

Selected Macro Economic Variables of Rwanda and Loan Conditionality of Western Financial Institutions (Study of International Monetary Fund) From 1986-2016

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Abstract: *This study examined both the long-run and short-run effect of Western Financial Institutions loan conditions on Rwanda economy via International Monetary Fund (IMF) from 1986 to 2016. Many scholars have questioned the benefits of those conditions to the beneficial economies. The objectives of this study were to analyse the effect of IMF conditionality of currency devaluation, reduction of government expenditure and trade liberalization on Gross Domestic Product (GDP), Gross Fixed Capital Formation (GFCF) and National Savings (NS) of Rwanda. The researcher made use of secondary data sourced from the data bank of World Bank. The formulated hypotheses were tested using Ordinary Least Square method and Granger causality test. The result revealed all the indices of IMF conditionality have significant effect on selected macro economic variables of Rwanda. These effects are Negative with GDP GFCF but positive with NS. The researcher advocates for domestically friendly economic policies such as the use of protectionism and fiscal policy that will serve better than externally imposed economic policies that may create other economic problems to the nations that adopted them.*

Keywords: National Savings, Gross Fixed Capital Formation, Total Government Expenditure, Conditionality

1. INTRODUCTION

The foreign debt history of most African nations began in 1960s when African governments on attainment of independence, approached western financial institutions for development loans (Abubakar, Anthony, Segun, Nelson, Femi & Benjamine, 2016). The creditor nations (that is the western financial institutions) created the London club of creditors to manage the Public sector debt and the Paris club of creditors to manage private sector debt. The Paris Club of creditors is a group of officials from major creditor countries whose role is to find coordinated and sustainable solutions to the payment difficulties experienced by debtor countries. This is done by providing debt treatments to debtor countries in form of rescheduling, which is debt relief by postponement or, in the case of concessional rescheduling; is reduction in debt service obligations during a defined period or as of a set date. While the London Club of creditors is an informal group of private creditors at international stage that is responsible for rescheduling debt payments made by countries to commercial banks (Sloman, 2006). Another group of creditors are the multilateral creditors. These creditors comprise of World Bank and its affiliates like African Development Bank (AFDB), Inter-American Development Bank (IADB) and International Monetary Fund (IMF).

The IMF is an organization of 189 countries, working to foster global monetary cooperation, secure financial stability, facilitate international trade, promote high employment rate, sustainable economic growth, and poverty reduction among its members (IMF, 2012). When a country joins the IMF, it is assigned an initial quota in the same range as the quotas of existing members of broadly comparable economic size and

characteristics. Quotas are denominated in Special Drawing Rights (SDRs) and these quota subscriptions are a central component of the IMF's financial resources. Each member country of the IMF is assigned a quota, based broadly on its relative position in the world economy. A member country's quota determines its maximum financial commitment to the IMF. It also has a bearing on its access to IMF financing i.e. the amount of financing a member can obtain from the IMF (its access limit) is based on its quota and the quota largely determines a member's voting power in IMF decisions.

When the IMF was established as an institution for monetary cooperation, there was no reference to conditionality, but in order to safeguard the extended loans and make funds available to other potential borrowers; economic policies adjustments known as Conditionality was attached to the fund several years later in an Executive Board decision in 1952 (Buire, 2003).

Randall (2007) observed that the scope of conditionality of the IMF varies across types of IMF facilities; Stand-by facilities (SBFs) are typically one to two-year programs offered to the relatively high-income borrowers, and they test an average of five categories of conditions per month; Extended Fund Facilities (EFFs) are typically three-year arrangements with more ambitious goals, and they average seven test categories; Extended Structural Adjustment Facilities (ESAFs) and Poverty Reduction and Growth Facilities (PRGFs) are long-term programs for poor countries, and their average levels of conditionality were intermediate between the other two (Kjell, 1987). There is yet another facility of IMF known as Policy Support Instrument (PSI). PSI is a non financial instrument that supports low-income countries that do not need Fund

financial assistance, but seek to consolidate their economic performance with IMF monitoring and support through semi-annual IMF assessments of the member's economic and financial policies. Currently, there are seven sub-Saharan African countries that obtained PSI from IMF; Nigeria, Cape Verde, Mozambique, Rwanda, Senegal, Tanzania, and Uganda (IMF factsheets, 2016).

Though PSI is not designed to attract fund, but it carries conditions similar to other fund facilities such as cutting of government expenditures, also known as austerity, devaluation of currencies, trade liberalisation, or lifting import and export restrictions, increasing the stability of investment, balancing budgets, removing price controls, privatization or divestiture of all or part of state-owned enterprises, increase Value Added Tax (VAT), reduction of trade union rights etc (Jesse & Konstantinos, 2014).

Some scholars believed that IMF imposes excessive and counterproductive forms of conditionality that have very little or nothing to do with economic theory (Randall, 2007), while others argued that IMF conditionality demands adoption of economic policy adjustment programmes that redresses the problems that led to the need of the IMF facilities (Kenen, 2007; Bumba, 2008; Murray & King, 2008). At such, this study tries to evaluate the effect of IMF loan conditions on Gross Domestic Product, Gross fixed Capital Formation (investment) and National Savings of Rwanda economy with respect to IMF conditions of Currency Devaluation, Trade Liberalization, and Reduction in government Expenditure.

The main objective of this study is to evaluate the effect of IMF loan condition on selected macro-economic variables of Rwanda, while the specific objectives are; to analyse the effect of IMF conditionality on Gross Domestic Product (GDP) of Rwanda; to ascertain the effect of IMF Conditionality on Gross Fixed Capital Formation (GFCF) of Rwanda and to evaluate the effect of IMF Conditionality on National Savings (NS) of Rwanda.

The study hypothesized that: IMF conditionality has no significant effect on Gross Domestic Product of Rwanda economy; MF conditionality has no significant effect on Gross Fixed Capital formation of Rwanda economy; IMF conditionality has no significant affect on National savings of Rwanda economy.

2. CONCEPTUAL FRAMEWORK

The concept of conditionality was introduced in 1952 at the executive Board meeting of the IMF and subsequently incorporated into the Articles of Agreement. Conditionality is associated with economic theory as well as an enforcement mechanism for repayment. The theory underpinning the conditionality was the monetary approach to the balance of payments (Jensen, 2004).

According to Jesse and Konstantinos (2014), the IMF attaches two different types of conditions to its loans known as quantitative conditions and structural conditions. Quantitative conditions or Quantitative Performance Criteria

(QPC), are a set of macroeconomic targets that governments must meet. For example, the level of fiscal deficit a government is allowed. While the Structural conditions which tie IMF lending to the achievement of institutional and legislative policy reforms within countries, come in two different forms: prior actions and structural benchmarks.

Prior actions are binding conditions, which have to be fulfilled before the loan is granted, and Structural benchmarks though not binding, but influential in the reviews of government performance carried out by the IMF at least every six months, which give clearance for the release of a subsequent loan tranche. The IMF does not require collateral from countries for loans but also requires the government seeking assistance to correct its macroeconomic imbalances in the form of policy reform. If the conditions are not met, the funds are withheld. That is to say that conditionality is a means by which IMF offers support and attempts to influence the policies of borrowing nation in order to secure compliance with a programme of measures.

According to Murray and King (2008) IMF conditionality mission was of three fold: to ensure the stability of the exchange rate, to promote economic growth, and to provide financial assistance to countries experiencing balance-of-payments difficulties. Economic growth and performance is measured with economic variables like Gross Domestic Product, Exchange rate stability, Savings and Investment level, employment level (Abel and Deitz, 2008). High level of savings and investment increase productivity of a country, while Gross Domestic Product (GDP) is the value of all domestically produced product of a nation within an accounting year. Exchange rate without doubt also affects the GDP, so a favourable stable exchange rate will lead to a steady increase in GDP, and a steady increase in GDP at long run leads to economic development.

3. THEORETICAL FRAMEWORKS

Again, this work is also related to many economic theories such as Adolph Wagner's law of "increasing state activity". Wagner (1890), a German economist, in his law of increasing state activity argued that government growth is a function of increased industrialization and economic development. i.e. the advent of modern industrial society will result in increasing political pressure for social progress and increased allowance for social consideration by industry. Wagner stated that during the industrialization process, as the real income per capita of a nation increases, the share of public expenditures in total expenditures increases. He designed three focal bases for the increase in state expenditure. Firstly, during industrialization process, public sector activity will replace private sector activity. State functions like administrative and protective functions will increase. Secondly, governments need to provide cultural and welfare services like education, public health, old age pension or retirement insurance, food subsidy, natural disaster aid, environmental protection programs and other

welfare functions. Thirdly, increased industrialization will bring out technological change and large firms that tend to monopolize. Governments will have to offset these effects by providing social and merit goods through budgetary means. This is also supported by Anyanwaokoro in his book "Element of Public Finance" where he discussed reasons for increase in government expenditure, he asserted "as industries grow, one would expect a reduction in public expenditure so that the private sector will spend more, but this does not often happen. Instead government expenditure grows as industrial and economic developments grow" (Anyanwaokoro, 2004). This is to say that the condition of austerity by IMF as a means of helping developing nations is highly questioned by this theory.

4. EMPIRICAL REVIEW OF RELATED LITERATURE

Alexander, Thomas and Lawrence (2016) reviewed IMF ways of offering financial assistance to countries in economic distress by determining whether IMF programmes have evolved to allow for more *policy space* and also to evaluate whether programmes allow for the protection of labour and social policies. They used relevant materials collected from IMF's lending operations and identified all policy conditionality in IMF loan agreements between 1985 and 2014, extracting 55,465 individual conditions across 131 countries in total and concluded that the organization's post-2008 programmes reincorporated many of the mandated reforms that the organization claims outdated; the number of conditions has been on increase; and the policies introduced to ameliorate the social consequences of IMF macroeconomic advice have been inadequately incorporated into programme design.

Greer (2013) evaluated the structural adjustment programme of IMF in the developing world in order to formulate expectations for its performance in Europe. He argued that the Economic Adjustment Programmes (EAPs) that came with loans to peripheral Euro-zone members; Greece, Ireland, and Portugal are very similar to the loans with conditionality, also known as Structural Adjustment Programs which international financial institutions used as a policy tool during the 1980s and 1990s. From the large literature on structural adjustment policies he concluded that the EAPs if badly implemented will; be neutral or bad for growth; be bad for equity and the poor; have unpredictable policy consequences; and will allow incumbent elites to preserve their positions.

Cabello, Sekulova and Schmidt (2008) assessed the effectiveness of IMF in aiding the recipient countries overcome poverty through the IMF economic conditionality. They discovered that despite the optimistic World Bank-released progress reviews on adoption of several good practices to be linked to conditionality, the use of economic policy conditions (such as privatisation and liberalisation) in development lending remains the normal way of doing business for the Bank. This report presents conditionality as a method, used by the Bank to implement economic policies,

based on a conservative and market-fundamentalist view, rather than on a sincere attempt to reduce poverty in aid-recipient countries.

Bernes (2007) undertook an evaluation of the use of structural conditionality in IMF-supported programs in respect of the backdrop of continuing debate over the use and effectiveness of structural conditions. He focused on two distinct issues: the effectiveness of structural conditionality at bringing about lasting economic change and the impact of the 2000 Streamlining Initiative to achieve greater focus in the use of conditionality in Fund arrangements. He discovered that a significant number of structural conditions are very detailed, not obviously critical, and often felt to be intrusive and to undermine domestic ownership of programs. He finds that compliance with structural conditionality, at about 50 percent, is low compared to about 85 percent for macroeconomic conditionality. The evaluation finds that the average number of structural conditions in IMF-supported programs has not declined since the launching of the streamlining initiative in 2000 and remains at about 17 conditions per program year. However, progress has been made in that the composition of structural conditionality has changed, showing a significant shift toward core areas of IMF expertise.

Bull, Jerve, and Sigvaldsen (2006) evaluated the extent at which World Bank (WB) and the International Monetary Fund (IMF) still support programs that are made conditional on liberalization and privatization; and the extent at which they follow their own recently published guidelines. Through sectoral review of current IMF strategies in the areas of utilities, social sectors (health and education) and trade, they observed that IMF and WB have put undue pressure on governments to privatize or liberalize, and the extent of focus on privatization and liberalization has been replaced by a broader view regarding institutional reform and complementary policies. Also there seems to be less of a change in the policies promoted by the IMF than those promoted by the World Bank. So they concluded that their disagreement about current conditionality practices is partly attributable to their different understandings of the concept.

Nancy, Geoffrey and Bruce (2004) determined the impact of International Financial Institutions (IFI) conditionality on privatization in countries that owe the IMF. They found that IMF conditionality, in particular, has an important indirect economic benefit to countries that owe the IMF, as that will attract foreign investors and the additional capital drawn into developing countries as a result of the IMF - privatization nexus is no doubt helpful to these economies. Though this may not justify the policy conditions typically imposed by the IMF

James (2003) examined whether IMF should impose specific policy prescription known as conditionality in order to promote economic growth of member nations. He studied the percentage change in GDP to foreign reserve, inflation, current account budget deficit etc. He concludes that IMF

should focus on crisis prevention instead of providing loans with condition after the country has entered into crisis.

William (2003) ascertained the effect of IMF and World Bank adjustment lending on growth of exchange rate, interest rate, indirect tax, inflation, and black market premium. These variables were regressed against change in poverty rate as the dependent variable. He found out that IMF and World Bank adjustment lending lowers the growth elasticity of poverty, that is, the amount of change in poverty rates for a given amount of growth. This means that economic expansions benefit the poor less under structural adjustment, but at the same time economic contractions hurt the poor less.

5. METHODOLOGY

This researcher employed an *Ex-post facto* research design in evaluating the effect of IMF conditionality on selected Rwanda macroeconomic variables. **The study made use of secondary data generated from** data bank of Word Bank from 1986 to 2016. The formulated research hypotheses were tested using Panel OLS and Granger Causality Tests.

This study adopted the models of Kanu and Nwaimo (2015) that evaluated the effect of capital expenditures on gross fixed capital formation in Nigeria for various years.

The functional form of Kanu and Nwaimo’s model is stated as:

$$GFCF_t = \beta_0 + \beta_1 CAPEX_t + \beta_2 EXP_t + \beta_3 IMP_t + \beta_4 FDI_t + \beta_5 TNSV_t + \beta_6 INFL_t + \beta_7 GDP_t + \varepsilon$$

Explanation variables

Where GFCF_t = Gross fixed capital formation in Nigeria in year t

CAPEX_t = Capital expenditure profile of Nigeria in year t

EXP_t = Total exports out of the country in year t

IMP_t = Total imports into the country in year t

FDI_t = Foreign direct investments into the country in year t

TNSV_t = Total national savings in the country in year t

INFL_t = Inflationary trends in the country in year t

GDP_t = Gross domestic product of Nigeria in year t

and ε = The error term assumed to be normally and independently distributed with zero mean and constant variance, which captures all other explanatory variables which influences gross fixed capital formation in a country but are not captured in the model.

The above stated model were adopted as follows to depict the model of this study

Econometrics form of the models:

Model one: $Y_1 = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \mu_t$

Model two: $Y_2 = \gamma_0 + \gamma_1 x_1 + \gamma_2 x_2 + \gamma_3 x_3 + \varepsilon_t$

Model three: $Y_3 = \alpha_0 + \alpha_1 x_1 + \alpha_2 x_2 + \alpha_3 x_3 + \xi_t$

Model one: $LGDPR_t = \beta_0 + (\beta_1 LTGER + \beta_2 LRERR + \beta_3 LTOR) + \mu_t$

Model two: $LGFCFR_t = \gamma_0 + (\gamma_1 LTGEAR + \gamma_2 LRERR + \gamma_3 LTOR) + \varepsilon_t$

Model three: $LNSR_t = \alpha_0 + (\alpha_1 LTGER + \alpha_2 LRERR + \alpha_3 LTOR) + \xi_t$

Explanation of the variables:

LGDPR = log Gross Domestic Product of Rwanda

LGFCFR = log Gross Fixed Capital Formation of Rwanda

LNSR = log National Savings of Rwanda

LTGER = Log Total Government Expenditure of Rwanda

LRERR = Log Real Exchange Rate of Rwanda

LTOR = Log Trade Openness of Rwanda

$\beta_0, \gamma_0,$ and α_0 = Intercepts of models 1, 2, and 3 respectively.

$\beta_1, \beta_3, \gamma_1, \gamma_3,$ and $\alpha_1, \alpha_3,$ = slope of the intercepts of the models

$\mu_t, \varepsilon_t,$ and $\xi_t,$ = error terms of models 1, 2 and 3 respectively

Data presentation and Analysis

Table 1; Selected macroeconomic data of Rwanda

Year	Trade Openness (%)	Total Exports (\$ Million)	Total Imports (\$ Million)	Official Exchange Rate (per 1 USD)	Government Expenditure (\$ Million)	Gross Fixed Capital Formation (\$ Million)	National Savings (\$ Million)	Gross Domestic Product (\$ Million)
1986	27.66	189.0	349.0	87.59	232.3	305.9	274.9	1,944.8
1987	21.60	114.0	352.0	79.46	291.4	338.8	197.4	2,157.4
1988	19.95	108.0	370.0	76.45	323.2	334.2	219.7	2,395.5
1989	17.38	88.0	330.0	80.41	305.1	321.1	181.2	2,405.0
1990	15.61	110.0	288.0	83.70	258.6	373.6	288.8	2,550.2
1991	20.87	93.0	306.0	125.16	230.6	268.0	232.7	1,911.6
1992	17.45	66.0	288.0	133.94	293.6	317.2	231.8	2,029.0
1993	20.19	66.0	332.0	144.24	281.7	330.2	201.2	1,971.5
1994	36.76	41.0	236.0	140.70	84.7	752.3	253.7	753.6
1995	22.42	54.0	236.0	262.18	133.4	173.5	261.5	1,293.5
1996	23.01	60.0	258.0	306.82	158.8	198.6	196.4	1,382.3
1997	21.04	88.0	297.0	301.53	177.4	255.7	195.2	1,851.6
1998	17.34	60.0	285.0	312.31	199.8	294.6	159.4	1,989.3

1999	17.22	60.0	253.0	333.94	344.4	239.6	924.1	1,817.7
2000	15.16	52.0	211.0	389.70	323.3	230.9	110.4	1,734.5
2001	21.91	86.0	281.0	442.19	313.8	230.3	136.5	1,674.7
2002	18.66	65.0	248.0	475.37	328.2	227.2	122.5	1,677.4
2003	17.44	63.0	259.0	537.65	355.2	256.7	173.4	1,846.0
2004	18.28	98.2	283.7	577.49	382.7	313.4	308.0	2,089.1
2005	23.09	124.6	471.4	557.71	469.7	407.0	392.1	2,581.4
2006	23.44	147.3	591.4	551.70	547.4	505.7	421.6	3,152.0
2007	24.77	176.8	770.6	546.96	592.4	694.7	801.4	3,824.5
2008	29.66	267.7	1,174.0	546.85	652.8	1,130.1	809.3	4,861.0
2009	28.69	235.0	1,308.5	568.28	742.6	1,217.7	859.2	5,379.4
2010	29.93	297.3	1,431.0	583.13	821.4	1,284.4	902.3	5,774.0
2011	38.56	464.2	2,039.0	600.13	849.6	1,477.6	1,255.3	6,491.7
2012	39.52	590.8	2,300.0	614.30	1,017.4	1,820.0	1,121.3	7,315.7
2013	39.42	703.0	2,301.6	646.64	1,031.5	1,939.3	1,325.1	7,622.5
2014	39.81	723.1	2,468.3	681.86	1,208.5	1,954.9	914.2	8,016.3
2015	37.06	683.7	2,378.0	720.98	1,212.2	2,137.4	792.8	8,261.0
2016	17.56	744.4	2,293.0	726.41	1,272.0	2,140.2	776.9	8,376.0

Source: World Bank; www.worldbank.org

Table 1: displayed the macroeconomic variables of Rwanda economy that formed the dependent and independent variables of this study. The data were extracted from data bank of World Bank for various years. The variables include; trade openness which is a function of exports plus import

divided by GDP, Real Exchange Rate, Total Government Expenditure, Gross Domestic Product, Gross Fixed Capital Formation and National Savings.

The relationship between IMF conditionality and GDP of Rwanda

Table 2: ARDL Short and Long Run Relationship GDP→TGE, RER and TO

Short Run Co-integrating Form				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(GDP(-1))	0.397065	0.199720	1.988113	0.0667
D(GDP(-2))	0.217677	0.191102	1.139063	0.2738
D(GDP(-3))	0.585457	0.199530	2.934171	0.0109
D(TGE)	2.569494	1.395741	1.840953	0.0869
D(RER)	-4.998073	2.691010	-1.857322	0.0844
D(RER(-1))	-2.415499	3.208336	-0.752882	0.4640
D(RER(-2))	8.253140	3.012951	2.739222	0.0160
D(RER(-3))	-4.694712	2.051480	-2.288451	0.0382
D(TO)	-9.170491	9.858918	-0.930172	0.3680
CointEq(-1)	-0.618830	0.168349	-3.675880	0.0025
Long Run Coefficient				
TGE	4.152177	1.257069	3.303064	0.0052
RER	-0.373951	1.601581	-0.233489	0.8188
TO	87.262589	26.118099	3.341077	0.0048
C	-683.493365	444.167528	-1.538819	0.1461

Source: Data output via E-views 9.0

In Rwanda’s output data as shown in Table 2, it is only total government expenditure as IMF conditionality that has positive relationship with economic growth in the short run. Real exchange rate and trade openness portrayed negative relationship with gross domestic product of Rwanda in the short run. In the long run, total government expenditure and trade openness have positive

relationship with Rwanda’s gross domestic product, whereas real exchange rate exhibited a negative relationship.

The relationship between IMF conditionality and GFCF of Rwanda

Table 3: ARDL Short and Long Run Relationship GFCF→TGE, RER and TO

Short Run Co-integrating Form				
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Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(GFCF(-1))	-0.385799	0.265944	-1.450675	0.1689
D(GFCF(-2))	-0.528409	0.215756	-2.449111	0.0281
D(GFCF(-3))	-0.467386	0.209208	-2.234070	0.0423
D(TGE)	-0.292852	0.346432	-0.845337	0.4121
D(RER)	-2.606346	0.745359	-3.496768	0.0036
D(RER(-1))	1.837760	1.755746	1.046712	0.3130
D(RER(-2))	-0.468284	1.670531	-0.280321	0.7833
D(RER(-3))	-1.671995	1.224149	-1.365842	0.1935
D(TO)	15.140307	3.028785	4.998805	0.0002
CointEq(-1)	-0.182082	0.172742	-1.054065	0.3097
Long Run Coefficient				
TGE	1.639079	0.719462	2.278202	0.0389
RER	2.609522	4.171952	0.625492	0.5417
TO	83.151238	76.499908	1.086946	0.2954
C	-1526.258728	1350.420974	-1.130210	0.2774

Source: Data output via E-views 9.0

When gross fixed capital formation was factored in the model, it was clear that in Rwanda, IMF conditionality with respect to total government expenditure and real exchange rate related negatively with gross fixed capital formation in the short run. Trade openness positively and significantly related with gross fixed capital

formation in short run. Nevertheless, in the long run, all IMF conditionality was found to have positive relationship with gross fixed capital formation in Rwanda.

The relationship between IMF conditionality and NS of Rwanda

Table 4: ARDL Short and Long Run Relationship NS→TGE, RER and TO

Short Run Co-integrating Form				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(TGE)	1.573390	0.675180	2.330326	0.0310
D(RER)	-1.137460	1.345146	-0.845603	0.4083
D(RER(-1))	0.987943	2.099228	0.470622	0.6433
D(RER(-2))	-2.722743	1.405750	-1.936861	0.0678
D(TO)	18.726693	6.657035	2.813068	0.0111
CointEq(-1)	-1.063512	0.217513	-4.889406	0.0001
Long Run Coefficient				
TGE	0.347347	0.217136	1.599678	0.1262
RER	0.242996	0.340987	0.712624	0.4847
TO	17.608359	5.512983	3.193980	0.0048
C	-125.320682	127.730718	-0.981132	0.3389

Source: Data output via E-views 9.0

Table 4 reveals that real exchange rate has negative insignificant relationship with national savings, while total government expenditure and trade openness exhibit positive relationship with national savings in Rwanda. From the long

run angle, all IMF conditionality has positive long run relationship with national savings in Rwanda.

Effect of IMF Conditionality on Economic Growth of Rwanda

Table 5: Effect of IMF Conditionality on Rwanda’s Economic Growth

Null Hypothesis:	Obs	F-Statistic	Prob.	Remarks
TGE does not Granger Cause GDP	29	1.06580	0.3602	No Causality
GDP does not Granger Cause TGE		0.94133	0.4040	No Causality
RER does not Granger Cause GDP	29	4.06749	0.0301	Causality
GDP does not Granger Cause RER		4.67543	0.0193	Causality
TO does not Granger Cause GDP		4.17880	0.0277 0.0125	Causality

GDP does not Granger Cause TO	29	7.17092		Causality
TGE does not Granger Cause GFCF		3.38944	0.0536	No Causality
GFCF does not Granger Cause TGE	29	9.26210	0.0010	Causality
RER does not Granger Cause GFCF		0.30764	0.7380	No Causality
GFCF does not Granger Cause RER	29	4.81132	0.0175	Causality
TO does not Granger Cause GFCF		3.32241		No Causality
GFCF does not Granger Cause TO	29	0.80395	0.0532 0.4592	No Causality
TGE does not Granger Cause NS		4.21893	0.0498	Causality
NS does not Granger Cause TGE	29	2.90876	0.0996	No Causality
RER does not Granger Cause NS		4.03179	0.0548	No Causality
NS does not Granger Cause RER	29	0.09516	0.7601	No Causality
TO does not Granger Cause NS		1.21358		No Causality
NS does not Granger Cause TO	29	6.50350	0.2803 0.0168	Causality

Source: Data output via E-views 9.0

On the effect of IMF conditionality on Rwanda’s growth variables as evidence in Table 5, real exchange rate and trade openness have significant effect on gross domestic product on one hand, while on the other hand; gross domestic product exerts significant influence on real exchange rate and trade openness. For gross fixed capital formation, IMF conditionality: real exchange rate and trade openness are significantly affected by fluctuation in Rwanda’s gross fixed

capital formation. Rwanda’s national savings was found to have significant influence on IMF conditionality of trade openness, while total expenditure of the government significantly affected national savings.

Further discussion of findings on IMF conditionality and Rwanda economy

Table 6: Summary of IMF conditionality on the Rwanda economy

Independent Variables	Dependent Variables		
	GDP	GFCF	NS
TGE	Positive	Negative	Positive
RER	Negative	Negative	Negative
TO	Negative	Positive	Positive

Source: summary of conditionality on Rwanda

Taking a look at the long run relationship between Rwanda economy and IMF conditionality; we can see that total government expenditure and trade openness have positive relationship with Rwanda’s gross domestic product, whereas real exchange rate exhibited a negative relationship. In respect to GFCF and NS, all the IMF conditionality was found to have positive relationship with gross fixed capital formation and National Savings in Rwanda. Considering the effect of IMF conditionality on macroeconomic variables of Rwanda, table 5 revealed that TGE only affects the NS against GDP and GFCF, but the GDP affects TGE. It was also discovered that RER affects the GDP, but do not affect the GFCF and NS. While TO affects GDP but does not affect GFCF and NS. This means that none of the IMF conditionality affects GFCF, and only TGE affect NS. It is interesting to note that in Rwanda, TGE does not affect the GDP, but affects only NS and GFCF. This means that the government either does not spend enough on development factors like infrastructures and education but on recurrent expenditures salaries and wages. Though real exchange rate and TO effect the GDP, but the effect of RER on GDP is negative as we can see in table 6. A negative effect of RER on economy will eventually reduce the purchasing power of both individuals and government, which will reduce the per

capita income of the people and inversely increase the poverty level of the people.

Summary of findings: IMF conditionality has significant negative effect on gross domestic product of Rwanda economy: IMF conditionality has significant negative effect on gross fixed capital formation of Rwanda economy: IMF conditionality has non-significant positive effect on national savings of Rwanda economy.

6. CONCLUSION

The result of the analysis on economy of Rwanda showed that all the indices of IMF conditionality have significant effect on selected macro economic variables of Rwanda. These effects are Negative with GDP GFCF but positive with NS. Devaluation of local currency is the greatest IMF conditionality that exhibit great negative influence on all the selected macroeconomic variable of Rwanda.

This can be attributed to the fact that Rwanda is still a developing economy that is mainly import base, so currency devaluation will make imported goods cheaper and more attractive to them. Usage and consumption of imported goods will discourage the growth of domestic industries, leading the economy to perpetual importation. Again reduction in government expenditure seems to have more

positive effect on the selected variables. That means that fiscal policy could be a better instrument of economic management than adoption of policies that are not domestically friendly.

7. RECOMMENDATIONS

1. Instead of adopting foreign economic policies that may not be at an advantage to Rwanda economy, the government can address the prevailing economic problems with the use of fiscal policy
2. In exchange of devaluation of local currency, Rwanda economy should encourage local production and use of locally produced products which will generate more employment opportunities, lead to increase in savings and investment, and at long run, lead to constant increase in GDP.
3. Domestically friendly economic policies serve better than externally imposed economic policies that may create other economic problems to the nations that adopted them. Rwanda economy should look inward because solutions to their economic problems are inward and not outward.

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