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Estimation of Quantitative Determinants of Aggregate Saving Function of Nepal: ARDL Model Approach

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Abstract

This paper gives the third degree to estimate the quantitative determinants of aggregate saving function of Nepal, selecting the sample size from 1980 to 2014. Auto regressive distributive lag model, also known as dynamic regression model, reveals that real income, real exchange rate, real interest rate and inflation rate are the significantly determinants of the aggregate long run saving function of Nepal. Whereas, real income, interest rate and interest rate are significantly derived as short run determinants of saving function. Furthermore, bound testing shows the existence of long run association among the variables. MPS is recorded greater than unity in both saving function. Similarly, real exchange rate determines the inverse relation between real saving and depreciation in short run, but it is just opposite in the long run. The elasticity coefficient of real exchange rate has greater than unity with positive sign; it proves that there is positive relationship existed between real saving and depreciation in the long run. Also, there is found substitution effect of real interest rate on real saving with significantly low coefficient. Inflation rate postulates positive impact on real saving with very low coefficients in the long run only. The speed of adjustment parameter is recorded 79.98 percent each annum. Finally, CUSUM and CUSUMQ tests show the presence of stability of long run and short run dynamics of the model at significant level of 5 percent.

Key Words: Saving Function, Bound Test, Short Run Dynamics, Stability Test

Introduction

In macroeconomics, saving is a key and central part of an economic engine; it governs the economic growth and development energy. It is the excess of income over aggregate expenditure, closely related with consumption. Simply, that part of income which is not used for consumption can be treated as a saving (Christopher, 1992). Saving function is the representation and relationship of saving with its all determinants, also relates to propensity to save, desire to save, power to save and facility to save. In the regarding of saving function, some factors are quantitative (i.e. income, interest rate, demographic factors etc.) in nature and some are qualitative (i.e. political instability, liberalization effect etc). According to the thought of classical economists, saving amount which is not consumed at the present time

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ultimately goes into the investment. Regarding it, the role of saving and investment in achieving economic growth is extensional concept in the economic growth theories. Harrod – Domar growth model ventilates that economic growth rate hangs on rate of saving or investment in the one hand, and on the other hand, incremental capital output ratio (Chitrakar, 2002).

The classicists believe in existence of fully employed economy, where saving and investment are always equal. By the same taken, saving and investment are a function of the rate of interest. Algebraically, S = -f(R) and I = f(R): where, R is the rate of interest, S is saving and I is investment (Acharya, 2014). Keynes (1936) explained saving is the function of income. Neoclassical growth model stands at an opposite extreme from Harrod-Domar model. It specifies that saving rate facilitates a higher growth in per capita capital and per capita income in the transition to the steady state, also implied that a high saving rate facilities achieving a higher level of per capita capital and income. Moreover, endogenous growth model explains that increasing population rate and saving rate increase the growth in the long term (Sapiro, 2001). The consistency with theoretical prediction empirical evidences also strongly support close interlink ages between saving and economic growth. Some emerging countries like India, China, South Korea, Singapore and others are achieving higher saving growth rate, which has induced high economic growth. Domestic saving finance, investment and growth are positively associated (World Bank, 2011).

In Nepalese context, it is popularly known as least developing, agrarian, land locked south Asian country. GDP growth rate, inflation rate, interest rate, exchange rate, money supply etc are the major macroeconomic indicator of an economy. In conclusion to this remarks, income, interest rate, inflation rate, exchange rate and other macroeconomic indicators surely correlates with aggregate saving of Nepal. Gross Domestic Product (GDP) is calculated by adding total consumption expenditure, total investment and net export. Total investment is obtained by summing of all governments sectors' investment and private sectors' investment. Net export is just export minus imports from domestic line. Gross Domestic Saving (GDS) is the residual of income from the GDP after the deduction of the consumption expenditure. Aggregate consumption is the sum of private consumption and government consumption (Nepal Rastra Bank, 2006). The regular and scientific estimation of national income (NI) was started from 1974 (Gewali, 2005). According to the facts, it is necessary to link the probable elements which may affect the saving. Those elements which are directly effecting on savings also are affecting other macroeconomic variables in the economy indirectly. Therefore, this study is very important on the ground of macroeconomic study of Nepal.

The main objective of this paper is to determine the quantitative determinants of short run and long run aggregate saving function of Nepal. The study is equally important for researchers, policy makers, international agencies, students, and the concerned.

Review of Literature

Doshi (1994) examined the determinants of saving rate as an international comparison, taking some economic-demographical factors. Using OLS, researcher established that income, life expectancy, dependency ratio and fertility rate are the significant effect on saving rate. Forgha (2008) determined the consumption and saving function in Cameroon. ECM, ADF test and Co-integration were the main econometrical tools; which revealed that greater percentage of Cameroonians have low income earners as such greater percentage of their incomes are directed towards consumption rather than savings and investment also

found the income is the major determinant of saving. Nayak (2013) analyzed the determinants and patterns of saving behavior in rural household of western Odisha with taking primary survey of 300 households.This study reveals that the APS and MPS of the rural households varies in terms of the distribution of income and occupation i.e. in other words, the lowest income groups (the agricultural labors and the non- agricultural labors) have the highest marginal propensity to consume which leads to lowest marginal propensity to save as compared to the other occupational groups.

Kawakwa (2013) determined the short run and long run determinants of national saving in Ghana; through ADF, Johansen co-integration method and error correction model technique, it is established that real interest rate and political instability have significantly negative effect on saving whereas GDP growth rate is reacting positive on saving in the study. Samantarayan and Patra (2014) determined the households saving function in India from 1973 to 2012. Applying ARDL model, it is concluded that variables namely, income, age dependency, interest rate and inflation which were found to be statistically significant as determinants of household savings in India in short and long run. However, the magnitudes of short run coefficients were smaller as compared to their long run coefficients.

Gaire (2012) analyzed the relationship between real interest rate and saving behavior in Nepal during 1975 - 2010. Processing through Correlation Analysis, it was found that there is very low average real interest rate effect on saving and there is long run relationship existed between the real interest rate and saving of Nepal. Basnet (2011) examined the effects of the total foreign aid on gross domestic saving of Nepal by using time series data of 32 years from 1975 to 2006. Analyzing through ADF Test, Granger Causality and EG Co integration there is found proportional effect of foreign aid to gross domestic savings. Nevertheless, there is no sign of dependency of foreign aid from this co-integrated analysis. Shrestha (2010) explained the long-run and cyclical behavior of private savings in Nepal during the period 1974-2005. Through the ADF and ECM it was founded that mps is 0.309 in short run and 0.365 in the long-run. The estimation results revealed that real income, real government savings, real foreign savings, real interest rates, and labour market constraints play important roles in determining private savings.

As it is marked in the above literatures, it has provided a significant idea and found the gap during developing of this paper. In Nepal, Shrestha (2010) has studied a behavior of private saving; Basant (2011) only examined effect of total foreign aid on gross domestic saving, it is also determinants; Gaire (2010) has established the relationship between real interest rate and saving only. In the same context, Samantrayan & Patra (2014), Kawkaw (2013), Nayak (2013), Forgaha (2008) have established a significant study of saving function with taking various elements as the determinants. In Nepal, it is detected a serious gaping. In this way the study is very new, and most important in context of Nepalese economy.

Model Specification

The study is based on the time series data and for the determining of aggregate saving function for Nepal, linear regression model or better known as ordinary least square or it may be standard linear methods, for example Johansson or ARDL. According to the studies of different theoretical and empirical prospects in the above, explanatory variables (real income, real exchange rate, real interest rate and inflation rate) are selected for the probable determinants. After the test of the basic asymptotic property of the data, proper econometric tools will be applied for further study. Now, the specification of the study can be expressed in the following functional form:

$S = s(Y, \$, R, \pi)$ ..... (i)

According to Gujarati (2012), econometrical specification of the equation (i) can be rearranged in the linear form as given bellow:

$\ln S = \alpha + \beta_1 \ln Y + \beta_2 \ln \$ + \beta_3 R + \beta_4 \pi + \varepsilon$ ..... (ii)

Where, S = Real Saving, Y =Real Income, π = Inflation rate, $ = Real Exchange Rate, R = Real Interest Rate, α=Drift component, β_i= Regression coefficients, ε = White nose residual and i =1, 2, 3,...

Data and Methodology

The nature of the data is quantitative, based on time series. Gross Domestic Product (GDP) is taken as proxy for the national income, Gross Domestic Saving (GDS) for aggregate saving, Exchange Rate of American dollar for exchange rate, one year average fixed deposit interest of the commercial bank for interest rate, and inflation rate (π) is used form Consumer Price Index (CPI) for this study. GDP Deflator is used for adjusting into real term from nominal values collected. The sample size is determined in this paper from 1980 to 2014 (35 observations). Gross Domestic Product, Gross Domestic Saving, interest rate,CPI and GDP Deflator are taken from the various quarterly economic bulletins, economic surveys and A Handbook of Financial Statistics 2014'.

CPI of USA is taken from the World Bank Source. Before the liberalization (1990) in Nepal, interest rate was used to fix by the Nepal Rastra Bank (NRB)'s directives. Due to the unavailability of data on the weighted interest rate on saving deposits, the interest rate is calculated by taking the average of minimum and maximum values of the range of one year fixed deposit interest rate at commercial bank. Before estimating of the time series data we should check the asymptotic properties first (Gujarati, et al 2009). Otherwise, regression model gives spurious result (Bhusal, 2013). In the table 1, the results of ADF tests of the variables are given. Testing of ADF test can be expressed as following ways: for example, lnS is going to test whether it is stationary or not through Augmented Dickey Fuller Method. Its structure is given below.

$\Delta \ln S_t = \alpha_0 + \alpha_1 . t + \alpha_2 . \Delta \ln S_{t-1} + \sum_{j=1}^{p} \alpha_j \Delta \ln S_{t-j} + \varepsilon_t$ ..... (iii)

The additional lagged terms are included to ensure that the errors are uncorrelated. In this ADF procedure, the test for a unit root is conducted on the coefficient of $\ln S_{t-1}$in the regression. If the coefficient is significantly different from zero, then the hypothesis that $\ln S_{t-1}$contains a unit root is rejected. Rejection of the null hypothesis implies stationary[2]. Precisely, the null hypothesis is that the variable $\ln S_t$ is a non-stationary series (H0: $\alpha_2 = 0$) and is rejected when α_2 is significantly negative (Ha: $\alpha_2 < 0$).If the calculated value of ADF statistic is higher than McKinnon's critical values, then the null hypothesis (H0) is not rejected and the series is non-stationary or not integrated of order zero, I (0). Alternatively, rejection of the null hypothesis implies stationary. Failure to reject the null hypothesis leads to conducting the test on the difference of the series, so further differencing is conducted until stationary is reached and the null hypothesis is rejected. If the time series (variables) are

2 A series yt is called stationary if its mean and variance over the time are constant and the covariance between two time periods is time invariant.

non-stationary in their levels, they can be integrated with I (1), when their first differences are stationary.

When the variables of the time series data are stationary at both integrated at level I(O) and integrated at first difference I(1) simultaneously Pesaran et al (2001) suggest that use the Autoregressive Distributive Lag Model (ARDL). The autoregressive distributed lag co-integration procedure introduced by Pesaran and Shin (1999) and Pesaran, Shin, and Smith (1997, 2001) has been used to examine the long-run relationship between the money demand and its determinants. This test has several advantages over the well-known residual-based approach proposed by Engle and Granger (1987). The maximum likelihood-based approach is proposed by Johansen and Julius (1990) and Johansen (1992). One of the important features of this test is that it is free from unit-root pre-testing and can be applied regardless of whether variables are I(0) or I(1). In addition, it does not matter whether the explanatory variables are exogenous (Pesaran & Shin, 1999). An ARDL regression model looks like this:

$\ln S_t = \alpha + \ln S_{t-1} + \ldots + S_{t-i} + \beta_{1i} \ln Y_{t-i} + \beta_{2i} \ln S_{t-i} + \beta_{3i} R_{t-i} + \beta_{4i} \pi_{t-i} + \varepsilon_t$ ..... (iv)

Where ε_t is a random disturbance term, autoregressive means independent variables are explained (in part) by lagged values of itself, and distributed lag component in the form of successive lags explanatory variable.

To alleviate the problems regarding co-integration[3], Pesaran and Shin (1999) showed that co-integrating systems can be estimated as ARDL models, with the advantage that the variables in the co-integrating relationship can be either I(0) or I(1), without needing to pre-specify which are I(0) or I(1). Pesaren and Shin (1999) also note that unlike other methods of estimating co-integrating relationships, the ARDL representation does not require symmetry of lag lengths; each variable can have a different number of lag terms. For the bound testing, equation (iv) can be converting into following way:

$\Delta \ln S_t = \alpha + \Sigma \beta_{0i} \Delta \ln S_{t-i} + \Sigma \beta_{1i} \Delta \ln Y_{t-i} + \Sigma \beta_{2i} \Delta \ln S_{t-i} + \Sigma \beta_{3i} \Delta R_{t-i} + \Sigma \beta_{4i} \Delta \pi_{t-i} + \theta_0 \ln S_{t-1}$

$+ \theta_1 \ln Y_{t-1} + \theta_2 \ln S_{t-1} + \theta_3 R_{t-1} + \theta_4 \pi_{t-1} + \varepsilon_t$ ..... (v)

In this equation (v) Δ is the first difference $\alpha$is the drift component and ε_t is the white noise residuals. The coefficients ($\theta_4 - \theta_0$) represent the long run relationship, whereas the remaining expression with summation sign ($\beta_4 - \beta_0$) represents the short run dynamics of the model (Pesaren & Shin, 1999). It is important to test 'F-test'. The null hypothesis of this bound testing is,

$H_0: \theta_0 = \theta_1 = \theta_2 = \theta_3 = \theta_4 = 0$ against alternative hypothesis is $H_1: \theta_0 \neq \theta_1 \neq \theta_2 \neq \theta_3 \neq \theta_4 \neq 0$.

Pesaren et al (2001) derived the two sets of critical values in which lower critical bound assumes that all variables in the ARDL model are I(0) and upper critical bound assumes I(1). A rejection of H_0 implies that we have a long-run relationship. A key assumption in the ARDL Bounds Testing methodology of Pesaran *et al.* (2001) is that if the F statistic is the greater than lower and upper critical bound at significance levels: 10%, 5%, 2.5% &1%, we reject the null hypothesis.

3 Co-integration refers testing long run association among the variables. Traditional methods of estimating co-integrating relationships, such as Engle-Granger (1987) or Johansen's (1991, 1995) method, or single equation methods such as Fully Modified OLS, or Dynamic OLS either require all variables to be I(1).

An Error Correction Model (ECM) belongs to a category of multiple time series models most commonly used for data where the underlying variables have a long-run stochastic trend. ECMs are a theoretically-driven approach useful for estimating both short-term and long-term effects of one time series on another. The term error-correction relates to the fact that last-periods deviation from a long-run equilibrium, the error, influences its short-run dynamics. Thus ECMs directly estimate the speed at which a dependent variable returns to equilibrium after a change in other variables.

The unrestricted error correction model based on the assumption made by Pesaran*et al.* (2001) was also employed for the short-run dynamics of the equation (v) can be expressed as:

$$\Delta \ln S_t = \beta_0 + \Sigma\beta_i \Delta \ln S_{t-i} + \Sigma\rho_j \Delta \ln Y_{1t-j} + \Sigma\delta_k \ln S_{2t-k} + \Sigma\,\vartheta_s R_{3t-s} + \Sigma\mu_y \pi_{4t-y} + \gamma EC_{t-1} + e_t \ldots \text{(vi)}$$

Where, γ is the speed of adjustment parameter and EC is the residuals that are obtained from the estimated co integration model of equation (v). The error correction term (EC) is, thus, defined as: $EC_t = \ln S_t - \rho_1 \ln Y_t - \delta_1 \ln S_t - \vartheta_1 R_1 - \mu_1 \pi$ where, $\gamma_1 = -(\theta_2/\theta_0)$, $\gamma_2 = -(\theta_3/\theta_0)$, $\gamma_3 = -(\theta_4/\theta_0)$ are the OLS estimators obtained from equation (v). Equation (vi) represents error correction model and term 'γ'is the error correction coefficient or speed of adjustment parameter. It should be always less than zero.

The CUSUM and CUSUMSQ tests to the residuals of equation have also been applied in order to test the model stability. The CUSUM test is for the study of structural change and the original test statistic was constructed based on cumulated sums of recursive residuals. The CUSUM test is extended to OLS (Xiao & Phillips, 2002). Pesaran (1999) expressed that if plot of CUSUM remains within the critical bounds at 5% significance level (represented by clear and straight lines drawn at 5%) the null hypothesis that all the coefficients and the error correction model are stable cannot be rejected. However, if the two lines are crossed, the null hypothesis of coefficient constancy can be rejected at 5%. The same analysis applies for CUSUMQ test, which is based on the squared recursive residuals.

Empirical Results

This is the study which is based on time series data from 1980 to 2014. Regarding the time series analysis of the data, first, must be checked whether they are stationary or not. A non- stationary time series variable produces spurious results (Bhusal, 2013). So that table 1 shows the result of the Augmented Dickey Fuller (ADF) Test.

From the table 1, it is clearly expressed that the Null hypothesis of the variables lnY,lnS, R andπ are rejecting at the significance levels. The variables lnY,lnS and lnS are rejecting the null hypothesis at first difference I(1) at the significance level of one percent, whereas R and π are rejecting the null hypothesis at level form I(0) at the significance level of one percent. Pesarenet et al (2001) suggest selecting econometric model for the study, is ARDL model on the basis of the obtained ADF test results. For the ARDL model, at least one variable should be stationary at the level form and other at first difference but there is no any matter when it becoming stationary at second deference.

Co-integration test of the model shows weather there is any long run association existed among the variables or not? It is also called bound testing in the ARDL model. On the basis of the given F statistics of the model with its lower and upper bound critical values and corresponding significance levels, long run association is determined as follows:

Table 1: Results of Augmented Dickey Fuller (ADF) Tests

Variable	Level		First Difference		Remark
	Intercept	Intercept and Trend	Intercept	Intercept And Trend	
lnS	1.50 (0.52)	2.57 (0.293)	6.11*** (0.0000)	6.071*** (0.000)	I(1)
lnY	1.66 (0.44)	2.58 (0.289)	6.00*** (0.0000)	6.07*** (0.0000)	I(1)
lnS	2.53 (0.116)	0.602 (0.972)	4.51 (0.001)	5.37 (0.000)	I(1)
R	5.10*** (0.0002)	5.71*** (0.0000)	-	-	I(0)
π	4.11 (0.0029)	4.39*** (0.007)	-	-	I(0)

Note : Triple asterisk*** denote 1% level of significance respectively; and numeric value between (...) express corresponding p- values and non-parenthesis are absolute t- statistics.
Source: Author's own calculation

In table 2, F –statistics values of the model is 9.46, corresponding all lower and upper bound value up to1% significance level are smaller than F statistics value. The guideline given by Pesaren and Shin (1999), the null hypothesis is rejected when F statistics is greater that the lower and upper bound critical values at the significance level. It means there is existed long run association among the variables.

Table 2: Bound Test for Co-integration Analysis of the Model

F- Statistics Value	*9.46*	
Significance Level	Lower bound	Upper Bound
10 %	2.2	3.09
5%	2.56	3.49
2.5%	2.88	3.97
1%	3.29	4.37

Source: Author's own calculation

Error Correction Model (ECM) or short run dynamics of the ARDL model for saving function is highlighted in the table 3. Here, it is found that real income, exchange rate, and real interest rate are significantly determinants of the saving function, but inflation rate is not statistically significant. The elasticity coefficient of real income is obtained higher than unity (3.77) in the short run. The coefficient of the real exchange rate is also high and negative (-0.581). It explains that there is existed inverse relationship between depreciation and real saving. The variables real interest rate has very lower coefficient and positive also (0.0372). It explains that real interest rate has been substituting the present consumption for the expected future income, called substitution effect (Sapiro, 2001).

In the same, way inflation rate has very low coefficient and positive (0.026), which is statistically insignificant. The Error correction coefficient is found -0.7998 which is statistically significant at the significance level of 1 percent. It shows that 79.98 percent of speed of adjustment balances each year during disequilibrium condition.

Table 3: Error Correction Representation of the Model (1, 2, 2, 1, 0)

Variables	Coefficient	Sta. Error	t-statistics	Probability
$\Delta \ln Y$	3.77	0.67	5.63	0.000
$\Delta \ln Y_{-1}$	4.09	0.80	5.10	0.000
$\Delta \ln \$$	-0.581	0.271	-2.140	0.043
$\Delta \ln \$_{-1}$	-1.556	0.328	-4.739	0.0001
$\Delta \pi$	0.026	0.017	1.493	0.149
ΔR	0.0372	0.0170	2.185	0.039
ECM_{-1}	-0.7998	0.0946	-8.455	0.000
$R^2 = 0.969$ R^2	$A_R = 0.956$	S.E = 0.1000		
F = 71.021(0.000)	AIC = -1.49	DW = 1.917		
Diagnostic Tests				
A. Serial Correlation	$\chi^2_{Auto}(2) = 1.03$ (0.597222)			
B. Functional form	$\chi^2_{RESET}(2) = 1.85$ (0.1825)			
C. Normality	χ^2_{JB} 0.782 (0.67)			
D. Heteroscedasticity	$\chi^2_{BP}(2) = 12.49$ (0.25)			

Source: Author's own calculation

The estimated model is overall good because of F-statistics is significant at less than one percent. R^2 (0.969) and Adjusted R^2 (0.956) is remarkable higher, Standard Error is less (0.100), DW value is 1.799 is also good. This model is free from serial correlation, Existence of normality and homoscedasticity and functional form says that we cannot reject the null hypothesis; it means the specified model is free from specification error. These all tests show the model is overall good and fit.

The long run effect or equilibrium of the consumption model shows the dependent variable's mobility due to independent variables' movement in the long run. In table 4, numeric values within the parentheses are the corresponding p values. The estimated long run saving function can be expressed as following equations:

$$\ln S = -9.77^{***} + 1.062^{***}\ln Y + 1.19^{***}\ln \$ + 0.074^{***}\,\pi + 0.072^{***}\ln R \quad \text{.....(vi)}$$

Table 4: The Estimated Long Run Equilibrium of the Model

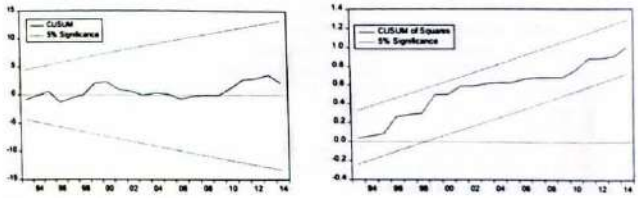
Dependent Variable : Real Saving (lnS)	
Independents Variables	Coefficient
LnY	1.062*** (0.0000)
Ln$	1.19*** (0.000)
π	0.074*** (0.000)
R	0.072*** (0.0034)
Intercept	-9.77*** (0.0000)

Note: Triple asterisk *** denote the 1% of significance level.
Source: Author's own calculation

The estimated long run effect is presented that the elasticity of the coefficient of the income (MPS) is greater than unity (1.062) and statistically significant at one percent significance level. The coefficient of the real exchange rate is also significantly greater than unity and positive (1.19). It shows that there is positive relationship existed between real saving and depreciation. It is another important determinant after income. Slope of inflation is recorded as very low (0.074), statistically significant at one percent of significance level. Real interest rate has also very low coefficient (0.072); this reveals the substitution effect of Nepalese consumer. The intercept of the long run saving function is $-e^{9.77} = -17500.76$ million Nepalese rupee, it is also significant at the significant level of one percent.

As the given statement of by Pesaran & Shin (1999), if the plot of CUSUM remains within the critical bounds at 5% significance level (represented by clear and straight lines drawn at 5%, the null hypothesis that all the coefficients and the error correction model are stable cannot be rejected. However, if the two lines are crossed, the null hypothesis of coefficient constancy can be rejected at 5%. The same analysis applies for CUSUMSQ test, which is based on the squared recursive residuals.

Figure 1: QUSUM and CUSUMQ Test for the Model



Source: Author's own calculation

Figure 1 shows the stability condition of the saving model in the both ground of short and long run. The plot of CUSUM is within the 5 percent significance level line. CUSUMQ also falls within two parallel lines or 5 percent significance level. Both of the above test proved that the model is stable for long run equilibrium as well as for the short run dynamics.

Conclusions

This paper has estimated the quantitative determinants of aggregate saving function of Nepal through ARDL model approach. After vigorous findings as highlight in the above, it has established that real income, real exchange rate, real interest rate and inflation rate are the significant determinants of aggregate saving function of Nepal in long run, however, real income, real exchange rate and real interest rate are significantly determinants of the short run saving function. The elasticity coefficient of real income (MPS) is significantly greater than unity in both time horizons. Real exchange rate plays a puzzling role in the international competitiveness of trade. There is found inverse relationship between real saving and depreciation in short run with high coefficient where as in the long run, the elasticity coefficient of real exchange rate is found greater than unity with positive sign. Inflation rate and real interest rate are significantly very low effect on real saving in the long run. The sign of coefficient of real interest rate reveal that the Nepalese consumer/depositor are

substituting the present consumption for the expected future income even as very low rate in both short run and long run. This type of finding has already revealed by Gaire (2012).

The concluded facts expressed in the above conclusions, recommend basically two strong suggestions. If we hire the Keynesian arguments: as well as MPS going higher, it reduces the value of investment multiplier and ultimately the aggregate employment and output falls down. This recommends that make a policy which induced the national investment higher. The second recommendation directly hits to control of inflationary pressure in the economy. If it becomes lower, all the real values of the variable become stronger and larger. This paper successfully determined the probable quantitative determinants of aggregate saving function but is unable to quest the facts about policy effect in Nepalese saving function which have been playing very lucid role in Nepalese economy.

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