Impact of BRICS Agreement Over Economy of Brazil, Russia, India, China and South Africa

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Abstract *This paper provides contemporary climate, deep rooted economic conditions for FTA (free trade agreement), BRICS. In light of changing global economy this paper traces GDP, unemployment and inflation change before and after the FTA. BRICS Nations together has 22.2% of global output, 17.2% Global trade and 40% of global population. The significance of trade and GDP were highlighted during 6th BRICS summit Brazil 2014, which paved much deeper agreement and talks with respect to strategy for economic partnership trade and Investment Corporation. The significance of international trade among BRICS countries was highlighted during the Sixth BRICS Summit in Fortaleza, Brazil in 2014. Secondary data was collected from various sources for the past 20 years and analysis is done using basic regression in SPSS.*

Keywords *BRICS, Free Trade Agreement, Economic Impact, Trade, Inflation, GDP, Unemployment*

INTRODUCTION

It's been 7 years since the formation of BRICS. The BRICS club (Brazil, Russia, India, China and South Africa), which used to be known for its tremendous growth potential, is today in the midst of severe economic and political woes (BRICS- Wikipedia, 2017). The Federal rate increase has contributed to the mounting debt burden for these economies and also falling global commodity prices have affected these emerging markets which rely heavily on export led growth. Moreover, the structural transformation of China, which has been the main driver of this group, from an export driven economy to a one relying on domestic consumption, has added to the current woes of BRICS. Among these BRICS nations, India is the only country which has shown signs of strong potential for growth. The share of exports of goods and services in GDP in 2014 was 23.2% in India, while that of Russia was 30% and South Africa was 31.3%.(Carmody, 2012) India has the lowest per capita GDP of $5,238 among the other members (Information about BRICS, n.d.).

WORKING DEFINITIONS

Inflation is the percentage change in the value of the Consumer Price Index (CPI) on a year-on year basis. It effectively measures the change in the prices of a basket of goods and services in a year. In India, inflation is calculated by taking the CPI as base (Inflation, n.d.).

Gross domestic product is the best way to measure a country's economy. GDP is the total value of everything produced by all the people and companies in the country (What is GDP?, n.d.).

Unemployment is a phenomenon that occurs when a person who is actively searching for employment is unable to find work. Unemployment is often used as a measure of the health of the economy (Unemployment, n.d.).

LITERATURE REVIEW

The BRICS group is the 'third giant' after the EU and the US. But BRICS member nations are too different, and have too few synergies, to represent a solid economic and political power (What is State of BRICS Economies, 2015).

Over the next 50 years, Brazil, Russia, India and China - the BRICs economies - could become a much larger force in the world economy. We map out GDP growth, income per capita and currency movements in the BRICs economies until 2050. Overall, growth for the BRICs is likely to slow significantly over this timeframe. By 2050, only India on our projections would be recording growth rates significantly above 3% (Dreaming With BRICs:The Path to 2050).

The dominance of the Chinese economy and its role in trade relations makes the BRICS much more a China-with-partners group than a union of equal members.

BRICS countries lack mutual economic interests. Trade between them is now less than 320 billion dollars a year and declining. Their trade with the US and EU is 6.5 times higher. China's trade with the rest of the world is 12.5 times

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higher. Bilateral trade between China and South Korea is almost as large as that between BRICS nations.

Members are too similar in some key areas. All members (apart from Russia) hold huge foreign reserves (15-35% of GDP) and have low external debt (15% to 37% of GDP.) Apart from Russia, they are heavily integrated into consumer goods production with the 'West' (Matthias vom Hau, 2012).

BRICS nations compete in third markets. In many areas, from clothing (China, India and Brazil), through economic influence in Africa (China, South Africa and India) to international aircraft and military equipment markets (China, Russia and Brazil) BRICS countries compete with one another. Diversity of cultures. Phases of economic development, ideologies, definitions of poverty and other cultural differences mean BRICS members lack common understandings about priorities that are necessary for productive sharing of experiences.

RESEARCH QUESTION

Is BRICS formation being beneficial to any of these 5 countries.

Which country gets more benefitted from BRICS agreement.

HYPOTHESIS

Null Hypothesis: There is no difference in economies before and after the formation of BRICS.

Alternate Hypothesis: There is a significance difference in economies of 5 countries before and after BRICS.

DATA COLLECTION AND ANALYSIS

Data is collected from various sources through extensive research from internet. Statistical tests like paired sample t test, correlation and regression is used to analyse the data.

RESULTS AND FINDINGS

GDP is main measure of Economy of any country. Also, other major contributors include unemployment and inflation. So, by keeping GDP as dependant variable and Inflation and Unemployment as independent variable r^2 and F(Sig.) value are obtained from SPSS.

Table 1: Measuring the Relation between GDP and Inflation by Keeping GDP as Dependant Variable

GDP vs Inflation				
Country	Pre-BRICS		Post BRICS	
	r^2	F(Sig)	r^2	F(Sig)
Brazil	0.193	0.324	0.794	0.007
Russia	0.025	0.232	0.51	0.072
India	0.071	0.565	0.027	0.725
China	0.054	0.615	0.559	0.053
South Africa	0.129	0.429	0.168	0.197

Table 2: Measuring the Relation between GDP and Unemployment by Keeping GDP as Dependant Variable

GDP vs Unemployment				
Country	Pre-BRICS		Post BRICS	
	r2	F(Sig)	r2	F(Sig)
Brazil	0	0.983	0.224	0.283
Russia	0.246	0.258	0.374	0.144
India	0.07	0.86	0.123	0.44
China	0.97	0	0.973	0
South Africa	0.024	0.741	0.786	0.005

Table 3 & 4: Measuring the Correlation between GDP vs Inflation and Unemployment

Correlation GDP Vs Inflation		Correlation GDP Vs Unemployment	
Brazil	-0.476	Brazil	0.063
Russia	-0.045	Russia	0.122
India	-0.145	India	0.124
China	0.244	China	-0.99
South Africa	-0.37	South Africa	-0.292

Table 5: Paired t test (t sig) Values of Before and After BRICS Agreement

Paired t test of GDP, Inflation and Unemployment Before and after BRICS (p values)			
Country	GDP	Inflation	Unemployment
Brazil	0.26	0.949	0.017
Russia	0.148	0.028	0.002
India	0.529	0.346	0.001
China	0.021	0.873	0.037
South Africa	0.078	0.72	0.16

OBSERVATIONS

From table 1 [F Sig. (0.007)] Brazil is significant and inflation alone explains 79.4% relation with GDP in post BRICS era where it explains only 19.3% in pre-BRICS era. Also, China is having [F Sig. (0.005)] which explains 55.9% of GDP with inflation. Russia's GDP with inflation is explained with around 52%.

From table 2, China Unemployment alone explains 97% of inflation in pre-and post BRICS era. in South Africa Unemployment dependency changes from 2.4% to 78.6% of GDP. Russia's Unemployment dependency over GDP is explained with around 37.4%.

From table 3 & 4, GDP and inflation are negatively correlated, but correlation between them is week. Correlation of GDP with unemployment is weakly positively correlated except for China and South Africa. China's correlation with Unemployment is almost perfectly negatively correlated, due to main reason that china's extensive production concept and dumping of Goods.

From table 5, except for South Africa GDP was changed for all other countries in pre-and post BRICS era. In case of inflation Russia's remains same in pre-and post BRICS era where as Other countries change is significant. Unemployment levels in South Africa remains same in Pre- and post BRICS era, where as for other countries unemployed levels were changed significantly positive.

CONCLUSION

Brazil's Unemployment (p=0.017) which indicates to reject null hypothesis and conclude that Unemployment was changed in pre-and post BRICS. Whereas for GDP (p=0.26) and Inflation (p=0.949) we do not reject null and conclude GDP and Inflation was same in pre-and post BRICS.

Russia's Inflation (p=0.028) and Unemployment (p=0.002) which indicates to reject null and conclude that Inflation and Unemployment were changed significantly pre-and post BRICS. Whereas for GDP (p=0.148) we do not reject null and conclude GDP was same in pre-and post BRICS.

India's Unemployment (p=0.001) which indicates to reject null hypothesis and conclude that Unemployment was changed in pre-and post BRICS. For GDP (p=0.529) and Inflation (p=0.346), we do not reject Null and conclude GDP and Inflation was same in pre-and post BRICS.

China's GDP (p=0.021) and Unemployment (p=0.037) which indicates to reject null and conclude that GDP and Unemployment were changed significantly pre-and post BRICS. Whereas for Inflation (p=0.873) we do not reject null and conclude Inflation was same in pre-and post BRICS.

South Africa's GDP (p=0.078) which indicates to reject null and conclude that GDP was changed significantly pre-and post BRICS. Whereas for Inflation (p=0.873) and Unemployment (p=0.16) we do not reject null and conclude Inflation and Unemployment were same in pre-and post BRICS.

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