The Nexus between Remittance and Economic Growth in Nepal

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Abstract

Background: Remittance has been a pivotal source of financing economic activities in lower-income nations, including Nepal and could significantly boost the economy.The key objective of the study is to inspect the link between remittance inflow and economic growth in Nepal.

Methodology: This study uses the Auto-Regressive Distributive Lag (ARDL) approach to cointegration. The Bounds test has been carried out to explore the existence of a long-run association between variables.

Results: The empirical outcomes indicated a positive and significant long-run relationship between remittance inflow and economic growth in Nepal. Similarly, capital spending and consumption expenditure have also positively and significantly contributed to the economy.

Conclusion: The study concludes that remittance inflow has been supporting economic growth episodes in Nepal, and an increased flow of remittance can boost the economy permanently if it is utilized in productive and capital formation channels.

Implications: The study implies that real economic growth in Nepal can be enlarged if the policymakers focus on the productive linkage of remittance income in the country.

Keywords: Remittance, Capital Expenditure, Consumption, Economic Growth, Cointegration

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Paper Type: Research paper

Introduction

Remittance income has been one of the key factors affecting economic activities in developing nations and, thereby, the production and growth potential of the nation (Todaro & Smith, 2017). Income from migrant workers has emerged as a fundamental source of financial resources and financing the daily needs of individuals in developing nations.

One way to view remittances is as a direct, immediate, and extensive benefit to migrants and their home countries. Compared to other private flows, foreign direct investment, and official development assistance, they provide developing nations with a more reliable source of income. Furthermore, the rise of remittances as a novel approach to poverty alleviation in developing nations has prompted several entities, such as national governments, international organizations, and multilateral institutions, to carefully examine, determine, and put into practice strategies for maximizing these inflows and using them to support the development of the migrants' home countries (Pant, 2008).

Remittance, a crucial source of foreign resources for developing nations like Nepal, is the portion of earnings that people send back to their home or place of origin after moving to a new location. In the past few decades, it has become one of the most significant financial flows and sources of funding for development for low- and middle-income nations (Ratha, 2003). In terms of GDP share, Nepal is among the countries that receive the most remittances worldwide. In the fiscal year 2023, Nepal received a remittance of 9.33 billion USD, which accounts for 22.68 per cent of the country's GDP (NRB, 2023).

Economic growth is a gradual process that raises an economy's potential for production over time, leading to increases in GDP and output at the national level. Remittances, or inflow of foreign funds, are a significant factor in promoting a nation's economic development. For developing nations like Nepal, government spending and the influx of foreign resources in migrant workers' earnings are important drivers of the nation's economic development (Mahara & Bhatt, 2019).

It has been discovered that remittances have a qualitative effect on the macroeconomic level, especially in countries facing political and economic disturbances, as remittances are seen as an essential and reliable source of foreign funding for those nations. In such nations, remittances are among the most reliable and secure sources of foreign exchange when compared to other capital flows like foreign direct investment and official development assistance. Remittances, which provide impoverished and marginalized individuals with an alternate source of income, have improved livelihoods on a micro level. One crucial factor in reducing poverty is remittances. Remittances have impacted the community as well as the welfare and capabilities of the receiving households (Chhetri et al., 2020).

Remittance has been contributing to the Nepalese economy at micro and micro levels. Over the last 46 years, the average remittance inflow has remained at 217 billion, and the GDP ratio remains at 9.9 per cent. The unproductive use of remittance income has been a concern for Nepal. The following graph shows the remittance to GDP ratio of Nepal.

Figure 1.1: Trend of Remittance Inflow
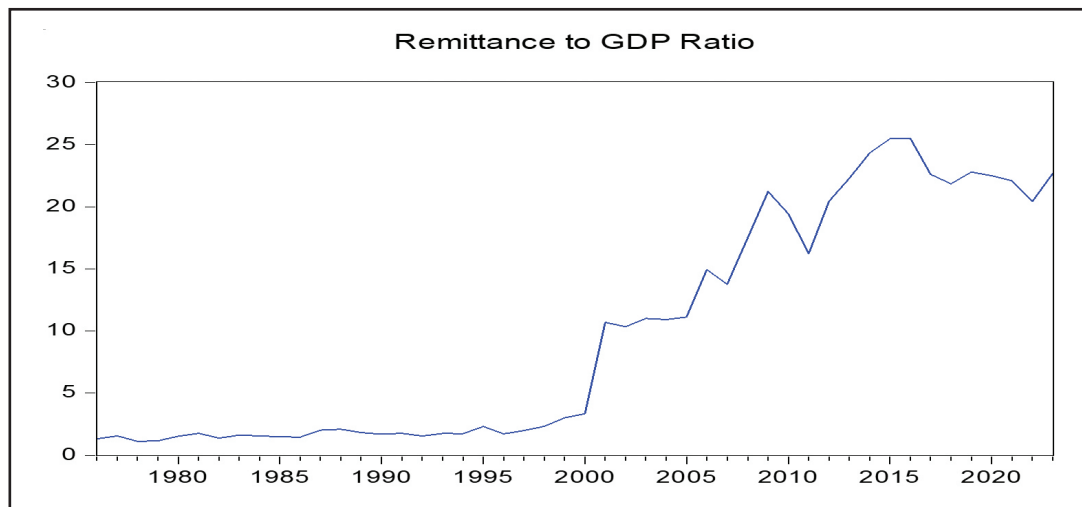
The above diagram shows the growing remittance inflow in Nepal, and in terms of GDP ratio, it has reached about one-quarter of GDP. Despite the increasing remittance inflow, Nepal remains among the world's poorest nations. An empirical analysis of the effects on Nepal's economic growth is imperative to determine the role of remittance inflow. Thus, the study aims to look into how remittance inflow affects the economic growth of Nepal. We anticipate the study's conclusions will determine the relative efficacy of remittance inflow and guide the development of appropriate policies.

The remaining sections of the paper are outlined below. The next part provides an overview of the relevant literature reviews. The data and methodology are presented in the third section, while the results of the study are shown in the fourth section. The study is concluded in the final section.

Review of Literature

The results of numerous empirical studies on the connection between remittances and economic growth are inconsistent and varied. While some research revealed a negative impact, others found a positive one. Here is a review of a few studies pertinent to this study.

Ratha (2007) investigated the relationship between remittance inflow and economic progress and found that remittance has impacted the economy more significantly in low-income countries than in developing countries. Khatalan (2012) studied the long-run and short-run relationship between remittances and economic growth in Pakistan during 1976-2010 and found a positive and significant association between remittance and economic growth in the short and long run.

Bhatta (2013) studied the effect of remittances on the import and trade deficit of Nepal and reported the unidirectional causality from remittance to export and the negative impact of remittance on the trade deficit. Kumar and Vu (2014) also studied the relationship between remittances and economic growth in Vietnam and reported no long-run relationship existed between remittances and economic growth. Assaf (2015) researched the impact of workers' remittances on economic growth in Jordan through regression analysis (OLS). The research also examined the impacts of other conventional factors of economic growth, like gross fixed capital formation, foreign direct investment, and labor force. The research revealed a beneficial impact of remittances and traditional economic growth drivers, like gross fixed capital formation, on GDP while finding no considerable effects of the labor force on GDP.

Majumdar and Zhang (2016) examined the long-term impact of remittances on economic growth in Bangladesh and reported that remittances and economic growth have a statistically significant long-

term positive relationship. Uprety (2017) examined the impact of remittances on economic growth in Nepal using Johansen cointegration and error correction methods and found evidence of a cointegrating relationship between these variables and that an increase in remittances deteriorates GDP per capita growth in Nepal.

Dahal (2018) examined the effects of remittances on international trade, productivity, financial development, and human capital accumulation to assess their impact on economic growth in Nepal. This study examines how remittances through the manufacturing and entrepreneurship channels affect growth. The results show that remittances have a favorable correlation with entrepreneurship but a negative correlation with manufacturing. The result is inconclusive due to the mixed effects of remittances on various productivity factors. Kaphle (2018) examined the relationship between remittance and economic development using the Vector Error Correction model and found a positive long-term relationship between remittances and long-term economic development.

Shakya and Gonpu (2021) examined the impact of remittances on economic growth in Nepal by using the Johansen co-integration method, and the study found that remittance does not significantly impact economic growth. The study also found that a democratic form of governance, as measured by a dummy variable, had a significant and positive impact on economic growth alongside capital formation and exports. Thus, the paper found that there is a possibility that remittances negatively impact economic growth in the long run.

Chaudhary (2022) used the ARDL bound test method to assess how remittances affect Nepal's GDP and private gross fixed capital formation. The findings indicated that remittances positively affected GDP but hurt private gross fixed capital formation.

Aslam & Alibuhtto (2023) examined the effect of workers' remittances and the economic growth of Sri Lanka and found that workers' remittances have a positive relationship with per-capita gross domestic product. Adhikari (2023) examined the impact of remittance on gross domestic savings in Nepal and found that remittances are insignificant to gross domestic savings in the long and short terms.

Chowdhury et al. (2023) studied the impact of remittance on the economic progress of selected lower-income Asian countries. The study attempts to determine the contribution of remittances to the economic progress of three low-income Asian frontier countries: Bangladesh, Sri Lanka, and Vietnam. This study applies pooled ordinary least squares (OLS), fixed effect, and random effect models to know the aggregate impact of remittances on economic development using panel data from 1990 to 2019. Vector error correction model and Granger causality were used to determine the country-specific impacts. The regression results indicate a significantly negative impact of remittances on the economic progress of sample countries. In Bangladesh, remittances have neither short-run nor long-run associations; in Vietnam, there exists a short-run association but no long-run one. In Sri Lanka, the short-run causality flows from remittances to GDP per capita and vice-versa. This study further observes that excessive consumption and investment in unproductive sectors of transferred money negatively correlate with economic development.

Research Methodology

Data Sources and Variables

The study has applied annual time-series data from 1976 to 2023. The necessary data are collected from the Nepal Rastra Bank (NRB), the central bank of Nepal. Here, economic growth is proxied by the log of real gross domestic product, and real GDP is based on the constant price of 2010/11. Remittance has been expressed as the log of remittance inflow. Similarly, government expenditure is represented by capital expenditure, which is also used as the log of total capital expenditure. Total consumption is the amount spent on purchasing final goods and services and is also presented as the log of total consumption spending in the economy.

Table 1. Variable Description

S.N.	Notation	Variable	Unit	Source
1	LRGDP	Real GDP	Log transformation: Values in billion rupees; Base year: 2010/11	Current Macroeconomic and Financial Situation-2022/23, NRB
2	LRMT	Remittance Inflow		
3	LCE	Capital Expenditure		
4	LCON	Total Consumption		

Model Specification

The model in the study demonstrates a functional relationship between dependent and independent variables. Real Gross Domestic Product (LRGDP) is considered a dependent variable, and remittance inflow (LRMT), total capital spending (LCE), and total consumption spending (LCON) are used as explanatory variables. Based on the theoretical literature, the model can be expressed below.

$$LRGDP = f(LRMT, LCE, LCON) \ \dots\dots\dots\dots \ (1)$$

The linear form of equation (1) can be presented as shown by equation (2) below.

$$LRGDP = \beta_0 + \beta_1 \ LRMT + \beta_2 \ LCE + \beta_3 \ LCON + U_t \ \dots\dots\dots\dots \ (2)$$

Here, β_0 is intercept parameter, β_1, β_2, and β_3 are respective coefficients to be estimated, U is a random variable, and t shows time. The expressed coefficients are expected to have positive signs, signifying explanatory variables' positive effects on Nepal's economic growth rate.

ARDL Approach to Cointegration

Whether the variables are integrated of order zero (I0), one (I1), or mutually integrated, one of the most popular and appropriate methods for examining the co-integration relationship between the underlying variables is the ARDL model, which was developed by Pesaran and Shin (1999) and Pesaran, Shin, and Smith (2001). Additionally, this method is thought to be a statistically more significant way to find the co-integrating relation in small samples. The following is the expression for equation (2) in the ARDL format.

$$\Delta LRGDP_t = \alpha_0 + \sum\nolimits_{j=1}^{p} b_j \ \Delta LRGDP_{t-j} + \sum\nolimits_{j=0}^{q} c_j \ \Delta LRMT_{t-j} + \sum\nolimits_{j=0}^{r} d_j \ \Delta LCE_{t-j} + \sum\nolimits_{j=0}^{s} e_j \ \Delta LCON_{t-j} + \gamma_1 \ LRGDP_{t-1} + \gamma_2 \ LRMT_{t-1} + \gamma_3 \ LCE_{t-1} + \gamma_4 \ LCON_{t-1} + U_t \ \dots\dots\dots\dots(3)$$

Where 'Δ' indicates the first difference operator; b_j, c_j, d_j, and e_j indicate the short-run parameters, whereas $\gamma_1, \gamma_2, \gamma_3,$ and γ_4 represent the long-run parameters, and U_t represents the error term in the model.

Now, to determine whether a long-term equilibrium relationship exists between the set of variables, the Pesaran and Shin (1999) bounds test for cointegration is used. The hypotheses to test the long-run relationship are presented below.

Null Hypothesis (H_0) : $\gamma_1 = \gamma_2 = \gamma_3 = \gamma_4 = 0$; No cointegration exists.

Alternative Hypothesis (H_1) : $\gamma_1 \neq \gamma_2 \neq \gamma_3 \neq \gamma_4 \neq 0$; Cointegration exists.

The variables have a long-term relationship if the bound test result demonstrates cointegration. To show this relationship, we compared F-statistics to Pesaran Shin and Smith's (2001) critical values. The null hypothesis of no cointegration is rejected if the computed F-statistics is higher than the appropriate upper bound of the critical values; if it is below the appropriate lower bound, the null hypothesis cannot be rejected; and if it lies between the lower and upper bounds, the results are not conclusive.

Results and Discussion

Unit Root Test Results

The only statistical characteristic a stationary time series shares is that its covariance between two time periods is time-invariant, and its mean and variance remain constant over time. Spurious regression is an issue if the time-series data are non-stationary (Gujarati et al., 2012). Thus, before conducting any empirical analysis, it is imperative to check for stationarity in the data. The Dickey-Fuller (DF), Augmented Dickey-Fuller (ADF), Phillips-Perron (PP), and Kwiatkowski-Phillips-Schmidt-Shin (KPSS) tests are a few techniques for determining the unit roots in a series. The results of this study, which diagnoses the stationarity of the data using the ADF and PP tests, are displayed in Table 2.

Table 2: Results of Unit Root Tests

Variables	ADF-Statistics	PP-Statistics	Order of Integration
LRGDP	-7.089349*	-8.180325*	I (1)
LRMT	-7.784619*	-7.777877*	I (1)
LCE	-5.881384*	-5.856917*	I (1)
LCON	-4.314088*	-6.012215*	I (1)

Note: * means coefficients are significant at a 1 per cent level of significance

Source: Author's Calculation

Table 2 shows that all variables in the model are stationary at the first difference, enabling the application of the ARDL model.

Lag Length Selection

Selecting a suitable lag order for the ARDL model is crucial in determining the cointegrating relationship between the variables. Table 3 displays the ideal lags determined by various standards using the VAR lag selection methodology.

Table 3: Lag Length Selection

Lag	LogL	LR	FPE	AIC	SC	HQ
0	132.5307	NA	3.88e-08	-5.712477	-5.551885	-5.652610
1	364.2692	411.9796	2.67e-12	-15.30086	-14.49789*	-15.00152*
2	380.7364	26.34738*	2.66e-12	-15.32162	-13.87629	-14.78281
3	398.4991	25.26252	2.58e-12*	-15.39996*	-13.31226	-14.62169
4	409.0855	13.17418	3.59e-12	-15.15935	-12.42929	-14.14161

Note: * indicates lag order selected by the criterion; LR: sequential modified LR test statistic (each test at 5% level); FPE: Final prediction error; AIC: Akaike information criterion; SC: Schwarz information criterion; HQ: Hannan-Quinn information criterion.

Source: Author's Calculation

Cointegration Result

The bound test result for the cointegration relationship between explanatory variables and economic growth is shown in Table 4.

Table 4: Cointegration Results

Test Statistics	Value	Significance	I (0)	I (1)
F-Stat	43.18804	10%	2.37	3.2
		5%	2.79	3.67
		2.5%	3.15	4.08
		1%	3.65	4.66

Source: Author's Calculation

At a 1 per cent significance level, the bound test result shown in Table 4 indicates that the computed F-statistics 43.18804 is greater than the upper bound critical value 4.66. This indicates that the null hypothesis that there is no cointegration is rejected. Thus, it can be concluded that the chosen variables have a long-term relationship.

ARDL Regression Results and Interpretation

The ARDL model has been utilized to estimate the long-run and short-run coefficients for equation (3), considering the cointegration between explanatory variables and real GDP. As a result, the following section presents the long- and short-term relationships among variables using the ARDL model based on the SC criterion.

Table 5: Long-run Coefficients from ARDL (1, 0, 0, 0) Model

Dependent Variable: LRGDP				
Variables	Coefficient	Std. Error	t-Statistic	Prob.
LREMT	0.046379***	0.023879	1.942223	0.0587
LCE	0.079954**	0.037314	2.142745	0.0378
LCON	0.203740**	0.060875	3.346858	0.0017
C	2.344656*	0.084270	27.82321	0.0000
R-square: 0.9989; Adjusted R-square: 0.9988; DW stat: 2.36; F-stat: 10224.35 (0.0000)				

*Source: Author's Calculation; Note: ** indicates that the coefficients are significant with a 5 per cent level of significance*

Table 5 presents the long-run coefficients from the selected ARDL model. The coefficients of all the explanatory variables are positive, as expected in the study. The positive coefficients of all the explanatory variables, including remittance inflow, are positive, indicating remittance inflow, capital expenditure, and consumption expenditure have favorable long-term effects on the economic growth of Nepal. The coefficient of all remittances is favorable at ten percent levels of significance, and coefficients of capital expenditure and consumption expenditure are also favorable at a 5 per cent significance level. Furthermore, the coefficient shows that when remittance inflow increases by 1 per cent, Nepal's economic growth increases by 0.0463 per cent. Similarly, when capital expenditure and consumption expenditure each rise by 1 per cent, economic growth increases by 0.0799 and 0. 2037 per cent, respectively.

Table 6: Short-Run Coefficients of the Model

Dependent Variable: LRGDP				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
ΔLREMT	0.016679***	0.009216	1.809838	0.0773
ΔLCE	0.028753**	0.011862	2.423993	0.0196
ΔLCON	0.073268**	0.032151	2.278916	0.0277
ECM (-1)	-0.359616*	0.089656	-4.011054	0.0000
R-squared: 0.53; Adjusted R-squared: 0.503; DW stat: 2.36; F-stat: 10224.35 (0.0000)				

*Source: Authors' computation; Note: * and ** indicate that the coefficients are significant at 1 and 5 per cent levels of significance, respectively.*

The table presents the short-run results of the model. The coefficient of remittance, along with other variables, is positive and statistically significant in the short run. Thus, in the short run, the effect of remittance, capital expenditure, and consumption spending on the economic growth of Nepal is positive and significant. The error correction term has a value of -0.359616 at a one per cent significance level. The error correction term's statistically significant negative value further confirms the variables' integration and indicates that the model is convergent toward equilibrium.

Diagnostic Test Results

The ARDL model's reliability is examined in more detail using diagnostic tests like the Regression Specification Error Test, serial correlation test, heteroscedasticity test, normality test, and stability test. The results of such tests are presented below.

Regression specification error test result

The Ramsey RESET test is used to check the accuracy of the given functional form, and the results are shown below.

Table 7: Ramsey RESET Test Result

Omitted Variables: Squares of fitted values			
	Value	df	Probability
t-statistic	0.086197	42	0.9317
F-statistic	0.007430	(1, 42)	0.9317

Source: Author's calculation

The probability values of the F-statistics and t-statistics are both 0.9317, surpassing the 0.05 threshold, thus rejecting the null hypothesis that the model is not in its correct functional form. This indicates that the model shows no sign of any misrepresentation.

Serial Correlation Test

The study conducts autocorrelation testing on the model using residual diagnostics with the Breusch-Godfrey Serial Correlation LM test, which includes one lag. Below is the outcome of the autocorrelation examination for the model.

Table 8: Serial Correlation Test Result

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	2.458894	Prob. F (1,42)	0.1244
Obs*R-squared	2.654743	Prob. Chi-Square (1)	0.1032

Source: Author's calculation

The null hypothesis, which states that there is no serial correlation, is supported as the P-value for the data in the table is 0.1244, exceeding the threshold of 0.05. This indicates that there is no serial correlation between the variables being examined.

Heteroskedasticity Test Result

The heteroscedasticity issue occurs when the error variance is not consistent across different levels of the predictor variable. Heteroskedasticity in a regression analysis leads to uneven dispersion of residuals. Below is the output of the heteroscedasticity test for the model.

Table 3.9: Heteroskedasticity Test Result

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	0.336231	Prob. F (4,43)	0.8520
Obs*R-squared	1.455778	Prob. Chi-Square (4)	0.8344
Scaled explained SS	1.255015	Prob. Chi-Square (4)	0.8690

Source: Author's calculation

The result shows that the P value is 0.8520; thus, the null hypothesis cannot be rejected. Because all LM stat p-values are higher than 5%, the study fails to reject the null hypothesis, indicating no heteroskedasticity between the variables in the model being studied.

Normality Test Result

The study employed visual and statistical methods to determine the normality of the test. The model is examined for Normality testing using the Jarque-Bera test. The summary of the Normality test results is presented below.
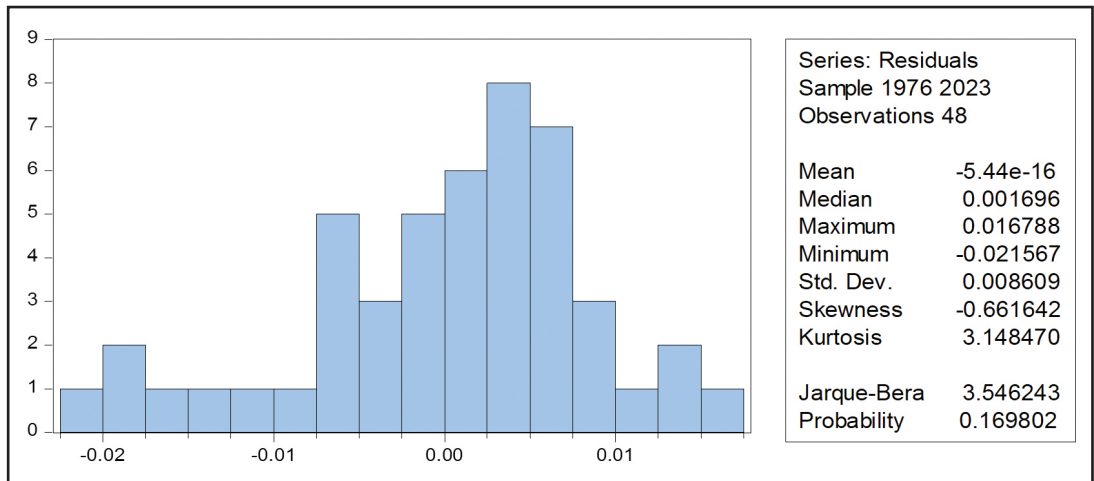

Source: Author's calculation

The outcome showed that the p-value of the JB test for the model is greater than 0.05, leading to the study being unable to reject the null hypothesis. Therefore, it can be inferred that the data collected for the research are normal.

Stability Test Result

The consistency of the estimated model's parameters is evaluated using the stability test. The structural stability of the model has been assessed using the cumulative sum of recursive residuals (CUSUM) and cumulative sum of squares of recursive residuals (CUSUMSQ) statistics. The consistency of the coefficient is the null hypothesis for the stability test. According to the null hypothesis, the sequence's value falling outside of an expected range points to a gradual structural change in the model. CUSUM measures a systematic change in the parameter, whereas CUSUMSQ measures a sudden change in the parameter.

Figure 1: Plot of CUSUM Test
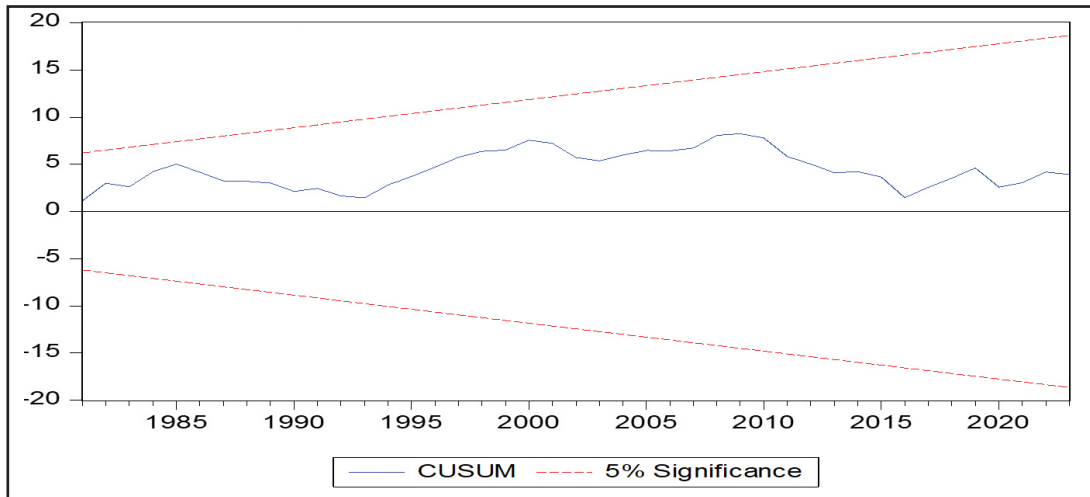
Figure 2: Plot of CUSUMSQ Test
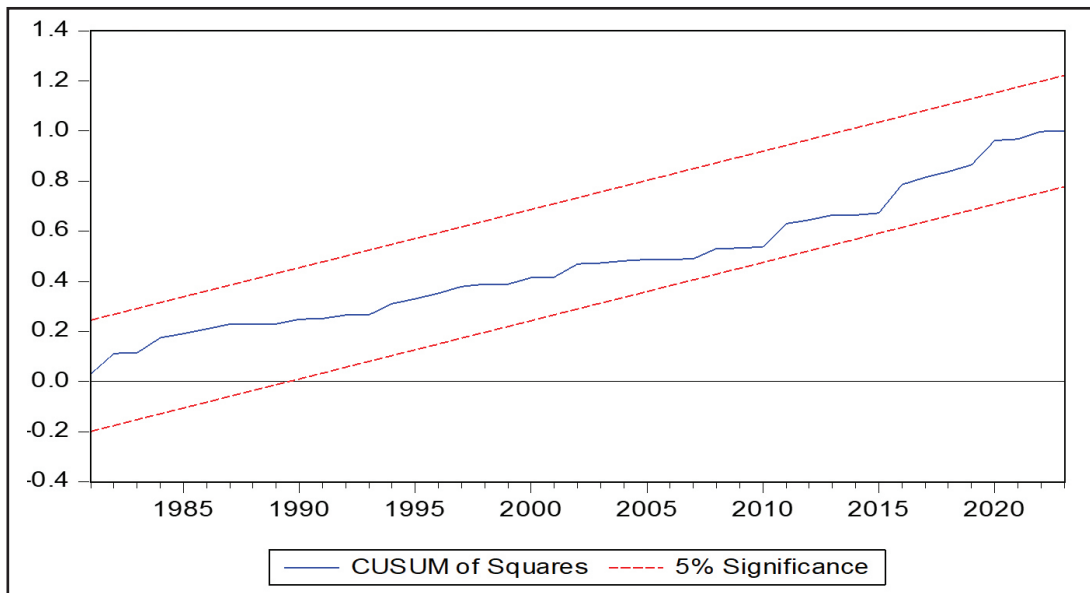
In the graph above, the dashed red line represents the critical region at the 5 per cent significance level, while the blue line represents the cumulative sum. The cumulative sum and cumulative sum of the square of the coefficient line falls within the critical region of red lines, showing that the model fails to reject the null hypothesis. Therefore, the coefficients remain consistent in the regression model.

Conclusion

Remittances have become a crucial source of foreign resources in countries like Nepal, surpassing foreign investment and development assistance. Nepal receives substantial remittances, contributing significantly to its economic activities. Remittance income is a crucial source of the socio-economic transformation of the economy of Nepal. Therefore, the research investigated the empirical correlation between remittance inflow and the economic growth rate of Nepal. The empirical results show a positive and statistically significant long-run and short-run relationship between remittance and economic growth in Nepal. The study also indicates that the capital expenditure of the government, as well as consumption spending significantly matters for the long-run and short-run growth of Nepal. The negative and significant value of the error correction term reconfirms the long-term association between the considered variables in the model. The empirical results of the study show that remittance flows have a positive effect on Nepal's economy, but its relatively weak coefficient also highlights the obligation of policymakers to address the need for its utilization and allocation in capital formation and growth expansion in a strategic and more planning manner. Therefore, policymakers should see it as a matter of serious concern. The study has also shown the positive association between capital spending and total consumption; thus, policymakers should think about and formulate frameworks and strategies to increase productive use and allocation of remittance income. If this happens, it further helps boost the economy by increasing the volume of capital and consumption expenditures. The study does not cover sector-wise and micro-level contributions to remittance. Thus, the assessment of the association of remittance income and its sectoral contribution could be the future scope of the study.

References

Adhikari, M. (2023). Impact of remittance on gross domestic savings in Nepal. *Nepal Journal of Multidisciplinary Research,* 6(2), 58-73.

Assaf, A. A. (2015). Workers' remittances and economic growth: evidence from Jordan. *European Scientific Journal,* 11(25), 40-55.

Bhattaa, G. R. (2013). Remittance and trade deficit nexus in Nepal: A VECM approach. *NRB Economic Review.*

Chaudhary, S. K. (2022). Remittances economic growth and investment nexus: Evidence from Nepal. *NRB Economic Review*, 34(1), 1-23.

Chhetri, R.K., KC, P., & Dhakal, S.C. (2020). Remittance and its impact on the Nepalese economy. *Acta Scientific Agriculture* 4 (3).

Chowdhury, E.K., Dhar, B.K. & Gazi, M.I. (2023). Impact of remittance on economic progress: Evidence from Low-Income Asian Frontier Countries. *Journal of the Knowledge Economy* 14, 382–407

Dahal, K. (2018). Remittances and working poverty. *The Journal of Development Studies,* 50(10).

Gujarati, D. N., Porter, D. C., & Gunasanker, S. (2012). *Basic econometrics.* New Delhi: McGraw Hill Education Private Limited.

Kaphle, R. R. (2018). Relationship between remittance and economic growth in Nepal. *Tribhuvan University Journal*, 32 (2), 249–266.

Khatalan, K. Al. (2012). The Link between remittances and economic growth in Pakistan: A boon to economic stability. *British Journal of Economics, Management & Trade* 2(3).

Kumar, R.R. & Vu., H.T.T. (2014). Exploring the nexus between ICT, remittances and economic growth: A study of Vietnam. *Journal of Southeast Asian Economies* 31(1).

Mahara, T. S., & Bhatt, N. R. (2019). Role of inflow of resources on economic growth of Nepal. *Economic Journal of Nepal,* 42(3-4), 66–78.

Majumdar, S. C. & Jhang, D. (2016). Relationship between remittance and economic growth in Bangladesh: an autoregressive distributed lag model (ARDL). *European Researcher. Series A, 2016.* 104 (3)

Mohamed Aslam, A.L. & Alibuhtto, M.C. (2023). Workers' remittances and economic growth: New evidence from an ARDL bounds cointegration approach for Sri Lanka. *Journal of Economic and Administrative Sciences.*

NRB (Nepal Rastra Bank) (2023). *Current Macroeconomic and Financial Situation of Nepal 2022/23.* Kathmandu: Nepal Rastra Bank.

Pant, B. (2008). Mobilizing remittances for productive use: A policy-oriented approach. *NRB Working Paper.*

Pesaran, M. H., & Shin, Y. (1999). An autoregressive distributed lag modeling approach to cointegration analysis. In I. S. Strom, *Econometrics and Economic Theory in the 20th Century, The Ragnar Frisch Centennial Symposium* (pp. 371-413). Cambridge: Cambridge University Press.

Pesaran, M. H., Shin, Y., & Smith, R. J. (2001). Bounds testing approaches to the analysis of level relationships. *Journal of Applied Econometrics* (16), 289-326.

Ratha, D. (2007). Leveraging remittances for development. *Migration Policy Institute.*

Shakya, P., & Gonpu, G. P. (2021). Impact of remittances on economic growth in Nepal. *Nepal Public Policy Review,* 1, 31–47.

Todaro, M. P., & Smith, S. C. (2017). *Economic development* (12 ed.). Pearson India Education Services Pvt. Ltd.

Uprety, D. (2017). The impact of remittance on economic growth in Nepal. *Journal of Development Innovations,* 1(1).