A

WINTER TRAINING REPORT

ON

IMPACT OF EXTERNALDEBT ON ECONOMIC GROWTH OF COUNTRIES -BRICS COUNTRIES

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SHREE J D GABANI COMMERCE COLLEGE & SHREE SWAMI ATMANAND SARASWATI COLLEGE OF MANAGEMENT

VNSGU,SURAT

COLLEGE CERTIFICATE

This is to certify that winter training report has been prepared by ***HARSHITA ASWINBHAI PRAJAPATI(17BBA0090)*** *under my guidance and supervision. This project is the result of her own work and is of and standard expected from a candidate for the degree of Bachelor of Business Administration (B.B.A.).*

This report submitted towards the partial fulfillment of the requirement for the degree of Bachelor of Business Administration(B.B.A.) During academic year 2019-20 has been found satisfactory.

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FACULTY GUIDE ***I/C PRINCIPAL***

Date:

Place:

DECLARATION

I, hereby declare that, this winter training report submitted to **Shree J. D. Gabani commerce college & Shree swami Atmanand Saraswati college of management** , in the fulfillment of requirement of Bachelor of Business Administration (BBA) degree, is result of my own work carried out during **December 2019 – February 2020**.

This project report is entirely an outcomes of my own efforts and has not been preciously submitted to any other university or institutes for any other examination and for any other purpose by any other person.

Harshita prajapati

(17BBA0090)

Date :

Place: surat

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Above all , I thank the Almighty for blessing me with the strength to accomplish this work successfully.

Harshita prajapati

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EXECUTIVE SUMMARY

The researcher study on the topic of impact of external debt on economic growth of developing countries – BRICS countries. The industry profile includes introduction of external debt of economic growth of developing countries and theoretical framework of debt servicing, debt sustainability, external debt managing.

The report includes literature review with objective and conclusion of relationship between external debt of economic growth and GDP of literature review.

The research methodology details about need, objective, and the limitations of the study. It also discusses about the sources and the period for the data collection.

The data analysis sections include deals with the interpretation and find relation between external debts and GDP. This analysis finds correlation external debt and GDP. Economic growth includes external debt, FDI net inflow, total debt services, short term debt, interest payment on external debt, export of goods & services and general government final consumption expenditure. And also includes GDP.

The finding based on the analysis done in the previous section and finally deals with conclusion part. From the all calculation it would find that there was both positive and negative relation between external debt of economic growth and GDP.

TABLE OF CONTENTS

Chapter :-1

INTRODUCTION

INTRODUCTION OF INDUSTRY:-

Meaning of external debt:-

External debt (or foreign debt) is the total debt a country , owes to foreign creditors, complemented by internal debt owed to domestic lenders. The debtors can be the government corporations or citizens of that country.

Sustainable economic growth has essential for all economies, especially for the developing economies which faces many different challenges as compared to developed countries in boosting up its economic growth in order to lower its debt burden. Debt burden can be domestic, external or both.

Sustainability of economic growth is the motive of every developing country and they want to control their fiscal deficit. To meet this goal the developing countries have to tackle many challenges. They use various ways to reduce and sustain the current account deficit, like to cut back the unimportant public expenditures, increasing revenues and expanding the opportunities for new investments.

HISTORY:-

One of the consequences of the growth is increase in the external debts of the developing countries. We may identify several complex and multifaceted reasons behind the borrowing need of a country: short-term or long-term dynamics can be sources of debt accumulation. We presume that past performance of economic growth may have effect on the accumulation of external debts. In other words, growth performance of an economy can be taken as one of the major factors of in daftness. In this paper, we scrutinize the effect of level and volatility of growth on external debt stocks in selected developing countries.

In the last period, the emerging countries have had an important role on the world stage; even they have faced with a huge financial crisis. In this sense they represent an important force for economic growth recovery, as it was observed in their economic performance. The reorganization of economic growth and the influence changing are based on the rise of the great powers. The first specialist who has approached the influence of market size and power upon country's trade was Adam Smith (1776). Paul Kennedy (1989) showed that the relative status of developing countries into the world economy is changing due to differences in growth and organizational reforms. Clyde Prestowitz (2008) shows in his study that in economic growth. Era almost 3 billion people from emerging Countries such as China, India, Russia and Brazil have managed to integrate into the economic growth.

According to Lin Yueqin (2009) the rise of the great powers is due to the boom of the emerging countries that seek to catch-up the advanced countries.

Since there are few studies on the growth pattern of the BRICS countries and on their influence on the economic growth of the XXI century, the Purpose of this article is to analyze the evolution of emerging economies in recent years and their importance in the world economy.

In the past decade, the emerging economies had a much faster growth rate compared to the developed economies, which led to a significant increase of their share in world GDP in international trade, in total foreign direct investment, and international financial markets. The economic crisis has led to relevant changes in economic Governance, especially the G20 replacing the G8 as international leader on the global stage. These changes can be interpreted as a manifestation toward a multiple international economic order, where developing countries should have a much more significant role.

During this period, an important role was played by the BRIC countries (Brazil, Russia, India and China) that have several similar features (Truman, 2006):

- They are developing countries with relevant economic performance and high potential.
- They are countries with systemic importance for the world economy; in this respect their national Performances have profound implications both regionally and economically.
- They are able to exert influence on the governance of the economic.

All these features together with a number of common interests' shows that BRIC countries have emerged as a coalition of developing countries where government representatives have some weight in decision-making at the international level. However, it should be noted that there are important differences in the four countries in terms of production structure by sector, opening outward, exchange rate regime etc. making this coalition to be more an ambitious project. China has a much greater economic power as against

the other three BRIC countries which do not have very good prospects in its absence. However, China's presence in this group of developing countries is beneficial both for her and for the BRICS.

BRICS countries have focused on their growing economic strength and development to create an agency to rival the WorldBank. In this respect the member countries have been signed several trade arrangements for extensive use of local currencies in their commercial exchanges, the main purpose being to reduce transaction costs.

As is known, the emerging countries are concentrated in regions with the largest population in the world. At the beginning of the century, their image has undergone a radical change through the most dynamic growth in the world and through the diminishing of the growth population rate which has led to an increase in GDP per capita close to that of developed countries. This was possible due to the increasing degree of economic integration of emerging countries in the global economy materialized in the trade and financial sectors. Favorable prospects of these countries have resulted in the reduction of risk perception coming from emerging markets and consolidating the trends mentioned above. BRICS countries are part of those emerging countries which have the characteristics listed.

Chapter :-2
THEORITICAL FRAMEWORK

The economic theories suggest that if the borrowed money by a country is utilized in effective and efficient manner in the useful investment purposes then it can increase the economic growth of that country. On the other hand large amount of external debt may cause negative effect on the economic growth. When the collected debt amount crosses the boundary level of a country's repayment capacity, the expected default may cause the domestic and foreign investors to draw back their money; this will negatively affect the economic growth of the country.

The rest of the paper is organized as: the section II provides literature review, Section III offers discussion in research methodology. Results and discussion are given in section IV. The paper ends with conclusion.

External debt

External Debt is the phenomenon used to describe the financial obligation that ties one party (debtor country) to another (lender country). External debt management is a strategy design to ensure that the debt stocks does not grow to an extent that the country can no longer conveniently service her debts and also that the terms are not enslaving. management involves an assessment of the country's capacity to service existing debts and a (terms of loan) do not cause severe problems for the economy and society.

External debt In other words, it is a mechanism where a nation's debt stock and the servicing arrangement management in this work means a mechanism used by the responsible authority (Debt judgment on the desirability of contracting further loans. Therefore, External (debt Management Board) to ensure that external debt does not affect its country in terms of investment, saving and capital generation which are

the basis for economic growth and development, but should be bearable and/or productive.

Debt servicing

Debt serving is a contractually fixed charge on domestic real income and savings. As the size of debt grows, or as interest rate rises, debt service charge increases. Debt services payment is made is done only with the export earning, curtailed import, or with further external borrowing . Thus if the export earning diminishes , debt services difficulties are likely to arise.

Debt sustainability

Debt Sustainability is defined as the ability to maintain a constant debt GDP ratio over a period of time. Sustainability is challenged when the debt to GDP ratio reaches an excessive value. Kasidi and Said thought that, a number of factors come into play when establishing if a country is able to service its debt. These factors include the existing debt stock and associated debt service, the prospective path of its deficits, the financing mix of the debt and the evolution of its repayment capacity in terms of foreign currency value of GDP, exports and government revenues.

External debt management in BRICS

In the face of the declining trend in world oil prices, government has been facing difficulties in financing deficit budgets and developmental projects. This led to borrowing from external sources such as World Bank, International Monetary Fund (IMF) and Paris club amongst others. The responsibility of managing external debt among other issues led to the establishment of other departments in the Central Bank to undertake the functions in collaboration with the Federal Ministry of Finance (FMF) and other relevant agencies. BRICS has devised several debt management policies in order to make the debt–service burden bearable and avoid defaulting. The embargo on loans policy was placed in 1984 and 2016 to state governments from borrowing externally. The cordial objective of the policy was to check the escalation of the debt stock and to minimize the problem of additional debt burden. Prior to the 1984 policy, the Federal Government fixed the maximum level of debt commitment for both the federal and state governments. For example, an upper limit of $ 5 billion was for the federal government in 1978 and in 1982 while $200 million for the state government. The embargo was lifted in January 1989. In February 1988, comprehensive guidelines were introduced with the aim of evolving strategies for increasing foreign exchange earnings and consequently reducing the need for foreign borrowing. Various measures were undertaken to ensure implementation of the guidelines such as; embargo on new loans, limit on debt service payments, debt restructuring and debt conversion programmed.

Economic growth

Ajayi perceived economic growth as the increase overtime of a country's real output of goods and services. Schumpeter in Todaro and Smith defined economic growth as gradual and steady change in the long-run which comes about by a gradual increase in the rate of savings and population. Freedman also in Todaro and Smith viewed economic growth as an expansion of the system in one or more dimensions without a change in its structure. Thus economic growth is related to the quantitative and sustained increase in the countries per capita output or income accompanied by expansion in its labor force, consumption level, capital and volume of trade. It means an increase in a country's real gross domestic product over a period of time usually one fiscal year.

National income:-

National income means the value of goods and services produced by a country during a financial year. Thus, it is the net result of all economic activities of any country during a period of one year and is valued in terms of money. National income is an uncertain term and is often used interchangeably with the national dividend, national output, and national expenditure. We can understand this concept by understanding the national income definition.

Gross Domestic Product (GDP):-

Gross Domestic Product (GDP) is the total monetary or market value of all the finished goods and services produced within a country's borders in a specific time period. As a broad measure of overall domestic production, it functions as a comprehensive scorecard of the country's economic health.

Though GDP is usually calculated on an annual basis, it can be calculated on a quarterly basis as well. In the United States, for example, the government releases an annualized GDP estimate for each quarter and also for an entire year. Most of the individual data sets will also be given in real terms, meaning that the data is adjusted for price changes, and is, therefore, net of inflation.

KEY TAKEAWAYS :-

- Gross Domestic Product (GDP) is the monetary value of all finished goods and services made within a country during a specific period.
- GDP provides an economic snapshot of a country, used to estimate the size of an economy and growth rate.
- GDP can be calculated in three ways, using expenditures, production, or incomes. It can be adjusted for inflation and population to provide deeper insights.
- Though it has limitations, GDP is a key tool to guide policymakers, investors, and businesses in strategic decision making.

How is GDP calculated?

It can be calculated by using three methods—the supply or production method, the income method and the demand or expenditure method and by definition the value of GDP should be identical, irrespective of the method used. This is because one person's or entity's income is another person's spending on expenditure. For instance, what households spend in buying provisions at a local store is the shop owner's income. Likewise, an employee's salary is what his/her company spends.

1. Expenditure Approach:-

The most commonly used GDP formula, which is based on the money spent by various groups that participate in the economy.

$$GDP = C + G + I + NX$$

C = consumption or all private consumer spending within a country's economy, including, durable goods (items with a lifespan greater than three years), non-durable goods (food & clothing), and services.

G = total government expenditures, including salaries of government employees, road construction/repair, public schools, and military expenditure.

I = sum of a country's investments spent on capital equipment, inventories, and housing.

NX = net exports or a country's total exports less total imports.

2 . Income Approach:-

This GDP formula takes the total income generated by the goods and services produced.

GDP = Total National Income + Sales Taxes + Depreciation + Net Foreign Factor Income

Total National Income = the sum of all wages, rent, interest, and profits.

Sales Taxes = consumer taxes imposed by the government on the sales of goods and services.

Depreciation = cost allocated to a tangible asset over its useful life.

Net Foreign Factor Income = the difference between the total income that a country's citizens and companies generate in foreign countries, versus the total income foreign citizens and companies generate in that country.

Chapter :- 3
LITERATUREV REVIEW

Benedict Clements, Rina Bhattacharya, and Toan Quoc Nguyen (2003) examined External Debt, Public Investment, and Growth in low Income Countries. The objective is to examine the channels through which external debt affects growth in low-income countries. The period of study was 1970-1990. They found that the substantial reduction in the stock of external debt projected for highly indebted poor countries (HIPCs) would directly increase per capita income growth by about 1 percentage point per annum; reductions in external debt service could also provide an indirect boost to growth through their effects on public investment. If half of all debt-service relief were channeled for such purposes without increasing the budget deficit, then growth could accelerate in some HIPCs by an additional 0.5 percentage point per annum.

Fatma Dogruel and A. Suut Dogruel (2007) investigate Foreign Debt Dynamics in Middle Income Countries. The objective is to study the effects of external debts to economic growth. By collecting Panal data of Latin America and the Caribbean, Middle East and North African (MENA) and East Asian and Pacific countries from 1970- 2005. The Variables include budget deficits, current account deficits, domestic saving gap, total debt stock to GDP. They found that growth performance has a significant effect on external debt in selected Latin America and the Caribbean (LAC) and East Asian and Pacific (EAP) countries, and Turkey and this may be related to integration of these economies with the world economy through liberalization and also consider the number of institutional and structural factors of the country that may be related growth volatility and rate of growth.

Ayadi and Ayadi (2008) examined the impact of the huge external debt. The objective was economic growth of the Nigerian and South African economies. The period of study was 2011-2013. The tools used for analysis incorporates external debt, some debt indicators incorporates and macroeconomic variables was employed and analyzed using both Ordinary Least Square (OLS) and Generalized Least Square (GLS) methods. Their finding revealed negative impact of debt and its servicing requirement on the economic growth of Nigeria and South Africa.

Hameed et al. (2008) on Pakistan analyzed the long run and short run relationships between external debt and economic growth. Annual time series data from 1970 to 2003 was obtained to examine the dynamic effect of GDP , debt service, capital stock and labour force on her economic growth. The study concludes that debt servicing burden has a negative effect on the productivity of labor and capital, thereby adversely affecting economic growth.

Cristina Checherita and Philipp Rother (2010) examined the impact of high and growing Government debt on economic growth – an empirical

investigation for the Euro area. The objective is to investigate the relationship between government debt-to-GDP ratio and per-capita GDP growth rate in a sample of 12 Euro area countries likes, namely, Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, and Spain. They collected data from European Commission AMECO database from 1970-2011. By using the relatively restricted cross-sectional sample, standard growth regressions model. They found a non-linear impact of debt on growth with a turning point—beyond which the government debt-to-GDP ratio has a deleterious impact on long-term growth—at about 90-100% of GDP and also have an impact on the economic growth rate are: private saving; public investment; total factor productivity (TFP) and sovereign long-term nominal and real interest rates.

Ajayi, Lawrence Boboye and Oke, Michael Ojo (2012) investigates the effect of External Debt on Economic Growth and Development of Nigeria. They collected data from CBN, Economical and Financial review, Business times, Financial Standard and relevant publication from Nigeria. The variable used for like National Income, Debt Service Payment, External Reserves, Interest rate among others of twenty-seven year and variables include debt service payment (DSP), External Reserves (EXTR), and Interest Rates (INTR) and National Income (IN). They found that external debt burden had an adverse effect on the nation income and per capital income of the nation and high level of external debt led to devaluation of the nation currency, increase in retrenchment of workers, continuous industrial strike and poor educational system and they suggested that debt service obligation should not be allowed to rise than foreign exchange earnings and that the loan contracted should be invested in profitable venture, which will generate a reasonable amount of money for debt repayment.

Rabia Atique and Kamran Malik (2012) investigate Impact of Domestic and External Debt on the Economic Growth of Pakistan. The objective is to examines the determinants of economic growth for Pakistan and the impact of domestic debt and external debt on the economic growth of Pakistan using time series of data from 1980 to 2010 and variables includes domestic debt, external debt, GDP and net total investment, Corruption Perception Index, Labor Participation Rate, inflation, from economic surveys of Pakistan, IMF website, World Bank. They found that there is an inverse relationship between domestic debt and economic growth and also the relationship between external debt and economic growth was found to be inverse and external debt amount slows down economic growth more as compared to domestic debt amount and the negative effect of external debt is stronger on the economic growth in comparison to domestic debt.

Hadhek Zouhaier and Mrad Fatma (2014) investigate Debt and Economic Growth. The objective is to study the effect of debt on economic growth of 19 developing countries over the period 1990-2011 and variables includes investment, trade openness and inflation, ratio of total debt to GDP, external debt as a percentage of GDP, public and private debt guarantee and the total change in external debt. They found that there is stipulate a negative effect of the total external debt to GDP and external debt as a percentage of GNI ratio on economic growth and a negative interaction between these two debt' measures and investment.

Aylin Soydan, Serap Bedir (2015) examined the external debt an economic growth their objective is to contribute to the understanding of the impact of external debt on economic growth in developing economies. The period of study was 1985-2013 variables are real GDP growth rate, real GDP per capita growth rate, external debt stock-to-GDP ratio (stock), external debt service-to-exports ratio (service), investment ratio as a share of GDP, inflation rate (CPI), and trade openness (open). They found that there is a negative linear impact of external indebtedness on economic growth in the countries of interest and the main channel by which debt has an impact on economic performance appears to be the debt stock rather than liquidity constraint effect represented by debt service directly.

Abu Siddique, E A Selvanathan, Saroja Selvanathan (2015) measured on impact of external debt on economic growth Their objective is to examine short- run and long-run relationships between external debt and economic growth in 40 HIPC countries over the period of 1970-2007 with the aid of the growth accounting process. They collect Panel data set over the 38 year period, from 1970-2007 (40 HIPCs) and the variables are per capita GDP (GDP), gross capital formation per unit GDP, total debt per unit GDP, total trade per unit GDP and population. They found that capital formation has a positive impact on GDP in the short run as well as in the long-run; debt has a negative influence in the short run as well as in the long-run; and population increase has a positive influence on the economic growth.

Adeniran, Abraham oluwapelumi, Azeez, Muhyideen Iyiola, Aremu, johns Abiodum (2016) measured On impact of external debt of economic growth of developing countries – BRIC countries. The main objective was investigating the impact of external debt on economic growth of developing countries. The period of study was from 2012-2017. The tools used for analysis of external debt stock, exchange rate, real GDP, external debt stock and real GDP. The conclusion that they found that external debt service payment negatively impacts real GDP per capital growth in Nigeria significantly, signaling the existence of the debt overhang impact on economic growth and external debt should be discouraged for it cannot be relied on by government for the promotion of economic growth because of its retarding influence on growth.

Chapter :- 4
RESEARCH METHODOLOGY

(1) Need for Research:-

- This study was useful for investors who might be able to identify some basic economic variables that they should focus on while investing in stock market and will have an advantages to make their own suitable investment decision.
- Many kinds of investors would find this study as an assistant ,especially ,institutional investors ,portfolio managers, institutional investors and foreign investors.

(2) Problem statement :-

"Impact of external debt on economic growth of developing countries – BRICS countries."

(3) Research Objective :-

- Primary objective**:-**

  - measure impact of external debt of economic growth of developing countries – Brazil, Russia, India. China and South Africa.

- Secondary objective:-

  - To measure the impact of external debt on economic growth of BRICS countries.
  - To identify influence on economic growth of external debt.
  - To examine the causal relationship with external debt with economic growth.

(4) Variables Under Study:-

- In this study variables are External debt and Growth domestic product .

❖ Hypothesis :-

H0: There is no impact of external debt on economic growth of developing countries – BRICS countries.

H1: There is impact of external debt on economic growth of developing countries – BRICS countries.

(5) Research Design :-

A. Types of research :-

Descriptive research design is use for the study which as describe the impact of the external debt of economic growth of developing countries.

B. Data collection method:-

There are basically two types of data collection method:

- Primary data collection method.
- Secondary data collection method.

This study is based on secondary data like,

Website , internet , magazine , news paper.

C. Sample design :-

a. sampling unit :-

Only Brazil , Russia, India , China , south Africa which are developing countries.

b. sampling period :-

The period covered for the research study usurer from the last 4 years (2015-16 to 2018-19)

c. sampling size :-

4 countries

d. sampling technique:-

- sampling techniques can be Non-probability convince sampling in which the countries units as per research own convince .
- Under this technique, the universe or entire population is divided into number of groups or strata, and sample is taken from each group.

(6) Tools used for Data Analysis :-

There are many tools used for data analysis are as followed.

- CORRELATION
- REGRESSION

(7) Limitation:-

- There is only 6 years to collect data that is the time constraint of the study.
- There are many factors but researcher has only BRICS countries.

Chapter :- 5

DATA ANALYSIS

External debt stock And GDP:-

INDIA:-

External debt stock and GDP	External debt (%)	GDP (%)
Year		
2015-2016	22.7	8
2016-2017	22.9	7.2
2017-2018	12.8	6.8
2018-2019	19.8	6.6

Correlation:-

	External debt	GDP
External debt	1	
GDP	0.578587	1

Interpretation:-

There is positive correlation between external debt stock and GDP in India. It shows that with increase in 1 percentage in external debt stock leads to 0.578587 percentage increase in GDP.

Regression:-

H0: There is no significant impact of external debt on GDP.
H1: There is significant impact of external debt on GDP.

Regression Statistics	
Multiple R	0.579
R Square	0.335
Adjusted R Square	0.002
Standard Error	0.618
Observations	4

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	0.385	0.385	1.006	0.421
Residual	2	0.765	0.383		
Total	3	1.15			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	5.665523439	1.5117	3.7478	0.064	-0.839	12.17	-0.839	12.17
External debt	0.075932305	0.0757	1.0032	0.421	-0.25	0.402	-0.25	0.402

Interpretation:-

From the value of R Square 0.335 of indicates that 33.5% of the variation in GDP can be explained by external debt in India. Since the P value (0.421 > 0.05), we accept the null hypothesis that there is no impact of external debt on GDP.

CHINA:-

External debt stock and GDP	External debt	GDP
Year		
2015-2016	16.9	6.8
2016-2017	12	6.7
2017-2018	12.8	6.1
2018-2019	14	6.6

Correlation:-

	External debt	GDP
External debt	1	
GDP	0.481899506	1

Interpretation:-

There is low positive correlation between external debt stock and GDP in China. It shows that with increase in 1 percentage in external debt stock leads to 0.481899506 percentage increase in GDP.

Regression :-

H0: There is no significant impact of external debt on GDP.
H1: There is significant impact of external debt on GDP.

Regression Statistics	
Multiple R	0.4819
R Square	0.232227
Adjusted R Square	-0.15166
Standard Error	0.333657
Observations	4

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	0.067	0.067	0.605	0.518
Residual	2	0.223	0.111		
Total	3	0.29			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	5.578195625	1.261	4.425	0.047	0.154	11	0.154	11
External debt	0.069788465	0.09	0.778	0.518	-0.316	0.456	-0.316	0.456

Interpretation :-

From the value of R Square of 0.232227 indicates that 23.2% of the variation in GDP can be explained by external debt in China. Since the P value (0.518 > 0.05), we accept the null hypothesis that there is no impact of external debt on GDP.

BRAZIL:-

External debt stock and GDP	External debt	GDP
Year		
2015-2016	23.1	-3.3
2016-2017	30.8	1.1
2017-2018	30.9	0.9
2018-2019	27	1.1

Correlation:-

	External debt	GDP
External debt	1	
GDP	0.86	1

Interpretation :-

There is high positive correlation between external debt stock and GDP in Brazil. It shows that with increase in 1 percentage in external debt stock leads to 0.86 percentage increase in GDP.

Regression :-

H0: There is no significant impact of external debt on GDP.
H1: There is significant impact of external debt on GDP.

Regression Statistics	
Multiple R	0.86
R Square	0.74
Adjusted R Square	0.61
Standard Error	1.355
Observations	4

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	10.44	10.44	5.685	0.14
Residual	2	3.672	1.836		
Total	3	14.11			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-14.11	5.936	-2.377	0.141	-39.65	11.43	-39.65	11.43
External debt	0.503	0.211	2.384	0.14	-0.405	1.411	-0.405	1.411

Interpretation :-

From the value of R Square of 0.74 indicates that 74% of the variation in GDP can be explained by external debt in Brazil. Since the P value (0.14>0.05), we accept the null hypothesis that there is no impact of external debt on GDP.

RUSSIA:-

External debt stock and GDP	External debt	GDP
Year		
2015-2016	27.5	0.3
2016-2017	35.1	1.7
2017-2018	42.1	2.3
2018-2019	32	1.1

Correlation :-

	External debt	GDP
External debt	1	
GDP	0.97949299	1

Interpretation :-

There is high positive correlation between external debt stock and GDP in Russia. It shows that with increase in 1 percentage in external debt stock leads to 0.97949299 percentage increase in GDP.

REGRESSION:-

H0: There is no significant impact of external debt on GDP.
H1: There is significant impact of external debt on GDP.

Regression Statistics	
Regression Statistics	0.979492994
R Square	0.959406525
Adjusted R Square	0.939109788
Standard Error	0.210831343
Observations	4

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	2.101	2.101	47.27	0.020507
Residual	2	0.089	0.044		
Total	3	2.19			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-3.311156	0.686	-4.826	0.04	-6.26324	-0.359	-6.263	-0.359
External debt	0.1363908	0.02	6.875	0.021	0.051035	0.222	0.051	0.222

Interpretation :-

From the value of R Square of 0.959406525 indicates that 95.4 % of the variation in GDP can be explained by external debt in Russia. Since the P value (0.020507 > 0.05), we don't accept the null hypothesis that there is no impact of external debt on GDP.

SOUTH AFFRICA:-

External debt stock and GDP	External debt	GDP
Year		
2015-2016	41.5	0.6
2016-2017	44.6	1.4
2017-2018	50.8	0.8
2018-2019	52	0.7

Correlation :-

	External debt	GDP
External debt	1	
GDP	-0.16806	1

Interpretation :-

There is low negative correlation between external debt stock and GDP in south Africa. It shows that with increase in 1 percentage in external debt stock leads to -0.16806 percentage decrease in GDP.

Regression:-

H0: There is no significant impact of external debt on GDP.
H1: There is significant impact of external debt on GDP.

Regression Statistics	
Multiple R	0.168
R Square	0.028
Adjusted R Square	-0.458
Standard Error	0.434
Observations	4

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	0.011	0.011	0.058	0.832
Residual	2	0.377	0.188		

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	1.445	2.372	0.609	0.605	-8.762	11.65	-8.762	11.65
External debt	-0.012	0.05	-0.241	0.832	-0.227	0.203	-0.227	0.203

Interpretation :-

From the value of R Square of 0.028 indicates that 2.8 % of the variation in GDP can be explained by external debt in south Africa . Since the P value (0.832 > 0.05), we accept the null hypothesis that there is no impact of external debt on GDP.

FDI Net inflow and GDP

INDIA:-

FDI Net inflow and GDP	FDI Net inflow	GDP
Year		
2015-2016	1.7	8
2016-2017	2.1	7.2
2017-2018	2	6.8
2018-2019	1.5	6.6

Correlation:-

	FDI Net inflow	GDP
FDI Net inflow	1	
GDP	0.048877	1

Interpretation:-

There is positive correlation between FDI net inflow and GDP in India. It shows that with increase in 1 percentage in FDI net inflow leads to 0.048877 percentage increases in GDP.

Regression:-

H0: there is no impact of FDI net inflow on GDP.
H1: there is impact of FDI net inflow on GDP.

Regression Statistics	
Multiple R	0.049
R Square	0.002
Adjusted R Square	-0.496
Standard Error	0.757
Observations	4

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	0.003	0.003	0.005	0.951
Residual	2	1.147	0.574		
Total	3	1.15			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	6.949	2.923	2.378	0.141	-5.625	19.52	-5.625	19.52
FDI Net inflow	0.11	1.588	0.069	0.951	-6.722	6.942	-6.722	6.942

Interpretation:-

From the value of R Square of 0.002 indicates that 2% of the variation in GDP can be explained by FDI net inflow in India. Since the P value (0.951> 0.05), we accept the null hypothesis that there is no impact on FDI net inflow and GDP.

CHINA:-

FDI Net inflow and GDP	FDI Net inflow	GDP
Year		
2015-2016	2.6	6.8
2016-2017	2.2	6.7
2017-2018	1.6	6.1
2018-2019	1.4	6.6

Correlation:-

	FDI Net inflow	GDP
FDI Net inflow	1	
GDP	0.642	1

Interpretation:-

There is high positive correlation between FDI net inflow and GDP in China. It shows that with increase in 1 percentage in FDI net inflow leads to 0.642 percentage increases in GDP.

Regressions:-

H0: there is no impact of FDI net inflow on GDP.
H1: there is impact of FDI net inflow on GDP.

Regression Statistics	
Multiple R	0.642
R Square	0.413
Adjusted R Square	0.119
Standard Error	0.292
Observations	4

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	0.12	0.12	1.405	0.358
Residual	2	0.17	0.085		
Total	3	0.29			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	5.843	0.614	9.514	0.011	3.2	8.485	3.2	8.485
FDI Net inflow	0.363	0.306	1.185	0.358	-0.954	1.679	-0.954	1.679

Interpretation:-

From the value of R Square of 0.413 indicates that 41.3% of the variation in GDP can be explained by FDI net inflow in China. Since the P value (0.358 > 0.05), we accept the null hypothesis that there is no impact on FDI net inflow and GDP.

BRAZIL :-

FDI Net inflow and GDP	FDI Net inflow	GDP
Year		
2015-2016	4	-3.3
2016-2017	4.1	1.1
2017-2018	4.3	0.9
2018-2019	3.4	1.1

Correlation :-

	FDI Net inflow	GDP
FDI Net inflow	1	
GDP	-0.115	1

Interpretation :-

There is low negative correlation between FDI net inflow and GDP in Brazil. It shows that with increase in 1 percentage in FDI net inflow leads to -0.115 percentage decrease in GDP.

Regression : -

H0: there is no impact of FDI net inflow on GDP.
H1: there is impact of FDI net inflow on GDP.

Regression Statistics	
Multiple R	0.115
R Square	0.013
Adjusted R Square	-0.48
Standard Error	2.638
Observations	4

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	0.187	0.187	0.027	0.885
Residual	2	13.92	6.962		
Total	3	14.11			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	2.496	15.59	0.16	0.888	-64.59	69.58	-64.59	69.58
FDI Net inflow	-0.644	3.933	-0.164	0.885	-17.57	16.28	-17.57	16.28

Interpretation :-

From the value of R Square of 0.013 indicates that 13% of the variation in GDP can be explained by FDI net inflow in Brazil. Since the P value (0.885 > 0.05), we accept the null hypothesis that there is no impact on FDI net inflow and GDP.

RUSSIA:-

FDI Net inflow and GDP	FDI Net inflow	GDP
Year		
2015-2016	1.1	0.3
2016-2017	0.5	1.7
2017-2018	2.5	2.3
2018-2019	1.8	1.1

Correlation :-

	FDI Net inflow	GDP
FDI Net inflow	1	
GDP	0.426	1

Interpretation :-

There is positive correlation between FDI net inflow and GDP in Russia. It shows that with increase in 1 percentage in FDI net inflow leads to 0.426 percentage increase in GDP.

Regression :-

H0: there is no impact of FDI net inflow on GDP.
H1: there is impact of FDI net inflow on GDP.

Regression Statistics	
Multiple R	0.426
R Square	0.181
Adjusted R Square	-0.228
Standard Error	0.947
Observations	4

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	0.397	0.397	0.443	0.574
Residual	2	1.793	0.896		
Total	3	2.19			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.73	1.045	0.698	0.557	-3.766	5.226	-3.766	5.226
FDI Net inflow	0.42	0.632	0.666	0.574	-2.297	3.138	-2.297	3.138

Interpretation :-

From the value of R Square of 0.181 indicates that 18.1% of the variation in GDP can be explained by FDI net inflow in Russia. Since the P value (0.574 > 0.05), we accept the null hypothesis that there is no impact on FDI net inflow and GDP.

SOUTH AFRICA:-

FDI Net inflow and GDP	FDI Net inflow	GDP
Year		
2015-2016	1.7	0.6
2016-2017	0.5	1.4
2017-2018	0.7	0.8
2018-2019	0.4	0.7

Correlation:-

	FDI Net inflow	GDP
FDI Net inflow	1	
GDP	-0.509	1

Interpretation :-

There is high negative correlation between FDI net inflow and GDP in South Africa. It shows that with decrease in 1 percentage in FDI net inflow leads to -0.509 percentage increase in GDP.

Regression:-

H0: there is no impact of FDI net inflow on GDP.
H1: there is impact of FDI net inflow on GDP.

Regression Statistics	
Multiple R	0.509
R Square	0.259
Adjusted R Square	-0.111
Standard Error	0.379
Observations	4

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	0.1	0.1	0.7	0.491
Residual	2	0.287	0.144		
Total	3	0.388			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	1.128	0.357	3.161	0.087	-0.408	2.664	-0.408	2.664
FDI Net inflow	-0.307	0.367	-0.837	0.491	-1.884	1.271	-1.884	1.271

Interpretation :-

From the value of R Square of 0.259 indicates that 25.9% of the variation in GDP can be explained by FDI net inflow in South Africa. Since the P value (0.491 > 0.05), we accept the null hypothesis that there is no impact on FDI net inflow and GDP.

Interest Payment of external debt and GDP

INDIA:-

Interest Payment of external debt and GDP	Interest Payment of external debt	GDP
Year		
2015-2016	0.6	8
2016-2017	0.5	7.2
2017-2018	0.5	6.8
2018-2019	0.5	6.6

Correlation :-

	Interest Payment of external debt	GDP
Interest Payment of external debt	1	
GDP	0.915	1

Interpretation :-

There is high positive correlation between interest payment on external debt and GDP in India. It shows that with increase in 1 percentage in interest payment on external debt leads to 0.915 percentage increase in GDP.

Regression :-

H0: there is no significant impact of Interest payment on external debt on GDP.

H1: there is significant impact of Interest payment on external debt on GDP.

Regression Statistics	
Multiple R	0.915
R Square	0.838
Adjusted R Square	0.757
Standard Error	0.306
Observations	4

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	0.963	0.963	10.32	0.085
Residual	2	0.187	0.093		
Total	3	1.15			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	1.2	1.858	0.646	0.585	-6.796	9.196	-6.796	9.196
Interest Payment of external debt	11.33	3.528	3.213	0.085	-3.845	26.51	-3.845	26.51

Interpretation :-

From the value of R Square of 0.838 indicates that 83.8% of the variation in GDP can be explained by interest payment on external debt in India. Since the P value (0.085 > 0.05), we accept the null hypothesis that there is no impact on interest payment on external debt and GDP.

CHINA :-

Interest Payment of external debt and GDP	Interest Payment of external debt	GDP
Year		
2015-2016	0.4	6.8
2016-2017	0.4	6.7
2017-2018	0.3	6.1
2018-2019	0.5	6.6

Correlation:-

	Interest Payment of external debt	GDP
Interest Payment of external debt	1	
GDP	0.657	1

Interpretation :-

There is high positive correlation between interest payment on external debt and GDP in China. It shows that with increase in 1 percentage in interest payment on external debt leads to 0.657 percentage increase in GDP.

Regressions :-

H0: there is no significant impact of Interest payment on external debt on GDP.

H1: there is significant impact of Interest payment on external debt on GDP.

Regression Statistics	
Multiple R	0.657
R Square	0.431
Adjusted R Square	0.147
Standard Error	0.287
Observations	4

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	0.125	0.125	1.515	0.343
Residual	2	0.165	0.083		
Total	3	0.29			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	5.55	0.825	6.727	0.021	2	9.1	2	9.1
Interest Payment of external debt	2.5	2.031	1.231	0.343	-6.239	11.24	-6.239	11.24

Interpretation :-

From the value of R Square of 0.431 indicates that 43.1% of the variation in GDP can be explained by interest payment on external debt in China. Since the P value (0.343 > 0.05), we accept the null hypothesis that there is no impact on interest payment on external debt and GDP.

BRAZIL:-

Interest Payment of external debt and GDP	Interest Payment of external debt	GDP
Year		
2015-2016	0.7	-3.3
2016-2017	1	1.1
2017-2018	1.3	0.9
2018-2019	1	1.1

Correlation :-

	Interest Payment of external debt	GDP
Interest Payment of external debt	1	
GDP	0.7906	1

Interpretation :-

There is high positive correlation between interest payment on external debt and GDP in Brazil. It shows that with increase in 1 percentage in interest payment on external debt leads to 0.7906 percentage increase in GDP.

Regression :-

H0: there is no significant impact of Interest payment on external debt on GDP.

H1: there is significant impact of Interest payment on external debt on GDP.

Regression Statistics	
Multiple R	0.791
R Square	0.625
Adjusted R Square	0.438
Standard Error	1.626
Observations	4

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	8.82	8.82	3.335	0.209
Residual	2	5.29	2.645		
Total	3	14.11			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-7.05	3.919	-1.799	0.214	-23.91	9.811	-23.91	9.811
Interest Payment of external debt	7	3.833	1.826	0.209	-9.494	23.49	-9.494	23.49

Interpretation :-

From the value of R Square of 0.625 indicates that 62.5% of the variation in GDP can be explained by interest payment on external debt in Brazil. Since the P value (0.209 > 0.05), we accept the null hypothesis that there is no impact on interest payment on external debt and GDP.

RUSSIA:-

Interest Payment of external debt and GDP	Interest Payment of external debt	GDP
Year		
2015-2016	1	0.3
2016-2017	1.4	1.7
2017-2018	1.6	2.3
2018-2019	1.2	1.1

Correlation :-

	Interest Payment of external debt	GDP
Interest Payment of external debt	1	
GDP	0.9973	1

Interpretation :-

There is high positive correlation between interest payment on external debt and GDP in Russia. It shows that with increase in 1 percentage in interest payment on external debt leads to 0.9973 percentage increase in GDP.

Regression :-

H0: there is no significant impact of Interest payment on external debt on GDP.

H1: there is significant impact of Interest payment on external debt on GDP.

Regression Statistics	
Multiple R	0.997
R Square	0.995
Adjusted R Square	0.992
Standard Error	0.077
Observations	4

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	2.178	2.178	363	0.003
Residual	2	0.012	0.006		
Total	3	2.19			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-2.94	0.228	-12.87	0.006	-3.923	-1.957	-3.923	-1.957
Interest Payment of external debt	3.3	0.173	19.05	0.003	2.555	4.045	2.555	4.045

Interpretation :-

From the value of R Square of 0.995 indicates that 99.5% of the variation in GDP can be explained by interest payment on external debt in Russia. Since the P value (0.003 > 0.05), we don't accept the null hypothesis that there is no impact on interest payment on external debt and GDP.

SOUTH AFRICA :-

Interest Payment of external debt and GDP	Interest Payment of external debt	GDP
Year		
2015-2016	1.4	0.6
2016-2017	1.7	1.4
2017-2018	1.9	0.8
2018-2019	1.6	0.7

Correlation :-

	Interest Payment of external debt	GDP
Interest Payment of external debt	1	
GDP	0.3787	1

Interpretation :-

There is Low positive correlation between interest payment on external debt and GDP in South Africa. It shows that with increase in 1 percentage in interest payment on external debt leads to 0.3787 percentage increase in GDP.

Regression :-

H0: there is no significant impact of Interest payment on external debt on GDP.

H1: there is significant impact of Interest payment on external debt on GDP.

Regression Statistics	
Multiple R	0.379
R Square	0.143
Adjusted R Square	-0.285
Standard Error	0.407
Observations	4

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	0.056	0.056	0.335	0.621
Residual	2	0.332	0.166		

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-0.204	1.875	-0.109	0.923	-8.273	7.865	-8.273	7.865
Interest Payment of external debt	0.654	1.13	0.579	0.621	-4.208	5.515	-4.208	5.515

Interpretation :-

From the value of R Square of 0.143 indicates that 14.3% of the variation in GDP can be explained by interest payment on external debt in South Africa. Since the P value (0.621 > 0.05), we accept the null hypothesis that there is no impact on interest payment on external debt and GDP.

Export of goods & services and GDP

INDIA :-

Export of goods & services and GDP	Export of goods and services	GDP
Year		
2015-2016	23	8
2016-2017	19.8	7.2
2017-2018	19.3	6.8
2018-2019	18.9	6.6

Correlation :-

	Export of goods and services	GDP
Export of goods and services	1	
GDP	0.976	1

Interpretation :-

There is high positive correlation between export of goods & services and GDP in India. It shows that with increase in 1 percentage in export of goods & services leads to 0.976 percentage increase in GDP.

Regression :-

H0: there is no significant impact of Export of goods & services on GDP.
H1: there is significant impact of Export of goods & services on GDP.

Regression Statistics	
Multiple R	0.976
R Square	0.953
Adjusted R Square	0.929
Standard Error	0.165
Observations	4

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	1.096	1.096	40.22	0.024
Residual	2	0.054	0.027		
Total	3	1.15			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.606	1.035	0.585	0.618	-3.848	5.06	-3.848	5.06
Export of goods and services	0.323	0.051	6.342	0.024	0.104	0.542	0.104	0.542

Interpretation :-

From the value of R Square of 0.953 indicates that 95.3% of the variation in GDP can be explained by export of goods & services in India. Since the P value (0.024> 0.05), we don't accept the null hypothesis that there is no impact on export of goods & services and GDP.

CHINA:-

Export of goods & services and GDP	Export of goods and services	GDP
Year		
2015-2016	23.5	6.8
2016-2017	21.3	6.7
2017-2018	19.7	6.1
2018-2019	19.8	6.6

Correlation :-

	Export of goods and services	GDP
Export of goods and services	1	
GDP	0.722	1

Interpretation :-

There is high positive correlation between export of goods & services and GDP in China. It shows that with increase in 1 percentage in export of goods & services leads to 0.722 percentage increase in GDP.

Regression :-

H0: there is no significant impact of Export of goods & services on GDP.
H1: there is significant impact of Export of goods & services on GDP.

Regression Statistics	
Multiple R	0.722
R Square	0.521
Adjusted R Square	0.282
Standard Error	0.263
Observations	4

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	0.151	0.151	2.177	0.278
Residual	2	0.139	0.069		
Total	3	0.29			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	3.884	1.811	2.144	0.165	-3.91	11.68	-3.91	11.68
Export of goods and services	0.126	0.086	1.476	0.278	-0.242	0.495	-0.242	0.495

Interpretation :-

From the value of R Square of 0.521 indicates that 52.1% of the variation in GDP can be explained by export of goods & services in China. Since the P value (0.278> 0.05), we accept the null hypothesis that there is no impact on export of goods & services and GDP.

BRAZIL:-

Export of goods & services and GDP	Export of goods and services	GDP
Year		
2015-2016	11	-3.3
2016-2017	12.9	1.1
2017-2018	12.5	0.9
2018-2019	12.6	1.1

Correlation :-

	Export of goods and services	GDP
Export of goods and services	1	
GDP	0.985	1

Interpretation :-

There is high positive correlation between export of goods & services and GDP in Brazil. It shows that with increase in 1 percentage in export of goods & services leads to 0.985 percentage increase in GDP.

Regression :-

H0: there is no significant impact of Export of goods & services on GDP.
H1: there is significant impact of Export of goods & services on GDP.

Regression Statistics	
Multiple R	0.985
R Square	0.97
Adjusted R Square	0.955
Standard Error	0.459
Observations	4

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	13.69	13.69	64.84	0.015
Residual	2	0.422	0.211		
Total	3	14.11			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-30.82	3.828	-8.051	0.015	-47.29	-14.35	-47.29	-14.35
Export of goods and services	2.512	0.312	8.052	0.015	1.17	3.854	1.17	3.854

Interpretation :-

From the value of R Square of 0.97 indicates that 97% of the variation in GDP can be explained by export of goods & services in Brazil. Since the P value (0.015> 0.05), we don't accept the null hypothesis that there is no impact on export of goods & services and GDP.

RUSSIA:-

Export of goods & services and GDP	Export of goods and services	GDP
Year		
2015-2016	27.1	0.3
2016-2017	28.6	1.7
2017-2018	25.7	2.3
2018-2019	26	1.1

Correlation :-

	Export of goods and services	GDP
Export of goods and services	1	
GDP	-0.158	1

Interpretation :-

There is low negative correlation between export of goods & services and GDP in Russia. It shows that with decrease in 1 percentage in export of goods & services leads to -0.158 percentage decrease in GDP.

Regression :-

H0: there is no significant impact of Export of goods & services on GDP.
H1: there is significant impact of Export of goods & services on GDP.

Regression Statistics	
Multiple R	0.158
R Square	0.025
Adjusted R Square	-0.463
Standard Error	1.033
Observations	4

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	0.054	0.054	0.051	0.842
Residual	2	2.136	1.068		
Total	3	2.19			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	4.103	12.21	0.336	0.769	-48.45	56.65	-48.45	56.65
Export of goods and services	-0.103	0.454	-0.226	0.842	-2.058	1.853	-2.058	1.853

Interpretation :-

From the value of R Square of 0.025 indicates that 2.5% of the variation in GDP can be explained by export of goods & services in Russia. Since the P value (0.842> 0.05), we accept the null hypothesis that there is no impact on export of goods & services and GDP.

SOUTH AFRICA:-

Export of goods & services and GDP	Export of goods and services	GDP
Year		
2015-2016	31.5	0.6
2016-2017	30.2	1.4
2017-2018	30.7	0.8
2018-2019	29.8	0.7

Correlation :-

	Export of goods and services	GDP
Export of goods and services	1	
GDP	-0.411	1

Interpretation :-

There is low negative correlation between export of goods & services and GDP in South Africa. It shows that with decrease in 1 percentage in export of goods & services leads to -0.411 percentage increase in GDP.

Regression :-

H0: there is no significant impact of Export of goods & services on GDP.
H1: there is significant impact of Export of goods & services on GDP.

Regression Statistics	
Multiple R	0.411
R Square	0.169
Adjusted R Square	-0.246
Standard Error	0.401
Observations	4

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	0.066	0.066	0.408	0.589
Residual	2	0.322	0.161		
Total	3	0.388			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	7.042	9.661	0.729	0.542	-34.53	48.61	-34.53	48.61
Export of goods and services	-0.202	0.316	-0.638	0.589	-1.562	1.159	-1.562	1.159

Interpretation :-

From the value of R Square of 0.169 indicates that 16.9% of the variation in GDP can be explained by export of goods & services in South Africa. Since the P value (0.589> 0.05), we accept the null hypothesis that there is no impact on export of goods & services and GDP.

Chapter :- 6

FINDING

- **Impact of GDP on External debt :-**

Country	R	R^2	P Value	Relation	Formula
INDIA	0.579	0.335	0.421	No relation	
CHINA	0.4819	0.2322	0.518	No relation	
BRAZIL	0.86	0.74	0.14	No relation	
RUSSIA	0.9794	0.9595	0.021	Significant relation	ED=32-0.13639=31.86
SOUTH AFRICA	0.168	0.028	0.832	No relation	

- There is no relation between GDP and external debt in above countries. In Russia there is significant relation on external debt and GDP that is ED=32-0.13639=31.86

- **Impact of GDP on FDI Net in flow:-**

Country	R	R^2	P Value	Relation	Formula
INDIA	0.049	0.002	0.951	No relation	
CHINA	0.642	0.413	0.358	No relation	
BRAZIL	0.115	0.013	0.885	No relation	
RUSSIA	0.426	0.181	0.574	No relation	
SOUTH AFRICA	0.509	0.259	0.491	No relation	

- There is no relation between GDP on FDI net inflow in above countries.

- **Impact of GDP on Interest payment of External debt:-**

Country	R	R^2	P Value	Relation	Formula
INDIA	0.951	0.838	0.085	No relation	
CHINA	0.657	0.431	0.343	No relation	
BRAZIL	0.791	0.625	0.209	No relation	
RUSSIA	0.997	0.995	0.003	Significant relation	ED=1.2-3.3=-2.1
SOUTH AFRICA	0.379	0.143	0.621	No relation	

- There is no relation between GDP and external debt in above countries. In Russia there is significant relation on external debt and GDP that is ED=1.2-3.3=-2.1

- **Impact of GDP on Exports of Goods and Services :-**

Country	R	R^2	P Value	Relation	Formula
INDIA	0.976	0.953	0.024	Significant relation	ED=18.9-0.323=18.577
CHINA	0.722	0.521	0.278	No relation	
BRAZIL	0.985	0.97	0.015	Significant relation	ED=12-2.512=10.088
RUSSIA	0.158	0.025	0.842	No relation	
SOUTH AFRICA	0.411	0.169	0.589	No relation	

- There is no relation between GDP and external debt in above countries. In India and Russia there are significant relation on Exports of Goods & services and GDP, India ED=18.9-0.323=18.577 and Russia ED=12-2.512=10.088.

Chapter :-7
Conclusion

This study examines the relationship between and external debt, FDI net inflow, interest payment on external debt, export of goods & services and GDP for the period of last four years data. The study use of yearly data has been collected from the World Bank, IMF websites results of the study are as follow :-

This study concludes that there is positive relationship between economic growth & GDP as when economic growth is rise, a GDP is also rise.

This study concludes that there is negative relationship between economic growth is rise, a GDP move down but up to certain level.

Therefore. We expect external debt announcement to have significant impact on the GDP. The focus here has been it sees how the countries react to a widely known event, having an economy wide impact .

Chapter :-8
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Chapter :- 9
Appendix

Data from external debt, FDI net inflow, GDP per capita growth, interest payment on external debt, export of goods & services.

INDIA :-

EXTERNAL DEBT STOCK (% on GDP):-

External debt stock and GDP	External debt
Year	
2015-2016	22.7
2016-2017	22.9
2017-2018	12.8
2018-2019	19.8

FDI NET INFLOW (% of GDP) :-

FDI Net inflow and GDP	FDI Net inflow
Year	
2015-2016	1.7
2016-2017	2.1
2017-2018	2
2018-2019	1.5

INTREST PAYMENT ON EXTERNAL DEBT (% of GDP):-

Interest Payment of external debt and GDP	Interest Payment of external debt
Year	
2015-2016	0.6
2016-2017	0.5
2017-2018	0.5
2018-2019	0.5

EXPORT OF GOODS &SERVICES (% of GDP):-

Export of goods & services and GDP	Export of goods and services
Year	
2015-2016	23
2016-2017	19.8
2017-2018	19.3
2018-2019	18.9

CHINA:-

EXTERNAL DEBT STOCK (% on GDP):-

External debt stock and GDP	External debt
Year	
2015-2016	16.9
2016-2017	12
2017-2018	12.8
2018-2019	14

FDI NET INFLOW (% of GDP):-

FDI Net inflow and GDP	FDI Net inflow
Year	
2015-2016	2.6
2016-2017	2.2
2017-2018	1.6
2018-2019	1.4

INTREST PAYMENT ON EXTERNAL DEBT (% on GDP):-

Interest Payment of external debt and GDP	Interest Payment of external debt
Year	
2015-2016	0.4
2016-2017	0.4
2017-2018	0.3
2018-2019	0.5

EXPORT OF GOODS &SERVICES (% on GDP):-

Export of goods & services and GDP	Export of goods and services
Year	
2015-2016	23.5
2016-2017	21.3
2017-2018	19.7
2018-2019	19.8

BRAZIL:-

EXTERNAL DEBT STOCK (% on GDP):-

External debt stock and GDP	External debt
Year	
2015-2016	23.1
2016-2017	30.8
2017-2018	30.9
2018-2019	27

FDI NET INFLOW (% of GDP):-

FDI Net inflow and GDP	FDI Net inflow
Year	
2015-2016	4
2016-2017	4.1
2017-2018	4.3
2018-2019	3.4

INTREST PAYMENT ON EXTERNAL DEBT (% on GDP):-

Interest Payment of external debt and GDP	Interest Payment of external debt
Year	
2015-2016	0.7
2016-2017	1
2017-2018	1.3
2018-2019	1

EXPORT OF GOODS &SERVICES (% on GDP):-

Export of goods & services and GDP	Export of goods and services
Year	
2015-2016	11
2016-2017	12.9
2017-2018	12.5
2018-2019	12.6

RUSSIA:-

EXTERNAL DEBT STOCK (% on GDP):-

External debt stock and GDP	External debt
Year	
2015-2016	27.5
2016-2017	35.1
2017-2018	42.1
2018-2019	32

FDI NET INFLOW (% of GDP):-

FDI Net inflow and GDP	FDI Net inflow
Year	
2015-2016	1.1
2016-2017	0.5
2017-2018	2.5
2018-2019	1.8

INTREST PAYMENT ON EXTERNAL DEBT (% on GDP):-

Interest Payment of external debt and GDP	Interest Payment of external debt
Year	
2015-2016	1
2016-2017	1.4
2017-2018	1.6
2018-2019	1.2

EXPORT OF GOODS &SERVICES (% on GDP):-

Export of goods & services and GDP	Export of goods and services
Year	
2015-2016	27.1
2016-2017	28.6
2017-2018	25.7
2018-2019	26

SOUTH AFRICA:-

EXTERNAL DEBT STOCK (% on GDP):-

External debt stock and GDP	External debt
Year	
2015-2016	41.5
2016-2017	44.6
2017-2018	50.8
2018-2019	52

FDI NET INFLOW (% of GDP):-

FDI Net inflow and GDP	FDI Net inflow
Year	
2015-2016	1.7
2016-2017	0.5
2017-2018	0.7
2018-2019	0.4

INTREST PAYMENT ON EXTERNAL DEBT (% on GDP):-

Interest Payment of external debt and GDP	Interest Payment of external debt
Year	
2015-2016	1.4
2016-2017	1.7
2017-2018	1.9
2018-2019	1.6

EXPORT OF GOODS &SERVICES (% on GDP):-

Export of goods & services and GDP	Export of goods and services
Year	
2015-2016	31.5
2016-2017	30.2
2017-2018	30.7
2018-2019	29.8