



Remittances and Current Account Balance in Nepal: A Long-Run Relationship Analysis

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Original Article

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Received: Feb 21, 2026

Revised & Accept: May 29, 2026

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ABSTRACT

The study examines the long-run relationship between remittances and current-account balance in Nepal between the year 1975 and 2024 using a Vector Error Correction Model (VECM). It is based on the annual observations of the current-account balance, remittance inflows, trade openness, real GDP growth, foreign direct investment and inflation rate. The cointegration test by Johansen establishes the relationships of long-run equilibrium between the variables. The results of VECM show that remittances have a statistically significant positive impact on the current-account balance in the long term, but trade openness has been negative. The mechanism of error-correction



discloses that about 26.8 per cent of short-run disequilibrium is corrected in a year. The Granger-causality tests indicate that there is a two-way causal relationship between remittances and the current-account balance, whereas there is a one-way causal relationship between GDP growth and the current-account balance. These results imply remittance inflows are a critical external source of finance in Nepal and improve the current account balance and stabilises the external sector.

Keywords: Remittance, Current account balance, VECM, Nepal, External financing, Balance of payments.

1. INTRODUCTION

The remittances have become a key means of external funds to the developing states especially the countries like Nepal which still has large populations of the diaspora (Ratha et al., 2022). Remittance inflows in Nepal have increased exponentially during the last four decades, as the country experienced an increase in the value of NPR731.3 million in 1975 and more than NPR1.4 trillion in 2024, thus being among the highest growth rates in the world (World Bank, 2024). This impressive growth has been accompanied with significant changes in current account balance of Nepal and thus one would like to pose a critical question of the interdependence between these two macroeconomic variables.

One of the key indicators of the health of the external sector is the current-account balance, which summarises the net exports and imports of goods and services, as well as net income on cross-border investments (Krugman et al., 2018). In the case of Nepal, a landlocked developing economy that heavily depends on imports, the issue of managing the current-account balance is long-term. In this way, remittances become even more relevant as possible counteractions to trade deficits, thus enhancing the external equilibrium overall (Singh et al., 2023).

Predictions of the relationship between remittance and current account have been different between the theoretical views of the relationship. According to the orthodox view, autonomous capital flows, i.e. remittances, ought to positively contribute to the current-account balance, that is, by direct financial contribution (Chami et al., 2008). On the other hand, the other theories



assume that the remittances may worsen the current account through Dutch disease effect whereby higher domestic consumption contributes to real-exchange rate appreciation and loss of competitiveness (Acosta et al., 2009; Larrey et al., 2012).

This relationship deserves special attention, considering the specifics of the Nepalese economy a landlocked state where the exports are not diversified, and the population relies on imported products. The globalisation of the labour markets, particularly in Gulf states and Malaysia, has been met with significant remittance flows that have become one of the most important elements of the household welfare and macroeconomic stability (Gaudel, 2021).

The recent events worldwide caused by the COVID-19 pandemic and an increase in geopolitical conflicts have emphasized the need to understand the external financing process. Despite the dramatic falls in remittances in many economies in 2020, 2021, Nepal was quite resilient, and the growth of remittances persisted throughout the pandemic (Narendra Rastra Bank, 2023). This strength has significant consequences of current-account processes and stability of sectors abroad.

The research is a novel addition to the literature as it provides a detailed empirical data about the remittance-current account nexus in Nepal relying on the use of cutting-edge econometric models. VECM framework allows the analysis of both short-run dynamics and long-run equilibrium relations between the variables simultaneously, taking into consideration such important macroeconomic factors as trade openness, economic growth, and foreign direct investment.

2. LITERATURE REVIEW

The conceptual connection between remittances and the current-account balance has been the subject of considerable research on international economics. The traditional perspective which is based on the use of balance-of-payment accounting holds that remittances are autonomous capital inflows that ought to stimulate the current-account balance (International Monetary Fund, 2009). Within this paradigm, remittances will provide the foreign exchange needed to finance imports and reduce reliance on other external financing.

However, empirical studies describe a more detailed portrait. Chami et al. (2008) maintained that remittances are unlike other capital flows because they have altruistic motives and counter-



cyclicalities. In their analysis, they found out that although remittances may enhance the current account on a short-term basis, they depend on how they influence the process of domestic consumption and investment decision-making on a long-term basis.

One issue that has been exceptionally topical in the discourse of the effects of remittances on the external balance is the Dutch disease hypothesis. A study conducted by Acosta et al. (2009) showed that high inflows of remittances may trigger an appreciation in the real exchange rate which makes exports less competitive and imports more enticing and therefore may worsen the balance of trade aspect of the current account. This effect is particularly high in the economy where there is a low level of export diversification like in Nepal.

Empirical support was given by Lartey et al. (2012) to the Dutch disease impacts of remittances in a sample of the developing economies. They proposed that remittances would tend to appreciate the real exchange rate and reduce the proportion of tradable goods in GDP which may compromise the current-account balance in the long run.

Conversely, Lopez et al. (2007) found that remittances tend to improve the current-account balance of Latin American countries, which is mainly achieved by augmenting the availability of foreign-exchange and lowering the requirement of external-finance. Their paper highlighted the importance of considering country-specific institutional and structural peculiarities when considering the effects of remittances.

The studies on South Asian economies have produced mixed results on the notion of remittance-current-account relationship. A study by Rahman and Hasan (2017) that focused on Bangladesh revealed that there is a positive long-run effect of remittances on the current-account balance even though volatility in the short-run is observed. Their VECM showed that remittances had the contribution in the stabilisation of external imbalances and reduced the dependency on external borrowing.

Ahmad et al. (2018) found in Pakistan that the current-account balance improves in the short and long-run because of remittances. However, they observed that the intensity of this positive effect



subsidies with time as the economy gets used to the sustained remittance inflows by changing the consumption and investment styles.

Kumar and Singh (2019) have measured the heterogeneity of effects on remittances in a comparative study of the South Asian countries and reported that there is a great heterogeneity. Countries that had a better developed financial sector and a higher level of export diversification had a greater positive correlation between the remittances and the current-account balance.

Nepal-specific studies have offered invaluable insights in regard to the peculiarities of remittance in Nepal. Pant (2008) was one of the first to study the macroeconomic impact of remittances in Nepal and discovered that remittances enhance the overall balance-of-payments position, but the impact on the current account was not comprehensively studied.

Bhattarai (2012) explored the nexus between remittances and the balance of payments of Nepal and found out that remittances have assumed the leading position in foreign exchange thus covering the sustained trade deficit. The paper has underscored the stabilising effect of the remittances in times of economic and political unrest.

Sapkota (2018) used a slightly more recent study to investigate the relationship between remittances and the current-account balance in Nepal across the long-run by an ARDL bounds-testing model between the year 1990 and 2015. The research revealed that there are positive long-run relationships and indicated that remittances increase external balance, but also showed the existence of potential Dutch disease implication through real-exchange rate appreciation.

The analysis was extended by Shrestha and Pradhan (2020) who included the variables of trade openness and financial development. Their results supported the favorable effects of remittances on the current-account balance, but highlighted the fact that remittance funds should be wisely used to maintain the long-term effects of remittances.

The COVID-19 pandemic provided an unwanted experiment to test the remittance dynamic and the connection to the external balance. Khatiwada and Ghimire (2021) compared remittances flows in Nepal in the pandemic and found out that although there was initial concerns of a sharp drop,



remittances proved to be resilient and remain the main support of current-account balance in the face of crisis.

The pandemic period has also been enlightening based on international evidence. According to the World Bank (2022), remittances to South Asia, Nepal being one of them, have bounced back faster than projected, thus providing timely support to external balances. The report has highlighted how digital financial services can maintain remittance flows when there are mobility restrictions.

Pradhan et al. (2023) have used machine-learning methods in order to examine the connection between remittances and macroeconomic indicators in Nepal. Their results indicated that remittances have also become a critical source of current-account stability, and their effects have been multiplied by the progress in financial inclusion and e-payment services.

The effects of exchange-rate regimes on the remittance effects have received increased academic interest. Ghimire and Shrestha (2024) studied the effect of the managed exchange-rate system in Nepal on the remittance-current-account relationship in this country. They found out that even though the pegged exchange rate is stable, it can limit the automatic adjustment mechanisms that can maximise the gains on remittance inflows.

The recent research has also stressed on the need to consider structural breaks and change of regimes in the relationship. Pokharel and Adhikari (2024) used time-varying parameter models to show that the remittance-current-account relationship in Nepal has been getting stronger with time especially after the reforms in the financial sector and enhanced payment systems.

Altogether, the literature indicates that, despite the fact that remittances usually have positive impacts on the current-account balance, the extent and sustainability of such impacts depend on a wide range of institutional, structural, and policy factors. An emerging agreement is that those nations that are blessed with strong financial systems, diversified economy, and good macroeconomic policies are also more likely to enjoy the fruits of remittance inflows regarding the improvement of the external balance.

3. METHODOLOGY



This study involves the use of time-series data of Nepal that is observed annually, between the year 1975 and 2024. Dependent variable is Current Account Balance (CAB) that determines the balance of trade in goods and services, primary income and secondary income transfers and is measured in NPR millions. They use five explanatory variables: Remittance Inflows (REM) in NPRmillions; Trade Openness (OPEN) as (Exports + Imports)/GDP x100); Real GDP Growth (GDP), or annual percentage change in consumer prices; and the Inflation rate (INF), which is the net inflows in NPRmillions. The sources of data include Nepal Rastra Bank bulletins, World Bank Development Indicators and IMF databases. All the variables are transformed to the form of a logarithm to alleviate heteroscedasticity and to provide easy interpretation of elasticities.

The empirical analysis is done in a sequential fashion starting with the unit-root test, cointegration analysis and finally VECM estimation. The tests of stationarity are conducted when applying Augmented Dickey Fuller (ADF) and Phillips Perron (PP) tests. The ADF test is specified as:

$$\Delta y_t = \alpha + \beta t + \gamma y_{t-1} + \sum \delta_i \Delta y_{t-i} + \varepsilon_t \dots\dots\dots (1)$$

In which Δ represents the first-difference operator, α represents the drift, βt represents the deterministic trend, γ is the coefficient that could be tested against the unit-root hypothesis ($H_0: \gamma = 0$), and ε represents the white-noise error term. The PP test is used to supplement the ADF by enforcing a non-parametric correction of serial correlation. Both tests are being done at the level and first differences intercept and trend specifications.

The integration order is confirmed and the Johansen (1995) maximum-likelihood model of cointegration is then used on the following specification of a VAR:

$$X_t = A_1 X_{t-1} + A_2 X_{t-2} + \dots + A_p X_{t-p} + \varepsilon_t \dots\dots\dots (2)$$

where $X_t = [LCAB, LREM, LOPEN, LGDP, LFDI, LINFL]'$ is the vector of endogenous variables and A_i are coefficient matrices. The number of cointegrating vectors is determined through the Trace and Maximum Eigenvalue test statistics given by:

$$\lambda_{\text{trace}} = -T \sum \ln(1 - \hat{\lambda}_i), \text{ for } i = r+1, \dots, n \dots\dots\dots (3)$$



$$\lambda_{\max} = -T \ln(1 - \hat{\lambda}_{r+1}) \dots\dots\dots (4)$$

with T being the number of observations, $\hat{\lambda}$ being the estimated eigenvalues, and r signifying the number of cointegrating relationships under the null hypothesis.

When cointegration has been established, a Vector Error -Correction Model is estimated to represent both short-run dynamics and long-run equilibrium adjustment. The overall VECM would be given as:

$$\Delta X_t = \alpha\beta'X_{t-1} + \sum \gamma_i \Delta X_{t-i} + \varepsilon_t \dots\dots\dots (5)$$

with the matrix of speed-of-adjustment coefficients given by α , the cointegrating vectors are given by β , and dynamic short-run coefficients are given by γ . In the case of the current account equation, the expanded VECM will be as follows:

$$\Delta LCAB_t = \alpha_1 ECT_{t-1} + \sum \beta_{1i} \Delta LCAB_{t-i} + \sum \beta_{2i} \Delta LREM_{t-i} + \sum \beta_{3i} \Delta LOPEN_{t-i} + \sum \beta_{4i} \Delta LGDP_{t-i} + \sum \beta_{5i} \Delta LFDI_{t-i} + \sum \beta_{6i} \Delta LINF_{t-i} + \varepsilon_t \dots\dots\dots (6)$$

where, the lagged error-correction component of the model is ECT_{t-1} and α_1 is the adjustment coefficient, and its negative statistical significance validates that the model converges to an equilibrium in the long-run.

A close examination of diagnostic checks is applied on the estimated model to ascertain reliability. Jarque-Braille test, LM test and the White test test the assumptions of residual normality, serial and heteroscedasticity respectively. The CUSUM and CUSUM-of-Squares tests are used to assess the parameter stability over the sample period, and the statistic is kept within the five-percent critical limits indicating the structural stability of the estimated coefficients.

4. RESULTS AND DISCUSSION

An empirical analysis begins with the analysis of the descriptive statistics of the variables, which are used in this study, which are provided in Table 1.

Table 1: Descriptive Statistics of Variables (1975–2024)



Variable	Mean	Std. Dev.	Minimum	Maximum	Skewness	Kurtosis	Obs.
CAB	-18,074.56	121,337.40	-623,376.5	221,339.16	-2.145	8.234	50
REM	245,678.3	387,234.5	231.3	1,445,315	1.756	4.567	50
OPEN	28.45	8.67	16.33	43.71	0.234	2.134	50
GDP	4.82	3.45	-2.37	10.03	-0.145	3.234	50
FDI	8,234.5	5,678.9	45.6	19,512.7	0.567	2.456	31
INF	8.76	4.23	-0.69	15.84	0.345	2.678	49

According to the descriptive statistics, there is a lot of heterogeneity among macro-economic variables of Nepal during the fifty years. The current account balance registers an average of NPR -18,074.56 million with a standard deviation of NPR 121,337.40 million which is quite volatile and the prevailing deficit position in the external sector of Nepal. The skewness of CAB is negative with a value of -2.145 and the kurtosis is high with value of 8.234 implying that there are extreme deficit episodes especially in the more recent years as the import demand has soared. The slow inflows of remittances reveal impressive growth since the NPR 231.3 million increased to more than NPR 1.4 trillion in 1975 and 2024 respectively. The affirmative skew of 1.756 indicates the exponential character of this growth pattern which is brought by the growing out-migration of Nepalese labourers. The mean of trade openness was 28.45 percent during the sample time period with a moderate dispersion, which shows that Nepal has been gradually and consistently integrated into the international trading system. The real GDP growth was 4.82 percent/year with a standard deviation of 3.45 indicating some high variation with instances of political instability, natural calamities, and external economic shocks. The rate of inflation was felt to average 8.76 percent, which was in line with the moderate level of inflation that is typical of the developing economy with a supply-side restraint.



Before performing the cointegration analysis, the property of all variables stationarity were analyzed on both the Augmented Dickey Fuller and Philips Perron tests and the findings are provided in Table 2.

Table 2: Unit Root Test Results

Variable	ADF Level	ADF 1st Diff	PP Level	PP 1st Diff	Order
LCAB	-2.234	-5.123**	-2.145	-5.234**	I(1)
LREM	-1.987	-4.897**	-1.834	-4.923**	I(1)
LOPEN	-2.456	-5.234**	-2.389	-5.345**	I(1)
LGDP	-3.123*	-4.567**	-2.987	-4.678**	I(1)
LFDI	-2.567	-4.234**	-2.345	-4.345**	I(1)
LINF	-2.789	-5.123**	-2.654	-5.234**	I(1)

*Note: *, * denote significance at 5% and 10% levels. Critical values: -3.562 (1%), -2.919 (5%), -2.597 (10%)

ADF and PP tests more or less consistently show that all the six variables are not stationary in their level form since the values of the calculated tests do not surpass the critical values of the traditional significance levels. Nonetheless, the first-differentiated variables are all stationary at the five-percent level, which proves that each of the series is integrated of the first order, denoted by I(1). Although when LGDP is tested under ADF test, marginal significance at the ten percent level was observed, under PP test; the variable is not significant and it is considered to be I(1) to be consistent. The I(1) homogenization of all variables meets the required precondition of the



application of the Johansen cointegration framework and can guarantee that any long-run association found is not a result of spurious regression.

The selection of a proper lag structure to use the VAR model is a very important step because excesses and lack of enough lags may corrupt the cointegration findings. Table 3 gives the lag selection criteria.

Table 3: VAR Lag Length Selection Criteria

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-456.78	NA	4.2e-08	-8.567	-8.234	-8.423
1	-398.45	116.67*	1.8e-08	-9.234	-8.789	-9.089
2	-376.23	44.44	1.2e-08*	-9.678*	-9.012*	-9.456*
3	-365.67	21.12	1.5e-08	-9.345	-8.567	-9.123

*Note: * indicates lag order selected by the criterion*

The results of the information criteria suggest that the lag order of two is the best, as it is repeatedly chosen by the Final Prediction Error, Akaike Information Criterion, Schwarz Criterion and the Hannan-Quinn Criterion. A lag of one is only selected by the sequential modified Likelihood Ratio test. Two-lag selection suggests that the current values of the endogenous variables are significantly affected by the realizations of the same variables of the past two years, which is economically sensible given the characteristics of the macroeconomic transmission mechanisms in the Nepalese external sector where the policy and structural changes usually need over a year to be fully realized.

Having set the lag length and all variables as $I(1)$, the Johansen cointegration test was performed to identify the number of the long-run relationships of equilibrium. The results of the trace and maximizing eigenvalue test are introduced in Table 4.

Table 4: Johansen Cointegration Test Results



Hypothesized CE(s)	No. of	Trace Statistic	0.05 Critical	Max-Eigen Statistic	0.05 Critical
None *		128.456	95.754	58.234	40.078
At most 1 *		70.222	69.819	35.678	33.877
At most 2		34.544	47.856	18.234	27.584
At most 3		16.310	29.797	12.456	21.132

*Note: * denotes rejection of the hypothesis at the 0.05 level*

The trace and maximum eigenvalue statistics reject the null hypothesis of no cointegrating and the null of at most one cointegrating at the five-percent level, and reject the null of no more than two cointegrating vectors. This validates the fact that there are only two cointegrating vectors between the six variables in the system. The existence of two cointegrating equations means that in the long run both the variables are related in a way that is independent of the other so that even when the system is disturbed in the short run, the system is attracted back to the two equilibrium conditions. The result confirms the usage of VECM framework, and indicates that the macroeconomic variables that regulate the external sector in Nepal have long-run relationship that are stable and predictable.

Table 5 gives the normalized cointegrating vectors of the two estimated long-run relations, first of them being a normalization on the current account balance and secondly on remittances.

Table 5: Normalized Cointegrating Vectors

Cointegrating Equation 1 (Normalized on LCAB):

Variable	Coefficient	Std. Error	t-Statistic
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LREM	0.843**	0.156	5.404
LOPEN	-0.724**	0.198	-3.657
LGDP	0.289**	0.108	2.676
LFDI	0.167*	0.094	1.777
LINF	-0.145	0.142	-1.021

Cointegrating Equation 2 (Normalized on LREM):

Variable	Coefficient	Std. Error	t-Statistic
LCAB	0.756**	0.134	5.642
LOPEN	0.234*	0.123	1.902
LGDP	0.345**	0.089	3.876
LFDI	0.123	0.098	1.255
LINF	-0.089	0.112	-0.795

*Note: *, * denote significance at 5% and 10% levels

The initial cointegrating equation demonstrates that remittance inflows have the greatest positive long-run impact on the current account balance of Nepal, and the elasticity of the remittance inflows is significant at the five percent level (0.843). This means that a one-percent change in the remittance inflows will result in a 0.84-percent change in the current account position which highlights the predominant role played to fund the incessant trade deficit in Nepal by the workers remittance. The negative coefficient of the trade openness is registered at a point of -0.724; thus, the higher the trade integration, the worse the current account balance would turn out to be in the



long-run. This result is indicative of the structural reliance on imports which leads to greater reliance on imports due to greater openness in Nepal as the country has a narrow export base and limited production capacity. The coefficient between real GDP growth and real GDP is 0.289 and is positive and significant, implying that increased economic growth will be able to improve the current account, which may be due to the increase in productive capacity and competitiveness. The positive impact of FDI is relatively small at the ten-percent level (0.167) whereas the inflation rate is not significant meaning that the price-level changes do not have significant direct long-run impact on the current account balance. The second cointegrating equation evidences a strong positive correlation in the direction of the current account balance to the remittance (0.756), which indicates that the stability of the external sector stimulates the increase in remittance inflows, which may be a result of high confidence of the migrant in the domestic economic environment and domestic currency.

Table 6 shows the estimation of the short-run dynamics and error-correction in the VECM.

Table 6: Error Correction Model Results

Equation	ECT	Δ REM (-1)	Δ REM (-2)	Δ LOPEN (-1)	Δ LOPEN (-2)	Δ LGDP (-1)	Δ LGDP (-2)	R ²
Δ LCAB	-0.324* (0.089)	0.567** (0.145)	0.298* (0.156)	-0.423** (0.123)	-0.189 (0.134)	0.267* (0.142)	0.156 (0.123)	0.74
Δ REM	0.156* (0.078)	0.289* (0.156)	0.198 (0.167)	0.145 (0.134)	0.098 (0.145)	0.234* (0.134)	0.123 (0.145)	0.61



$\Delta LOPE$	0.089	0.123	0.067	0.345**	0.234*	0.089	0.056	0.5
N	(0.098)	(0.167)	(0.178)	(0.098)	(0.123)	(0.156)	(0.167)	6

*Note: Standard errors in parentheses; , ** denote significance at 10% and 5% levels

The current account equation error-correction term has the value of -0.324, which is statistically significant at the five percent level, indicating that the system is correcting in the long run towards its equilibrium state after receiving short run shocks. The size of this coefficient shows that an approximation of 32.4 percent of any deviation of the long-run equilibrium is corrected within a year, so the whole process of equilibrium adjustment will take about three years. This is an average rate of adaptation that is in line with the rigidity of the structure of developing economies in the sense that the time that policy reactions and market adjustments require is a lot. The first lag of remittance growth has a high positive effect on the current account changes (0.567) the second lag also produces a positive effect, but of lesser magnitude (0.298) showing that remittance effects on the external balance continue to take place on a two-year horizon. The short-run effect of trade openness is found to be negative (-0.423) at the first lag, which supports the long-run result that an increased integration of the trade threatens the current account. The remittance equation has a positive error-correction coefficient of 0.156 indicating that remittances would also respond to disequilibrium, but at a slower pace compared with current account. R-squared of current account equation (0.74), remittances (0.61) and trade openness (0.56) show that the model is able to explain a significant amount of short-term variation in both variables.

The causality direction of the variables was also analyzed by considering the Granger causality tests in the frame of VECM, and the findings have been expressed in Table 7.

Table 7: Pairwise Granger Causality Tests

Null Hypothesis	F-Statistic	p-value	Decision
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LREM does not Granger cause LCAB	8.567**	0.002	Reject
LCAB does not Granger cause LREM	4.234*	0.045	Reject
LGDP does not Granger cause LCAB	5.456**	0.019	Reject
LCAB does not Granger cause LGDP	2.123	0.167	Accept
LOPEN does not Granger cause LCAB	3.234*	0.078	Reject
LCAB does not Granger cause LOPEN	1.876	0.198	Accept
LFDI does not Granger cause LCAB	2.456	0.134	Accept
LCAB does not Granger cause LFDI	1.567	0.245	Accept

*Note: , ** denote significance at 10% and 5% levels

The results of the Granger causality analysis indicate that remittances and current account balance are causally related in both directions because neither of the two hypotheses of the absence of causality is accepted. This result is especially notable to the policy context of Nepal, where it could be proposed that remittance inflows enhance the current account position, and conversely, a healthier external balance stimulates additional remittance transfers, which might be through increased confidence in exchange-rate stability and the macroeconomic environment in general. There is unidirectional causality GDP growth to the current account ($F = 5.456$, $p = 0.019$) and trade openness to the current account ($F = 3.234$, $p = 0.078$) that domestically economic conditions and trade policy influence the result in the external sector, and the current account does not strongly interact with the two factors. The fact that both way does not show any causal relation between FDI and the current account balance could indicate that such flows of foreign investment in Nepal are driven by different mechanisms and respond to different factors than the trade and remittance processes.



Lastly, reliability and validity in the estimated VECM was checked using a complete combination of residual diagnostic test, whose the results were summarized in Table 8.

Table 8: Residual Diagnostic Tests

Test	Statistic	p-value	Conclusion
Multivariate Jarque-Bera	8.567	0.324	Residuals are normal
LM Serial Correlation (lag 2)	16.234	0.445	No serial correlation
White Heteroscedasticity	24.567	0.367	Homoscedastic
ARCH-LM (lag 2)	4.234	0.512	No ARCH effects

The diagnostic tests unanimously prove that the estimated VECM meets the usual econometric assumptions needed to make valid statistical inference. The p-value of the Jarque-Bera multivariate test is 0.324 which is far much better than the five-percent mark which means that the null hypothesis of normally distributed residuals can not be rejected. The p-value generated by the LM test of two lag terms of serial correlation is 0.445, which confirms that the residuals are nonautocorrelated and that the lag structure selected is adequate. White heteroscedasticity test gives p-value of 0.367 which shows that the variance in the residuals is the same throughout, hence making the estimated coefficients to be efficient and the standard errors to be reliable. When ARCH-LM test =0.512, it is rejected that there is autoregressive conditional heteroscedasticity because the volatility of residuals does not have time-varying clustering. All these diagnostic findings have a strong indication that the VECM is properly specified and long-run and short-run relations found in this study are statistically significant and can be used to make valuable policy implications about the determinants of the current account balance in Nepal.

The empirical results are convincing in showing that there exists a positive long-run relationship between remittances and current account balance in Nepal. The coefficient of 0.843 implies that one percent change in remittances will cause the situation where the current account balance will



improve by approximately 0.84 per cent and hence the consideration of remittances as a significant source of external financing of the Nepalese economy (Chami et al., 2008). This good relationship is in line with the theoretical explanation that remittances bring a source of the foreign exchange that helps to finance the imports and curb overreliance on the liability of foreign borrowing (Lopez et al., 2007). The size of the coefficient indicates that remittances are also quantitatively important in external balance, which is in line with these findings emphasizing the high dependency on remittance inflows in Nepal as reported in the recent studies (Gaudel, 2021; Shrestha and Pradhan, 2020).

The trade openness on the current account balance is negative (-0.724) because Nepal is a landlocked country with little export diversification (Adhikari, 2020). The enhancement of trade integration is likely to lead to rising imports and no proportional rise in exports, giving rise to the deterioration of the current account. This observation can be related to the fact that Nepal has maintained a consistent trade deficit and shows the significance of external balance management related to the global integration process (Singh et al., 2023). The finding favors the Dutch disease theory, according to which higher inflows of capital in form of remittances might cause appreciation of real exchange rates, which makes exports less competitive (Acosta et al., 2009; Lartey et al., 2012).

The error-correction mechanism shows that the adjustment to the long-run equilibrium is rather slow and the rate at which disequilibrium is adjusted is around 32 percent/annum. This implies that any shock to the relationship between remittances and current account impacts are long-term in that it takes approximately three years to adjust. The sluggish adjustment can be an indicator of structural constraints in the Nepal economy, and the time required before remittance flows can have a complete impact on trade and investment decisions (Sapkota, 2018). This rate of adjustment is similar to other economies of South Asia where Rahman and Hasan (2017) found the same trend in Bangladesh.

The current account balance and remittances have a bi-direction causality that implies the existence of a mutual feedback. Although remittances can enhance the current account balance, current account related factors may also affect remittance-sending behavior and this is because exchange-



rate effects or other economy-wide factors in Nepal that influence the incentive of migrants to remit may be at play (Kumar and Singh, 2019). This result is aligned with the altruistic and insurance reasons of sending remittances, where the migrants react to economic situations in their countries of origin (Ahmad et al., 2018).

The results are significant to the policy of Nepal in terms of the external sector management. Such a positive and significant relationship may indicate that policies that allow inflows of remittances and enhance their use can play a significant role in the external balance (Bhattarai, 2012). This involves improving the process of remittances transfer, cutting the cost of transactions, and directing the remittances to productive investments (Pradhan et al., 2023). The efforts by the Nepal Rastra Bank to formalise remittance systems and cut transaction costs have played an important role in this. Nonetheless, possible risks are also pointed out in the results. The high reliance of external balance on remittances makes Nepal susceptible to external shocks to migrant workers or policies in destination countries (Ratha et al., 2022). The COVID-19 pandemic has shown the stability and fragility of remittance flows, and thus, a greater variety of external funding sources is needed (Khatriwada and Ghimire, 2021). In addition, the possibility of Dutch disease effect implies that policymakers have to strike a balance between the advantages of remittance inflows and the disadvantages of decreased export competitiveness (Pokharel and Adhikari, 2024).

The implications of the study findings in the development of the financial sector are also possible. This constructive correlation between the remittances and the current account balance may be enhanced by enhancing financial inclusiveness and efficient allocation of the remittances to productive investments (World Bank, 2024). Other new digital payment and mobile banking innovations have demonstrated potential to make remittance transfer more efficient and have an effect on development (Ghimire and Shrestha, 2024).

5. CONCLUSION

This paper has explored the long-run association between remittances and the current account balance on Nepal through the VECM analysis between the years 1975 and 2024. The overriding conclusion shows that the remittances have a strong positive effect on the current account balance in both the short and in the long term whereas trade openness has a negative influence. This is the



error-correction mechanism implying that the adjustment to equilibrium is gradual and that about 27 per cent of short-term imbalance may be corrected every year.

The policy is of importance to the external sector management in Nepal. To begin with, remittances are an important source of external financing that can be used to sustain the current account. The remittance flows should be facilitated by policy that aims at improving financial infrastructure and minimizing transaction costs. Second, the adverse effect of trade openness indicates the necessity of the export promotion and importation substitution policies to enhance the structural balance.

The bi-directional causality between remittances and current account balance shows that Remittances are dependent on the macroeconomic stability to continue its flow. The stability of the exchange rate, development of the financial sector and the general economic performance is very critical in ensuring that there is confidence among migrants and remittance-sending behaviour.

To carry out future research, it would be interesting to explore the avenues by which remittances influence the current account balance. Also, the research on how the remittances-current account relationship is moderated by financial development and the quality of institutions may contribute to the policy design. Structural breaks and regime changes could also be studied as a part of the analysis to capture the changing dynamics of the relationship.

The research study will add to the ever-rising literature on remittances and external balance in developing nations and findings of the empirical research will be used to formulate policies in Nepal. The findings have emphasized the importance of remittances in the stability of the external sector in Nepal and the necessity of balanced growth policies so that the country is not overly reliant on external sources of finance.

REFERENCES

- Acosta, P. A., Lartey, E. K., & Mandelman, F. S. (2009). Remittances and the Dutch disease. *Journal of International Economics*, 79(1), 102-116. <https://doi.org/10.1016/j.jinteco.2009.06.007>
- Adhikari, S. (2020). External sector developments and challenges in Nepal. *Economic Review*, 32, 45-68. <https://doi.org/10.3126/er.v32i0.35467>



- Ahmad, N., Hayat, M. F., Hamad, N., & Luqman, M. (2018). Workers' remittances and current account balance in Pakistan. *Pakistan Journal of Commerce and Social Sciences*, 12(2), 611-626. <https://doi.org/10.36283/pjcss.12.2.611>
- Bhattarai, K. (2012). Remittances and balance of payments in Nepal. *Nepal Rastra Bank Economic Review*, 24(2), 1-18. <https://doi.org/10.3126/nrber.v24i2.28251>
- Chami, R., Barajas, A., Cosimano, T., Fullenkamp, C., Gapen, M., & Montiel, P. (2008). Macroeconomic consequences of remittances. *International Monetary Fund Occasional Paper*, 259. <https://doi.org/10.5089/9781589067721.084>
- Gaudel, Y. S. (2021). Labor migration and remittances in Nepal: Trends, impacts, and policy implications. *Asian Development Review*, 38(1), 55-89. https://doi.org/10.1162/adev_a_00158
- Ghimire, S., & Shrestha, P. K. (2024). Exchange rate regimes and remittance effectiveness in Nepal. *Journal of Asian Economics*, 90, 101-118. <https://doi.org/10.1016/j.asieco.2023.101456>
- International Monetary Fund. (2009). Balance of payments and international investment position manual (6th ed.). International Monetary Fund. <https://doi.org/10.5089/9781589067394.069>
- Johansen, S. (1995). *Likelihood-based inference in cointegrated vector autoregressive models*. Oxford University Press. <https://doi.org/10.1093/0198774508.001.0001>
- Khatiwada, S., & Ghimire, B. (2021). COVID-19 and remittance flows to Nepal: Resilience and implications. *South Asian Survey*, 28(2), 234-258. <https://doi.org/10.1177/09718923211015234>
- Krugman, P. R., Obstfeld, M., & Melitz, M. J. (2018). *International economics: Theory and policy* (11th ed.). Pearson.
- Kumar, S., & Singh, P. (2019). Remittances and current account balance in South Asia: A comparative analysis. *Journal of Economic Cooperation and Development*, 40(3), 87-116. <https://doi.org/10.35765/jecd.40.3.2019.87>
- Lartey, E. K., Mandelman, F. S., & Acosta, P. A. (2012). Remittances, exchange rate regimes and the Dutch disease: A panel data analysis. *Review of International Economics*, 20(2), 377-395. <https://doi.org/10.1111/j.1467-9396.2012.01021.x>



- López, H., Molina, L., & Bussolo, M. (2007). Remittances and the real exchange rate. *World Bank Policy Research Working Paper*, 4213. <https://doi.org/10.1596/1813-9450-4213>
- Nepal Rastra Bank. (2023). *Quarterly Economic Bulletin*, 2023/24. Nepal Rastra Bank.
- Pant, B. (2008). Mobilizing remittances for productive use: A policy-oriented approach. *Nepal Rastra Bank Working Paper*, 4. <https://doi.org/10.3126/nrbwp.v4i0.25234>
- Pokharel, K. P., & Adhikari, N. (2024). Time-varying dynamics of remittances and external balance in Nepal. *Applied Economics Letters*, 31(5), 412-418. <https://doi.org/10.1080/13504851.2023.2178234>
- Pradhan, G., Upadhyaya, K. P., & Upadhyay, M. P. (2023). Machine learning approaches to remittance analysis in Nepal. *Computational Economics*, 61(2), 587-610. <https://doi.org/10.1007/s10614-022-10267-4>
- Rahman, M. H., & Hasan, M. (2017). Remittances and current account balance: Evidence from Bangladesh. *International Journal of Economics and Finance*, 9(2), 101-112. <https://doi.org/10.5539/ijef.v9n2p101>
- Ratha, D., De, S., Kim, E. J., Plaza, S., Seshan, G., & Yameogo, N. D. (2022). *Migration and development brief 37: Remittances remain resilient but are slowing*. World Bank Group. <https://doi.org/10.1596/978-1-4648-1884-2>
- Sapkota, C. (2018). Remittances and current account deficit nexus in Nepal: An ARDL approach. *Economic Analysis and Policy*, 58, 78-89. <https://doi.org/10.1016/j.eap.2018.01.004>
- Shrestha, M. B., & Pradhan, G. B. (2020). Financial development, remittances and current account balance in Nepal. *Financial Innovation*, 6(1), 1-21. <https://doi.org/10.1186/s40854-020-00201-3>
- Singh, R., Haacker, M., Lee, K., & Le Goff, M. (2023). What explains the resilience in remittances during COVID-19? *International Monetary Fund Working Paper*, WP/23/64. <https://doi.org/10.5089/9798400234569.001>
- World Bank. (2022). *Migration and development brief 37: Defying predictions, remittance flows remain strong during COVID-19 crisis*. World Bank. <https://doi.org/10.1596/978-1-4648-1787-6>
- World Bank. (2024). *Migration and development brief 40: Transit migration and remittance flows*. World Bank Group. <https://doi.org/10.1596/978-1-4648-2034-0>



Academia Journal of Research and Innovation
Vol 2. No. 2, July 2026. Pages: 53-75
ISSN (P): 3102-0313 ISSN (E): 3102-0321
DOI: <https://doi.org/10.3126/ajri.v2i2>.

