EFFECTS OF REMITTANCE ON FINANCIAL SAVINGS IN NEPAL: AN EXPLORATION THROUGH AUTO-REGRESSIVE DISTRIBUTED LAG APPROACH

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ABSTRACT

Foreign remittances have emerged as a significant source of external finance for many developing countries, and Nepal is no exception. The family members and the government of the country of origin derive the maximum possible advantages of remittances in various fields, and it is becoming a more stable source of external finance. It is used in multiple sectors, including financial savings in Nepal. Despite the increasing importance of remittances in the Nepalese economy, the relationship between remittances and financial savings has not been adequately studied yet. Hence, the prime objective of this paper is to analyse the effects of remittances on the financial savings in Nepal. The Auto-Regressive Distributed Lag (ARDL) Bounds Testing Model is employed in this study to identify the effects of remittances on financial savings in Nepal. The time series data for 24 years, spanning 2001-2024, are collected from various published sources of the Nepal government, such as the Ministry of Finance (MOF), Nepal Rastra Bank (NRB) and National Statistics Office (NSO). This study has identified a positive and significant relationship between remittances and financial savings in Nepal. The impacts of other control variables, NBF, are negative and significant. The Nepal government and other concerned agencies should encourage migrants to send remittances only from formal banking channels, encouraging them to save, which helps capital formation, investment and job creation in Nepal. It also solves the liquidity crisis and foreign exchange constraints in the nation.

Keywords: Remittance, Financial Savings, Time series, ARDL Bound Testing, Long-Run

INTRODUCTION

Background

Foreign remittances have emerged as a significant source of external finance for many developing countries, and Nepal is no exception (Lamsal, 2024). Over the past decades, Nepal has witnessed a remarkable rise in remittance inflows, driven by the increasing number of its labour force working abroad, particularly in the Gulf countries, Malaysia, and India (Lamsal, 2023). These inflows have become an essential pillar of the national economy, contributing significantly to GDP, improving household incomes, and reducing poverty (MOLESS, 2020). The role of remittances extends beyond consumption support—

they also influence investment behaviours, including the patterns and levels of financial savings (Siddiqui, Haider & Hossain, 2016).

Remittance has become a major source of external finance for developing countries like Nepal. Many research works have been done by domestic and international researchers to explore the effects of remittances on economic growth, investment, poverty, health and education and so on. However, there is a dearth of literature on the impact of remittance on financial savings (Lamsal, 2024). In this context, my study focuses on the effects of remittance on financial savings in commercial banks in Nepal.

Financial savings play a vital role in capital formation and economic development by mobilising domestic resources for productive investment (Lamsal, 2023). In theory, remittances have the potential to boost savings by increasing disposable household income (Lawel et al., 2016). However, the actual impact of remittances on savings in Nepal remains a topic of ongoing debate. While some studies suggest that remittance-receiving households tend to save more, others argue that remittances are often used primarily for consumption, debt repayment, or non-productive expenditures such as real estate and social ceremonies, which may not translate into formal financial savings (Jongwanich, 2007; Aslam & Sivarajasingham, 2020).

Economic liberalisation and globalisation have increased the movement of workers around the world market, especially after the 1970s. This has encouraged workers to migrate from low-income and underdeveloped countries to the developed, industrialised, and emerging economies in search of employment and other opportunities (Shrestha, 2004). This policy has also influenced the movement of Nepalese workers abroad, basically since the 1990s. Nepalese are migrating abroad every year in search of employment opportunities due to economic and non-economic reasons. Mostly, the remittances income received is used for consumption purposes, which has very little impact on long-term growth in the economy (Yousafzai, 2015).

There are four types of banks and financial institutions which carry the financial transactions in Nepal. They are called A class (Commercial Banks), B class (Development Banks), C class (Finance Company) and D class Banks (Microfinance Financial Institutions). By the end of June 2024, there are 20 Commercial banks, 17 Development Banks, 17 Finance Companies and 52 Microfinance Financial Institutions in Nepal (NRB, 2024). However, our study focuses on financial savings only in commercial banks.

Remittance plays a crucial role in enhancing financial savings in many ways. Firstly, it should be clear that remittances are sent in Nepal from formal and informal channels. The majority of remittances are sent through banking channels, which is the formal channel. As remittances are transferred through the banking sector, it increases the savings rate in the economy. When remittances are sent to Nepal, remittances increase the possibility of having an account in the banks. Studies conducted by Aslam and Sivarajasingham (2020) found that remittance-receiving households demand, i.e., open more bank accounts, which in turn, contribute to financial savings and demand for loans as well.

Financial savings in commercial banks are affected by multiple factors. The amount of GDP of a nation is one of the prime determinants. Likewise, the rate of interest offered by commercial banks to their customers on savings and fixed accounts is another factor affecting savings in the economy (Mamum & Kabir, 2023; Snyder & Wen, 2016; Quisumbing & McNiven, 2007). Other things being the same, the higher the rate of interest offered by commercial banks in savings, the more will be the savings in the economy, and vice versa. Over the last few decades, remittances sent by Nepalese migrants have become another major factor determining the savings in the financial institutions. Even though remittance is used for multiple purposes, it is also used for saving by the recipients. This research article aims to explore and analyse the effects of foreign remittances on financial savings in Nepal by examining household-level behaviour, savings patterns, and the role of financial institutions in facilitating savings. Understanding this relationship is critical for policymakers to design appropriate financial instruments and policies that channel remittance income into productive savings and investments. The study will also shed light on the broader implications of remittance-driven savings for sustainable economic growth and financial inclusion in Nepal.

Research Objectives

The research question and main problem to be addressed are, "How does remittance sent by Nepalese workers from host countries affect the financial savings in Nepal?" Thus, the objective of this study is to explore the effects of remittances on financial savings in Nepal. As the main variable of interest of the study is remittance, it is expected that remittance inflow boosts household savings. Besides, the specific objectives are to identify the effects of remittances, the rate of interest and the number of banks on financial savings in Nepal.

REVIEW OF LITERATURE

Most of the previous studies have found positive effects of remittance on the saving behaviour of recipient households. In this context, a study was conducted by Baldé (2011) to find the impact of remittances and foreign aid on savings/investment in Sub□Saharan Africa. The author used 34 Sub-Saharan African (SSA) nations spanning from 1980 to 2004, and the OLS method was employed for empirical findings. This study concluded that remittance has positive impacts on financial savings in SSA nations. Similarly, Munir, Sial, Sarwar and Shaheen (2011) also found a positive effect of workers' remittances on private Savings behaviour in Pakistan.

Kokorović Jukan, Okičić and Hopić (2020) analysed the impact of remittances on savings and financial inclusion of youth in South East Europe by collecting the primary data for financial inclusion. The study used the Probit regression model for empirical analysis and found a positive effect of remittance on financial savings.

Přívara and Trnovský (2021) analysed the impacts of remittances on households' savings in the Baltics by using time series data from 2010 to 2017. The study used the OLS method for empirical findings and says that the inflow of foreign remittance promotes

households' savings in the Baltics.

By using the Vietnam household living standard survey data of 2012, Hua, Kessels, and Erreygers (2022) analysed the impact of remittances on saving behaviour and expenditure patterns in Vietnam. The study used the Propensity score matching technique for empirical findings. The study argued that remittance inflow has positive impacts on savings.

Salahuddin, Masud and Kian Teng (2022) explored the effects of remittances on households' savings behaviour in Bangladesh by using the Bangladesh Bureau of Statistics data for the year 2016. The study employed the OLS method for empirical results and concluded that remittance inflow encourages the saving habits of households.

A study conducted by Osei-Gyebi, Opoku, Lipede, and Kemmoe Kountchou (2023) tried to explore the effect of remittance inflow on savings in Nigeria. They used the World Bank's survey data on 3000 Nigerian people and used the Logit model for empirical findings. The study concluded that individuals who have bank accounts save more than those who do not have one.

Baafi and Kwame Asiedu (2025) explored the synergistic effects of remittances, savings, education and digital financial technology on economic growth in Sub-Saharan Africa by using time series data for 23 SSA nations, from 1974 to 2020. By employing the GMM model, the study found positive effects of remittance on financial savings. Hence, most of the previous studies have found positive effects of remittance on households' savings. However, what would be its effect on the Nepalese economy is the main concern of this study.

METHODS

Data Sources and Variables

This study explores the impact of remittances on financial savings in Nepal by using secondary data. It uses the yearly time series data set from the year 2001 to 2024, i.e., an extended set of data for 24 years, published by the Ministry of Finance (MOF) in the Economic Survey of various issues, data published in the quarterly economic bulletin by Nepal Rastra Bank (NRB), and publications of the National Statistics Office (NSO). The major variable of interest in this study is remittances. Besides remittances, other control variables used in this study are the number of banks and financial institutions and the rate of interest. Among the methods used for analysing the time series data, ARDL is suitable for both small and large size of sample sizes. Thus, the ARDL Bounds testing model is selected for the empirical analysis. Unit root for a stationary series is checked by using the ADF Unit Root test. Empirical results are obtained by using EViews 10 software.

Model Specification

To test whether remittances enhance domestic saving through their effect on the financial savings made in the banking sector of Nepal, the following equation is used:

FINSt = f(REMIt, NBFt, Rt) (1)

Where,

FINS = financial savings in commercial banks' accounts;

REMI = remittance inflow in Nepal;

NBF = Number of banks and financial institutions in Nepal, and

R = Rate of interest charged by commercial banks on deposits.

The linear form of the regression equation for the financial saving function is

$$FINS_{t} = \lambda_{0} + \lambda_{1} REMIt + \lambda_{2} NBF_{t} + \lambda_{3} Rt + v_{t} \dots (2)$$

Equation (2) can be written in double-log form as follows:

Auto Regressive Distributed Lag (ARDL) Model Estimation

Our study employs the bound test to identify the cointegration among the model's selected variables. To identify the cointegration among the selected variables as stated in equation (3), the ARDL framework is given below.

$$\Delta \operatorname{Ln} \operatorname{FINSt} = \beta_{0} + \sum_{i=1}^{p} \beta_{1i} \Delta \operatorname{Ln} \operatorname{FINS}_{t-i} + \sum_{i=1}^{q} \beta_{2i} \Delta \operatorname{Ln} \operatorname{REMI}_{t-i} + \sum_{i=1}^{q} \beta_{3i} \Delta \operatorname{Ln} \operatorname{REMI}_{t-i} + \sum_{i=1}^{q} \beta_{3i} \Delta \operatorname{Ln} \operatorname{REMI}_{t-1} + \beta_{13} \operatorname{Ln} \operatorname{NBF}_{t-1} + \beta_{14} \operatorname{Ln} \operatorname{REMI}_{t-1} + \beta_{13} \operatorname{Ln} \operatorname{NBF}_{t-1} + \beta_{14} \operatorname{Ln} \operatorname{REMI}_{t-1} + \beta_{15} \operatorname{Ln} \operatorname{REMI}_{t-1} + \beta_{16} \operatorname{Ln} \operatorname{REMI}_{t-1} + \beta_{17} \operatorname{Ln} \operatorname{REMI}_{t-1} + \beta_{18} \operatorname{Ln} \operatorname{Ln} \operatorname{REMI}_{t-1} + \beta_{18} \operatorname{Ln} \operatorname{Ln} \operatorname{Ln} \operatorname{Ln} \operatorname{Ln} + \beta_{18} \operatorname{Ln} \operatorname{Ln} \operatorname{Ln} + \beta_{18} \operatorname{Ln} \operatorname{Ln} + \beta_{18} \operatorname{Ln} + \beta_{18} \operatorname{Ln} \operatorname{Ln} + \beta_{18} \operatorname{Ln$$

And the corresponding Error Correction Model (ECM) is given as:

$$\Delta \operatorname{Ln} \operatorname{FINSt} = \beta_0 + \sum_{i=1}^{p} \beta_{1i} \Delta \operatorname{Ln} \operatorname{FINS}_{t-i} + \sum_{i=1}^{q} \beta_{2i} \Delta \operatorname{Ln} \operatorname{REMI}_{t-i} + \sum_{i=1}^{q} \beta_{3i} \Delta \operatorname{Ln} \operatorname{Ln} \operatorname{Ln} \operatorname{Ln} + \sum_{i=1}^{q} \beta_{3i} \Delta \operatorname{Ln} \operatorname{Ln} + \sum_$$

 β_{1i} , β_{2i} , and β_{3i} = short-run coefficients of the model's adjustments in the long-run equilibrium,

 β_{11} β_{12} , and β_{13} = long-run coefficients

 α = Speed of adjustment parameter with a negative sign, and ECT = Error correction term.

Unit Root Test

The most popular unit root test is given by Dickey-Fuller, popularly by the name of Augmented Dickey-Fuller (ADF) test, given by the following equation (Dahal, 2013; Lamsal, 2024).

$$\Delta Y_{t} = \alpha + \beta_{t} + \lambda Y_{t-1} + \delta_{1} \Delta Y_{t-1} + \dots + \delta_{n} \Delta Y_{t-n} + \varepsilon_{t} \qquad (6)$$

 $\Delta Y_t = \alpha + \beta_t + \lambda Y_{t-1} + \delta_1 \Delta Y_{t-1} + \dots + \delta_p \Delta Y_{t-p} + \epsilon_t \dots$ (6) Where, Y = time series variable, α = constant, β = coefficient on a time trend(t), p = Lag order of the autoregressive process and $\varepsilon t = pure$ white noise error term.

While calculating the ADF unit root, the null hypothesis (H_o) is tested against the alternative hypothesis (H₁) as follows:

Null Hypothesis (H0): Variables are not stationary, i.e., they have a unit root Alternative Hypothesis (H1): Variables are stationary, i.e., they have no unit root In this model, rejection of the null hypothesis implies the variables are stationary.

RESULTS

Descriptive Statistics

The summary statistics of selected variables for this study are given in Table 1.

Table 2: Descriptive Statistics

	LNFINS	LNREMI	LNNBF	LNR
Mean	5.296014	11.77697	5.237317	7.234587
Median	5.183717	11.92041	5.262839	4.986754
Maximum	6.371264	12.47415	5.620217	7.653423
Minimum	4.590575	10.74011	4.605170	5.555432
Std. Dev.	0.563433	0.645356	0.299502	0.453423
Skewness	0.450905	-0.470840	-0.541277	-0.345432
Kurtosis	1.953128	1.643739	2.225444	1.234321
Jarque-Bera	1.750103	2.499021	1.624206	1.887765
Probability	0.416841	0.286645	0.443924	0.398765
Sum	116.5123	259.0934	115.2210	118.0987
Sum Sq. Dev.	6.666596	8.746183	1.883731	4.987456
Observations	24	24	24	24

Source: Calculated by Using EViews 10

Unit Root Test Results

Table 2: Result of ADF Test for Unit Root

Variables	Model	Level: I (0)	Level: I (0)		First Difference I (1)	
		t-stat	p-value	t-stat	p-value	
LnFINS	Trend & Int	-1.3414	0.8481	-4.9890	0.0046	
LnREMI	Trend & Int	0.1447	0.9952	-3.6571	0.0515	
LnNBF	Trend & Int	0.0157	0.6760	-2.5958	0.0123	
LnR	Trend & Int	-2.2341	0.5433	-3.4569	0.0252	

Source: Calculated by Using EViews 10.

Table 2 shows that all the variables used in this model are stationary at first difference, and none of them are stationary at second difference. Thus, it is fit for the use of the ARDL model.

Lag Length Selection

To estimate the ARDL model, for Bounds Testing and Long Forms, and for Error Correction models, lag length is required (Pesaran & Shin, 1999; Mamun & Kabir, 2023). The most popular Lag operators used by researchers include: FPE, AIC, SC, and HQ. The optimal Lag length is that which has the lowest values as calculated by each method (Pesaran & Shin, 1999; Pesaran, Shin, & Smith, 2001). The calculation of the appropriate Lag length for this study is presented in Table 3 on the basis of the AIC criteria.

Table 3: Lag length Criteria

Lag	LogL	LR	FPE	AIC	SC	HQ
0	70.35902	NA	2.43e-09	-8.484339	-8.286478	-8.457056
1	170.4024	130.8404*	4.32e-13*	-16.15583*	-14.16651*	-18.01943*
2	180.4223	8.019642	1.34e-12	-14.38022	-12.59955	-15.13470

*= Optimum Lag Length

Criteria calculated by the Author Using EViews 10.

ARDL Model Estimation

The Auto Regressive Distributed Lag model (ARDL: 1, 0, 0, 0) is chosen based on AIC criteria. Table 4 shows the empirical findings of the ARDL model.

Table 4: Empirical Results of the ARDL Model

Dependent Variable: LNFINS

Method: ARDL

Selected Model: ARDL (1, 0, 0, 0)

Variables	Coefficient	Std. Error	t-Statistic	Prob.*
LNFINS (-1)	0.866819	0.080610	10.75329	0.0000
LNREMI	0.204712	0.084448	2.424123	0.0268
LNNBF	-0.178331	0.092471	-1.928495	0.0707
LNR	0.054765	0.097866	-2.668543	0.0458
<u>C</u>	-0.698819	0.258991	-2.698236	0.0152
R-squared	0.993995	Mean deper	ndent var	5.328912
Adjusted R-squared	0.992935	S.D. depend	dent var	0.555275
S.E. of regression	0.046674	Akaike info	criterion	-3.121629
Sum squared resid	0.037033	Schwarz cri	terion	-2.922673
Log likelihood	36.77711	Hannan-Qu	inn criterion.	-3.078451
F-statistic	937.9176	Durbin-Wat	tson stat	2.035836
Prob(F-statistic)	0.000000			

Source: Calculated by Using EViews 10.

The empirical results presented in Table 4 show that financial savings are positively and significantly affected by remittance inflow in Nepal. The negative coefficient of real NBF shows that there is a negative effect of NBF on financial savings in Nepal for the selected time period of this study. There is a positive and significant effect of remittance on increasing the financial savings in the banking sector, particularly in the commercial banks of Nepal. The value of R² is 0.99. It shows that the control variables selected in the study explain the dependent variable, i.e., FINS, by 99 per cent. The value of the Durbin-Watson statistic is almost 2 (2.03), which shows that there is no serious autocorrelation between the selected variables in this model. The coefficient of the Log of Remittance

is 0.204712. It shows that when remittances inflow increases by 1 per cent, it increases the financial savings in commercial banks by 0.204712 per cent in Nepal for the selected period of time.

The empirical findings of this study are similar to the findings of Baafi and Kwame Asiedu (2025); Osei-Gyebi, Opoku, Lipede and Kountchou (20230; Salahuddin, Masud and Kian Teng (2022); Hua, Kessels and Erreygers (2022); Přívara and Trnovský (2021); Kokorović Jukan, Okičić and Hopić (2020); Munir, Sial, Sarwar and Shaheen (2011). The coefficient of the Log of remittance is 0.204712, and the probability is significant. It shows that when remittances increase by 1 per cent. Financial savings in Commercial

It shows that when remittances increase by 1 per cent, Financial savings in Commercial banks increase by 0.204712 per cent, other things remaining the same. However, the coefficient of Log of NBF is -0.178331, and the probability is significant. The negative sign shows that NBF is negatively related to increasing financial savings.

ARDL Bounds Test for Cointegration and Error Correction Model

Bound tests for co-integration are done to identify the relationship between dependent and independent variables. It is an econometric tool used to identify whether there is a long-run relationship between the dependent and independent variables used in the study. According to Pesaran et al. (2001), the ARDL bound test is based on Joint F – Statistic, it is tested under the null hypothesis (H0) i.e., there is no cointegration among the variables used in the model against the alternative hypothesis (H1) i.e., there is cointegration, using lower bound I (0) and upper bound I (1). Table 5 shows the empirical results of the bounds tests.

Table 5: Result of ARDL Long Run Form and Bounds Test

Dependent Variable: D(LNFINS) Selected Model: ARDL (1, 0, 0, 0)

F-Bounds Test				
Test Statistic	Value	Significance	I(0)	I(1)
F-statistic	8.67543	10%	2.65	3.55
k	3	5%	3.14	3.89
		2.5%	3.58	4.78
		1%	4.34	5.42

Source: Calculated by Using EViews 10.

Data presented in Table 5 show the ARDL bound test results for cointegration. The F-statistic for the bound test is 8.67543, which is more than the lower bound value of 4.34 and the upper bound of 5.42 at a 1 per cent level of significance. Thus, the empirical result justifies that there is a long-run equilibrium relationship between financial savings (FINS) with remittances (REMI) and the number of banks and financial institutions (NBF) and the rate of interest (R).

Estimation of Long Run Coefficients

Having gone through the cointegration of variables for the long run, the next step in

the ARDL model is to estimate the long-run coefficients. To estimate the long-run ARDL model, an appropriate lag length is calculated according to the AIC criteria. The appropriate lag length for the model is ARDL (1,0,0,0). Table 6 presents the estimated long-run coefficients using the ARDL model.

Table 6: Estimated Long-Run Coefficients Using ARDL (1,0,0,0) Model based on AIC.

Dependent Variable: LNFINS

Model Selected: ARDL (1,0,0,0) based on AIC.

Variables	Coefficients	Std. Error	t-statistic	Prob.
LNREMI	1.537089	0.356490	4.311737	0.0005
LNNBF	-1.339008	0.433561	-3.088397	0.0067
LNR	0.078674	0.423166	-3.098766	0.0456
C	-5.562759	2.780331	-2.000754	0.0617

Source: Calculated by Using EViews 10.

Table 6 presents the estimated long-run coefficients using the ARDL model. The correlation of LNREMI with LNFINS is positive and statistically significant at 1 %. However, LNNBF is negative with LNFINS, LNR is positive, and the result is statistically significant at 1% and 5% levels of significance.

When remittance inflow increases by 1 %, it leads to a 1.53 % increase in financial savings in the long run. However, the coefficient of LNNBF is negative. It justifies that the number of banks and financial institutions does not support financial savings. The empirical findings of this study are similar to the findings of Baafi and Kwame Asiedu (2025); Osei-Gyebi, Opoku, Lipede and Kountchou (20230; Salahuddin, Masud and Kian Teng (2022); Hua, Kessels and Erreygers (2022); Přívara and Trnovský (2021); Kokorović Jukan, Okičić and Hopić (2020); Munir, Sial, Sarwar and Shaheen (2011).

The empirical finding of the error correction model is presented in Table 7. The coefficient of CointEq is negative (-0.143181) and the probability is significant.

Table 7: Result of Error Correction Model

Dependent Variable: D(LNFINS) Selected Model: ARDL (1, 0, 0,0)

ECM Regression

Case 2: Restricted Constant and No Trend

Variables	Coefficient	Std. Error	t-Statistic	Prob.
CointEq(-1)*	-0.143181	0.013472	-8.786617	0.0000
0 0 1 1	11 77 ' 1777'	1.0		

Source: Calculated by Using EViews 10.

The negative coefficient of the error correction model (-0.14) shows that our model is theoretically correct, and the probability shows that it is statistically significant. The absolute value of the coefficient of ECM indicates the speed of adjustment towards the long-run equilibrium through several short-run adjustments. The model tends towards equilibrium at a speed of adjustment of around 14.0 per cent per annum.

Residual Diagnostics

Once the empirical model is estimated, residual diagnostic tests are applied to evaluate the model residuals and test the model's adequacy. For the same, Serial correlation (LM Test), Heteroscedasticity and Normality tests are conducted, and their results are presented in Table 8, Table 9, and Figure 1 below.

Table 8: Empirical Result of Breusch-Godfrey Serial Correlation LM Test

F-statistic	0.506971	Prob. F (2,15)	0.6123
Obs*R-squared	1.329639	Prob. Chi-Square (2)	0.5144
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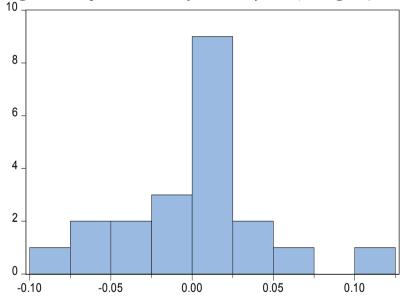
Source: Calculated by Using EViews 10.

Table 9: Empirical Result of Breusch-Pagan-Godfrey Heteroskedasticity Test

	•		
F-statistic	1.283388	Prob. F(3,17)	0.3120
Obs*R-squared	3.877833	Prob. Chi-Square (3)	0.2750
Scaled explained SS	3.752236	Prob. Chi-Square (3)	0.2895

Source: Calculated by Using EViews 10.

Figure 1: Empirical Result of Normality Test (Histogram)



Series: Residuals Sample 2 22 Observations 21			
Mean	7.35e-17		
Median	0.002706		
Maximum	0.114301		
Minimum	-0.080857		
Std. Dev.	0.043031		
Skewness	0.425603		
Kurtosis	3.953057		
Jarque-Bera	1.428760		
Probability	0.489495□		

The summary statistics and results of residual diagnostics are presented in Table 10. *Table 10: Results of Residuals Diagnostics Tests and Conclusion*

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Test	Serial Correlation LI	M Heteroskedasticity Test	Normality Test His-
	Test		togram
F-Value	0.506971	1.283388	1.428760
Probability	0.6123	0.3120	0.4894
Conclusion	No serial correlation	as No Heteroskedasticity as	Normal as prob. Is >
	Prob. > 10 per cent.	Prob. > 10 per cent.	10 per cent

Stability Diagnostics

The stability test for the financial savings model has been applied in order to investigate the stability of the long-run and short-run parameters. For the same, cumulative sum (CUSUM) and cumulative sum of squares (CUSUM SQ) tests are employed. It verifies the stability of the ARDL model for structural break because both models are significant at the 5 per cent level of significance. The results of the CUSUM and CUSUM of Square tests are shown in Figures 2 and 3, respectively.

Figure 2: Plot of Cumulative Sum of Recursive Residuals

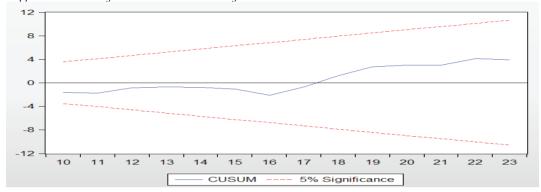
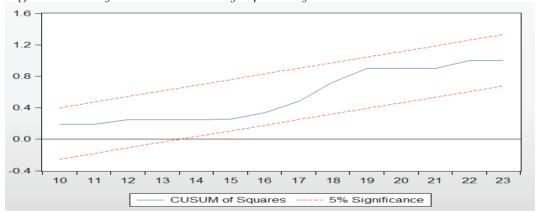


Figure 3: Plot of Cumulative Sum of Squares of Recursive Residuals



DISCUSSION

This study was conducted to identify the effects of foreign remittances on the financial savings in Nepal by employing the ARDL Bounds Testing Model by using the time series data for 24 years, spanning from 2001-2024, collected from various published sources of Nepal government such as the Ministry of Finance (MOF), Nepal Rastra Bank (NRB) and National Statistics Office (NSO). This study found a positive and statistically significant relationship between remittances and financial savings in Nepal. The impacts of other control variables, NBF is negative and significant, and the effect

of the rate of interest (R) is positive and significant for financial savings in Nepal. The empirical findings of this study are similar to the findings of Baafi & Asiedu (2025); Hua et al. (2022); Kokorovic Jukan et al. (2020); Munir et al. (2011); Osei-Gyebi et al. (2023); Privara & Trnovsky (2021); and Salahuddin et al. (2022).

There is a positive and statistically significant relationship between financial savings and remittances in Nepal primarily because remittances serve as a key source of disposable income for recipient households, enabling them to save more. In many cases, remittances exceed immediate consumption needs, allowing families to deposit the surplus in banks and financial institutions. This inflow of funds boosts household financial stability and promotes long-term financial planning, especially in a country like Nepal, where domestic employment opportunities are limited and income levels are generally low. Furthermore, increased access to formal financial services, financial literacy programs, and government incentives to channel remittances through official banking systems encourage the savings behaviour of people. Remittances are also often sent with the explicit intention of supporting future investments—such as in education, healthcare, or small businesses—further reinforcing the habit of saving. Thus, the linkage is not only behavioural but also structural, reflecting both economic necessity and increased financial inclusion.

The negative and statistically significant relationship between financial savings and the number of banks and financial institutions in Nepal may seem counterintuitive, but it can be explained by several structural and behavioural factors. First, the rapid increase in the number of banks and financial institutions (BFIs), especially in rural and semi-urban areas, has led to intense competition, often resulting in aggressive credit expansion rather than promoting savings. Many institutions prioritise lending to increase profitability, offering relatively low interest rates on deposits, which discourages savings. Second, the proliferation of BFIs without proportional improvements in financial literacy and trust in the banking system may lead to confusion or scepticism among the population, especially in less educated or remote communities. Additionally, people may split their deposits across multiple institutions for safety or accessibility, leading to a dilution effect where individual account balances remain low, thus reflecting lower total savings per institution. Finally, the increasing availability of consumer credit may incentivise spending over saving, as easier access to loans can reduce the perceived need to maintain large savings. Hence, more institutions do not necessarily translate into more savings, especially when financial behaviour and institutional incentives are not aligned toward savings mobilisation.

The positive and significant relationship between the rate of interest on deposits and financial savings in Nepal can be attributed to the fundamental economic principle of incentive-driven behaviour. When banks offer higher interest rates on deposits, savings become more attractive to individuals and households, as they receive greater returns on their idle funds. In a country like Nepal, where many people live on limited incomes, even small increases in interest rates can significantly influence saving decisions. Higher

deposit rates not only encourage people to save more rather than consume or invest in informal channels, but also draw money out of non-institutional forms of saving (like gold, cash holdings, or informal lending) into formal financial systems. Additionally, in an environment where inflation is a concern, attractive deposit rates help preserve and grow the real value of savings, further reinforcing the motivation to save. Thus, higher interest rates act as a financial incentive that shifts household preferences toward formal savings, contributing to the observed positive relationship.

CONCLUSION

This study investigates the relationship between remittances and financial savings in Nepal using the Autoregressive Distributed Lag (ARDL) model on annual data spanning from 2001 to 2024. The dependent variable, financial savings (LnFINS), is analysed in relation to the core independent variable, remittance inflows (LnREMI), with the number of banks and financial institutions (LnNBF) included as a control variable. Empirical results reveal that remittances have a statistically significant and positive impact on financial savings in both the short run and the long run. Conversely, the number of financial institutions displays a significant but negative relationship with financial savings, suggesting that quantity does not necessarily translate to quality or accessibility in Nepal's financial sector. There is a positive and significant effect of remittance on increasing the financial savings in the banking sector, particularly in the commercial banks of Nepal. The value of R² is 0.99. It shows that the control variables selected in the study explain the dependent variable, i.e., FINS, by 99 per cent. The value of the Durbin-Watson statistic is almost 2 (2.03), which shows that there is no serious autocorrelation between the selected variables in this model. The coefficient of the Log of Remittance is 0.204712. It shows that when remittances inflow increases by 1 per cent, it increases the financial savings in commercial banks by 0.204712 per cent in Nepal for the selected period. The findings underscore the vital role of remittances in enhancing domestic financial savings in Nepal, indicating that migrant earnings are channelled into the formal financial system when favourable conditions exist. However, the negative impact of the increasing number of financial institutions on savings points to possible inefficiencies, such as overlapping services, poor financial literacy, or limited financial inclusion, particularly in rural areas. Policymakers should prioritise remittance-focused financial instruments and incentives to encourage savings, such as diaspora bonds, interest-bearing remittance accounts, and mobile-based saving platforms. Additionally, rather than expanding the number of institutions, emphasis should be placed on strengthening institutional governance, accessibility, digital transformation, and financial education to increase trust and usability of the formal banking system.

Future studies could expand the current analysis by incorporating household-level microdata to understand the behavioural dynamics behind remittance usage and saving patterns. Investigating the role of financial literacy, gender, and regional disparities could

offer granular insights into how remittances translate into productive savings. Moreover, assessing the impact of digital banking, mobile money, and fintech innovations on the remittance-savings nexus would be crucial in the context of Nepal's evolving financial ecosystem. Comparative studies with other remittance-dependent economies in South Asia could further enrich the understanding and generalizability of the findings.

CONFLICT OF INTEREST

The authors declared no conflict of interest.

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