

**A COMPARATIVE STUDY OF THE IMPACT OF GFC- 2008 ON SELECTED ECONOMIES AND THEIR MONETARY POLICIES****Prof. Keerti Kulkarni*, Dr. M.M. Munshi*** Asst. Professor DVHIMSR, Dharwad
Associate Professor VTU, Belagavi**DOI: 10.5281/zenodo.59948****KEYWORDS:** GDP, FDI, Global Financial Crisis, Monetary policy, macro-economic indicator, advanced. Emerging, low income economy, advanced economy, emerging and low-income economy.**ABSTRACT**

Most of the economies today are contrasted with their geographic, demographic and economic trends. A small turbulence in these economies would leave the economies go in deep troubles. Second great depression which was termed as the global financial crisis 2008 was felt in the mid of September 2008, whose effects were critically evaluated by the economists. The growth in various sectors dwindled, causing huge losses to businesses in trillions of dollars which were responsible due to the fall in stock market prices. Interventions adopted by the apex institutions like central banks and resident governments to withhold such shocks were undertaken to lessen and control them through instrumental object like monetary policy which play a very significant role . The present paper focuses on the economic trends of three countries depending upon the categorization of their developments, i.e., advanced economy, emerging economy and low income economy. The study includes United States, China and Tanzania (Sub-Saharan Africa). The analyses of various macro-economic indicators (variables for the study) of these countries are considered to estimate the factors which influence the growth (GDP) of these economies. The correlation analysis and t- test statistics forms a major part of the study .The hypothesis statements for the variables are considered to study the interrelationship between the GDP as a constant variable in comparison to the other variables. The main findings of the study reveal that the advanced economies are highly influenced by the foreign exchange reserves and current account balance as their main factor for the growth i.e., Gross Domestic Product (GDP). Emerging economy like China has been influenced by FDI, which plays a vital role thereby increasing the country's overall reserves as the main factor for growth. Tanzania as the low-income country in past few years observed potential growth in external debt, FDI and reserves, showing a negative current account balance, since the country has very less impact of global financial crisis 2008 over its growth. The impact of monetary policies of Federal reserve on financial crisis were stimulative which lowered the federal fund rates (zero lower bound), which was stable for a longer time. The People's Bank of China implemented on how to stimulate household consumption effectively and mitigate the pressure of unemployment along with the strategies to diversify China's foreign exchange portfolio. To rescue the world economies from this global down turn, the IMF called for arrangements to provide emergency liquidity, improve financial sector supervision and take a comprehensive approach to financial sector stability assessment that includes all types of institutions. For low-income country, Tanzanian economy to rescue, the IMF called for arrangements to provide emergency liquidity, improve financial sector supervision and take a comprehensive approach to financial sector stability assessment that includes all types of institutions.

INTRODUCTION**RESEARCH METHODOLOGY****Need and Background of the study:**

The purpose of the study was to find the interrelationships between the variables of selected economies with the growth (GDP) and the impact of monetary policies adopted to combat the financial crisis 2008 of these economies. It is necessary to study the global economy with the contrast of factors (macro-economic indicators) which tend to respond to the shockwaves caused from time to time. From the Central Bank's approach it is necessary to find out the monetary actions taken responding to the economies. The main focus on this study is towards the correlation analysis between the variables and find out the reasons for variations in interrelationships between the same.

**Objectives of the Study**

- To study the comparative economies based on the relationship between the variables selected.
- To evaluate the interrelationships between the variables through correlation analysis.
- To test the hypotheses for the selected variables and their interrelationship study.
- To study the monetary policies of the selected economies
- To analyze the reasons for weak or strong monetary policies undertaken by the central banks of these economies.

Limitations of the Study

- The study is limited to the scope of only few variables
- The study considers only 10 years data for the selected variables
- Since the data analyzes regression, but the p values calculated show the greater values compared to the significance level at (5%) i.e., 0.05. The reason being the constraint of unavailable data for monthly data of the variables taken under consideration.

INTRODUCTION

Most of the economies today are contrasted with their geographic, demographic and economic trends. A small turbulence in these economies would leave the economies go in deep troubles. Second great depression which was termed as the global financial crisis 2008 was felt in the mid of September 2008, whose effects were critically evaluated by the economists. The growth in various sectors dwindled, causing huge losses to businesses in trillions of dollars which were responsible due to the fall in stock market prices. The main reasons being the subprime crisis with two main critical issues like low interest rate; and The financial products out of any kind of public supervision and inherent systemic risk on them. Interventions adopted by the apex institutions like central banks and resident governments to withhold such shocks were undertaken to lessen and control them through instrumental object like monetary policy which play a very significant role .

The Bird's eye view of The Global Financial Crisis: 2008

The Global Financial Crisis (GFC) has been referred as the worst since the Great Depression of the 1930s. It has contributed to the failure of key businesses; decline in consumer wealth estimated in trillions of U.S. dollars; triggered a significant decline in economic activities; and prompted substantial financial commitments by governments. The main reasons for this failure were mortgage loans extended to borrowers at highly concessional terms, weak oversight and poor supervision of banks and financial institutions; and excessive relaxation of fundamental rules and regulatory requirements for financial institutions. As a result of the above weaknesses an accumulation of bad loans and business loss amounting to US\$ 2.3 trillion (or 17 percent of the USA's GDP) were realized. Both market-based and regulatory solutions have been implemented or are under consideration, while significant risks remain for the world economy. Economies worldwide started slowing down in the late 2008 as monetary policies started getting tightened and international trade declined. The credit rating agencies and investors failed to accurately price the risk involved with mortgage-related financial products, and governments did not adjust their regulatory practices to address 21st century financial markets. Governments and Central banks responded with an exceptional fiscal stimulus, monetary policy expansion, and institutional bailouts. Poor understanding of the chemistry of financial sector was a major drawback which caused an economic shock .The role of Central banks in this concern is of greater significance. The present paper focuses mainly the reasons, consequences and policy implementation of the economies taken under consideration.

Impact in USA after the financial crisis 2008 and the impact of monetary policy adopted by the Federal Reserve

At the beginning of the financial crisis, many countries were clear that it was a purely American subprime resulted in the US government bailing out by the World Bank and International organization like International Monetary Fund (IMF) several large financial institutions, such as AIG, Fannie Mae, and Freddie Mac, which were the reasons of default causing a serious downfall in the economy of United States. The largest import region was in deep financial trouble, causing international trade drastically drop, credits tightened, and direct foreign investments were swiftly withdrawn by various Financial Institutional Investors (FII's), resulting in the domino



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effect termed as the second great depression 2008 after the great depression 1930 which was also in the same magnitude. The economy was however interconnected with the world economy was unable to escape and get unscathed from this financial crisis with their heavy reliance led by other representing countries on international trade. In the early stages of the financial crisis, the Federal Reserve pursued goal of preserving financial stability and the effective transmission of monetary policy. Whilst taking very different actions, it adapted the operational framework so as to accommodate dysfunctional money markets and fully played the role of lender of last resort with respect to the financial sector. In the course of the period that preceded the collapse of Lehman Brothers, the FED mainly adjusted the composition of the balance sheets of the financial sector which was a crucial role that was adopted subsequently.

Explanation of few policies Implemented:

During December 2008, in the midst of the financial crisis, the Fed lowered the federal funds (interest rates) to a range of 0% basis points to 0.25%. For the first time rates were ever lowered to zero lower bound (then termed so). This remained until the Fed started raising rates by December 2015. This policy was adopted as a hope that the increase would be the first step in a series which would incrementally tighten the monetary policy. It increased them by 0.25 to 0.5 percentage points at a time. Although monetary policy now at present is seen to be less stimulative than it had been earlier. The Fed still added stimulus to the economy as long as the rates were below what economists predicted and termed as the “neutral rate” (or the long-run equilibrium rate). The Fed’s further expected for future rates intending to keep a stimulative policy in place for some more time. Later it would realize that the economic conditions would evolve in a manner that warranted only gradual increases in the federal funds rate. The federal funds rate remained, for some time, below levels that are expected to prevail in the long run.” As the economic recovery consistently proved weaker than expected, the Fed repeatedly pushed back the timeframe for raising interest rates. As a result, the economic expansion was in its seventh year and the unemployment rate was already near the Fed’s estimate of full employment when it began raising rates. This was a departure from past practice—by contrast, in the previous two economic expansions.

Impact in China after the financial crisis 2008 and the impact of monetary policy adopted by People’s Bank of China

The US subprime crisis which broke out in the mid of 2007 evolved into a global financial crisis after the bankruptcy of Lehman Brothers in September 2008. The subsequent liquidity squeeze and credit crunch caused a world-wide economic slowdown.. The emerging countries like China also faced not only a dramatic decline of economic growth, but also a surge of capital outflows. A financial crisis broke the economy, driven by significant current account deficits, heavy debt burdens denominated in foreign currencies and a sudden stop or even reversal of capital inflows.

As the largest developing country and an export-driven economy, it would have been impossible for China to dodge the impact of the global financial and economic crisis. China is over-dependent on exports to stimulate its economic growth but this strength weakened the external demand with a heavy blow.

Explanation of few policies implemented:

At the end of 2008 the People’s Bank of China (PBoC, the Chinese central bank) had foreign exchange reserves worth US\$1.95 trillion, of which a large part were denominated in US dollars, especially US treasury bonds and agency bonds. The potential devaluation and downgrade of its US treasury or agency bonds resulted in the deepening of the subprime crisis which eroded the international purchasing power of China’s foreign exchange reserves. The global financial crisis had a significant negative impact on the Chinese economy, affecting the exports, foreign exchange reserves and structural adjustments. The Chinese Government’s reaction was effective in boosting short-term economic growth, but was insufficient to ensure sustainable long-term growth and new risks arose. Policy suggestions included on to stimulate household consumption effectively, as well as mitigating the pressure of unemployment and how to diversify China’s foreign exchange portfolio. Monetary policy regulation and control mainly plays a role in the following four aspects: inflation, economic growth, employment rate, and balance of payments. The People’s Bank of China, monetary policies of the People’s Bank of China aims at maintaining the stability of the value of currency and thereby promote economic growth, that is to say, currency stability and economic growth have been long official targets of Chinese monetary policies. In order to stabilize goods price and enhance economic growth, Chinese monetary China’s monetary policy is still in exploration,



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flexible and loosen and tight monetary policies are taken as and how the economic conditions respond. These monetary policies are constantly optimized and moderately tightened. The behaviour of the macro-economic variables stimulates the monetary policy to either adopt loose or tight. For instance if the expansion of economy has to be implemented because of economic slowdown, then the policy would have to be loosened and visa versa.

Impact in Tanzania after the financial crisis 2008 and the impact of monetary policy adopted by the Bank of Tanzania

The effects of the GFC on under-developed countries were forecasted to be comparable to those on developed countries. The Sub-Saharan African growth by early 2009 were downgraded by between 1 to 2 percent up to 5.5 percent in 2008 and 5.1 percent in 2009. By October 2009, it recorded a deficit of 3 percent from about 2.8 percent surplus in 2008. The revision represented a reduction of up to USD 20 per head due to the financial crisis. The channels through which the global financial turmoil affects include *financial channels* and *real channels*. Financial channels include effects through stock markets, banking sector (borrowing from advanced economies, foreign ownership of banks, exposure to sub-prime market), and Foreign Direct Investment (FDI). Real channels include effects through remittances, exports, imports, terms of trade and aid. Previous slowdowns and absence of policy responses decreased the net financial flows due to which there was a fall by as much as \$300 billion in descending two years as much as equivalent to a 25 percent drop.

Explanation of few policies Implemented:

To rescue the world economies from this global down turn, the IMF called for arrangements to provide emergency liquidity, improve financial sector supervision and take a comprehensive approach to financial sector stability assessment in all the sub-saharan countries. In Tanzania, international support came from the G-20, which had promised to provide an additional \$220 million to the government's rescue package. Tanzania is one of eight countries receiving Global Financial Crisis funds of more than USD255 million. Other African countries in the line following were Ghana, Liberia and Zambia. In October 2009, the USAID office in the country issued USD37.7 million as Financial Crisis Initiative Package. The office also promised to partner with Tanzania's local banks to provide up to USD10 million in credit and financing options for agribusinesses, including over 1,000 Small and Micro-enterprises and households through micro-finance over a five year period to stimulate production and improve food security. At the outset Tanzania is one of the poorest nations who with the financial assistance of Asian Development Bank, IMF and World Bank could resist the global turmoil and ensure a still stabilized economy.

ANALYSIS AND INTERPRETATIONS TANZANIA

Years	GDP (Billions of US Dollars)	Inflation	External Debt (percent of GNI)	Exchange Rates	FDI	Reserves (Billion Reserves)	Current Account Balance
2006	18.6	7.3	22.2	1251.9	0.4	2.3	-1.1
2007	21.5	7.0	24.4	1245.0	0.6	2.9	-1.7
2008	27.4	10.3	22.9	1196.3	1.4	2.9	-2.6
2009	28.6	12.1	27.9	1320.3	1.0	3.5	-1.8
2010	31.4	6.2	30.0	1409.3	1.8	3.9	-2.0
2011	33.9	12.7	30.9	1572.1	1.2	3.7	-4.0
2012	39.1	16.0	31.0	1583.0	1.8	4.1	-3.8



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2013	44.4	7.9	30.4	1600.4	2.1	4.7	-4.7
2014	48.1	6.1	30.1	1654.0	2.0	4.4	-4.9
2015	48.0	6.0	30.0	1655.0	2.0	4.0	-5.0

Correlation Matrix

	GDP (Billions of US Dollars)	Inflation	External Debt (percent of GNI)	Exchange Rates	FDI	Reserves (Billion Reserves)	Current Account Balance
GDP (Billions of US Dollars)	1						
Inflation	-0.0799889	1					
External Debt (percent of GNI)	0.7924301	0.2008269	1				
Exchange Rates	0.9227824	0.0248741	0.8845197	1			
FDI	0.9121449	0.0787368	0.7556907	0.7832272	1		
Reserves (Billion Reserves)	0.9017754	0.0180104	0.9144839	0.8718602	0.8925777	1	
Current Account Balance	-0.9475506	0.0018073	-0.7145764	-0.907721	0.8159054	0.8141195	1

CHINA

Years	GDP (Billions of US Dollars)	Inflation	External Debt (percent of GNI)	Exchange Rates	FDI	Reserves (Billion Reserves)	Current Account Balance
2006	2082.18	1.5	11.8	8.0	133.3	1080.8	231.8
2007	2673.29	4.8	10.5	7.6	156.3	1546.4	353.2
2008	3441.22	5.9	8.3	7.0	171.5	1966.0	420.6
2009	3800.47	-0.7	8.8	6.8	131.1	2452.9	243.3
2010	4514.94	3.3	9.3	6.8	243.7	2913.7	237.8
2011	5574.19	5.4	9.6	6.5	280.1	3254.7	136.1



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2012	6264.64	2.6	8.9	6.3	241.2	3387.5	215.4
2013	6991.85	2.6	9.2	6.2	290.9	3880.4	182.8
2014	7590.02	2.0	9.3	6.1	289.1	3900.0	185.1
2015	8260.01	1.4	9.4	6.5	290.1	3900.0	192.2

Correlation Matrix

	GDP (Billions of US Dollars)	Inflation	External Debt (percent of GNI)	Exchange Rates	FDI	Reserves (Billion Reserves)	Current Account Balance
GDP (Billions of US Dollars)	1						
Inflation	-0.19019	1					
External Debt (percent of GNI)	-0.43243	-0.10739	1				
Exchange Rates	-0.87949	0.064325	0.723104	1			
FDI	0.906759	0.11784	-0.32305	-0.82482	1		
Reserves (Billion Reserves)	0.969622	-0.16508	-0.53313	-0.95047	0.915519	1	
Current Account Balance	-0.62553	0.409319	-0.12146	0.521078	-0.6469	-0.65503	1

USA

Years	GDP (Billions of US Dollars)	Inflation	Banking Lending Rates	Unemployment Rates	FDI	Reserves (Billion Reserves)	Current Account Balance
2006	46437.07	3.20	8.0	4.7	294.29	221.09	-806.73
2007	48061.54	2.90	8.1	4.7	340.06	277.55	-718.64
2008	48401.43	3.80	5.1	5.9	332.73	294.05	-690.79
2009	47001.55	-0.40	3.3	9.4	153.79	404.10	-384.02
2010	48374.05	1.60	3.3	9.7	259.34	488.93	-441.96
2011	49781.36	3.20	3.3	9.0	257.41	537.27	-460.36
2012	51456.66	2.10	3.3	8.2	232.00	574.27	-449.67



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2013	52980.04	1.50	3.3	7.4	287.16	448.51	-376.76
2014	54629.50	1.60	3.3	6.2	131.83	434.42	-389.53
2015	54720.00	1.56	3.3	6.0	143.12	106.54	-391.31

Correlation Matrix

	<i>GDP (Billions of US Dollars)</i>	<i>Inflation</i>	<i>Banking Lending Rates</i>	<i>Unemployment Rates</i>	<i>FDI</i>	<i>Reserves (Billion Reserves)</i>	<i>Current Account Balance</i>
GDP (Billions of US Dollars)	1						
Inflation	-0.20123	1					
Banking Lending Rates	-0.56449	0.553143	1				
Unemployment Rates	-0.06364	-0.51805	-0.74778	1			
FDI	-0.54068	0.714052	0.633026	-0.2984	1		
Reserves (Billion Reserves)	0.016761	-0.16208	-0.51688	0.732805	0.01705	1	
Current Account Balance	0.635824	-0.73006	-0.93455	0.675182	0.72395	0.445985	1

ANOVA

	df	SS	MS	F	Significance F
Regression	6	973.9354	162.3226	18.31298942	0.018357163
Residual	3	26.59138	8.863794		
Total	9	1000.527			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-5.813125186	15.24497715	-0.3813141	0.728373377	-54.32944639	42.70319602
Inflation	-0.089277814	0.37391131	-0.2387674	0.82666715	-1.27923048	1.100674852
External Debt (percent of GNI)	-0.59229849	1.357727323	-0.4362426	0.692147505	-4.913192792	3.728595813
Exchange Rates	0.02184509	0.026694492	0.818337	0.473116472	-0.063108696	0.106798876
FDI	5.278321466	4.065303973	1.298383	0.284954311	-7.65929014	18.21593307



Reserves						
(Billion Reserves)	3.088713833	5.603997977	0.5511626	0.61991496	-14.74570882	20.92313649
Current Account						
Balance	-2.195116739	2.549029316	-0.8611579	0.452480006	-10.30726567	5.91703219

T-Test Statistics

$$t = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n-2}$$

This test is used to find out the validity to accept/reject the null hypothesis

ANALYSIS FOR TANZANIA

H0: There is no significant relationship between the GDP and Inflation

H1: There is a significant relationship between the GDP and Inflation

Using the above formula we can, test the hypothesis:

Where r= correlation and n= number of years

$$\text{For Tanzania } T = \frac{-0.07}{\sqrt{1-(-0.07)^2}} \times \sqrt{10-2}$$

The results predict that the calculated value is less than the table value (table value for n-1= 2.262). The calculated value shows a non-significant result for the above relationship study between the GDP and inflation shows a negative value of -0.224 representing that it is less than the critical value showing that inflation is not the influencing macro-economic factor affecting GDP in any way, as these variables are independent from each other. Hence, H0 is accepted and H1 is rejected

H0: There is no significant relationship between the GDP and External Debt

H1: There is a significant relationship between the GDP and External Debt

$$T = \frac{-0.792}{\sqrt{1-(-0.792)^2}} \times \sqrt{10-2}$$

The calculated value shows a significant result for the above relationship study between the GDP and External Debt shows a positive value of 3.57 representing that it is more than the critical value, showing the high influence of External debt on GDP.

Hence, H0 is rejected and H1 is accepted.

H0: There is no significant relationship between the GDP and Exchange rates

H1: There is a significant relationship between the GDP and Exchange rates

$$T = \frac{0.992}{\sqrt{1-(0.992)^2}} \times \sqrt{10-2}$$

The calculated value shows a significant result for the above relationship study between the GDP and Exchange rates show a positive value of 6.73 representing that it is more than the critical value, showing the high influence of Exchange rates on GDP.

Hence, H0 is rejected and H1 is accepted.

H0: There is no significant relationship between the GDP and FDI

H1: There is a significant relationship between the GDP and FDI



$$T = \frac{0.912}{\sqrt{1 - (0.912)^2}} \times \sqrt{10 - 2}$$

The calculated value shows a significant result for the above relationship study between the GDP and FDI shows a positive value of 6.29 representing that it is more than the critical value, showing the high influence of FDI on GDP.

Hence, H₀ is rejected and H₁ is accepted.

H₀: There is no significant relationship between the GDP and Foreign Exchange Reserves

H₁: There is a significant relationship between the GDP and Foreign Exchange Reserves

$$T = \frac{0.902}{\sqrt{1 - (0.902)^2}} \times \sqrt{10 - 2}$$

The calculated value shows a significant result for the above relationship study between the GDP and Foreign Exchange Reserves shows a positive value of 5.90 representing that it is more than the critical value, showing the high influence of FDI on Foreign Exchange Reserves.

Hence, H₀ is rejected and H₁ is accepted.

H₀: There is no significant relationship between the GDP and Current Account Balance

H₁: There is a significant relationship between the GDP and Current Account Balance

$$T = \frac{-0.947}{\sqrt{1 - (-0.947)^2}} \times \sqrt{10 - 2}$$

The calculated value shows a non-significant result for the above relationship study between the GDP and Current Account Balance shows a negative value of -8.34 representing that it is less than the critical value, showing no influence of Current Account Balance on GDP

Hence, H₀ is accepted and H₁ is rejected

Analysis for China

H₀: There is no significant relationship between the GDP and Inflation

H₁: There is a significant relationship between the GDP and Inflation

$$T = \frac{-0.190}{\sqrt{1 - (-0.190)^2}} \times \sqrt{10 - 2}$$

The calculated value shows a non-significant result for the above relationship study between the GDP and Inflation shows a negative value of -0.547 representing that it is less than the critical value, showing no influence of inflation on GDP.

Hence, H₀ is accepted and H₁ is rejected.

H₀: There is no significant relationship between the GDP and External Debt

H₁: There is a significant relationship between the GDP and External Debt

$$T = \frac{-0.432}{\sqrt{1 - (-0.432)^2}} \times \sqrt{10 - 2}$$



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The calculated value shows a non-significant result for the above relationship study between the GDP and External debt shows a negative value of -0.150 representing that it is less than the critical value, showing no influence of External Debt on GDP.

Hence, H₀ is accepted and H₁ is rejected

H₀: There is no significant relationship between the GDP and Exchange Rates

H₁: There is a significant relationship between the GDP and Exchange Rates

$$T = \frac{-0.879}{\sqrt{1 - (-0.879)^2}} \times \sqrt{10 - 2}$$

The calculated value shows a non-significant result for the above relationship study between the GDP and exchange rates shows a negative value of -1.846 representing that it is less than the critical value, showing no influence of Exchange rates on GDP.

Hence, H₀ is accepted and H₁ is rejected

H₀: There is no significant relationship between the GDP and FDI

H₁: There is a significant relationship between the GDP and FDI

$$T = \frac{0.906}{\sqrt{1 - (0.906)^2}} \times \sqrt{10 - 2}$$

The calculated value shows a significant result for the above relationship study between the GDP and FDI shows a positive value of 6.05 representing that it is more than the critical value, showing higher influence of FDI on GDP as the country is more prone to investments than in savings.

Hence, H₀ is rejected and H₁ is accepted

H₀: There is no significant relationship between the GDP and Foreign exchange Reserves

H₁: There is a significant relationship between the GDP and Foreign exchange Reserves

$$T = \frac{0.969}{\sqrt{1 - (0.969)^2}} \times \sqrt{10 - 2}$$

The calculated value shows a significant result for the above relationship study between the GDP and Foreign exchange reserves shows a positive value of 11.09 representing that it is more than the critical value, showing higher influence of Foreign exchange reserves on GDP as the country has higher maintenance of reserves.

Hence, H₀ is rejected and H₁ is accepted.

H₀: There is no significant relationship between the GDP and Current Account Balance

H₁: There is a significant relationship between the GDP and Current Account Balance

$$T = \frac{-0.625}{\sqrt{1 - (-0.625)^2}} \times \sqrt{10 - 2}$$

The calculated value shows a non-significant result for the above relationship study between the GDP and current account balance shows a negative value of -2.26 representing that it is less than the critical value, showing no influence of current account balance on GDP.

Hence, H₀ is accepted and H₁ is rejected

**Analysis for USA**

H0: There is no significant relationship between the GDP and Inflation

H1: There is a significant relationship between the GDP and inflation

$$T = \frac{-0.201}{\sqrt{1 - (-0.201)^2}} \times \sqrt{10 - 2}$$

The calculated value shows a non- significant result for the above relationship study between the GDP and inflation shows a negative value of- 0.580 representing that it is less than the critical value, showing no influence of inflation on GDP.

Hence, H0 is accepted and H1 is rejected

H0: There is no significant relationship between the GDP and Banking lending rates

H1: There is a significant relationship between the GDP and Banking lending rates

$$T = \frac{-0.564}{\sqrt{1 - (-0.564)^2}} \times \sqrt{10 - 2}$$

The calculated value shows a non- significant result for the above relationship study between the GDP and BLR shows a negative value of- 3.79 representing that it is less than the critical value, showing no influence of BLR on GDP.

Hence, H0 is accepted and H1 is rejected

H0: There is no significant relationship between the GDP and Unemployment Rates

H1: There is a significant relationship between the GDP and Unemployment Rates

$$T = \frac{-0.063}{\sqrt{1 - (-0.063)^2}} \times \sqrt{10 - 2}$$

The calculated value shows a non- significant result for the above relationship study between the GDP and unemployment rates shows a negative value of- 0.18 representing that it is less than the critical value, showing no influence of Unemployment rates on GDP.

Hence, H0 is accepted and H1 is rejected

H0: There is no significant relationship between the GDP and FDI

H1: There is a significant relationship between the GDP and FDI

$$T = \frac{-0.541}{\sqrt{1 - (-0.541)^2}} \times \sqrt{10 - 2}$$

The calculated value shows a non- significant result for the above relationship study between the GDP and FDI shows a negative value of - 1.81 representing that it is less than the critical value, showing no influence of FDI on GDP.

H0: There is no significant relationship between the GDP and Reserves

H1: There is a significant relationship between the GDP and Reserves



$$T = \frac{0.016}{\sqrt{1 - (0.016)^2}} \times \sqrt{10 - 2}$$

The calculated value shows a significant result for the above relationship study between the GDP and Reserves shows a positive value of 0.045 representing that it is less than the critical value, showing very less influence of Reserves but somehow little influence on GDP, but however least correlated.

Hence, H₀ is rejected and H₁ is accepted

H₀: There is no significant relationship between the GDP and Current Account balance

H₁: There is a significant relationship between the GDP and Current Account balance

$$T = \frac{0.635}{\sqrt{1 - (0.635)^2}} \times \sqrt{10 - 2}$$

The calculated value shows a significant result for the above relationship study between the GDP and current account balance shows a positive value of 2.326 representing that it is more than the critical value, showing high influence of current account balance on GDP, since the country's economic health is highly dependent on high investments received from other major countries.

Hence, H₀ is rejected and H₁ is accepted.

RESULTS AND CONCLUSIONS

Tanzania: The above results for the Tanzanian economy show that variables like FDI, External debt, exchange rates and reserves are highly responsible to determine the health of this economy as they also depict the positive correlation. This means that they are very necessary to the very prosperity of the nation. To grow better and sustain a healthy economy, these variables play a vital role. Inflation and current account balance indicate a negative correlation as they play a non-significant role in determining the economy's health. The reason being that the country has been borne with a negative growth in terms of exports and is featured with higher imports than exports. Inflation does not impact the country's growth (GDP) as it is not prone to external crisis caused in neighbouring countries.

China: The country shows higher correlation with respect to FDI and Foreign exchange reserves, as the country's wealth in terms of GDP is characterized by the majority of exports and reserves which it holds by other countries. The variables reserves and FDI play a predominant role as, China is highest developing nation with huge exports determining its strong RESERVES amount as well.

USA: The country shows higher correlation with respect to reserves and current account balance, since the nation is strongly associated with higher as well positive current account balance with more exports, as it represents to be one of the standard countries which has trade relationships with many countries globally. In respect of reserves it is the country with higher amount of exchange reserves in terms of other country currencies as well as gold holdings. To determine this economy's health (GDP), reserves and current account balance plays a vital role, leaving other variables like unemployment rates, banking lending rates, FDI and inflation as a non-significant relationship with GDP, rather during the past few years the country has undergone many economic recessions and credit crunches which led the results into stock market crashes leaving many businesses into huge losses. This was the very reason for having negative values in the findings for the above mentioned variables.

The concluding part of the study focuses on the major variables impacting the country's GDP that is, how these variables have had determining factors for any country to grow or underperform. And, the role of monetary policies also has a say in preview of these indicators responding the economic performances.

Economies strive hard in their overall growth in many ways. China is one best live example to make us understand as to how, this economy is over performing in being the highest exporting even competing with an advanced



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country like USA, now the major target for USA. USA being at the top needs to overlook on its strong and stringent monetary policies which could look on lessening the swindling between variables impacting and the weak monetary policies adopted thereon.

SCOPE FOR FUTURE RESEARCH

The present study only covers the main macro-economic variables like Inflation, External debt, FDI, Reserves and current account balance; further researchers can still overlook and make an comprehensive effort into various other macro-economic variables like population growth rate, employment rates, tax rates, savings and investment performance in individual industrial sector and literacy rates which have an impact on employment rates. Furthermore, the researchers can also make an attempt to study a comprehensive task of collecting the exhaustive data of the above mentioned macro-economic variables for more than 10 years comparative study with the provision of monthly data figures. The present study is an attempt to make a correlation study with the variables comparing three categorical economies, advanced, emerging and low-income economies, with special reference to country's like Tanzania, China and USA. But, there is a larger scope for the researchers to conduct a study on other comparative study as the data which is available is open for access across in abundance. Regression analysis was a constraint in this analysis due to exhaustive availability of data for country's like Tanzania. But through an exhaustive literature reviews, researchers can trace the major understandings and weaknesses of knowing the reasons for non-availability of data can also act as one of the basic scopes in the present study.

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