Redefining Indian Exports and Imports: A study on the Post BRICS Scenario

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Abstract

Since late 1990s, the economies of developed nations, especially G7 group of nations started to collapse, followed by failure of long-term capital management, where the Russian economic crisis has started to affect the entire Asian continent. The need for stronger groups was felt from developing economies to counter the western economic sovereignty which resulted in the formation of BRICS (a group of five different nations - Brazil, Russia, India, China and South Africa). This has provided the Indian economy a major boost. The paper analyses the post-BRICS impact on Indian trade and the impact of major macro-variables on it. Among various macro-variables, only the GDP and inflation rate were found impacting the Indian trade with other members of BRICS nations.

Keywords: *GDP, Inflation, FDI, Exchange Rate, BRICS, Export, Import, India*

Introduction

In 2001, Jim O Niel from Goldman Sachs proposed a term "BRIC" (Brazil, Russia, India, China); since then, the acronym has been flagged across the boards which utilizes and possibly denotes a move in worldwide monetary power far from the created G8 economies (a group of 8 commercially vast nations consisting of Canada, France, Germany, Italy, Japan, Russia, The United Kingdom and The United States). Goldman Sachs stated that the four BRIC nations were growing quickly and by 2050, their combined GDP could overshadow the consolidated economies of the current wealthiest nations of the world. These four nations, jointly, represent more than one-fourth of the world's land mass, forty percent of the world's population (which is half of the total population living in all developing countries), and have a consolidated GDP (PPP) of US$ 21 trillion in 2011 (Gupta, 2015). Practically, they are in line to be the biggest gathering on the worldwide stage. The BRIC nations have been locked in with each other to upgrade collaboration in different monetary and money related strategic decisions. The coalition has been extended as South Africa joined the gathering amid the BRICS Summit held in Sanya, China in April 2011. Exchanges between BRICS can be profoundly reciprocal. Brazil and Russia are solid in terms of natural resources while China and India are net shippers in these regions. India and China have cheap labour force. China commands the assembling area. India's quality lies in nonexclusive pharmaceuticals, software building, materials and business process outsourcing. Intra-BRICS exchange was to a substantial amount of US$ 231 billion in 2011 (Cheung, Y. W., & Sengupta, R., 2013).

Inception of BRICS

The commitment of BRICS to worldwide trade, including assembling, has expanded from 2.6% in 1971 to 16.5% in 2008. BRICS has turned out to be progressively subject to assembling for financial development. In any case, there might be variations among BRICS individually, still as a group, BRICS have some exceptional assets, accounts and customers to confer and assist resources for assembling. In any case, absence of frontline innovation can end up being a hindrance to their desires for assembling development. Imaginative models should be investigated for making a typical pool of innovation for advantage to the BRICS individuals. High GDP development joined with an expansive population base in BRICS can possibly produce high total networth. Along these lines, GDP development of BRICS individuals has the capability of by and large going to drive the worldwide economy. Notwithstanding, for this possibility to be acknowledged, it is important that the worldwide monetary and financial design is robust. The BRICS Development Bank is a valid example and an activity whose time has come following the Delhi Summit in 2012.

The BRICS together represent over a fourth of the world's GDP (in PPP terms) and more than 40% of the worldwide population in 2011. As far as landmass is concerned, Russia is, by a long shot, the biggest in the gathering (it is likewise the biggest nation on the planet). As far as socioeconomics is concerned, China followed by India, are the two most crowded countries on the planet. Together these two nations represent more than 33% of the world's population. BRICS, as a gathering, represent more than forty percent of the world's working age group. While India, South Africa and Brazil may get benefits from this high population numbers in coming decades, China has witnessed a steep slowdown in its population, and on the other hand, Russia has had no development in its population in the most recent decade. As per UN forecasts, by 2020, the working age population is relied upon to ascend by 240 million in India and by 20 million in Brazil. China's statistic projections propose that its work power will top by 2015 and decay from there on. In Russia, the working population is anticipated to decrease strongly by 20 million in the following decade. The disparate population patterns and work constrain projections recount just one piece of the story. A developing population will yield a statistic profit just if there is a coordinating increment in the accessible employments. Enhancements in absolute factor efficiency are likewise basic for development (Sivakumar Venkataramany, 2014).

The unemployment rate is almost 25% in South Africa, at least 7.5% in Brazil, Russia and India, and around 4% in China. With an expansive casual division and a significant extent of the workforce still underemployed, there is a regularly developing requirement for expertise and human asset advancement. The education system is much better in Brazil, China, Russia, and South Africa, where the literacy rate ranges from 90% to 100% even. In India, be that as it may, the proficiency rate is only 63%. As per the United National Development Program's Human Development Index (HDI), the BRICS is a group of developing countries with some differences to navigate in the way of advancement. Of the BRICS, just Russia and Brazil were recorded among the top 100 nations in the HDI 2011. Salary imbalance, as measured by the Gini-coefficient, is still a cause of concern among all the BRICS nations. Brazil, South Africa and India still have more than 20% of their substantial population below the poverty line. Russia has additionally observed a sharp ascent in destitution and income imbalance since 1990. Only China has witnessed a sharp fall in its outright destitution numbers.

South Africa was included in the BRICS in 2011. BRICS (counting South Africa) as a group accounted for 20% of the world GDP in ostensible terms and 27% of the world GDP in PPP terms in 2011. Figure 1 represents the GDP and aggregate year-on-year development in each of the BRICS economies over the period 1990-2011. The outcomes are striking. China's GDP expanded almost twenty times from $350 billion in 1990 to more than $7 trillion in 2011. India has additionally outpaced worldwide GDP development and has grown almost seven times from $300 billion in 1990 to almost $2 trillion in 2011. Brazil also attained vigorous growth over the last 20 years and is presently over a $2 trillion economy. Russia's annual development trajectory has witnessed much ups and downs; however, despite high sustainable costs, it has achieved more than three-fold growth during a similar period.

In terms of per-capita income, the BRICS are beginning from a moderately low wage system. In 2011, only Brazil and Russia had per capita income level higher than the worldwide average. Other BRICS economies, be that as it may, are making up for lost time quickly. During the last decade, the rate of per capita GDP of the BRICS has outpaced the worldwide pattern.

Institutional Framework of BRICS

The functional bodies of BRICS have been divided into 10 sections (Figure 1).

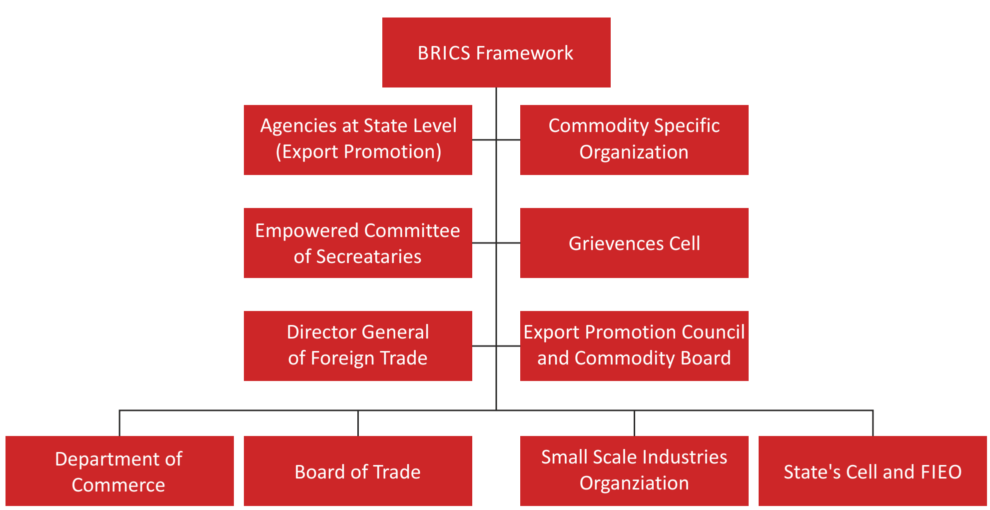

Figure1: Compiled by authors

Export and Import of India: Post - BRICS Scenario

GDP of all the members was increasing slowly before BRICS formation. Brazil's GDP increased $1.8 trillion only in 18 years which was the highest, but after inclusion in BRICS, it has increased by $700 billion in just 2 years. Russia, India, Brazil and South Africa also have been able to increase their GDP after joining the BRICS.

Brazil grants MFN treatment to all its trading partners and average applied tariff was 11.5% in 2008. Earlier, India's relations with Brazil were not good, but after BRICS, it has improved. Similarly, Indo-Sino relations were not so good, but after BRICS, it has improved. After the collapse of the USSR, Russia has inherited a close relationship with India, even as India has improved its relations with the West after the end of the Cold War. India has also developed a strong strategic, cultural and economic relationship with Russia. On the other hand, India and South Africa too share a substantial energy partnership (Sethi, 2018). In 2010, India imported almost 1.5 million tonnes of coal from South Africa, making it the largest purchaser of coal from the country. The relationship has been further solidified with South Africa's acceptance into the BRICS group in 2011.

Research Objectives

1. To analyse trend and pattern of Indian exports and imports to other BRICS nations.
2. To explore the determinants for exports and imports.
3. To analyse various policies for trade adopted by BRICS nations.

Analysis of trend and pattern of Indian exports and imports to other BRICS nations:

To analyse trend and pattern of Indian exports and imports to other members of BRICS, we have analysed the growth rate (in terms of real GDP) for BRICS nations for the last 10 years (2007 to 2017). We have also analysed the contribution of BRICS nations in the world's GDP, followed by India's trade deficit with other BRICS nations in the last decade.

Table 1: Real GDP Growth Rate

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017e	2018f	2019f
Brazil	4	2.8	5.2	0.1	7.8	4.4	3.8	4.3	0.5	-3.8	-3.4	0.3	0.7	2.3
Russia	8.2	8.5	5.3	2.3	4.6	4.3	4.2	3.3	2.4	-3.7	-1.5	1.8	1.6	1.9
India	9.3	9.8	4.7	8.6	10.3	6.8	6.5	7	7.3	7.6	7.4	7.4	7.5	7.6
China	12.7	13.8	9.6	9.3	10.5	9.5	7.8	7.7	7.5	6.9	6.7	6.5	6.4	6.4

Source: IMF, World Economic Outlook, April 2017 and July 2017 Update; and Exim Bank Analysis.

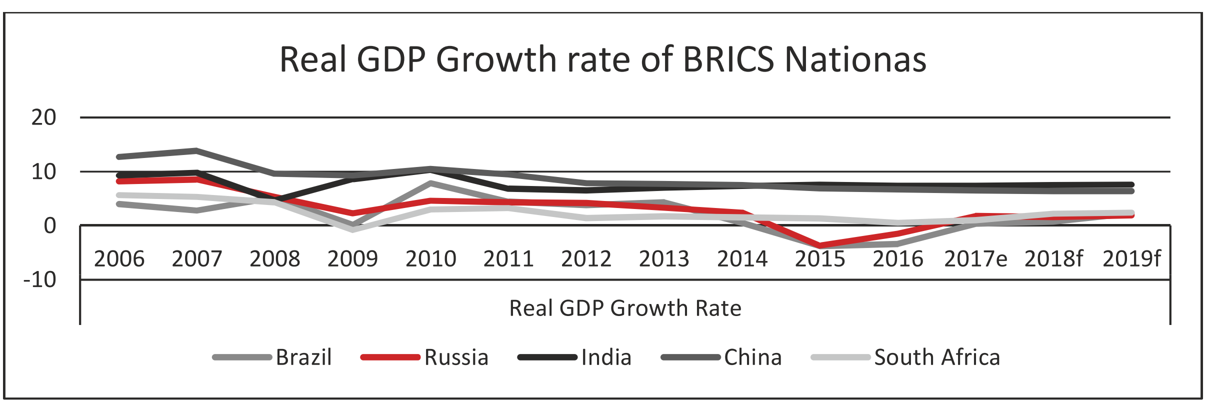

Figure2: Source: IMF, World Economic Outlook, April 2017 and July 2017 Update; and Exim Bank Analysis.

In the year of 2015, due to fall in product costs, the Real GDP of BRICS economies fell. Brazil's development in 2015 was principally influenced due to political conditions, consequently bringing about reduced speculation in trading. Russia's economy has also been subsidized in 2015 because of falling oil prices.

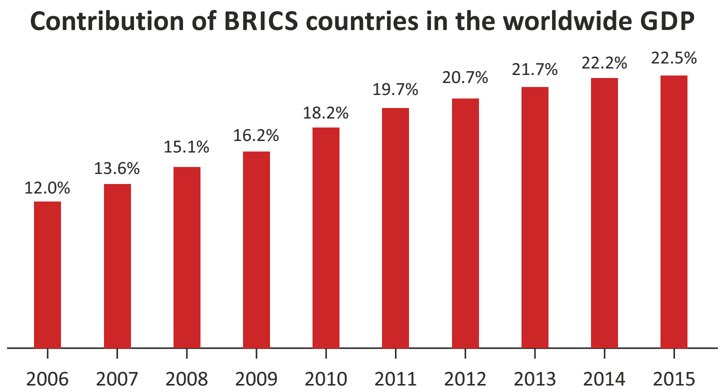

Figure3: Source: IMF, World Economic Outlook, April 2016 and July 2016 Update; and Exim Bank Analysis.

The contribution of BRICS to worldwide GDP has increased from 12 percent in 2006 to 22.5 percent in 2015. By the year 2020, the GDP of BRICS economies is anticipated to touch US$ 23 trillion, which will be almost 25.2 percent of the world GDP. China has contributed the maximum share of 66.6 percent to the aggregate GDP of BRICS economies in 2015, trailed by India (12.7 percent), Brazil (10.8 percent), Russia (8 percent) and South Africa (1.9 percent). The greatest factor that impels BRICS importance to the world is the huge opportunity in terms of consumption capacity it offers to the whole world. BRICS economies represent almost 40 percent of the worldwide population in 2015, of which China and India represented a noteworthy 18.7 percent and 17.8 percent, respectively. Still India is poised for higher favourable growth rate in comparison to China ((Kutasovic, 2017).

Table 2: India's Trade Deficit with BRICS Countries over the Previous Decade (US$ bn)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
BRICS	-8.7	-16.9	-25.8	-26.9	-28.8	-44.3	-44.2	-35.9	-45.5	-58.4	-65.5
China	-7.8	-15.1	-2.5	-20.2	-23.8	-38.8	-39.4	-5.2	-44.8	-52.0	-58.7
Russia	1.1	-1.8	-3.4	-2.5	-2.2	-2.2	-2.5	-1.4	-2.0	-2.9	-3.6
South Africa	-0.4	-1.1	-3.1	-3.1	-3.3	-5.0	-3.1	-1.6	-0.3	-2.5	-1.8
Brazil	0.5	1.0	2.1	-1.1	0.4	1.7	0.8	2.3	1.6	-1.0	0.5

Source: IMF, World Economic Outlook, April 2017 and July 2017 Update; and Exim Bank Analysis.

The bilateral trade between India and rest of BRICS nations has been on a rising trend. India's trade deficit with rest of BRICS increased from US$ 8.7 billion in 2006, to US$ 58.4 billion in 2015.

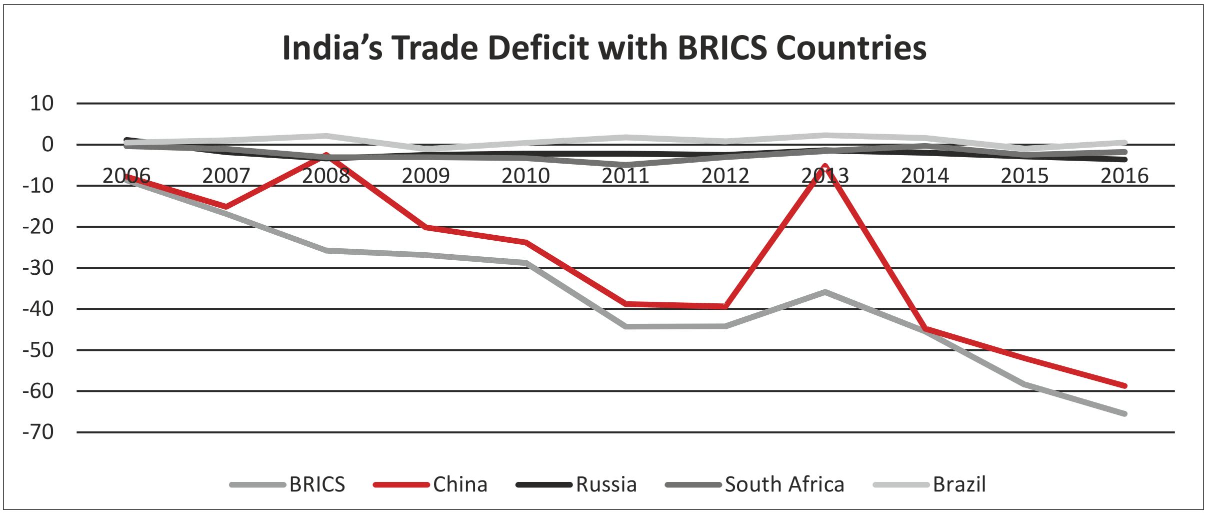

Figure 4: Source: IMF, World Economic Outlook, April 2017 and July 2017 Update; and Exim Bank Analysis.

India maintained the largest trade deficit with China (US$ 52 billion), followed by Russia (US$ 2.9 billion), South Africa (US$ 2.5 billion), and Brazil (US$ 1 billion).

Table 3: Share of BRICS in Global Exports

	2001	2005	2010	2015
BRICS	5.30%	10.20%	11.90%	6.80%
China	2.10%	7.20%	7.90%	3.60%
South Africa	0.70%	1.40%	1.70%	1.40%
Brazil	0.50%	1.00%	1.70%	1.20%
Russia	1.90%	0.70%	0.60%	0.60%
India's Global Exports (US$ mn)	*43878.5*	*100352.6*	*220408.5*	*264381*

Source: IMF, World Economic Outlook, April 2017 and July 2017 Update; and Exim Bank Analysis.

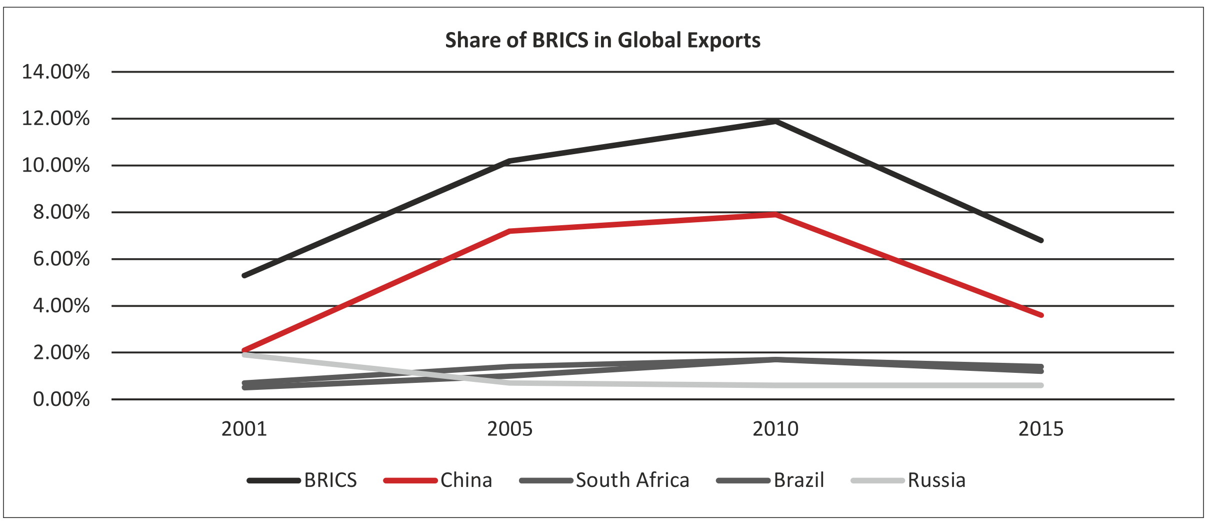

Figure 5: Source: IMF, World Economic Outlook, April 2017 and July 2017 Update; and Exim Bank Analysis.

Table 4: Share of BRICS nations in Imports from India

	2001	2005	2010	2015
BRICS	7.90%	11.20%	15.70%	19.60%
China	3.60%	7.20%	11.80%	15.80%
South Africa	2.80%	1.90%	2.00%	1.60%
Brazil	0.90%	1.40%	1.00%	1.20%
Russia	0.50%	0.60%	0.90%	1.10%
India's Global Imports (US$ mn)	*50671.1*	*140861.7*	*350029.4*	*390744.7*

Source: IMF, World Economic Outlook, April 2017 and July 2017 Update; and Exim Bank Analysis.

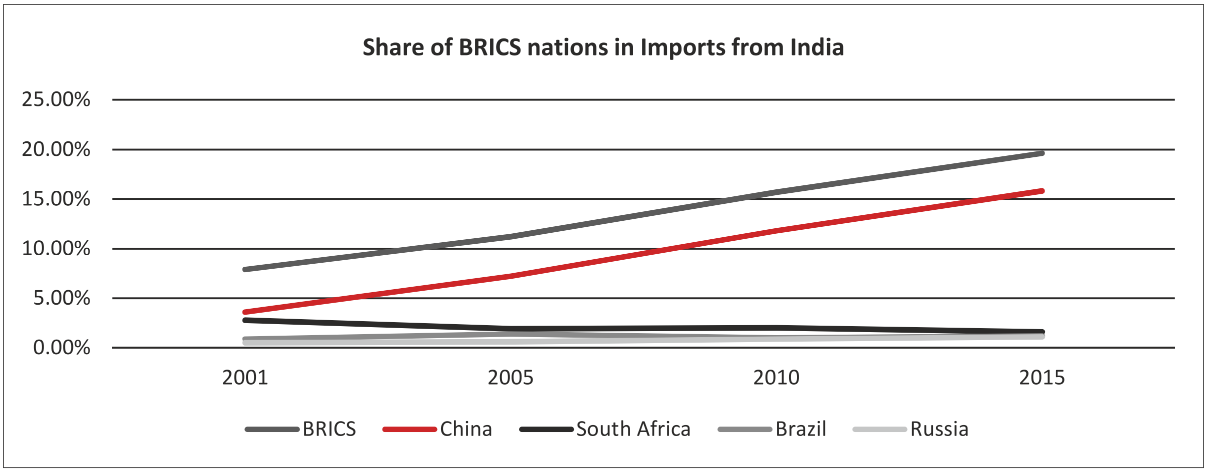

Figure 6: Source: IMF, World Economic Outlook, April 2017 and July 2017 Update; and Exim Bank Analysis.

Impact of Macro-variables on Indian Exports and Imports:

Various literature reviews suggest five major macro variables affecting the trade between two or more economies.

Table 5: List of Macro-variables impacting Export and Import

Macro - Economic Variable	Impact on Export	Reference
GDP	The exports and imports were highly significant for three South Caucasus countries - Azerbaijan, Georgia and Armenia. The analysis of the relation between GDP and exports shows that GDP growth is related with export.	Aslanov E. et.al. (2010) Tho (2013)
FDI Inflows	There is a relationship between Exports and FDI inflows.	Shahzad A. & Al- Swidi A. (2013)
	Volume of exports of a country tends to attract the FDI inflows.	Navaretti, G. B. et.al. (2004), Markusen, J. R., & Maskus, K. E (2002)
	Import, export and Economic growth, posited to have a positive causal relationship with FDI inflows.	Jayachandran, G., & Seilan, A (2010).
	There is a significant positive impact of foreign trade on FDI inflows	Liu, X., Burridge, P., & Sinclair, P. J. N. (2002).
	Positive relationship between imports and FDI inflows	Aizenman, J., & Noy, I (2006)
Exchange-Rate	Empirical analysis reveals that indeed over the sample period, currency appreciation had a strong and significant negative impact on Indian firms' export shares. The real trade-weighted exchange rate and trade partner income are shown to be key determinants of U.S. agricultural exports.	Wong Cheung Y. & Sengupta R (2013) Eichengreen, B., & Gupta, P. (2013)
Population	A study on trade in US has discussed the role of populations as an inevitable factor impacting the trade of that country.	Heitgar (1987) Malchow et. al. (2015)
Inflation	In Azerbaijan and Georgia, inflation has an impact on export.	Aslanov E. et.al. (2010) Trivedi (2015)

We have analysed the impact of these five major macro variables on Indian overall exports and imports with the world as well as their impact on Indian exports and imports with other BRICS nations. Similar variables have been studied in context of Indian stock market too (Patel, 2012). We have tried to develop a relationship between the exports and imports with those macro variables with regression coefficient and tested the significance of their individual impact on exports and imports.

Table 6: Macro-variable Data impacting Export and Import

Year	GDP	Export	Import	Exchange Rate (US$)	Population	Inflation	FDI in million (US$)
2006	6136.4	92900	103800	44.49	1162	6.53	12492
2007	7863.8	128600	150300	39.33	1134.02	5.51	24575
2008	9543.6	168900	209400	49.82	1150.2	9.7	31396
2009	9707.4	143600	173500	46.29	1166.23	14.97	25834
2010	11924.3	210700	248600	45.09	1186	9.47	21383
2011	14326.2	274900	339200	51.1	1210.57	6.49	35121
2012	15329	281400	354900	54.86	1213.37	11.17	22423
2013	16444.6	296400	356400	61.79	1223	9.13	24299
2014	17270.2	295300	356900	63.05	1267	5.86	30931
2015	16483.8	264381	296700	66.16	1283	6.32	40001

Source: IMF, World Economic Outlook, April 2017 and July 2017 Update; and Exim Bank Analysis.

1. **Impact of selected macro variables on exports from India.**
   H_{01}: There is no impact of GDP on exports.
   H_{02}: There is no impact of FDI on exports.
   H_{03}: There is no impact of exchange rates on exports.
   H_{04}: Population does not impact exports.
   H_{05}: Inflation has no impact on exports.
   $Exports_{India} = \beta_0 + \beta_1 G + \beta_2 F + \beta_3 Er + \beta_4 P + \beta_5 I$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	575871.097	304403.477		1.892	.131
	GDP	25.818	2.918	1.346	8.848	.001
	Exchange Rate	-495.641	1449.607	-.058	-.342	.750
	Population	-524.057	301.657	-.336	-1.737	.157
	Inflation	-2176.207	1723.829	-.085	-1.262	.275
	FDI	-.370	.733	-.038	-.505	.640

a. Dependent Variable: Export

$$Exports_{India} = 575871 + 25.82G - 0.37F – 495.64Er - 0.34P – 0.09I$$

Since the p value of GDP is significant, we can reject the null hypothesis in the case. Therefore, the GDP has a direct impact on exports from India. Population, inflation, exchange rate and FDI values are not significant, so we accept null hypothesis. It means these four variables do not impact the overall exports from India.

2. Impact of selected macro variables on imports to India

H_{06}: There is no impact of GDP on imports.

H_{07}: There is no impact of FDI on imports.

H_{08}: There is no impact of exchange rates on imports.

H_{09}: Population does not impact imports.

H_{010}: Inflation has no impact on imports.

$Imports_{India} = \beta_0 + \beta_1 G + \beta_2 F + \beta_3 Er + \beta_4 P + \beta_5 I$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1014186.182	528396.447		1.919	.127
	GDP	35.137	5.065	1.475	6.937	.002
	Exchange Rate	-698.572	2516.290	-.066	-.278	.795
	Population	-935.085	523.628	-.483	-1.786	.149
	Inflation	-2237.842	2992.296	-.070	-.748	.496
	FDI	-.646	1.273	-.053	-.508	.638

a. Dependent Variable: Import

$$\boldsymbol{Imports_{India} = 1014186 + 35.14G - 0.65F - 698.58Er - 935.10P - 2237.84I}$$

Since the p value GDP is significant only, we can reject the null hypothesis in the case. Therefore, the GDP has a direct impact on Indian imports. Population, inflation, exchange rate and FDI values are not significant, so we accept null hypothesis. It means these four do not impact Indian imports.

Analysis of Indian exports and imports with other members of BRICS

3. Impact of selected macro variables on exports from India to Brazil

H_{011}: There is no impact of Indian GDP on exports to Brazil.

H_{012}: There is no impact of FDI in India on exports to Brazil.

H_{013}: There is no impact of exchange rates in India on exports to Brazil.

H_{014}: Population of India does not impact exports to Brazil.

H_{015}: Inflation rates in India has no impact on exports to Brazil.

$Exports_{IndiatoBrazil} = \beta_0 + \beta_1 G + \beta_2 F + \beta_3 Er + \beta_4 P + \beta_5 I$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-4789.164	9905.910		-.483	.654
	GDP	.301	.095	.596	3.169	.034
	Exchange Rate	29.569	47.173	.132	.627	.565
	Population	3.830	9.817	.093	.390	.716
	Inflation	-181.271	56.097	-.268	-3.231	.032
	FDI	.045	.024	.172	1.870	.135

a. Dependent Variable: Export to Brazil

$$\textit{Exports}_{\textit{India to Brazil}} = -4789 + 0.3G + .05F + 29.57Er + 3.83P - 181.27I$$

Since the p value GDP and inflation is significant, we can reject the null hypothesis in the case. Therefore, the GDP and inflation rate have a direct impact on the India-Brazil export while the population, exchange rate and FDI values are not significant, so we cannot reject null hypothesis. It means these three macro variables do not impact India-Brazil exports.

4. Impact of selected macro variables on imports from Brazil to India

H_{016}: There is no impact of Indian GDP on imports from Brazil.
H_{017}: There is no impact of FDI in India on imports from Brazil.
H_{018}: There is no impact of exchange rates in India on imports from Brazil.
H_{019}: Population of India does not impact imports from Brazil.
H_{020}: Inflation rates in India has no impact on imports from Brazil.
$\textit{Imports}_{\textit{IndiatoBrazil}} = \beta_0 + \beta_1 G + \beta_2 F + \beta_3 Er + \beta_4 P + \beta_5 I$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-33871.525	23016.816		-1.472	.215
	GDP	-.014	.221	-.038	-.065	.952
	Exchange Rate	-191.638	109.609	-1.146	-1.748	.155
	Population	34.075	22.809	1.114	1.494	.209
	Inflation	194.172	130.344	.385	1.490	.211
	FDI	.167	.055	.864	3.009	.040

a. Dependent Variable: Import from Brazil

$$\textit{Imports}_{\textit{Brazil to India}} = -33871.5 - .01G + .17F - 191.6Er + 34.1P + 194.17I$$

Since the p value of FDI only is found significant, we can reject the null hypothesis in the case. Therefore, the FDI only has a direct impact on the India-Brazil imports while the population, exchange rate, inflation rate and GDP values are not significant, so we cannot reject null hypothesis. It means these four macro variables do not impact India-Brazil imports.

5. Impact of selected macro variables on exports from India to China

H_{021}: There is no impact of Indian GDP on exports to China.
H_{022}: There is no impact of FDI in India on exports to China.
H_{023}: There is no impact of exchange rates in India on exports to China.
H_{024}: Population of India does not impact exports to China.
H_{025}: Inflation rates in India has no impact on exports to China.
$\textit{Exports}_{\textit{IndiatoChina}} = \beta_0 + \beta_1 G + \beta_2 F + \beta_3 Er + \beta_4 P + \beta_5 I$

Year	GDP	Export to China (US$)	Import from China (US$)	Exchange Rate	Population	Inflation	FDI (US$)
2009	9707.4	1073	2357	46.29	1166.23	14.97	25834
2010	11924.3	1697	3287	45.09	1186	9.47	21383
2011	14326.2	1889	4168	51.1	1210.57	6.49	35121
2012	15329	7352	28438	54.86	1213.37	11.17	22423
2013	16444.6	9056	30923	61.79	1223	9.13	24299
2014	17270.2	7303	36956	63.05	1267	5.86	30931
2015	16483.8	5893	40404	66.16	1283	6.32	40001

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-3664.340	5789.848		-.633	.641
	GDP	.954	.080	.807	11.966	.053
	Exchange Rate	250.144	30.150	.643	8.297	.076
	Population	-14.132	5.375	-.180	-2.629	.231
	Inflation	313.671	47.470	.313	6.608	.096
	FDI	-.166	.014	-.356	-11.491	.055

a. Dependent Variable: Export to China

$$\boldsymbol{Exports_{\text{India to China}} = -3664.34 + 0.96G - 0.17F + 250.14Er - 14.13P + 194.17I}$$

Since there is no significant value of any of the variables, we cannot reject any of the null hypothesis. It means all these macro variables do not impact the India-China exports.

6. Impact of selected macro variables on imports from China to India

H_{026}: There is no impact of Indian GDP on imports from China.
H_{027}: There is no impact of FDI in India on imports from China.
H_{028}: There is no impact of exchange rates in India on imports from China.
H_{029}: Population of India does not impact imports from China.
H_{030}: Inflation rates in India has no impact on imports from China.

$$Imports_{ChinatoIndia} = \beta_0 + \beta_1 G + \beta_2 F + \beta_3 Er + \beta_4 P + \beta_5 I$$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-514519.381	60057.217		-8.567	.074
	GDP	1.998	.827	.325	2.414	.250
	Exchange Rate	414.111	312.739	.205	1.324	.412
	Population	390.428	55.756	.955	7.002	.090
	Inflation	2557.026	492.401	.492	5.193	.121
	FDI	-.577	.150	-.238	-3.853	.162

a. Dependent Variable: Import from China

$$\textit{Exports}_{\textit{India to China}} = -514519.38 + 2.0G - 0.58F + 414Er + 390.43P + 2557I$$

Since there is no significant value of any of the variables, we cannot reject any of the null hypothesis. It means these all macro variables do not impact the India-China imports.

7. Impact of selected macro variables on the exports to Russia from India

H_{031}: There is no impact of Indian GDP on exports to Russia.
H_{032}: There is no impact of FDI in India on exports to Russia.
H_{033}: There is no impact of exchange rates in India on exports to Russia.
H_{034}: Population of India does not impact exports to Russia.
H_{035}: Inflation rates in India has no impact on exports to Russia.

$\textit{Exports}_{\textit{IndiatoRussia}} = \beta_0 + \beta_1 G + \beta_2 F + \beta_3 Er + \beta_4 P + \beta_5 I$

Year	GDP	Export to Russia (US$)	Import from Russia (US$)	Exchange Rate	Population	Inflation	FDI (US$)
2006	6136.4	968	2987	44.49	1162	6.53	12492
2007	7863.8	1309	4011	39.33	1134.02	5.51	24575
2008	9543.6	1715	5231	49.82	1150.2	9.7	31396
2009	9707.4	1523	5936	46.29	1166.23	14.97	25834
2010	11924.3	2142	6392	45.09	1186	9.47	21383
2011	14326.2	2786	6079	51.1	1210.57	6.49	35121
2012	15329	3041	7915	54.86	1213.37	11.17	22423
2013	16444.6	3088	6981	61.79	1223	9.13	24299
2014	17270.2	3172	6341	63.05	1267	5.86	30931
2015	16483.8	3500	6797	66.16	1283	6.32	40001

Source: CMIE

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1940.539	4163.525		-.466	.665
	GDP	.194	.040	.863	4.869	.008
	Exchange Rate	2.454	19.827	.024	.124	.907
	Population	1.342	4.126	.073	.325	.761
	Inflation	-10.000	23.578	-.033	-.424	.693
	FDI	.007	.010	.059	.679	.535

a. Dependent Variable: Export to Russia

$$\mathbf{\mathit{Exports}}_{\mathit{India\ to\ Russia}} = -1940.54 + 0.2G + .007F + 2.45Er + 1.34P - 10I$$

Since the p value GDP is significant, we can reject the null hypothesis in the case. Therefore, the GDP rate has a direct impact on India-Russia exports while the population, exchange rate, inflation and FDI values are not significant, so we cannot reject null hypothesis. It means these four macro variables do not impact the India-Russia exports.

8. Impact of selected macro variables on imports to India from Russia

H_{036}: There is no impact of Indian GDP on imports from Russia.
H_{037}: There is no impact of FDI in India on imports from Russia.
H_{038}: There is no impact of exchange rates in India on imports from Russia.
H_{039}: Population of India does not impact imports from Russia.
H_{040}: Inflation rates in India has no impact on the imports from Russia.

$$Imports_{RussiatoIndia} = \beta_0 + \beta_1 G + \beta_2 F + \beta_3 Er + \beta_4 P + \beta_5 I$$

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2887.030	10442.326		.276	.796
	GDP	.432	.100	1.192	4.320	.012
	Exchange Rate	-49.229	49.728	-.305	-.990	.378
	Population	-1.484	10.348	-.050	-.143	.893
	Inflation	204.043	59.135	.420	3.450	.026
	FDI	.007	.025	.037	.275	.797

a. Dependent Variable: Import from Russia

Since the p value GDP and inflation is significant, we can reject the null hypothesis in the case. Therefore, the GDP and inflation rate has a direct impact on the India-Russia imports while the population, exchange rate and FDI values are not significant, so we cannot reject null hypothesis. It means these three macro variables do not impact the India-Russia imports.

BRICS Policy Analysis

First Summit: The first summit of BRIC nations was held at Vekaterinburg, Russia on June 16, 2009. The joint statement discussed the concurrent situation in the global economy and other pressing issues of global development, and prospects for further strengthening collaboration within the BRIC. The summit arrived at the following conclusions:

1. Summit stressed on how to deal with the world financial crisis more effectively. For that, the G20 summits must act and take decisions in a more responsible way. They have fostered cooperation, policy coordination and political dialogue regarding international economic and financial matters.
2. They have also called for reinforced coordination and cooperation among BRICS nations in various fields like energy, including amongst producers and consumers of energy and transit states, to decreasing uncertainty and ensuring stability and sustainability.

Second Summit: The second BRIC summit has been held at Brasilia on April 16, 2010. The joint statement has called for major issues of the international agenda as well as concrete steps to move forward with the help of cooperation and coordination within BRIC.

They have settled for the following common vision and global governance:

1. BRIC share the perception that the world is undergoing major and swift changes that highlight the need for corresponding transformations in global governance in all relevant areas.
2. BRIC has called for the importance of the multilateral trading system, a formidable share and place in the World Trade Organization, for providing an open, stable, equitable and non-discriminatory environment for international trade. In this connection, the BRIC nations have committed and urged to all the nations of the world to resist all forms of trade protectionism and fight disguised restrictions on trade. It concurred the need for a comprehensive and balanced outcome of the Doha Round of multilateral trade talks, in a manner that fulfils its mandate as a "development round", based on the progress already made, including with modalities. It also took note and strongly supported Russia's bid for accession to the WTO.

Third Summit, Sanya declaration: 1. The Republic of India, the People's Republic of China and the Republic of South Africa, met in Sanya, Hainan, China for the BRIC Leaders meeting on 14 April 2011. The heads of state and government of Brazil, Russia, India and China welcomed South Africa for joining the BRIC and look forward to strengthening dialogue and cooperation with South Africa within the forum.

2. In the summit, the joint statement has stressed for 21st century as marked by peace, harmony, cooperation and scientific development. The 21st century was given a theme "Broad Vision, Shared Prosperity", and asked for transparent and in-depth dialogues to reach a broad consensus on strengthening BRICS cooperation as well as on promoting coordination in international and regional issues of common interest.
3. The joint statement has also stressed for a pledge that the BRICS countries will continue to enjoy strong and sustained economic growth supported by their increased cooperation in economic, finance and trade matters, which will contribute to the long-term steady, sound and balanced growth of the world economy.
4. BRICS called for quick achievement of the targets for the reform of the International Monetary Fund agreed to previous G20 Summits and reiterated that the governing structure of the international financial institutions should reflect the changes in the world economy, increasing the voice and representation of emerging economies and developing countries.

Fourth BRICS Summit - Delhi Declaration: Federative Republic of Brazil, the Russian Federation, the Republic of India, met in New Delhi, India, on 29 March 2012 at the Fourth BRICS Summit. Discussions, under the overarching theme, "BRICS Partnership for Global Stability, Security and Prosperity", were conducted in an atmosphere of cordiality and warmth and inspired by a shared desire to further strengthen our partnership for common development and take our cooperation forward based on openness, solidarity, mutual understanding and trust.

2. Brazil, India, China and South Africa looked forward to the Russian Presidency of G20 in 2013 and extend their cooperation. They congratulated the Russian Federation on its accession to the WTO. This made the WTO more representative and strengthened the rule-based multilateral trading system. It was committed to working together to safeguard this system and urge other countries to resist all forms of trade protectionism and disguised restrictions on trade.
3. BRICS encouraged expanding the channels of communication, exchanges and people-to-people contact amongst the BRICS, including in the areas of youth, education, culture, tourism and sports.

Fifth BRICS Summit: 1. Fifth summit was held in South Africa on 27 March 2013 in Durban under the theme: "BRICS and Africa: Partnership for Development, Integration and Industrialisation." The first summit was hosted by Africa continent only. After a span of 4 years it was being held once again in S Africa only. This has specific relevance given that it coincides with the 50th anniversary celebrations of the Organisation of African Unity/African Union (AU).

2. The joint statement of BRICS at this summit stressed for faster growth and financial stability for BRICS was articulated by the BRICS leaders to address unemployment keeping in mind the global economic situation of that time. The leaders of the BRICS also reiterated for a strong commitment and position at the world forum and urged the International Monetary Fund to reflect the growing weight of BRICS and other developing countries and that agreement on the quota formula should be completed by January next year. The BRICS leaders also agreed that the election for the next world Trade Organisation (WTO) and Director-General should be a candidate from a developing country.

Sixth BRICS Summit – Fortaleza Declaration:1. The sixth BRICS summit was held in Brazil on July 15, 2014. The theme for this summit was 'Inclusive Growth: Sustainable Solutions'.

2. BRICS welcome Memorandum of Understanding on Cooperation among BRICS Export Credit and Guarantees Agencies that will improve the support environment for increasing trade opportunities among our nations.
3. Here BRICS take economic cooperation to a qualitatively new level. To achieve this, it emphasizes the importance of establishing a road map for intra-BRICS economic cooperation. proposals for a "BRICS Economic Cooperation Strategy" and a "Framework of BRICS Closer Economic Partnership", which lay down steps to promote intra-BRICS economic, trade and investment cooperation.

Seventh summit:1. Seventh summit was held at Ufa, Russia on 9 July 2015, under the theme "BRICS Partnership – a Powerful Factor of Global Development". BRICS discussed issues of common interest in respect of the international agenda as well as key priorities in respect of further strengthening and broadening our intra-BRICS cooperation.

2. Joint discussion made for trade cooperation amongst BRICS countries through enhanced dialogue between the BRICS Export Credit Agencies (ECAs), namely ABGF, ECGC, ECIC SA, EXIAR and SINOSURE. In specific, the BRICS countries have agreed to the establishment of an annual BRICS ECA meeting with the purpose of exploring opportunities for cooperation and future joint action to promote exports among BRICS and to other countries. The inaugural meeting for this new format took place on the side-lines of the Ufa Summit.
3. The Strategy for the BRICS Economic Partnership's key guideline made for expanding trade and investment, manufacturing and minerals processing, energy, agricultural cooperation, science, technology and innovation, financial cooperation, connectivity and ICT cooperation between our countries.
4. Decided to innovate for BRICS E-commerce Cooperation as an instrument to promote current and future initiatives with an aim to build a closer economic partnership in this sphere. It instructs our Ministers to continue to explore ways and means in strengthening our cooperation on E-commerce.
5. Aim was to create a favourable environment for further development of trade, investment and business cooperation between the BRICS countries, including through removing excessive administrative barriers and trade impediments.

Eighth BRICS summit: 1. 8th BRICS summit was held in Goa, India on 15-16 October 2016 under the theme "Building Responsive, Inclusive and Collective Solutions."

2. The summit was held in India as an effort to bring a large number of developing countries of Asia on the BRICS platform. The summit held of BRICS leaders with the leaders of BIMSTEC. The leaders of Bangladesh, Bhutan, Myanmar, Nepal, Sri Lanka and Thailand also took part in the meeting. The meeting has given a good opportunity to BIMSTEC countries to jointly explore possibilities of expanding trade and commercial ties, and investment cooperation between BRICS and BIMSTEC countries, while advancing our common goals of peace, development, democracy and prosperity.
3. It was noted that dynamic integration processes are taking place across the regions of the world, particularly in Asia, Africa and South America. India affirmed its belief to promote growth in the context of regional integration based on principles of equality, openness and inclusiveness. This will promote economic expansion through enhanced trade, commercial and investment linkages.
4. The joint statement also appreciated the progress for the BRICS Economic Partnership strategy and also planned a roadmap for smooth trade, economic and investment cooperation among BRICS by 2020.

Ninth Summit: The ninth version of the BRICS summit was held in the city of Xiamen in China. This is the second time that the summit was facilitated in China, the last one being in the year 2011 under the theme of 'More grounded Partnership for brighter Future.'

2. Strategic Framework of BRICS Customs Cooperation: This will help ease up the custom controls between nations.
3. In the action agenda on economic and trade cooperation, the emphasis was given on how the member nations can assist in proceeding with development of exchange and business among BRICS nations. Endeavours should create and

encourage the mutual linkages, money related incorporation and framework network among BRICS nations.

4. MOU has been signed between the BRICS Business Council and the New Development Bank on strategic cooperation. As per the MOU, BRICS nations should keep on pushing forward the change of worldwide financial administration to help the developing markets.
5. China welcomed the positive outcomes of the seventh BRICS Trade Ministers Meeting. The meeting has stressed for the helpful structures, guides and layouts on exchange and venture assistance and availability and upgraded arrangement sharing, data trade, working limit through improved joint endeavours on exchange and speculation help, exchange administrations, E-business, IPR (in collaboration with the participation exercises among BRICS IP experts), financial and specialized participation, and SMEs monetary strengthening. The setting up of the BRICS E-Port Network that will work on an intentional premise and the foundation of the BRICS E-trade has been postulated.

Conclusion

The formation of BRICS is an inevitable step taken by five major developing countries to boost intra-trade among member nations. The BRICS will also act as a link between developing and developed nations to ease relationships among countries. It is continuously focusing on the exchange of information among member nations and cooperation with each other on various economic fronts. The BRICS also ties the group nations on the basis of culture, project assistance, and climate challenges. The BRICS has called upon the world to work together to improve international trade and investment environment. The BRICS has pledged to continue to explore ways and means in strengthening mutual cooperation on E-commerce.

The new development bank will surely provide financial support among member nations. It will also boost macroeconomic variables and develop robust shock-proof economies. It will encourage social inclusion, attempt to eliminate poverty with the help of inclusive social development and higher employment rate.

India was the fifth-largest source of imports for South Africa. However, India's trade deficit with South Africa was as high as US$ 2.5 billion in 2015. Robust trend in bilateral trade between India and rest of BRICS countries has been noticed after BRICS formation. India's trade deficit with rest of BRICS increased from US$ 8.7 billion in 2006 to US$ 58.4 billion in 2015. India has maintained the largest trade deficit with China (US$ 52 billion), followed by Russia (US$ 2.9 billion), South Africa (US$ 2.5 billion), and Brazil (US$ 1 billion).

Further as per analysis, various factors impact the trade between two nations. India's GDP is found to be the most intrinsic factor impacting India's exports and imports to both intra and inter BRICS nations. Other variables such as population, inflation, exchange rate and FDI have a minimal effect on India's trade with other BRICS nations.

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