738.7	494763.6	25	26	25	25
Iran	443976.4	393436.1	425402.6	460976.1	28	28	26	26
Thailand	407338.9	401399.2	411755.4	455302.5	30	27	27	27
Austria	441996.1	381805.7	394052.8	416836	29	30	29	28
Norway	499338.5	386663.1	371337.5	399470.2	27	29	30	29
United Arab Emirates	403137.2	358134.9	357045.2	382575	31	31	31	30
Nigeria	568498.8	494582.6	404649.1	375769.7	22	24	28	31
Israel	310007.9	300470.8	319377.9	353268.4	38	38	33	32
South Africa	350637.7	317536.1	295746.4	348872.1	35	34	39	33

TABLE 8
FDI INFLOW AND RANK OF COUNTRIES BASED ON ANNUAL FDI INFLOW

	Foreign direct investment: Inflows, annual (US Dollars at current prices in millions)				Rank of countries based on annual FDI Inflow			
ECONOMY	2014	2015	2016	2017	2014	2015	2016	2017
USA	201734	465765	457126	275381	1	1	1	1
China	128500	135610	133710	136320	2	4	3	2

Hong Kong SAR	113037.8	174352.9	117387	104333	3	3	4	3
Brazil	73370.12	64291.36	57999.44	62712.61	5	7	7	4
Singapore	73474.69	62745.73	77454.3	62005.97	4	8	6	5
Netherlands	44973.6	69565.1	85777.53	57956.67	8	6	5	6
France	2669.326	45346.63	35165.18	49794.91	64	11	16	7
Australia	40969.57	20462.92	47755.97	46367.98	9	18	9	8
Switzerland, Liechtenstein	9340.064	81883.92	48313.92	40986.08	29	5	8	9
India	34582.1	44064.1	44480.57	39916.09	11	12	11	10
British Virgin Islands	45895.95	25680.11	43498.18	38358.08	7	16	12	11
Cayman Islands	20004.04	52430.53	39865.06	37433.21	20	9	13	12
Germany	4863.174	33276.35	16982.4	34726.28	42	14	21	13
Mexico	28672.01	34857.63	29755.07	29695.01	13	13	18	14
Ireland	37413.88	215791.1	14522.67	28974.62	10	2	22	15
Russian Federation	29151.66	11857.81	37175.77	25284.03	12	25	15	16
Canada	58933.19	45602.45	37297.43	24243.75	6	10	14	17
Indonesia	21810.52	16641.45	3921.23	23063.11	19	23	49	18
Spain	25238.45	19559.5	19659.63	19086.15	14	20	20	19
Israel	6049.105	11336.5	11902.8	18954	36	29	29	20
Italy	23223	19628.26	22243.01	17077.15	17	19	19	21
South Korea	9273.6	4104.1	12104.3	17052.8	30	44	28	22
Sweden	4030.446	6897.107	12176.84	15395.74	51	39	27	23
United Kingdom	24690.24	32720.42	196130.5	15090.04	15	15	2	24
Colombia	16167.02	11735.73	13849	14518.05	22	28	24	25