Econometric Models of Consumption and Savings Functions in Cameroon: An Error Correction Methodology

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This study attempts to formulate econometric models of consumption and savings functions for the economy of Cameroon from 1970 to 2007 under the co-integration error correction methodology. This was to investigate into the existing links between consumption, savings and their determinants in Cameroon. Based on Two- Stage Least Squares (2SLS) technique of estimation, the results show that disposable income, general price level, expected inflation, interest rate and dependency ratio impacted positively with private consumption and only family wealth reporting negatively. For the savings function, disposable income, numbers of financial institutions and branches, political stability have recorded positive relationships with bank savings. Interest inflation rate differential has recorded a negative relationship with bank savings. While the speed of adjustment in the consumption function is 45.291 percent that of the savings function is 35.65 percent meaning that ignoring co-integration, the non-stationary time series data could lead to misspecification in the underlying process to achieve consumption and saving stabilities.

Field of Research: Monetary Economics

(1) Introduction

The level of consumption and savings drawn from current income has generated much interest among economists and policy makers since 1936. The limiting factor theory and the vicious cycle theory of underdevelopment explain that countries such as Cameroon, Gabon, Chad, Nigeria, Latin America, Sudan and many more are poor because their real incomes are low, as such a large

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percentage of these real incomes is directed towards consumption rather than towards production. High consumption means low savings, low investment and low capital formation. Low capital formation translates to low productivity hence, low real income and the process continues.

The pre 1993 two-salary cuts of more than 60 percent as means of reducing public expenditure in Cameroon especially between 1961 and 1984 shows that the economy was performing closer to expectation. This period had recorded low general price level, high GDP growth rate, favourable terms of trade, low level of unemployment, low income gap between the poor and the rich and higher level improvement in physical infrastructures.

Examining occurrences in Cameroon during and after the two-salary cuts, we observe that the per capita real income growth has performed very poorly. This can be explained based on the high level of unemployment, widening gap between the poor and the rich, high general price level, deteriorated state of the physical infrastructures especially roads, persistent balance of payments deficits and low capital formation observed in Cameroon during the post salaries freeze. From the above, one can quickly conclude that occurrences in Cameroon seem to support the preposition that high income justify high economic performance and low income means dismal economic performance. Based on the foregoing, it is pretty obvious that the links between current consumption, current savings, current income and other factors that affects consumption, savings and income might not be over-emphasized.

 The fundamental thrust of this paper therefore, is to formulate econometric models of the savings and consumption functions for the economy of Cameroon through which we are going to examine the links between consumption, savings, current income and other macroeconomic variables.

To facilitate our tasks, this paper is divided into five sections. The first section, which is introduction, is followed by the theoretical underpinnings and literature review. This is followed by section three, which is entitled analytical methodology and is preceded by presentation and discussion of results in section four and the paper is drawn to logical conclusion through summary of major findings and policy recommendations in section five.

(11) Theoretical Underpinnings and Empirical Literature Review

The consumption and savings functions hypotheses are credited to Keynes 1936 under the theoretical framework called the absolute income hypothesis. The basic form of the early Keynesian consumption function is that current consumption depends on current income.

$C = a + bYd$ ………………………………………………………………………. (2.1)

Where, C = private consumption expenditure

a = autonomous consumption

b = marginal propensity to consume and

Yd = Y-T = disposable income

This relationship is based on the assumption that other factors remain constant. It is also assumed that savings is a linear function of real disposable income. That is if Yd = C + S the aggregate supply function in two sector economy, then:

S = Yd – C

But C = a + bYd

$\rightarrow$ S = Yd – (a + bYd)……………………………………………………………… (2.2)

   S = -a + (1-b) Yd = saving function

Where S = savings, 1-b = marginal propensity to save

Since Y = C + S

$\rightarrow \Delta Y = \Delta C + \Delta S$ ………………………………………………………………… (2.3)

Dividing both sides of (2.3) by ΔY we have

$$\frac{\Delta Y}{\Delta Y} = \frac{\Delta C}{\Delta Y} + \frac{\Delta S}{\Delta Y}$$

$$\rightarrow 1 = \frac{\Delta C}{\Delta Y} + \frac{\Delta S}{\Delta Y}$$

But $\dfrac{\Delta C}{\Delta Y}$ = Marginal propensity to consume and $\dfrac{\Delta S}{\Delta Y}$ = marginal propensity to save

It therefore, means that:

1 = MPC + MPS …………………………………………………………………… (2.4)

Thus, 1 – MPC = MPS = 1 – b …………………………………………………… (2.5)

Also from (2.4), 1 – MPS = MPC = b …………………………………………… (2.6)

From the above, we observe that there are some properties of the Keynesian consumption and saving functions amongst which are:

- Consumption and savings depend directly on the absolute level of income. Meaning that consumption expenditure is a fairly stable function of real disposable income as it's implied with savings' function.
- That autonomous level of consumption indicated by "a" represents the point at which the consumption function intersects the vertical axis meaning that consumption is still possible at zero income. This may be through dis-savings and borrowing.
- That average propensity to consume decreases while average propensity to save increases with increase in income
- That marginal propensity to consume as well as marginal propensity to save is less than unity with their sum equal to unity.
- That average propensity to consume is greater than the marginal propensity to consume (APC>MPC) but the reverse is true with the case of APS and MPS. That is APS<MPS

- That there is a break-even level of income for which consumption expenditure is exactly equal to disposable income. At this point, consumption function intersects the 45º line and

That marginal propensity to consume decreases as income increases while the marginal propensity to save increases with increased in income. That is, the richer a person becomes, the less he would consume out of his current income and the more his savings and investment given that assumption that investment is always equal to savings.

A number of studies have been carried out to test the Keynesian absolute income hypothesis. Davis (1952) using United States of America's annual data for the period of 1929 to 1940 estimated that $Ct = 11.45 + 0.78Yt$. This function was consistent with the Keynes' absolute income hypothesis since MPC = 0.78 is less than one.

Ferber (1966) conducts empirical studies on US' time-series data on aggregate income and consumption for the periods 1929-1940, 1947-1957 and 1958-1968 and obtained the following regression results.

(1958-1968), $Ct = 25.5 + 0.88Ydt$

(1947-1957), $Ct = 25.2 + 0.86Ydt$ and

(1929-1940), $Ct = 22.6 + 0.79Ydt$

The above short-run consumption functions are consistent with the Keynesian consumption function. Given the values of "a" equal to 25.5, 25.2 and 22.6, these show that the regression lines have shifted overtimes. According to Ferber (1966), the above short-run consumption functions are known as cyclical consumption function.

Still in United States of America, Kuznet (1942) a Nobel Prize winner conducted a long-run consumption function using US' time series data from the period 1897-1938. Kuznet's regression result was in the form $Ct = bYdt$. This study according to Stonier (1980) suggests that in the long run, marginal propensity to consume and average propensity to consume are equal and also a constant, not far from one. That is usually between 0.85 and 0.95

Although the Keynesian postulate on the consumption and savings function were based on the fundamental psychological law, the Kuznet empirical result has generated a number of theories to reconcile the Keynesian short-run consumption and savings functions with the Kuznet's long-run consumption and savings functions. Among such are the relative income hypothesis, the life cycle hypothesis and the real wealth hypothesis.

Credited to James Duesemberrg (1949), the relative income hypothesis sees consumption not falling with income because most households based their consumption expenditures related to their associates and will continue to maintain that status quo even when their incomes decline. Fall in their incomes means increase in their propensity to consume in order to keep up with the group they associate with. In the short-run, such persons might use their past peak

incomes as a benchmark to determine their level of consumption expenditure so as to perceive the relative living standard. This has not only explained the disparity between the Keynesian and the Kuznet's consumption and savings functions but has also explained why consumption on beer instead increased after the two-salary cuts of 1993 in Cameroon.

Accorded to Friedman (1957) is the permanent income hypothesis. This hypothesis underscores the fact that individuals have both permanent and transitory income. While wealth such as bank investment, fixed assets and any stream of constant income flows constitute permanent income, windfall gains such as gift, transfer payments and corrupted earnings are transitory incomes. From this hypothesis, changes in permanent incomes attrack changes in consumption and savings while changes in transitory incomes attrack no change in income and savings. Friedman explains that this is so because in the long run transitory income will cease to exist as such consumption and savings will depend only on permanent income. It is based on this that disparity is bound to exist between the absolute income hypothesis and the Kuznet's long-run empirical result.

Modiglan in his thesis entitled the life cycle hypothesis provided further reconciliation. According to him, man is living beings as such must consume from birth to death. While there are periods within his lifetime that he or she is completely a dependent say 0-16 years and 60 years plus, there are also periods, which he or she is expected to make contributions to the later part of his or her life and to those who supported him or her during the earliest part of life. This situation is complex in the African seating given her dependency ratio. This disproves the cyclical nature of the absolute income hypothesis.

An insight into the economy of Cameroon shows that consumption, changes in consumption and savings go beyond income determination to include factors like income distribution, the level of family wealth, demographic factors, the rate of interest, the general price level, the price expectations, money illusion and terms of credit. The Keynesian demand for money hypothesis and the monetarists view on the demand for money justify the links between the above variables.

(111) Analytical methodology

Our model consists of a system of two equations in two endogenous variables namely consumption expenditure and bank savings. Given the interdependency among the endogenous variables, the system of simultaneous equation is specified as follows:

Consumption module

CONt = f (GDPt, INFLAt, EXRINFLAt, FAWATHt, INRATt, DEPRt) …….. (3.1)

Savings module

SAVt = f (GDPt, INRINFLADt, NOFITt, POLSABt) ……………………….. (3.2)

Where:

CONt = Private Consumption Expenditure in current period
GDPt = Gross Domestic Product in current period
INFLAt = General Price Level using Consumer Price Index in current period
EXRINFLAt = Expected Inflation Rate derived as the first differential of Consumer Price index
FAWATHt = Private Domestic Investment used as proxy for measuring Family Wealth in current period
INRATt = Interest Rates, aggregate change by Financial Institution in Cameroon in current period
DEPRt = Dependency Ratio in current period obtained as the sum of those between the ages of 0-16 years and 60 plus
SAVt = Bank Savings in current period
INRINFLADt = Interest Inflation Rate Differential in current period
NOFITt = Number of Financial Institutions and their branches in current period
POLSABt = Political Stability in current period measured by dummy variable, which attacks zero in years of political stability and one in years of expected or realised political rancour

From our equations (3.1) and (3.2) above, we consider the augmented Keynesian consumption and savings functions determinants' models as:
$$CON_t = A_iX_{it} + e_t \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots \text{(3.3) and}$$
$$SAV_t = B_iX_{it} + e_t \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots \text{(3.4)}$$
Where CON_t and SAV_t are as defined above X_t and Y_t are Cameroon specific explanatory variables integrated of order one 1(1). That is considered as none stationary and no higher order integrated process and e_t = error term (Iyeli, 2003).

Examining the long-run behaviour of the consumption and savings functions means investigating the co-integrating relationships in equations (3.1) and (3.2).
If e_t is stationary, it means that 1(0) variables in X_t has captured the long-run components in CON_t and SAV_t, while e_t captured the temporary or short-run consumption and savings movements.

Going by the distribution properties of the maximum likelihood (ML) estimation, specification test is carried out on the co-integrating vectors.
Assuming Y_t is having "n" number of variables in our consumption and savings models then: $Y_t = B_0 + \sum_{1=I} Y_{t-i} + e_t \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots \text{(3.5)}$

Therefore, equation (3.5) represents an unconfined vector auto-regression model with $\mathbf{e_s}$ errors of random walk. If Y_t is 1(d), that is integrated of the same order then Y_t is co-integrated, co-1 (d, β) with co-integrating matrix β meaning that $βY_t$ = 1(0). The co-integrating transformation vector auto-regression model in (3.5) has intercept as:

$$\Delta Yt = A_0 + \sum_{1=I}^{k-1} A_1 \Delta Y_{t-i} + A_2 \Delta Y_{t-k} + e_t \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (3.6)$$

ΔY_t denotes all the variables used in the models and not a specific variable at their first differences in time t. k is the number of lags and e_t is the error term assumed white noise. That is, the model in (3.6) is a multivariate vector auto-regression generalisation of an error correction representation of our models above in an auto-regressive distributed lag (A∆L) form are given as:

$$\Delta CONe_t = M\text{-}N (CONe - \alpha iX - \beta iYi)_{t-1} A_0 \Delta CONe_{t-1} + \sum_{j=0}^{k} A1X_{t-j} + e_t \ldots\ldots\ldots (3.7)$$
and

$$\Delta SAVe_t = M\text{-}N (SAVe - \alpha iX - \beta iYi)_{t-1} A_0 \Delta SAVe_{t-1} + \sum_{j=0}^{k} A_1 X_{t-j} + e_t \ldots\ldots\ldots (3.8)$$

Where: k = number of lags, e_t = error term, with assume white noise, CON and SAV are as defined above.

Equation (3.7) and (3.8) represent the short-run dynamics in consumption and savings functions, while the long-run determinants of the consumption and savings are presented in the co-integrating relationship below. The speed of the adjustment parameter N helps in measuring the sustainability of the consumption and savings stability. This shows that the explanatory variables used are very crucial in attracting and sustaining especially bank savings in Cameroon. Thus, our long-run co-integrating estimating models can be presented as:

$\Delta LCONt = A_0 + A_1 \Delta LGDPt + A_2 \Delta LINFLAt + A_3 \Delta EXRINFLAt + A_4 \Delta LFAWATHt +$

$A_5 \Delta INRATt + A_6 \Delta DEPRt + U_1 \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (3.9)$

Where $A_0 > 0$, $A_1 > 0$, $A_2 < 0$, $A_3 > 0$, $A_4 < 0$, $A_5 < 0$, and A_6

$\Delta LSAVt = B_0 + B_1 \Delta LGDPt + B_2 \Delta INRINFLADt + B_3 \Delta LNOFITt + B_4 \Delta POLSABt + U_2$

$\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (3.9)$

a priori, $B_0 > 0$, $B_1 > 0$, $B_2 > 0$, $B_3 > 0$ and $B_4 > 0$.

The variables are already defined above; ∆ is the first differential of the explanatory variables. Ls stand for the Log forms of the explanatory variables that enable us to interpret their coefficients as elasticities. A_0 to A_6 are the estimated parameters for equation (3.8) while B_0 to B_4 are those of equation (3.9). U_1 and U_2 are the stochastic error terms with their assumed normalities.

Scope and Sources of Data

This study covers the period of thirty-six years ranging from 1970 to 2007 inclusive. This is because it is within this period that most of the data needed for this study were available. This study also required some substantial amount of statistical information that were extracted from the Ministry of Economy and Finance, Department of Statistics and National Accounts (DNCS), Central Bank for Central African States (BEAC), African Development Indicators, various issues, African Economic Research Consortium and Financial Bill Yearbook 2006. Therefore, this study lies on intensive library study and depends much on secondary data as such an expost factor research design.

Estimation Techniques

To estimate our results, we have employed the co-integration theory, which is the error correction mechanism (ECM) because of data instability arising from the instability in the Cameroon's economic terrain within our period of study. With frequent policy changes, that is political, social, economic and high level of corruption, there is need to difference the time series data so as to separate the non-economic occurrences from pure economic occurrences as induced by economic policies. This therefore, guarantees meaningful economic results as the problem of spurious correlation are going to be eliminated. The order of integration ascertained the number of times a variable will be differentiated to arrive at stationary results, that is 1(0) is the starting point for the ECM modelling. Dickey-Fuller (DF), Augmented Dickey-Fuller (ADF), Sargan-Bhargava Durbin-Watson (ABDW) and Phillips-Perron (PP) tests are usually employed to test the stationarity of variables for estimation. In this work, we have used the Augmented Dickey-Fuller and the Phillips-Perron test based on their accessibility and flexibility. Furthermore the ADF and the PP tests are for the null hypothesis that the variables of interest are non-stationary, meaning that it is integrated of the order one, 1(1). This decision rule states that the t-statistic on the coefficient of the lagged independent variables, which are expected to be negative, should be significantly different from the critical values at both 1 percent and 5 percent for any given sample size if the null hypothesis is to be rejected. While the ADF test attempts to capture additional dynamics left out by the DF test, it also ensures that the error term is white noise through the inclusion of additional lag length. Also, the PP test in particular, tests for the presence of any structural break in the time series data.

The Johanson (1988), Johansen and Juselius (1990,1992) co-integration procedure are carried out in this work in order to generate the error correction model (ECM), that is the test of stationarity of the residuals generated from running a static regression in levels of one or more regressors on the regressions. The co-integration is accepted when the residuals from the linear

combination of non-stationary 1(1) series are themselves stationary, 1(0). This acceptance of ECM means the model is best specified in the first differences of its variables. The Johansen approach enables us to search for co-integrated vector to confirm the co-integrated relationship. Also, this Johansen procedure has all the variables endogenous since it is based on the vector auto-regression (VAR) modelling of Sims (1980), as such always yields results that are invariant with respect to the direction of normalisation. Furthermore, it provides estimates of all the co-integrated relationships that exist within a system of variables and provides a test statistics for determining their number.

Presentation and Discussion of Empirical Results

(a) Stationarity and Co-integration test (unit root test)

A cursory perusal of the static regression result shows that inconsistencies exist in all of the variables in our models. This therefore, calls for the examination of the characteristics of the data to be used. The essence of the use of the unit root tests is to determine whether the data are stationary and the order of integration achieved. The results of the unit root tests are presented thus: Test of order of integration.

Table 4.1

Variable	Augmented Dickey-Fuller		Phillips-Perron		Decision rule
	With trend	without trend	with trend	without trend	
ΔLCON	-3.3723**	-4.4733**	-1.2682*	-3.2640**	1(0)
ΔLSAV	-3.0594**	-3.4318**	-2.5442*	-2.0437*	1(0)
ΔLGDPYD	-3.2737**	-4.2847**	-2.2637*	-1.2066*	1(0)
ΔEXRINFLA	-1.5962*	-4.4879**	-1.6603*	-3.8129**	1(0)
ΔLINFLA	-2.2358*	-4.8624**	-2.5739*	-2.3462*	1(0)
ΔLFAWATH	-1.9608*	-3.9432**	-1.7886*	-2.6461*	1(0)
ΔINRAT	-2.4731*	-2.4069*	-3.9854**	-3.894**	1(0)
ΔLDEPR	-1.9231*	-3.7476**	-2.3418*	-2.6148*	1(0)
ΔINRINFLAD	–2.1038*	-3.3007**	-3.0875**	-3.2522**	1(0)
ΔLNOFIT	-3.1948**	-3.4344**	-2.1528*	-3.4409**	1(0)
ΔPOLSAB	-1.1848*	-3.4441**	-2.0518*	-2.2005*	1(0)
Critical value					
5%	-3.6752	-4.3082	-3.6661	-4.2949	
1%	-2.9665	-3.5731	-2.9627	-3.5670	
1st Difference					
5%	-3.6852	-6.9226	-3.6752	-5.8082	
1%	- 2.9705	-3.5796	-2.9665	-3.5731	

Source: Computed by Aurther from the Regression Results.

 * Indicates rejection of null hypothesis of unit root at 1 percent level of significance.

 ** Indicates rejection of null hypothesis of unit root at 5 percent level of significance

 All the variables except EXRINFLA, INRAT and POLSAB are in Log form.

The above results show that all the explanatory variables attain stationarity 1(0) at their first differencing. This also shows that the explanatory variable trended

together in the same direction hence; there is a long-run relationship between them.

Presentation of the Two-Stage Least Squares Co-integration Error Correction Results

Dependent variable: Private Consumption (ΔLCON)

Variable	Coefficient	Std. Error	t-value	Prob.
Constant	8.50337	0.21446	(15.1679)*	0.0002
ΔLGDPYD	0.86791	0.03461	(4.93261)*	0.0093
ΔLINFLA	0.67384	0.06932	(3.4116)*	0.0148
ΔEXRINFLA	0.76598	0.02946	(4.3164)*	0.0061
ΔLFAWEATH	-0.43471	0.00269	(-6.2181)*	0.004
ΔIRAT	0.00244	0.43342	(1.6321)	0.5466
ΔDEPR	0.91236	0.28436	(7.11364)*	0.006
ECM(-1)	-0.45291	0.12491	(-3.22734)*	0.0452
R^2				0.7862
F-Statistic (7:27)				36.2140
D.W.				1.996

Dependent variable: Domestic Savings in legalised Financial Institutions (ΔLSAV)

Variable	Coefficient	Std. Error	t-value	Prob.
Constant	4.9924	0.06824	(3.52132)*	0.0442
ΔLGDPYD	0.5143	0.04236	(3.2232)*	0.0451
ΔINRINFLAD	-0.2947	0.021150	(-13.9377)*	0.0000
ΔLNOFIT	0.51364	0.141101	(9.6680)*	0.0349
ΔPOLSAB	0.5924	0.0586	(3.4632)*	0.0446
ECM (-1)	-0.3565	0.2078	(-1.8554)***	0.0996
R^2				0.69431
F-Statistic (5:29)				24.2713
D.W.				2.2467

Note: the numbers in parentheses denote t-values. The asterisks marked against each coefficient indicates the level at which the coefficient is significant.
* Significant at one percent level**, Significant at five percent level***, Significant at ten percent level
ECM (-1) Error correction mechanism variable based on Engle and Granger (1987). The dependent and independent variables achieved stationarity when the coefficient of the ECM is less than unity.

Discussion of the Empirical Results

The F-statistic, which tests the statistical significance of the adjusted R² and indeed the overall model are statistically significant in both cases as such our models are 99 percent or more reliable. While the D.W for the consumption function falls within the inconclusive region that of the savings function shows that there are no traces of serial correlation or autocorrelation.

The speeds of the adjustment parameters as indicated by the coefficients of the error correction variables are significant with their appropriate negative signs. Hence, while private consumption in Cameroon adjusts at the rate of 45.29 percent to long-run equilibrium, that of savings adjusts at a slower rate of 35.65 percent to equilibrium.

Considering the Keynesian consumption function, the coefficients of the parameters are positive except that of the size of the family wealth, which is negative. There are consistent with our a priori economic theories. Specifically, the coefficient of disposable income (ΔLGDPYD) shows that any 10 percent increase in disposable income will induce 8.68 percent increase in consumption. That is the marginal propensity to consume is 0.8679. This result presents Cameroon as a very poor country since about 86 percent of her disposable income is directed towards consumption. High prices in this work are contributing about 67.38 percent to consumption expenditure. This is in support of the Keynesian liquiditory preference theory. Meaning that if Cameroonians has strong preference to money demand, such demand is not on idle balance but on transactional motive. The adaptive hypothesis has been proven correct in this work by the positive significant coefficient of expected rate of inflation (ΔEXRINFLA) which shows that 10 percent expected increase in general price level induces 7.6598 percent increase in private consumption all things being equal. A crowding out effect is observed with respect to family wealth and private consumption. This shows that within the period of our study family wealth could only be acquired through foregoing of current consumption. That is to accumulate 10 percent of family wealth, 4.34 percent of private consumption must be forgone ceteris paribus. The coefficient of interest rate is positive but insignificant. This is not in line with the liquiditory preference theory, which predicts that interest rate is the opportunity cost of holding money. This also confirms that the demand for money for idle balance in Cameroon is insignificant. The coefficient of dependency ratio (ΔDEPR) is positive and statistically significant. It also reveals that its impact on consumption is very strong in fact any 10 percent increase in family size results to 9.1236 percent increase in consumption ceteris paribus. This situation is worsened by the increase in unemployment rate in Cameroon.

With regard to the augmented Keynesian savings function, the Log linear regression model is in line with status quo. The result of disposable income shows a positive significant relationship with savings meaning that 10 percent increase in income will induce about 5.143 percent increase in savings all things

being equal. Although this has supported the Keynesian absolute income hypothesis, it also reveals that greater part of domestic savings is not generated from domestic income since our result shows that MPC + MPS>1 that is 0.86791 + 0.5143 = 1.3822. Hence, about 38.22 percent of private savings in Cameroon might be from "bush fallers". The coefficient of interest rate inflation differential is negative. Going by either net present value (NPV) or internal rate of returns to project analysis, there is no reason for one to save his or her money in any bank in Cameroon. This is because the rate of inflation from this work over our period of study is greater than the BEAC lending rate as such, projects' inviability. Therefore, bank savings in Cameroon should be seen as target savings. From the above results, increase in the number of financial institutions enhanced savings. That is 10 percent increase in number of financial institutions (ΔLNOFIT) will multivate up to 5.1364 percent bank savings, ceteris paribus. However, bank savings will respond faster with political stability (ΔPOLSAB) than it does with increase in number of financial institutions. This is because 0.5924 is greater than 0.51364. Furthermore, although not tested in this work because of no data, by psychological observation, informal banking activity "Njangi" still gain more ground in Cameroon than it is the case with formal financial institutions.

(V) Summary, Policy Recommendations and Conclusion

Although the main objective of this paper was to formulate an econometric models of consumption and savings functions in Cameroon, it was out to also employed the possibilities in which consumption could be reduced in favour of savings given the classical assumption that savings is always equal to investment. Considering the period 1970 to 2007 and the error correction modelling techniques, the econometric evidence obtained from the study shows that:

- Cameroon is a very poor country or that greater percentage of Cameroonians is low income earners as such greater percentage of their incomes are directed towards consumption than savings and investment.
- That the demand for money to hold by Cameroonians favours transactional and precautional motives and indifference in the case of speculative move. This is justified by consumption's responsiveness to the general price level, expected inflation and the rate of interest
- The sizes of the Cameroonians households induce consumption to a greater extent than any of the explanatory variable specified in the consumption function
- Savings in Cameroon depend on income but most savings are target savings and are indifference to interest rate.
- That long-term savings in Cameroon is a poor economic decision since the rate of inflation is higher than BEAC discounting rate.

Therefore, the policy implications from our findings reveal that:

- Government policy aiming at increasing real wages should be encouraged. This ought to be done through reduction in general price level, encouragement of productivity, reduction in transportation costs and reduction in the costs of petroleum products.
- Bank, should increase the number of their branches to rural areas and should be able to restore confidence to themselves and their clients. By this, bank savings will increase. They should also sponsor micro-projects for both short and long-term basis. Hence bank-led development is recommended.
- Government should increase family allowances but suggest the upper bank for any household in Cameroon. Pension scheme should also be revisited and payments should be made monthly and regularly.
- Since political stability will encourage long-term planning and motivate savings, we therefore, recommend for good governance and all its associated conditions in Cameroon.
- Positive real interest rate is needed since it will encourage the supply of loanable funds, foreign capital inflows and investment into productive ventures as stipulated by McKinnon and Shaw (1973) financial liberalisation thesis.

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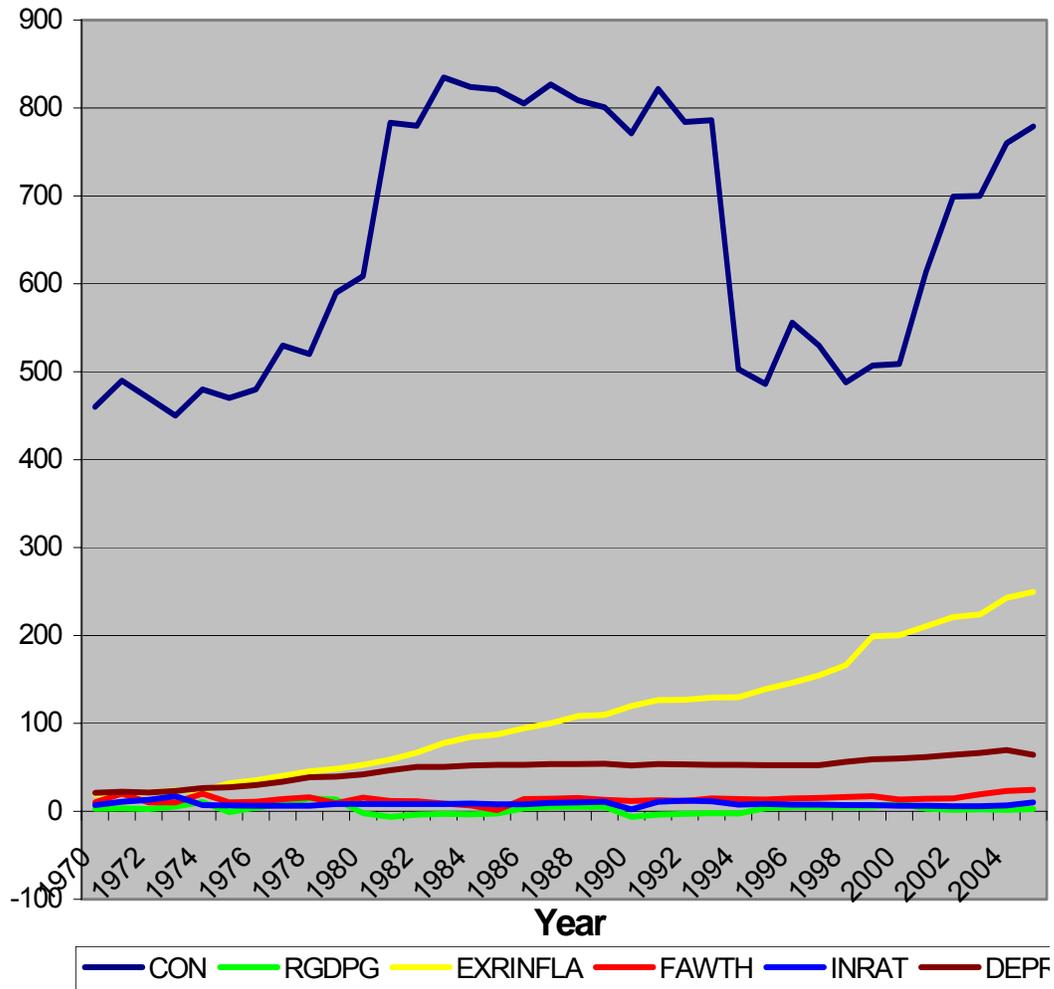
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APPENDIX ONE

Trend of Consumption and its Deteminants in Cameroon

Legend: CON — RGDPG — EXRINFLA — FAWTH — INRAT — DEPR

APPENDIX TWO

Trend of Savings and its Determinants in Cameroon