

# **IMPACT ON GLOBAL ECONOMY OF IMF LOAN DISBURSEMENT & REPAYMENT**

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## **ABSTRACT:**

In the global economy role of international financial institutions is increasing day by day. All the countries are connected with each other to improve their economy .so, that they can depend less on IMF. My analysis has been emphasised on IMF loan disbursement and repayment during the study period of 2004 to 2014. Bivariate correlation has been applied to the select global economic variables with BDI. Granger causality test has been applied on the johansen co-integration tested data and observed that IMF loan disbursement repayment was not affected. Regression weight estimation indicated that global inflation had impacted the IMF SDR's and world GDP during the analysis period. This study is useful to the international institutions such as World Bank, IMF, European Union and bricks bank.

**KEY WORDS: IMF REPAYMENT, DISBURSMENT, BDI, GDP and INFLATION**

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## **INTRODUCTION:**

About four out of five member countries have used IMF credit at least once. But the amount of loans outstanding and the number of borrowers have fluctuated significantly over time. In the first two decades of the IMF's existence, more than half of its lending went to industrial countries. But since the late 1970s, these countries have been able to meet their financing needs in the capital markets.

The oil shock of the 1970s and the debt crisis of the 1980s led many lower- and lower-middle-income countries to borrow from the IMF. In the 1990s, the transition process in central and Eastern Europe and the crises in emerging market economies led to a further increase in the demand for IMF resources.

In 2004, benign economic conditions worldwide meant that many countries began to repay their loans to the IMF. As a consequence, the demand for the Fund's resources dropped off sharply. But in 2008, the IMF began making loans to countries hit by the global financial crisis The IMF currently has programs with more than 50 countries around the world and has committed more than \$325 billion in resources to its member countries since the start of the global financial crisis.

While the financial crisis has sparked renewed demand for IMF financing, the decline in lending that preceded the financial crisis also reflected a need to adapt the IMF's lending instruments to the changing needs of member countries. In response, the IMF conducted a wide-ranging review of its lending facilities and terms on which it provides loans.

In March 2009, the Fund announced a major overhaul of its lending framework, including modernizing conditionality, introducing a new flexible credit line, enhancing the flexibility of the Fund's regular stand-by lending arrangement, doubling access limits on loans, adapting its cost structures for high-access and precautionary lending, and streamlining instruments that were seldom used. It has also speeded up lending procedures and redesigned its Exogenous Shocks Facility to make it easier to access for low-income countries.

**Debt relief:** In addition to concessional loans, some low-income countries are also eligible for debts to be written off under two key initiatives. The Heavily Indebted Poor Countries Initiative, introduced in 1996 and enhanced in 1999, whereby creditors provide debt relief, in a coordinated manner, with a view to restoring debt sustainability; and the Multilateral Debt Relief Initiative, under which the IMF, the International Development Association of the World Bank, and the African Development Fund canceled 100 percent of their debt claims on certain countries to help them advance toward the Millennium Development Goals.

## REVIEW OF LITERATURE

**Jan Aart Scholte:** According to their analysis they have give priority to IMF and civil society in Africa. They only mentioned a secret relationship between IMF & civil society of sub-saharen Africa. This study is limited to sub-saharen countries. My study is focused on global economy changes pressure on IMF.

**Brian- Vincent Ikejiaku:** According to their research their attempts to employ and apply the dependency and liberal economic theories in order to demonstrate how these true theories help in the accurate analysis and explanation of the accurate analysis and explanation of the debt crisis in the developing countries, particularly Africa and especially Nigeria's .They have limited only developing countries i.e., the policies of IMF & other IMF's of Nigeria leaders.

**Christian Thiman, Christian just:** According to their research the challenges of economic globalisation and establish it firmly as the central institution for international monetary cooperation. This study is limited to internal management of IMF to protect from the changes of globalization. My study has been focused on to measure the effect of loan disbursement and repayment.

**Lauren Rodier:** According to their research they have to limit the role of IMF to only South-Korea during Asian financial crisis. i.e., for adjustment loans, employment, marketing & housing. This study is limited to Asian financial crisis. This study is not having any relevance to my study because I had focused on global economic changes including financial crisis.

**Lex rieffel:** According to their observation have done research only 90 developing countries. They policies has only limited to neoliberals and policy makers & borrowing countries. But where has my observation deal with inflation, dollar index, loan disbursement & repayment all over the world. But not only developing country all nations around the world.

**Gunhild j. Ecklend:** Their research deals only with conflicts and corporations Scandinavian countries with the relationship with the relationship with IMF and also the corporation with

Sweden countries. But where have my research deals with global relationship around 183 countries and my research don't deal with any conflicts & corporations. Hence this study is not having any relevance to my study.

**Cerani, Charles A:** According to their study they failed to foresee the sudden plunges of the Asian economics and moment of collapse, bankruptcies and joblessness. IMF has been accused encouraging global investors. In this study does not deal with the any of the situations or unnecessary practices of investors.

**Nalini Umashankar:** their data is limited to the data given by bloom burg that is Meta data to improve IMF use of Meta data standards enhances the accountability of countries for providing quality information about their economy and improves the understanding of data by users. According to my research is done based on IMF data only. Not related to any meta data.

**Sheila Linette Betker:** the study is about effect of the IMF's structural adjustment programs on women in Latin America and the Caribbean. Case studies of Jamaica Demonstrates that the IMF's structural adjustment programmes not only have been ineffective in stabilizing the Jamaican economy but have harmed women in each of their three roles. Where my study has is on impact of global economy of IMF loan disbursement and repayment is not related to their study.

**NEED:** Role of international financial institutions are increasing in the modern economy. IMF, world bank, Asian development banks, and bricks banks are helping the countries not only to lower income countries but also debt ridden developed nations, global economy moment is changing day by day but unfortunately most of the countries are failed to co-up with the changes in the global economy. I had observed various research papers who had done on international financial institutions and found a research gap. Whereas no research has been done to measure the impact of global economy on IMF loan repayment & disbursement till today. Hence I had considered IMF data along with macro level economic variables.

## **OBJECTIVE**

1. To find relationship of BDI with exports and imports, inflation, GDP and dollar index
2. To study the dollar index impact on exports and imports.
3. To know the relationship of dollar index with SDR loan disbursement and repayment.
4. To find the BDI impact on IMF loan disbursement and repayment.
5. To measure the impact of inflation on IMF SDR and global GDP.

**SCOPE:** This analysis has been focused for the period of 10 years i.e.; 2002-2014. Loan disbursement & repayment of IMF has been considered from the IMF portal. BDI has been considered as the global economic indicators. Inflation & GDP of 181 countries has been considered to measure their impact on repayment & disbursement of IMF.

**EMPIRICAL STUDY: BDI, dollar index, SDR, imports & exports, GDP, repayment & disbursement and inflation**

**RESEARCH METHODOLOGY:** This study has been done on historical data by using statistical tools

**Bivariate correlation:** it is a measure of the relationship between the two variables; it measures the strength of their relationship, which can range from absolute value 1 to 0. the stronger relationship, the closer the value is to 1. Then the formula for  $\rho$  can be written as

$$\rho_{X,Y} = \frac{E(XY) - E(X)E(Y)}{\sqrt{E(X^2) - E(X)^2} \sqrt{E(Y^2) - E(Y)^2}}$$

**Johansen co integration:** it is a procedure for testing co integration of several time series. This test permits more than one co integration relationship so is more generally applicable than the Engle – Granger test which is based on the Dickey – fuller(or augmented) test for unit roots in the residuals from a single (estimated) co integrating relationship.

$$\Delta y_{1t} = \gamma \Delta y_{2t} + \Delta \varepsilon_{1t} = \gamma \varepsilon_{2t} + \varepsilon_{1t} - \varepsilon_{1,t-1}$$

**Regression:** a regression is a statistical analysis assessing the association between two - variables .it is used to find the relationship between two variables. **Y= a+bx**

**Granger causality test:** Granger defined the relationship based on two principles the cause happens prior to its effect the cause has unique information about the future values of its effect. Given these two assumptions about causality, granger proposed to test the following hypothesis for identification of causal effect X on Y.

$$\mathbb{P}[Y(t + 1) \in A | \mathcal{I}(t)] \neq \mathbb{P}[Y(t + 1) \in A | \mathcal{I}_{-X}(t)]$$

**LIMITATIONS**

**DATA ANALYSIS**

1. To find relationship of BDI with exports and imports, inflation, GDP and dollar index

		BDI	EXPORTS	IMPORTS	INFLATION	GDP	DOLLARINDEX
BDI	Pearson Correlation	1	0.04	0.056	0.095	0.458	0.069
	Sig. (2-tailed)		0.891	0.848	0.746	0.099	0.813
	N	14	14	14	14	14	14

**Interpretation:** The above analysis of bivariate correlation has been applied on the select global economic variables with BDI all the variables were positively correlated but global GDP moderately correlated and rest of the variables were slightly correlated during the analysis period.

2. To study the dollar index impact on exports and imports.

Multiple R	0.792
R Square	0.627
Adjusted R Square	0.544
Std. Error of the Estimate	2.053
Log-likelihood Function Value	-35.473

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	63.781	2	31.89	7.567	0.012
Residual	37.93	9	4.214		
Total	101.71	11			

	Unstandardized Coefficients		Standardized Coefficient		T	Sig.
	B	Std. Error	Beta	Std. Error		
(Constant)	9.894	10.165			0.973	0.356
EXPORTS	0.265	0.116			1.301	0.568
IMPORTS	-0.042	0.042			-0.575	0.568

**Interpretation:** The above analysis of regression equation has been applied to measure the impact of global currency fluctuation (dollar index) on global exports and imports. The probability value is observed significant with the  $r^2$  value 62.7% that is above the slope rate. Coefficient of exports and imports probability value was observed significantly. Which are below the 0.5%.

3. To know the relationship of dollar index with SDR loan disbursement and repayment.

		DOLLARINDEX	SDR	REPAYMENT	DISBURSMENT
DOLLARINDEX	Pearson Correlation	1	0.385	.704*	-0.222
	Sig. (2-tailed)		0.272	0.023	0.538
	N	10	10	10	10

**Interpretation:** The bivariate correlation has been applied with international currency dollar index to IMF, SDR, repayment & disbursement. The analysis result shows the SDR & repayment of IMF were positively correlated but disbursement of loans by the IMF were negatively correlated with the dollar index.

4. To find the BDI impact on IMF loan disbursement and repayment

BDI DISBURSMENT	Data Trend:	None	None	Linear	Linear	Quadratic		
	Rank or	No Intercept	Intercept	Intercept	Intercept	Intercept	AIC	SIC
	No. of CEs	No Trend	No Trend	No Trend	Trend	Trend		
LL rank values	0	-332.3175	-332.318	-332.197	-332.197	-330.2447	67.26351	67.38454
	1	-327.2865	-322.598	-322.54	-322.369	-320.6591	67.05731	67.29937
BDI REPAYMENT	2	-326.4786	-319.465	-319.465	-319.27	-319.2696	67.69573	68.05883
LL rank values	0	-335.6839	-335.684	-335.398	-335.398	-333.5041	67.93679	68.05782
	1	-334.5159	-315.778	-315.672	-315.566	-314.387	68.50317	68.74524
	2	-334.2386	-314.698	-314.698	-313.928	-313.9275	69.24772	69.61083

**Interpretation:** The above analysis is johenson co integration has been applied between global economy indicators BDI to IMF loan disbursement. The log likelihood rank values

were observed in decreasing trend in both the linear and quadratic model along the data is stated to be co integrated.

Null Hypothesis:	Obs	F-Statistic	Prob.
BDI does not Granger Cause DISBURSMENT	10	2.21622	0.2046
BDI does not Granger Cause REPAYMENT	10	7.16127	0.0341

**Interpretation:** The above analysis of granger causality test has been applied to measure the global economy impact on IMF loan disbursement. The null hypothesis has been accepted and rejects the alternative hypothesis. This hypothesis analysis indicates that IMF loan disbursement were not caused by the global economy movements during this study period

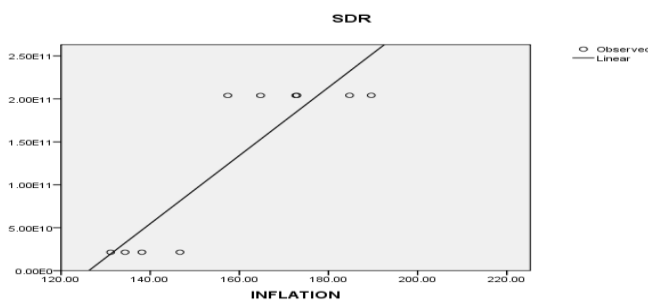
**Interpretation:** The granger causality test has been applied between BDI &IMF loan repayment. The null hypothesis has been accepted and reject the alternative hypothesis has the probability value of null is significant which indicates that countries loan repayment to the IMF were not affected by global economy during the study period.

5. To measure the impact of inflation on IMF SDR and global GDP.

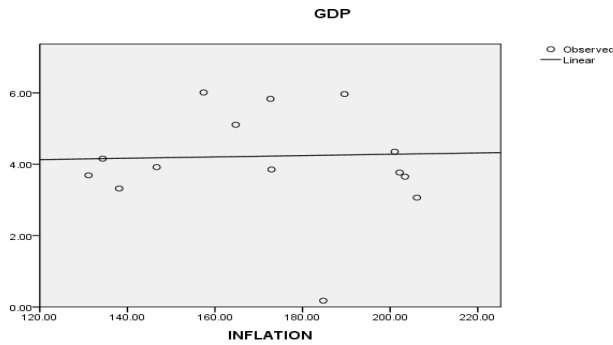
Variables		Dependent		Independent	
		SDR	GDP	INFLATION	
Number of Positive Values	10	14	14		
Number of Zeros	0	0	0		
Number of Negative Values	0	0	0		
Number of Missing Values	User-Miss	0	0	0	
	System-M	5	1	1	

Equation	Model Summary		Parameter Estimates			Constant	b1
	R Square	F	df1	df2	Sig.		
Linear	0.785	29.257	1	8	0.001	-5.01E+11	3.97E+09

**Interpretation:** The above analysis of regression linear curve has been applied to measure the global inflation impact on IMF, SDR and global GDP. The probability value is observed as significant which is 0.001 with the  $r^2$  of 78.5%.this analysis denotes that both the select variables were influenced by the global inflation.



**Interpretation:** The above graph depicts that observe values were scattered both the sides of the linear trend line of inflation that IMF SDR were getting fluctuation this inflation.



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### FINDINGS:

1. Global GDP is moderately correlated with the global future economic indicator BDI.
2. This analysis had observed that global currency fluctuations influence the world exports & imports during study period.
3. Dollar index is having strong correlation with IMF repayment but it is having negative correlation with IMF loan disbursement.
4. Global economy not affected the IMF loan repayment & disbursement during the study period.
5. Global inflation affected the IMF SDR & world GDP during the analysis.

**CONCLUSION:** I conclude the analysis of global economy impact on IMF loan disbursement & repayment the study has been emphasised from 2004 & 2014 during this decade world economy experienced the financial recession in the year 2008. I had considered few global economic variables which were in line with the IMF objectives. The analysis result unveils that global currency dollar index affected the world exports & imports even though IMF loan disbursement and repayment were not caused by the global economy movements during the study period in spite global inflation is having the impact on IMF SDR & world GDP .hence there is a further scope to do research in this area to measure the impact on IMF loan disbursement repayment by consideration .other economic variables in the post recession period. So, that efficiency of IMF loan disbursement repayment can be improved.

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