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## AN ANALYSIS ON INDIAN FOREX FOR EXAMINING INVESTMENT AND TRADE

### OPTION

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**Abstract:** *Studies related to FOREX and its intervention on investments decision is mostly myopic, though there are numerous techniques to forecast none of them shown to be superior to any other. Hereby analysis where made to investigate investment and trade option available with respect to India using FOREX of major countries currencies as the base factor and GDP & PPP as an associated variables. The GDP postulate the performance of the total economy, while PPP put forward the purchasing power of the collective individuals within the country. Henceforth by considering the GDP and PPP variables of one country against another it is possible to estimate the concert of one country against other. The forecasted currencies are correlated with GDP and PPP of respective countries indicated positive relationship. The closer investigation on investment decision indicated that better performing countries in terms of GDP and PPP are showing better performance in currencies values with respect to Indian money.*

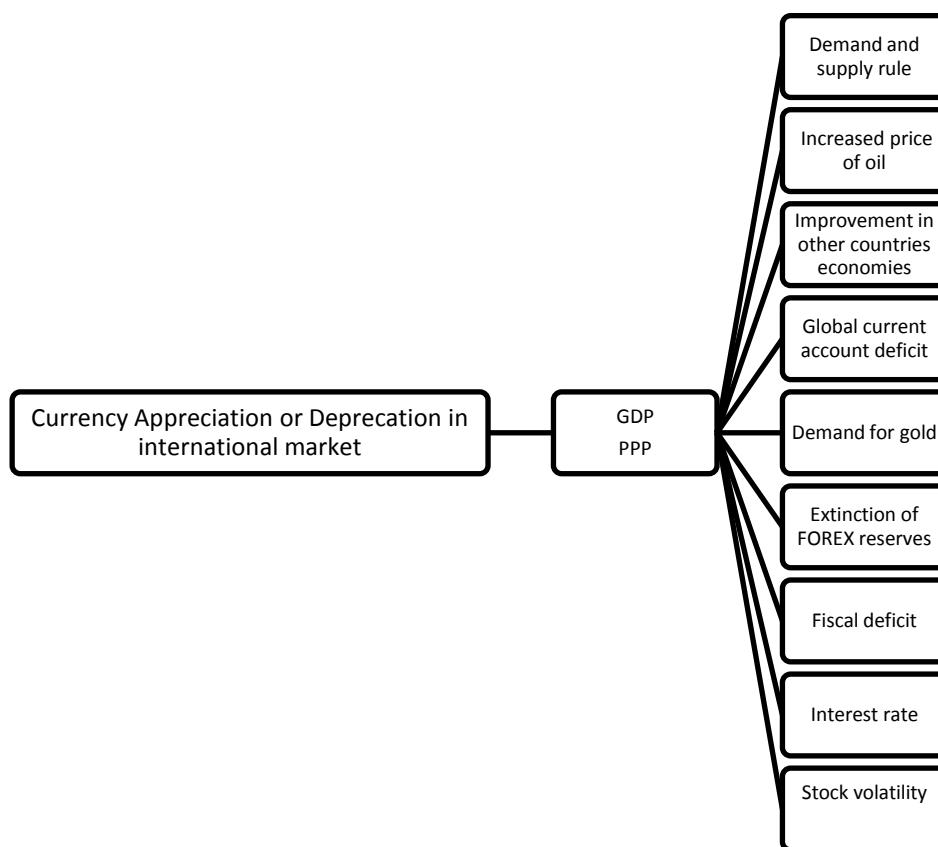
**Keywords:** FOREX, GDP & PPP relation with FOREX, investment and trade decision.

### INTRODUCTION

The analyses of Gross domestic product (GDP) and Purchasing power parity were always been the most litigious variables to estimate the performance of economy in terms of global situate. The result thus derived from the GDP and PPP possess significant implication for the policy makers of central banks, multinational companies and in exchange market (Pedroni, 2004). The basic idea in background of GDP and PPP utilization for the purpose of study of economy is that, they holds direct relationship with economy performance with respect to resources produced and level consumption which is in direct relationship with individual purchasing power and living standard (Ian, 2003). Various literatures though discussed high significant relationship between Foreign Exchange (FOREX) performance on

GDP and PPP, determination of investment and trade option using the FOREX value is not properly classified, as it not macroeconomic variable (Wu, 2004).

The currency appreciation and depreciation are resulted due to conglomerate impact of various economic variables and global factors. These affiliating factors can be a product of; demand and supply rule, increased price of oil, improvement in other countries economies, global current account deficit, demand for gold, extinction of FOREX reserves, fiscal deficit, interest rate and stock volatility (ndtv, 2014). All the global factors above mention coalesce create an impact on GDP and PPP of the respective currency, which in turn decides the performance of the particular country currency in international market (Lawrence, 2013). The intensive impact of various forces ultimately reflects on FOREX, thereby a conceptual model is been developed based on the literature study to weigh up decision in relation to investment and trade options available based on currency (Choudhri, 1980).



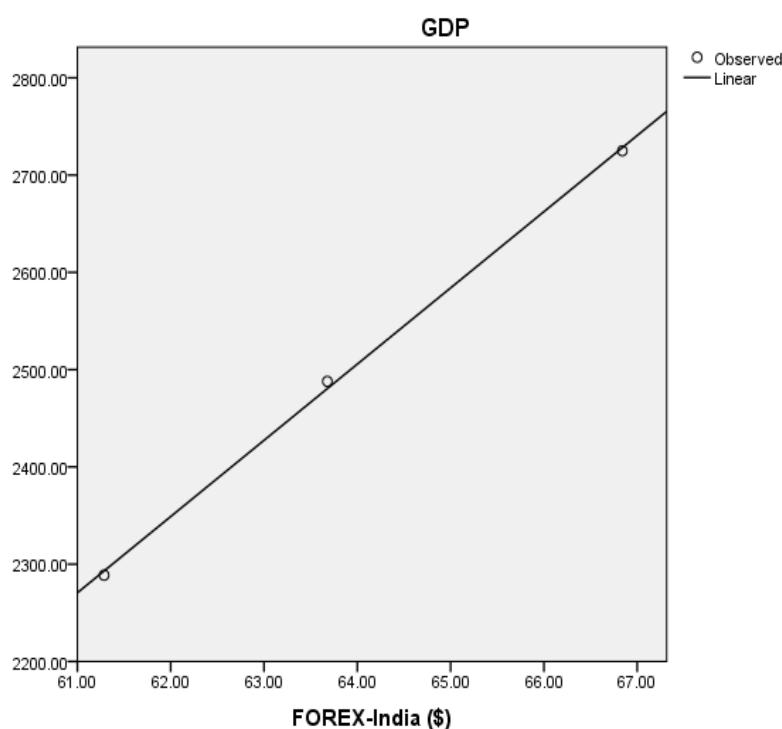
**Figure 1 – Conceptual Model – Effect of GDP and PPP on home country currency**

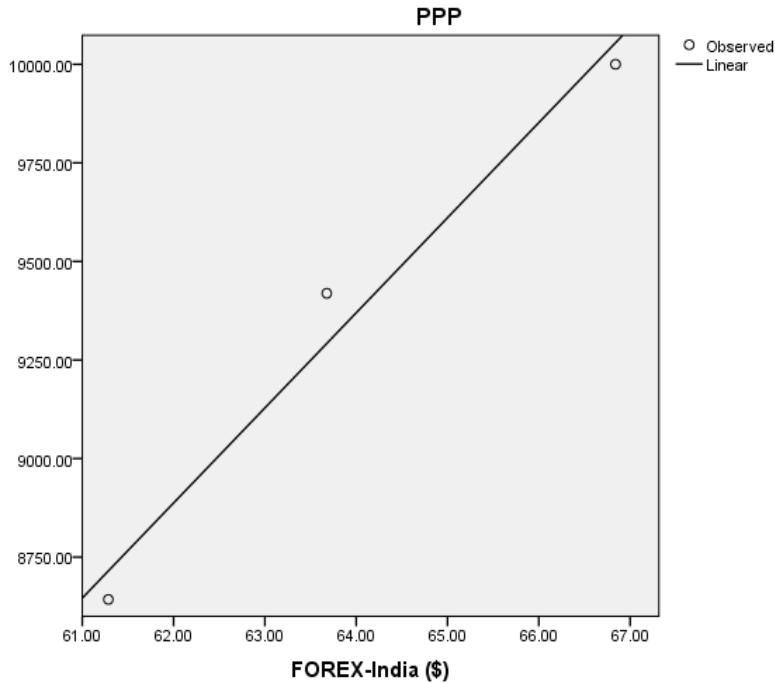
## INFLUENCE OF GDP AND PPP ON FOREX

Apparently FOREX depicts the performance of the economy and purchasing power of individuals living within the particular system. Despite of many attempt taken in order to



make investment and trade decision, none is meticulously given a myopic result. The cause behind such deviation is due to ignorance of FOREX variable which are resulted out of economic performance. It is always been natural decision by investor to invest on profit yielding commodities, hereby when discussing about Foreign Direct Investment (FDI) or Foreign Institutional Investment (FII), the investor has to place their country currencies against currencies of countries to which they plan to invest. Therefore if there is appreciation of foreign currency to which the investment been made, the investor would yield profit. The appreciation of foreign currencies undeniably occurs if the invested countries make better economic progress, henceforth GDP is used as rating scale for the purpose of study. Similarly it is advisable fact that, economically low performing countries currencies depreciate, hence making trade with future contract will yield better profit, this is because there lies a possibility of home country currency appreciating at particular period of time. Here in this study spot rate has been calculated and -20 to 20 values hypothetically assumed to be standard value to determine the investment or trade decision (N. Deepa Divakaran, 2014). The curve analysis carried out on FOREX with respect to GDP and PPP confirms the hypothetical assumption i.e. FOREX is resulted out of GDP and PPP.





**Figure 2 – Graphical representation of FOREX relationship with GDP & PPP**

**Table1- Forecasted currency value of different countries with respect to India Source: (x-rates, 2016)**

	2014	2015	2016	2017
<b>Indian Rupee▲</b>	<b>1.00 INR▲▼</b>	<b>1.00 INR▲▼</b>	<b>1.00 INR▲▼</b>	<b>1.00 INR▲▼</b>
Argentine Peso	<u>0.134829</u>	<u>0.144594</u>	<u>0.222022</u>	0.254341333
Australian Dollar	<u>0.017496</u>	<u>0.021382</u>	<u>0.019638</u>	0.021647333
Bahraini Dinar	<u>0.006153</u>	<u>0.005924</u>	<u>0.00564</u>	0.005392667
Botswana Pula	<u>0.145559</u>	<u>0.159573</u>	<u>0.157009</u>	0.165497
Brazilian Real	<u>0.037128</u>	<u>0.055996</u>	<u>0.047382</u>	0.057089333
British Pound	<u>0.009693</u>	<u>0.01012</u>	<u>0.011442</u>	0.012167333
Bruneian Dollar	<u>0.020383</u>	<u>0.021731</u>	<u>0.020144</u>	0.020513667
Bulgarian Lev	<u>0.023899</u>	<u>0.028123</u>	<u>0.026383</u>	0.028619
Canadian Dollar	<u>0.017831</u>	<u>0.020655</u>	<u>0.01971</u>	0.021277667
Chilean Peso	<u>9.420562</u>	<u>10.723864</u>	<u>9.819508</u>	10.386924
Chinese Yuan Renminbi	<u>0.10056</u>	<u>0.097532</u>	<u>0.099589</u>	0.098256
Colombian Peso	<u>30.833491</u>	<u>46.439523</u>	<u>45.430284</u>	55.49789233
Croatian Kuna	<u>0.093424</u>	<u>0.108759</u>	<u>0.100617</u>	0.108126333
Czech Koruna	<u>0.339489</u>	<u>0.388513</u>	<u>0.364643</u>	0.389369
Danish Krone	<u>0.091097</u>	<u>0.107289</u>	<u>0.100321</u>	0.108793
Emirati Dirham	<u>0.059935</u>	<u>0.057681</u>	<u>0.054954</u>	0.052542333
Euro	<u>0.012219</u>	<u>0.014379</u>	<u>0.013494</u>	0.014639
Hong Kong Dollar	<u>0.126461</u>	<u>0.121721</u>	<u>0.11602</u>	0.110959667
Hungarian Forint	<u>3.858001</u>	<u>4.478063</u>	<u>4.191203</u>	4.508957667
Icelandic Krona	<u>1.88431</u>	<u>2.109361</u>	<u>1.81149</u>	1.862233667
Indonesian Rupiah	<u>192.701465</u>	<u>212.279137</u>	<u>197.44988</u>	205.5585757
Iranian Rial	<u>431.44345</u>	<u>466.548229</u>	<u>449.760622</u>	467.567939
Israeli Shekel	<u>0.056069</u>	<u>0.059801</u>	<u>0.057396</u>	0.059082333
Japanese Yen	<u>1.669791</u>	<u>1.95667</u>	<u>1.522516</u>	1.569050667
Kazakhstani Tenge	<u>2.969727</u>	<u>2.944488</u>	<u>5.201227</u>	5.936647333
Kuwaiti Dinar	<u>0.004624</u>	<u>0.004764</u>	<u>0.004514</u>	0.004524



Latvian Lat	<u>0.008587</u>	<u>0.010106</u>	<u>0.009484</u>	0.010289333
Libyan Dinar	<u>0.020135</u>	<u>0.021656</u>	<u>0.020611</u>	0.021276667
Lithuanian Litas	<u>0.042189</u>	<u>0.049648</u>	<u>0.046593</u>	0.050547333
Malaysian Ringgit	<u>0.052306</u>	<u>0.061402</u>	<u>0.060428</u>	0.066167333
Mauritian Rupee	<u>0.506484</u>	<u>0.555134</u>	<u>0.526008</u>	0.548732667
Mexican Peso	<u>0.21631</u>	<u>0.256925</u>	<u>0.280647</u>	0.315631
Nepalese Rupee	<u>1.605407</u>	<u>1.602617</u>	<u>1.598413</u>	1.595151667
New Zealand Dollar	<u>0.019297</u>	<u>0.023992</u>	<u>0.020945</u>	0.023059333
Norwegian Krone	<u>0.102463</u>	<u>0.130094</u>	<u>0.127338</u>	0.14484
Omani Rial	<u>0.006281</u>	<u>0.006043</u>	<u>0.00576</u>	0.005507
Pakistani Rupee	<u>1.612097</u>	<u>1.597875</u>	<u>1.561043</u>	1.539284333
Philippine Peso	<u>0.715836</u>	<u>0.718384</u>	<u>0.70187</u>	0.698064
Polish Zloty	<u>0.051277</u>	<u>0.060378</u>	<u>0.05776</u>	0.062954667
Qatari Riyal	<u>0.059411</u>	<u>0.057186</u>	<u>0.054476</u>	0.052089333
Romanian New Leu	<u>0.054271</u>	<u>0.06344</u>	<u>0.059933</u>	0.064876667
Russian Ruble	<u>0.590227</u>	<u>1.012519</u>	<u>0.980695</u>	1.251615
Saudi Arabian Riyal	<u>0.061192</u>	<u>0.058895</u>	<u>0.05611</u>	0.053650333
Singapore Dollar	<u>0.020383</u>	<u>0.021731</u>	<u>0.020144</u>	0.020513667
South African Rand	<u>0.175064</u>	<u>0.2002</u>	<u>0.204995</u>	0.223350667
South Korean Won	<u>16.880399</u>	<u>18.276397</u>	<u>16.689856</u>	17.09167433
Sri Lankan Rupee	<u>2.124743</u>	<u>2.100681</u>	<u>2.176945</u>	2.186325
Swedish Krona	<u>0.112761</u>	<u>0.137378</u>	<u>0.128274</u>	0.141650667
Swiss Franc	<u>0.014841</u>	<u>0.015405</u>	<u>0.014672</u>	0.014803667
Taiwan New Dollar	<u>0.490024</u>	<u>0.496841</u>	<u>0.47218</u>	0.468504333
Thai Baht	<u>0.525661</u>	<u>0.551953</u>	<u>0.524768</u>	0.533234333
Trinidadian Dollar	<u>0.103319</u>	<u>0.098872</u>	<u>0.100179</u>	0.09765
Turkish Lira	<u>0.035201</u>	<u>0.043687</u>	<u>0.044874</u>	0.050927
US Dollar	<u>0.016317</u>	<u>0.015704</u>	<u>0.014961</u>	0.014304667
Venezuelan Bolivar	<u>0.102676</u>	<u>0.099021</u>	<u>0.148859</u>	0.163035

The forecasted value using trend analysis of Indian currencies with respect to 56 countries currencies indicated that Indian currency is performing well with respect to 49 countries in international market.

**Table 2 -Investment or Trade decision based on FOREX performance w. r. t. India**

	2014-2015	2015-2016	2016-2017	
<b>Indian Rupee ▲</b>	<b>Growth Rate</b>	<b>Growth Rate</b>	<b>Growth Rate</b>	<b>FDI or FII/ Trade / High Risk</b>
Argentine Peso	7.242507176	53.54855665	99.85460612	FDI or FII
Australian Dollar	22.21079104	-8.156393228	-38.52357749	Trade
Bahraini Dinar	-3.721761742	-4.794058069	-5.866354396	High Risk
Botswana Pula	9.6277111	-1.606788116	-12.84128733	High Risk
Brazilian Real	50.81878905	-15.38324166	-81.58527237	Trade
British Pound	4.405240895	13.06324111	21.72124132	FDI or FII
Bruneian Dollar	6.613354266	-7.302931296	-21.21921686	Trade
Bulgarian Lev	17.67437968	-6.187106639	-30.04859296	Trade
Canadian Dollar	15.83758623	-4.575163399	-24.98791302	Trade
Chilean Peso	13.83465233	-8.433117018	-30.70088636	Trade
Chinese Yuan Renminbi	-3.011137629	2.109051388	7.229240406	High Risk
Colombian Peso	50.61389902	-2.173232916	-54.96036486	Trade
Croatian Kuna	16.41441171	-7.486276998	-31.38696571	Trade
Czech Koruna	14.44052679	-6.143938555	-26.7284039	Trade



Danish Krone	17.77446019	-6.494608021	-30.76367623	Trade
Emirati Dirham	-3.760740803	-4.727726634	-5.694712466	High Risk
Euro	17.67738767	-6.154809097	-29.98700587	Trade
Hong Kong Dollar	-3.748191142	-4.683661817	-5.619132492	High Risk
Hungarian Forint	16.07210574	-6.405894692	-28.88389512	Trade
Icelandic Krona	11.94341695	-14.12138558	-40.18618811	Trade
Indonesian Rupiah	10.15958649	-6.985734543	-24.13105557	Trade
Iranian Rial	8.1365887	-3.598257577	-15.33310385	High Risk
Israeli Shekel	6.656084467	-4.021671878	-14.69942822	High Risk
Japanese Yen	17.18053337	-22.18841194	-61.55735726	Trade
Kazakhstani Tenge	-0.8498761	76.6428323	154.1355407	FDI or FII
Kuwaiti Dinar	3.027681661	-5.247691016	-13.52306369	High Risk
Latvian Lat	17.68953069	-6.154759549	-29.99904978	Trade
Libyan Dinar	7.55401043	-4.82545253	-17.20491549	High Risk
Lithuanian Litas	17.67996397	-6.153319368	-29.98660271	Trade
Malaysian Ringgit	17.38997438	-1.586267548	-20.56250948	Trade
Mauritian Rupee	9.605436697	-5.246661166	-20.09875903	Trade
Mexican Peso	18.77629328	9.233044663	-0.310203957	High Risk
Nepalese Rupee	-0.173787706	-0.262320941	-0.350854176	High Risk
New Zealand Dollar	24.33020677	-12.70006669	-49.73034015	Trade
Norwegian Krone	26.96680753	-2.118468185	-31.2037439	Trade
Omani Rial	-3.789205541	-4.683104418	-5.577003296	High Risk
Pakistani Rupee	-0.882204979	-2.30506141	-3.72791784	High Risk
Philippine Peso	0.355947452	-2.298770574	-4.9534886	High Risk
Polish Zloty	17.74869825	-4.33601643	-26.42073111	Trade
Qatari Riyal	-3.745097709	-4.738922114	-5.732746518	High Risk
Romanian New Leu	16.89484255	-5.528058008	-27.95095856	Trade
Russian Ruble	71.5473877	-3.14305213	-77.83349196	Trade
Saudi Arabian Riyal	-3.753758661	-4.728754563	-5.703750465	High Risk
Singapore Dollar	6.613354266	-7.302931296	-21.21921686	Trade
South African Rand	14.35817758	2.395104895	-9.567967791	High Risk
South Korean Won	8.269934852	-8.68081931	-25.63157347	Trade
Sri Lankan Rupee	-1.132466374	3.630441747	8.393349868	High Risk
Swedish Krona	21.83112956	-6.62697084	-35.08507124	Trade
Swiss Franc	3.800283	-4.758195391	-13.31667378	High Risk
Taiwan New Dollar	1.391156352	-4.963559771	-11.31827589	High Risk
Thai Baht	5.001702618	-4.9252382	-14.85217902	High Risk
Trinidadian Dollar	-4.304145414	1.321911158	6.947967729	High Risk
Turkish Lira	24.10726968	2.717055417	-18.67315885	High Risk
US Dollar	-3.756818043	-4.731278655	-5.705739268	High Risk
Venezuelan Bolivar	-3.559741322	50.33073792	104.2212172	FDI or FII

The sport rate calculated intimates that among the 7 countries (Argentine Peso, British Pound, Chinese Yuan, Sri Lankan Rupee, Trinidadian Dollar, Venezuelan Bolivar, Kazakhstani Tenge) currencies which are performing better than Indian currencies in international market; 3 currencies though exhibits positive value in terms of spot rate, which are closely associated with Indian currencies, while other 4 (Argentine Peso, British Pound, Venezuelan



Bolivar, Kazakhstani Tenge) shows significant performance over Indian currencies in international market.

## CONCLUSION

Hereby investing on significantly performing countries currencies (Argentine Peso, British Pound, Venezuelan Bolivar, Kazakhstani Tenge) would yield better return as per the forecast, as the Argentine Peso, British Pound, Venezuelan Bolivar and Kazakhstani Tenge will appreciate in mere future, therefore investment on the same will yield better return, while other 3 countries currencies i.e Yuan, Sri Lankan Rupee, Trinidadian Dollar though exhibit positive performance in terms of growth rate calculated considering the Std. Div. of ±20, there exists a proximity of investment undergoing depreciation due to various economic factors. It is likely to seen from the table that India could trade with 27 countries currencies, this illustrates Indian economy is better performing and likely to better perform in future course of time also. While it is been estimated that India would run on High risk if it makes investment or trade with respect to 24 other countries as mentioned (table2). On an overall consideration Indian currency is performing better in international market, if there exists better economic activities leading to better GDP and PPP growth, Indian currency value can be expected to hook up in international market, helping investment and trade decision unproblematic.

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