*Volume 4, Issue 2, December 2025*

# Remittances, Export Performance, and Policy Frameworks in a Developing Economy: Countering the Dutch Disease Hypothesis in Nepal

Toya Narayan Parajuli[1*], Prashanna Neupane[1]

*Article Type: Research Article*

*[1]MBA-BF Scholar, Lumbini Banijya Campus, Tribhuvan University, Nepal*

*Received: 16 September 2025; Revised: 17 October 2025; Accepted: 23 November 2025*

**Corresponding email: toyahtoyah123@gmail.com* *ISSN: 2976-1204 (Print), 2976 – 131X (Online)*



## Abstract

*This study purpose to test whether larger remittance inflow supports or weakens Nepal's export competitiveness. Annual data from 1994-2024 were used in this study, applying the export-centric ARDL bounds model with ECM and full diagnostics, modelling aggregate exports against remittance, GDP, import, and CPI. The data series are mixed I (0)/ I (1), cointegration is confirmed, and the error-correction term is found to be strong, indicating rapid adjustments. The result shows remittances have a positive but statistically insignificant effect on exports in the short and long run, providing macro-level insight into Dutch-Disease type crowding out. Export moves together with GDP and depend on imported intermediates. Remittance Granger causes imports but not exports. Stability, normality, and specification tests are stable. Thus, it concludes that Nepal's challenge is not remittance-induced harm to tradables, but rather its failure to convert household savings into exportable capacity. Policies must be pivoted from flow formalization to mechanism-building remittance-linked investment instruments.*

**Keywords:** ARDL bounds testing, cointegration, Dutch disease, error-correction model, real effective exchange rate

*DOI: https://doi.org/10.32674/6ysx4t52*

## Introduction

Over the past two decades, developing economies have relied on cross-border remittances, and for good measure, these remittances have surpassed other external flows (Ardıc et al., 2022). In 2023, officially recorded remittances to Low- and Middle-Income Countries (LMICs) reached US$656 billion, surpassing both foreign direct investment (FDI) and official development assistance (ODA), highlighting their role in macro-critical external financing and shock absorption at the macro level (Ratha, 2024). More recent tracking also estimates the total of global remittance flows at close to US$900 billion in 2024, while their weight in the world economy and in policy debates around development finance continues to increase (World Bank, 2024). Simultaneously, remittances have a paradoxical dual nature. The Dutch disease mechanism describes the impact of large inflows of foreign currencies on the economy, whether it be natural resources or remittances. Appreciation and resource shifting to non-tradables may erode the real exchange rate of the economy and export competitiveness (Corden, 1984). On the other hand, a second strand of theory highlights developmental channels, as remittances may ease liquidity constraints, substitute for shallow finance, and spur investment and firm upgrading.

Diaspora networks may further lower information and transaction costs, expanding trade and cross-border trust (Gould, 1994). These competing perspectives imply that the net remittance-export effect is ultimately empirical and state-contingent, shaped by financial depth, institutional quality, and export sophistication. Global evidence is mixed. Various studies focused on countries and regions demonstrate cases of real effective exchange rate (REER) appreciation and related competitiveness issues that are similar to Dutch disease (Dutta & Sengupta, 2018; Hien et al., 2019; Basnet et al., 2019).

At the same time, there are studies that also report null and non-linear outcomes with positive externalities from finance and the quality of the institutions (Giuliano & Ruiz-Arranz, 2009; Shah, 2023; Behzadan & Chisik, 2025). More contemporary meta-analyses and cross-national studies further highlight the presence of thresholds and heterogeneity in domestic structures, among others (Anwar & Mang, 2022). Remittances have increasingly become an important source of external finance for developing economies. Despite this, their impact on export growth remains ambiguous, as they may cause Dutch disease or development aid. This paradox is dependent on specific financial, institutional, and structural variables of a country.

Nepal is a prototypical example of a labor-exporting, remittance-dependent small open economy. Global Knowledge Partnership on Migration and Development (KNOMAD) ranks Nepal among the top LMICs by remittances to gross domestic product (GDP), at around 26% of GDP in 2023. During this time, exports of goods and services have remained structurally low, less than 10% of GDP in 2024, according to data from the World Bank despite sustained remittance inflows, while the merchandise trade deficit stood at NPR 1.40 trillion in the first eleven months of FY 2024/25, with the export-import ratio around 15%, signaling persistent external imbalances and competitiveness frictions (NRB; World Bank, 2025).

Remittances currently represent one of the biggest external sources of funds for LMICs and are rising once more in 2024–2025, outstripping other forms of private/public flows in most economies, though with disputed impacts on competitiveness (World Bank, 2024). Nepal has one of the most remittance-driven economies, with exports of goods and services currently below 10 % of GDP, resulting in large merchandise trade deficits and export-import ratios despite large remittance earnings (World Bank, 2024; NRB, 2025). This leads to the question of policy: do remittances complement exports in Nepal via investment, credit easing, and remittance networks, or do they compete with exports in the Dutch disease manner in Nepal's structure? (Giuliano & Ruiz-Arranz, 2009; Leblang, 2010; Dutta & Sengupta, 2018; Basnet et al., 2019).

The evidence from empirical studies is mixed, as there are studies on South Asia/India specifically find pressures on REER, while others related to finance complementarity and spillovers related to diasporas indicate possible positives on tradables (Giuliano & Ruiz, 2009; Dutta & Sengupta, 2018; Basnet et al., 2019). At the same time, Nepalese trade policies convey the absence of bindings on logistical and cost considerations to diminish the effect of investment pass-through from remittances to exports (Government of Nepal, 2023). Hence, the pertinent issue entails policy must decide whether to rechannel remittances toward tradables or to scale diaspora-linked export facilitation, but the sign and magnitude of the remittance export link in Nepal remain unsettled (Paudel & Bhusal, 2021; World Bank, 2024; NRB, 2025). Taking into consideration this perspective, the impact of remittances on export growth in Nepal continues to be a key policy question. This is primarily because, while Nepal benefits greatly from remittances, it is uncertain whether the inflows of capital lead to a loss of export competitiveness due to Dutch disease or boost it through productive investment or diaspora networks in the country.

The current studies on Nepal stress the significance of the negative remittance and export correlation equation estimate through Vector Error Correction Model (VECM)/Autoregressive Distributed Lag (ARDL) rather than dynamic causality with export characteristics, which assume major importance in the current literature on Nepal (Paudel & Bhusal, 2021). First, the dependent variable has not been the aggregate exports with characteristics jointly controlling for the scale effect (GDP), import-intensive inputs, prices/REER, and finance variables considered to be essential in distinguishing the identification of the competitive effect independently (Dutta & Sengupta, 2018; Basnet et al., 2019). Second, identification robustness, cointegration structure, Error Correction Model (ECM) dynamics, stability, and break tests have not been consistently integrated to ensure policy-reliable inferences (World Bank, 2024; NRB, 2025). Third, estimates are seldom mapped to mechanisms that matter for Nepal's Dutch disease (REER, non-tradables) versus finance/diaspora spillovers despite well-established global channels (Giuliano & Ruiz-Arranz, 2009; Leblang, 2010). Fourth, heterogeneity and thresholds, i.e., by financial depth or export sophistication, identified in cross-country work, remain largely untested for Nepal, even though domestic policy diagnostics highlight export cost constraints that could condition effects (Government of Nepal, 2023). Consequently, the challenges faced in current work on the

remittance-export nexus in Nepal stem from the lack of complete structural controls, sound econometric validation, interpretation of mechanisms, and the testing of threshold effects, thus leaving the policy guidance inconclusive and weakly substantiated.

Despite Nepal's extreme remittance dependence, empirical evidence on its export impact is inconclusive, leaving policymakers without a clear basis for designing remittance-linked export strategies. This study addresses the gap by centering aggregate exports in an ARDL bounds framework with ECM and stability diagnostics, and by reviewing results through policy channels. to determine whether remittances crowd out or complement Nepal's exports (Government of Nepal, 2023; World Bank, 2024; NRB, 2025). Addressing these gaps provides new empirical evidence to the Dutch disease literature and provides policy insights for rechanneling remittance inflows toward tradables through migrant-savings instruments, remittance-linked credit, and export-facilitation mechanisms. It integrates econometric findings with a policy lens to clarify whether remittances crowd out or complement exports, and how policy can rechannel inflows toward tradables. This dual contribution is designed to speak to both empirical causality and actionable policy, given Nepal's persistent export underperformance amid high remittance dependence.

## Literature Review

### *Theoretical Review*

Building on the theoretical foundation, the Dutch disease hypothesis provides insight into the effect of large foreign-income inflows. By analogy, remittance functions as such inflows. These inflows increase domestic absorption and lead to appreciation of the real exchange rate, thereby weakening the non-booming tradables through three channels: the spending effect, the resource movement effect, and, overall, REER appreciation (Corden & Neary, 1982). Consistent with this mechanism, cross-country analyses show that remittances are often associated with REER appreciation and a shift toward non-tradables, with the magnitude of the shift conditioned by exchange-rate regimes and structural features, (Barajas et.al, 2011; Lartey et. al, 2012) Thus, the classic model and its empirical extensions provide a clear channel through which surges in remittances can compress export competitiveness by eroding price cost margins in tradables.

Counterbalancing these price and allocation pressures, development theories outline how remittances can foster export capacity when funds are intermediated into productive uses. The New Economics of Labor Migration sees remittances as household strategies to relax market failures and finance new activities (Stark & Bloom 1985; Taylor 1999). The liquidity constraint channel shows remittances acting as informal credit that raises human capital and business investment, especially where finance is shallow (Calero et. al, 2009; Giuliano & Ruiz-Arranz, 2009). Endogenous growth models predict that if remittances are transformed into knowledge, skills, and technology adoption, they lift long-run productivity; and diaspora networks reduce cross-border information and trust frictions, expanding trade and investment links which may reinforce export performance (Romer 1986, 1990; Rauch & Trindade 2002; Leblang 2010).

Therefore, theoretical underpinning implies a priori ambiguous net effect of remittances on exports, with Dutch-disease pressures potentially offset or even dominated by investment, finance, knowledge, and diaspora link channels depending on institutional quality, financial depth, and openness.

### *Empirical Review*

This section synthesizes global empirical findings on remittances and export competitiveness, and non-tradeable sectors, highlighting evidence of covering Dutch disease.

**Table 1**

**Matrix Table for Empirical Reviews**

| Source and Country/ Region | Thematic Focus/ Context | Sample/ Method | Key Findings | Gap and Limitations |
|---|---|---|---|---|
| Chowdhury and Rabbi (2013), Bangladesh | Support for Dutch Disease | 1971-2008; Johansen cointegration and VECM | Remittance significantly appreciates the REER and reduces external trade competitiveness | Bangladesh-specific; export composition effect not disaggregated; VECM long-run focus; limited short-run export basket dynamics |
| Makhlouf and Mughal (2013), Pakistan | Support for Dutch Disease: Heterogeneity by regime | 1980-2008; Bayesian (JED) | Evidence of both spending and resource-movement effects; stronger under managed float classic Dutch-disease channels. | External validity to South Asia's wider set; export-sector microchannels not validated. Model relies on calibrated priors; parameter sensitivity |
| Dutta and Sengupta (2018), India | Support for Dutch Disease | Annual data; ARDL | Remittances raise the REER, implying pressure on tradables and exports in the long run. | Doesn't test export volumes/quality upgrading directly; ARDL may under-capture structural breaks/non-linearities |

| | | | | |
|---|---|---|---|---|
| Hien et al. (2019), 32 Asian Developing Countries | Positive and Non-linear/ Contradictory | 2006–2016; dynamic panel (S-GMM) | 1% increase in remittances per capita leads to 0.10% REER appreciation; non-linear threshold. | Threshold mechanisms not tied to sectoral exports; Panel averages may mask country-specific institutions |
| Lartey et al. (2012), Multi-country | Heterogeneity and Regime Contingency | Panel data | Remittances raise REER and shift factors toward non-tradables; effects are stronger under fixed regimes. | Regime choice endogenous; export-product mix not modeled; Emphasis on REER/factor movement over export outcomes |
| Shah (2023), High - and middle-income panels | Positive and Non-linear/ Contradictory | 2000–2020; dynamic panel | Inverse-U remittances–exports relation: small inflows support exports; large inflows reduce them. | Mechanisms not decomposed (price vs. finance vs. networks); Repository/working format; external peer-review status unclear |

Thus, global evidence confirms Dutch-disease risks via REER appreciation and factor shifts, but also documents non-linearities, finance-enabled spillovers, and policy/institutional contingencies, motivating Nepal-specific export tests that can separate price-absorption effects from investment and capacity-building channels. Studies from India, Bangladesh, and Pakistan explicitly provide insights into local dynamics, whereas multi-country panel studies emphasize heterogeneity in the impact across institutional settings and income levels.

Over the past two decades, Nepal's policy and analytical discourse have largely framed remittances around external balance stabilizing reserves and cushioning the current account rather than consistently assessing export competitiveness (World Bank, 2023). Despite the lack of coherence in the global environment for remittance policy, the lack of evidence on their impact on export competitiveness remains a prominent policy and research gap in Nepal.

### *The Nepalese Context: Export Performance Gaps*

Recent country updates confirm that remittances still represent an important driver of macro flows, comprising a double-digit share of GDP, maintaining reserve adequacy, and managing pressure. Merchandise exports, on the other hand, still display a narrow and volatile pattern, episodically vulnerable to spikes (for instance, refined edible oils). These suggest a persistent incapacity to tradeable goods. The World Bank's January 2023 Nepal Development Update framed two calls to restore export competitiveness, directly linking poor export performance to an overappreciated real exchange rate and a productivity deficit.

Compounding the problem, the April 2025 update again notes that external balances and reserves, while politically laterally traded, the country is structurally understated, large, indicating persistent competitiveness gaps. For Nepal, this sets up an empirical contest between the Dutch-disease channels, real exchange rate appreciation, and factor allocation versus investment/capacity channel finance driving ease, upgraded knowledge, and network effect by remittance and the export booster effect (Joshi, 2024). Therefore, even with the worldwide evidence being somewhat contradictory, there is focused attention on the importance of macro stability that the country derives from remittances, thereby overlooking the important issue of the effects remittances have on export competitiveness. This hints at an important policy and research gap.

Considerable research on the effects of remittances on the Nepalese economy warns of the Dutch-disease effect, where remittances coincide with the economy focusing on absorption with little growth in the tradable sector. Analyzing time series data within the ARDL framework, for the period of 1996–2019, showed remittances increase the trade deficit in the short run and in the long run, indicating the dominance of the expenditure on the external accounts (Sapkota, 2013). In a similar way, a bilateral gravity study (1993–2018) showed a statistically significant negative relationship with remittances and Nepal's exports, further supporting the absorption, competitiveness effects, and disincentives for export upgrading (Paudel & Bhusal, 2021). Basically, there are still significant research gaps in the context of Nepal on exports, as most of the existing research has focused on the trade balance or gravity-based export relationships.

### *Policy and Institutional Review*

Nepal's Foreign Employment Act and Regulations were developed to institute formal migration mechanisms to facilitate and regulate remittance transfers. This streamlining possibly erodes distrust in uncontrolled transfers. The Act defines welfare frameworks and oversight to be institutionalized. The detailed provisions for recruitment and governance of funds are left to the rules. The Nepal Labour Migration Report (2022) aligns the governance agenda with Sustainable Development Goals (SDG)10.c, which relates to the cost of remittance and encourages movements along formal channels, documenting flows and trends, and overseeing progress (Ministry of Labour, Employment and Social Security [MoLESS], 2022).

To promote formal remittance and saving channels, the central bank introduced Foreign Employment Saving Bonds (FESB) for migrants and non-resident Nepalese (NRNs) and, in principle, tradable sector financing (World Bank, 2025). However, the Act, the Rules, and the current monitoring system do not provide the mechanisms or incentives needed to guide remittances toward improving product quality and supporting export-oriented Small and Medium Enterprises (SMEs) (Government of Nepal, 2007). As a result, Nepal's institutional framework successfully formalizes and tracks remittance flows, but it finds itself with a policy gap when it comes to building export capacity around private inflows, keeping the remittance–export nexus theoretically closed and empirically open for export-specific testing (World Bank, 2023). Thus, the policy frameworks designed around migration and

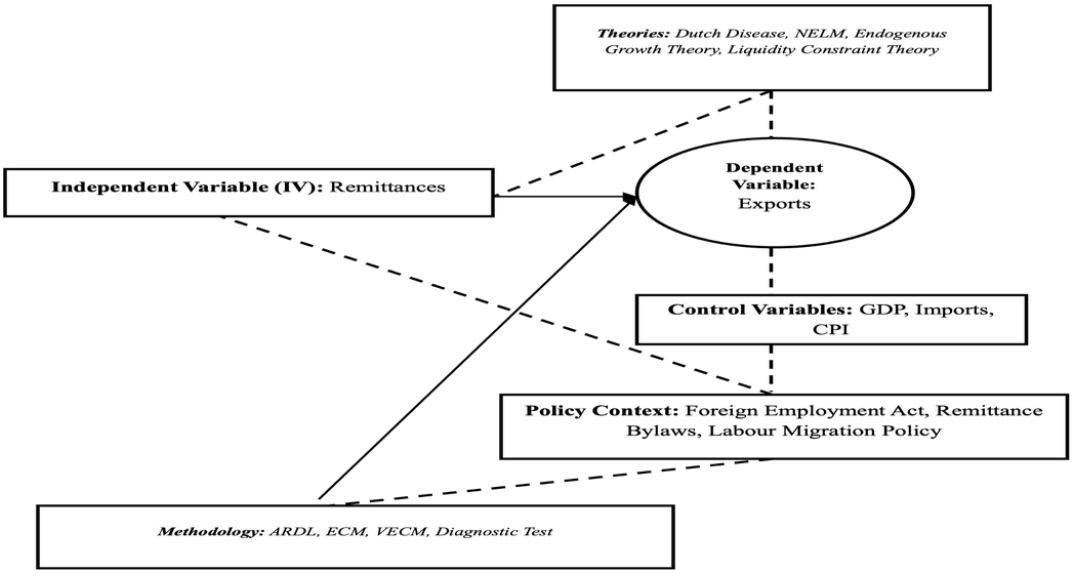
remittances continue to achieve record levels of formalization and inflow tracking. However, they fall short in the integration of the incentives and institutional frameworks needed so that remittances contribute to export expansion-linked investment. This disconnect highlights the lack of a substantial policy on shifting remittances to productive tiers.

### *Conceptual Framework and Hypothesis Development*

This study examines the effect of remittance inflows on export performance in Nepal. Remittances can lift spending and push up the real exchange rate, hurting price competitiveness (Corden & Neary, 1982; López, 2007). But they can also relax credit constraints and finance skills, technology, and firm upgrades, helping exports where finance and institutions work (Giuliano & Ruiz-Arranz, 2009).

**Figure 1**

**Conceptual Framework**




As shown in Figure 1, exports are taken at the aggregate level to capture both price effects and production capacity. Recent World Bank work flags weak competitiveness in Nepal and links export underperformance to real exchange rate appreciation and low productivity, making it important to test both channels.

The study includes three control variables: Real GDP, Consumer Price Index (CPI) inflation, and imports of intermediates. GDP to net out scale/cycle effects on supply, imports of intermediates because many Nepali exports rely on foreign inputs (imports and exports often move together in such settings), and CPI inflation to capture domestic cost pressure that can erode price competitiveness (World Bank, 2023).

The Foreign Employment Act and the Nepal Labour Migration Report 2022 formalize and monitor remittance channels (costs, safety, use), shaping how much arrives through regulated, lower-cost routes (MoLESS, 2022). NRB Foreign Employment Saving Bonds (FESB) add a legal savings/investment option for migrants (NRB, 2022–2024). This policy context, in our framing, moderates the remittance–export link because better intermediation and cheaper formal channels make the investment capability pathway more likely, whereas weak intermediation leaves the absorption price pathway dominant (Giuliano & Ruiz-Arranz, 2009).

Thus, the determinants of Nepal's total exports include the influence of prices and capacity, after controlling for GDP, imported inputs, and inflation. Remittances, through their reliance on formal channels and tools such as a formal exchange system for banks, determine whether remittances allow investment-driven export growth or predominantly exert price absorption. Based on the above discussions, the following hypotheses are proposed:

*H1: Remittances is negatively related to exports in the long run.*

*H2: Where intermediation is stronger, remittances is positively related to exports.*

*H3: Imports of intermediates is positively related to exports.*

*H4: Higher CPI inflation is negatively related to exports.*

*H5: Real GDP is positively related to exports.*

## Research Methods

This study uses annual macroeconomic data for Nepal covering the period 1994–2024, sourced primarily from the NRB. The period is chosen to capture the post-liberalization era and the sustained surge in remittance inflows that is theoretically relevant for Dutch disease dynamics. Exports (LN_E), remittances (LN_REM), GDP (LN_G), and imports (LN_IMP) are treated as annual totals, while CPI (LN_CPI) is the annual average; all variables are transformed to natural logarithms to stabilize variance and enable elasticity interpretation. No internal missing observations were detected; the pre-specified approach, linear interpolation followed by break/stability checks, was therefore not invoked. CPI is retained in levels (log) so that price-level effects are absorbed directly; no additional deflation/differencing beyond logs is applied ex-ante because the econometric design below is built to handle mixed orders of integration without pre-differencing.

The conceptual framework is the classic Dutch disease mechanism in a small open economy: external inflows can appreciate the real exchange rate and reallocate resources away from tradables toward non-tradables (Corden & Neary, 1982). Thus, Exports (LN_E) operationalize tradable-sector performance (dependent variable); Remittances (LN_REM) are the key driver that may induce real appreciation and depress exports; GDP (LN_G) controls productive capacity and domestic demand; Imports (LN_IMP) proxy openness and imported-input

dependence of the export sector; and CPI (LN_CPI) proxies real-appreciation effects associated with remittance inflows (Corden & Neary, 1982). In contrast, this model does not include a finance or intermediation variable, so (H2) is not tested in this version.

### *Model specification and justification*

To accommodate likely mixed integration orders across annual macro series and to retrieve both short- and long-run elasticities in a small sample, this study estimates an ARDL model and applies the (Pesaran et al., 2001) bounds approach to cointegration. In log-levels, the export equation is

$$\ln E_t = \alpha_0 + \sum_{i=1}^{p} \phi_i \ln E_{t-i} + \sum_{j=0}^{q_1} \beta_j \ln G_{t-j} + \sum_{k=0}^{q_2} \gamma_k \ln IMP_{t-k} + \sum_{m=0}^{q_3} \delta_m \ln REM_{t-m} + \sum_{n=0}^{q_4} \eta_n \ln CPI_{t-n} + \varepsilon_t$$

where Et = exports, Gt = GDP, IMPt = imports, REMt = remittances, CPIt = consumer price index; α0 is the intercept and εt as the disturbance term. Lag orders (p,q1,q2,q3,q4) are chosen by information criteria. This is the standard ARDL levels specification.

For this study's selected lags ARDL (2,2,2,0,2):

$$\begin{aligned}\ln E_t \quad = {} & \alpha_0 + \phi_1 \ln E_{t-1} + \phi_2 \ln E_{t-2} + \beta_0 \ln G_t + \beta_1 \ln G_{t-1} + \beta_2 \ln G_{t-2} \\ & + \gamma_0 \ln IMP_t + \gamma_1 \ln IMP_{t-1} + \gamma_2 \ln IMP_{t-2} + \delta_0 \ln REM_t \\ & + \eta_0 \ln CPI_t + \eta_1 \ln CPI_{t-1} + \eta_2 \ln CPI_{t-2} + \varepsilon_t.\end{aligned}$$

Optimal lags are chosen automatically by information criteria, prioritizing Akaike Information Criterion (AIC). The AIC/Schwarz Information Criterion (SIC) choice balances fit and parsimony and is standard for ARDL grid searches; the automated selection identified ARDL (2,2,2,0,2).

## Results and Analysis

### *Descriptive Statistics*

Table 2, which analyses the descriptive statistics for data collected from 1994-2024, reveals a critical juxtaposition central to the Dutch disease hypothesis.

**Table 2**

**Descriptive Statistics**

| | LN_EXPORT | LN_GDP | LN_IMP | LN_REM | LN_CPI |
|---|---|---|---|---|---|
| Mean | 21.21 | 7.32 | 22.27 | 2.38 | 1.84 |
| Median | 21.18 | 7.32 | 22.35 | 3.07 | 1.90 |
| Maximum | 22.04 | 7.94 | 23.60 | 3.50 | 2.54 |
| Minimum | 20.66 | 6.69 | 21.08 | .01 | .89 |
| Std. Dev. | .37 | .38 | .88 | 1.17 | .42 |
| Skewness | .25 | .03 | .05 | -1.03 | -.49 |
| Kurtosis | 2.06 | 1.77 | 1.47 | 2.34 | 2.42 |
| Jarque-Bera | 1.47 | 1.97 | 3.02 | 6.05 | 1.67 |
| Probability | .48 | .37 | .22 | .05 | .43 |
| Sum | 657.65 | 226.96 | 690.27 | 73.68 | 57.13 |
| Sum Sq. Dev. | 4.04 | 4.31 | 23.36 | 41.29 | 5.19 |
| Observations | 31 | 31 | 31 | 31 | 31 |

*Note.* Std. Dev. – Standard Deviation

In Table 2, remittances exhibit pronounced volatility with a Std. Dev. of 1.17 and a significantly left-skewed, non-normal distribution with Jarque-Bera p-value of .049. In contrast to remittance, the export sector demonstrates higher stability with a Std. Dev of .37 with a positive skewness and normal distribution with a Jarque-Bera p-value of .48. The foundational analysis establishes the key precondition for testing Dutch disease with remittances as a substantial, volatile non-traded sector coexisting with a stable tradable sector, i.e., exports, providing the empirical basis for subsequent co-integration and causality tests to investigate potential crowding of effects.

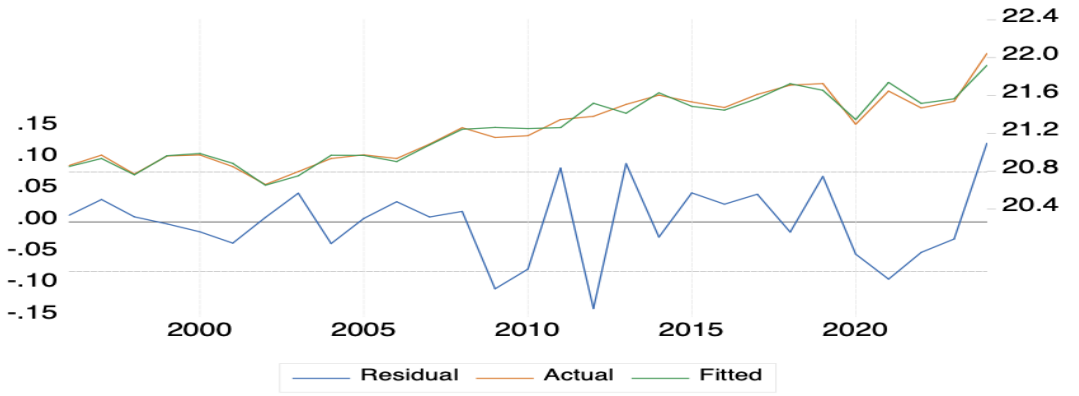
Similarly, GDP, Import, and CPI exhibit higher stability with Std. Dev. as .38, .88, and .42, respectively. While GDP and imports show positive skewness, CPI exhibits a negative skewness. These factors demonstrated normal distribution with Jarque-Bera p-values of .374, .220, and .433, respectively.

The actual, fitted, and residual graph in Figure 2 demonstrates a strong model fit where the close alignment of the actual and fitted values for LN_E indicates that the ARDL model effectively captures the observed trends and variation in Nepal's export performance over the study period.

Similarly, formal BG-LM and BPG tests confirm the absence of systematic bias, heteroskedasticity, and autocorrelation in the model's error term, ultimately validating the model's specification and the reliability of its parameter estimates for analyzing the determinants of exports as explained below in diagnostic tests.

**Figure 2**

**Actual, Fitted Residual Graph**




### *Unit Root Test*

The Augmented Dickey-Fuller (ADF) test was used to assess the stationarity of the variables, which is a precondition for ARDL modeling (Dickey & Fuller, 1979). The variables are denoted as follows:

LN_EXPORT = LN_E, LN_GDP = LN_G, LN_IMPORT = LN_IM, LN_REMITTANCES = LN_REM, LN_CONSUMER_PRICE_INDEX = LN_CPI

**Table 3**

**ADF Test**

| **Variable** | **Level ADF *p-value*** | **1st Difference ADF *p-value*** | **Order I(d)** | ***Residual Results of ARDL Estimation** |
|---|---|---|---|---|
| LN_E | .815 | .000 | I (1) | - |
| LN_G | .901 | .000 | I (1) | - |
| LN_IM | .929 | .000 | I (1) | - |
| LN_REM | .006 | .000 | I (0) | - |
| LN_CPI | .060 | .000 | I (1) | - |
| *ARDL Residual Level | .000 | - | I (0) | - $R^2$= .60, DW=1.91; indicates long-run co-integration relationship |

The mix of I (0) and I (1) in Table 3 validates the use of the ARDL co-integration approach. The residual ARDL model estimation approach is stationary on the level, concluding the long-run co-integrating equilibrium relationship between the variables, forming the basis for analyzing long-run elasticities (Pesaran et al., 2001).

### *ARDL Model Estimation*

Optimal lags are chosen automatically by the AIC. The AIC choices balance fits and parsimony and are standard for ARDL grid searches, and they identified ARDL (2,2,2,0,2): (LN_E; LN_G; LN_IMP; LN_REM; LN_CPI), which indicates statistically significant, robust, and well-specified short-run dynamics relationships explaining almost 97% of variation in Nepal's exports (LN_E). High $R^2$ is common in time-series models where variables are integrated but cointegrated with an error-correction mechanism and lagged dynamics, which shows stochastic trends and short-run adjustments (Granger, 1969; Pesaran et al., 2001).

As this study verified, the cointegrating relationship and ECM address the classic spurious regression risk link with non-stationary data (Granger & Newbold, 1974; Engle & Granger, 1987). Furthermore, residuals and diagnostics test support correct specification where all test shows well-behaved errors and stable parameters (Breusch, 1978; Engle & Granger, 1987). Similarly, Adjusted $R^2 = .95$ states the model still shows high explanatory power after adjustments with the Durbin-Watson statistic. = 2.323. Therefore, the (F-statistic 45.516; Prob (F-stat) = .000) states that the model is highly significant. The model's core findings, directly measuring the Dutch disease hypothesis, are positive but statistically insignificant (LN_REM = .003, *p-value = .439)*. This indicates that there is no evidence of a significant short-run crowding-out effect, whereas remittance inflows would suppress the export activity, which is a primary transmission channel for Dutch disease.

**Table 4**

**ARDL Estimations Output**

| Variable | Coefficient | Std. Error | t-Statistics | Prob.* |
|---|---|---|---|---|
| LN_E (-1) | .74 | .20 | 3.71 | .002 |
| LN_E (-2) | -.61 | .22 | -2.81 | .013 |
| LN_G | -.47 | 1.03 | -.45 | .656 |
| LN_G (-1) | 4.87 | 1.36 | 3.58 | .003 |
| LN_G (-2) | -4.23 | 1.41 | -3.01 | .008 |
| LN_IMP | .28 | .20 | 1.38 | .185 |
| LN_IMP (-1) | -.96 | .22 | -4.33 | .001 |
| LN_IMP (-2) | .92 | .28 | 3.31 | .004 |
| LN_REM | .03 | .04 | .79 | .439 |
| LN_CPI | .04 | .06 | .72 | .481 |
| LN_CPI (-1) | -.06 | .06 | -1.03 | .318 |
| LN_CPI (-2) | .12 | .05 | 2.31 | .034 |
| C | 11.70 | 3.05 | 3.84 | .001 |

In Table 4, the model reveals significant short-run dynamics: exports show strong inertia, influenced by their own first and second lags. The third hypothesis (H3) proposes that imports positively influence exports. Causality tests suggest this relationship exists, although it is not statistically significant in the long run. The fourth hypothesis (H4) emphasized that higher inflation reduces exports in the short run, while the long-run effect remains ambiguous. Furthermore, lagged values of GDP and imports are significant drivers, highlighting complex internal economic inter-linkages.

Table 2 reveals, the stationarity of the model's residual confirms the long-run co-integrating relationship among the variables, validating the derivation of long-run multipliers for an assessment of Dutch disease effects. Similarly, the result of the co-integration test verifies that the calculated value of the F-statistic 4.74 is greater than both the lower bound critical value [I (0) = 2.56] and the upper bound critical value [I (1) = 3.49] for 5% level of significance. This statistical fact confirms that the null hypothesis of no co-integrating relationship is rejected and, therefore, validates the presence of a long-run stable equilibrium relationship among the chosen variables in the Nepalese economy over the period 1994–2024.

In Table 5, the derived long-run coefficients show that the positive relationships between LN_REM and LN_E remain statistically insignificant (Coeff. = .04, p-value .409). Remittances (H1) show no significant link to exports in either the short run or the long run, and there is no evidence that remittances cause exports. This is the core finding that there is no empirical evidence to support the Dutch disease hypothesis that remittance inflows crowd out export competitiveness in Nepal in the long run. It suggests Nepal's economy may possess mitigating factors that insulate its export sector from potential resource-movement and spending effects. Similarly, H2 cannot be tested with the current model because there is no intermediation variable, and the remittance effect on exports is not significant.

The coefficient of ECT is -.88 and ($p < .000$) highly significant, highlighting rapid adjustment to the long-run equilibrium (see Table 5). The results indicate that nearly 87.8% of any export deviations induced by shocks to remittances, GDP, imports, or CPI are corrected within one year. Contrary to the theoretical predictions of the Dutch disease hypothesis, this study states no statistically significant evidence, either in the short run or in the long run, that remittance inflows crowd out export performance in Nepal, which suggests the presence of mitigating factors within the Nepalese economy that insulate the export sector from these classical negative effects. Therefore, both short-run (LN_REM coef. = .034, p = .439) and long-run (*.04, p = .409*) remittance effects on exports are positive but insignificant, providing no evidence of Dutch disease-type crowding-out of exports.

**Table 5**

**Long-run and Short-run coefficients using ARDL**

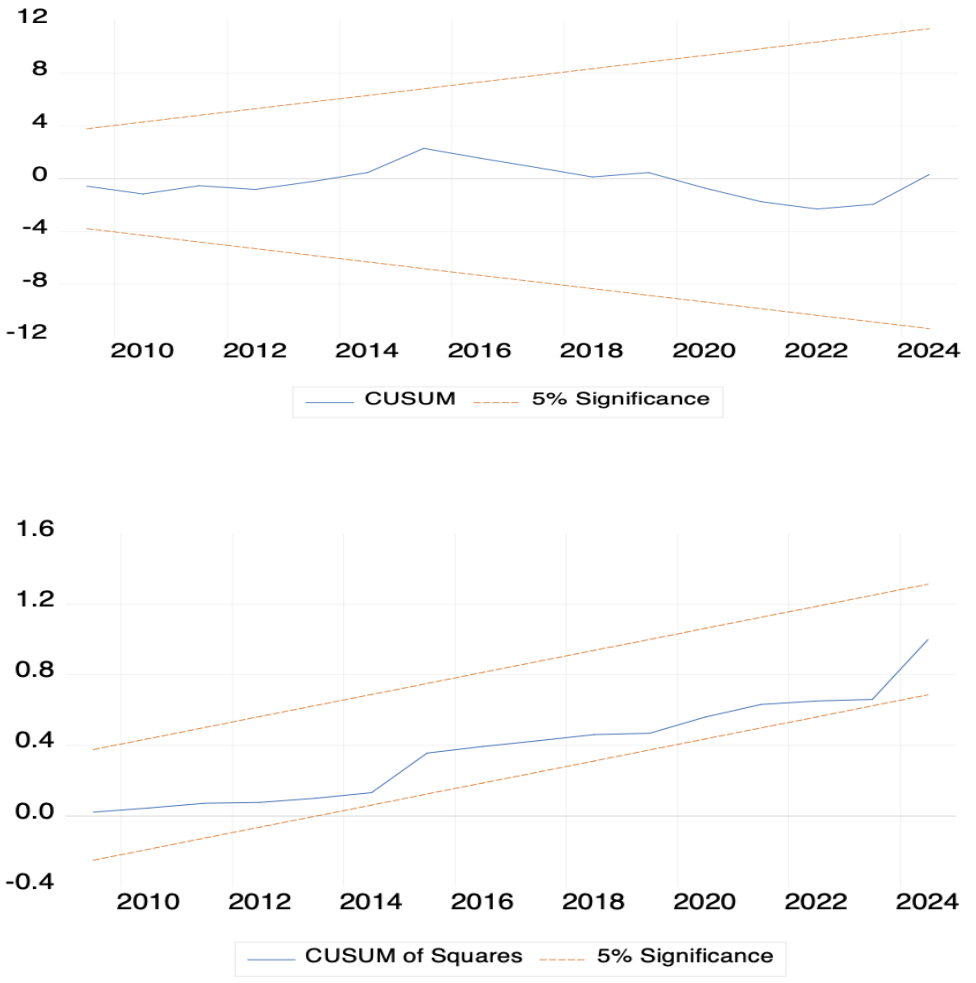
| Variable | Coefficient | Std. Error | t-stat. | *p-value* | Interpretation | Model |
|---|---|---|---|---|---|---|
| LN_REM | .04 | .05 | .85 | .409 | No significant long-run effect; finds no evidence of Dutch Disease crowding out | Long-Run |
| LN_G | .19 | .61 | .32 | .756 | Insignificant positive long-run relationship. | Long-Run |
| LN_IMP | .27 | .23 | 1.16 | .262 | Insignificant positive long-run relationship. | Long-Run |
| LN_CPI | .12 | .11 | 1.07 | .298 | Insignificant positive long-run relationship. | Long-Run |
| C | 13.32 | .97 | 13.74 | .000 | Significant constant; capturing other determinants | Long-Run |
| D(LN_E) (-1) | .61 | .16 | 3.92 | .001 | Positive and significant, indicating inertia in export growth | Short-Run |
| D(LN_G) (-1) | 4.23 | .72 | 5.89 | .000 | Lagged GDP growth boosts exports | Short-Run |
| D(LN_IMP) (-1) | -.92 | .18 | -5.21 | .000 | Lagged Import negatively correlates with exports | Short-Run |
| D(LN_CPI) (-1) | -.12 | .04 | -3.28 | .005 | Lagged inflation has a negative effect. | Short-Run |
| Cointeq (-1) (ECT) | -.88 | .14 | -6.11 | .000 | Highly significant; 88% disequilibrium is corrected annually. | Short-Run |

### *Diagnostics Tests*

The Cumulative Sum (CUSUM) and CUSUM of Squares tests, plotted over the period, remain firmly within 5% significance levels and do not show any structural break.

**Figure 3**

**CUSUM Test and CUSUM of Square Test**




The histogram test shown in Annex Table A1 confirms the model's statistical adequacy. The residuals exhibit a mean of almost zero (5.45e-15) and low volatility (Std. Dev. = .06). Moreover, the Jarque-Bera, *p – value = .904,* which fails to reject the null hypothesis of normality, and the skewness and kurtosis values are almost near their ideal target, which indicates that the model's error term is well-behaved, satisfying all key assumptions for reliable statistical inference and reinforcing the validity of the stability tests (Bera & Jarque, 1981).

**Table 6**

**Ramsey RESET Results**

| Added term | Test stat | df (Num, den) | *p-value* | Decision (5%) | Short interpretation |
|---|---|---|---|---|---|
| FITTED² | F = 2.88 | (1, 15) | 0.110 | Fail to reject $H_0$ | No evidence of omitted non-linearity; functional form looks adequate. |
| | t = 1.70 | — | 0.110 | Fail to reject $H_0$ | Same conclusion using the t-form of RESET. |

*Note(s).* E-Views also reports a likelihood-ratio (LR) $\chi^2 = 5.10$ and p = 002; the conventional RESET decision is based on the F-test, which here indicates no misspecification.

Thus, in Table 6, the F-test fails to reject the correct specification at 5% *(F (1,15) = 2.882, p = .110)*. The equivalent t-statistic is 1.70 (*p = .110*), and other diagnostics (BG-LM, BPG) likewise indicate well-behaved residuals.

**Table 7**

**Granger Causality Test**

| Null Hypothesis | F-Statistic | p-value | Interpretation |
|---|---|---|---|
| LN_GDP does not Granger-cause LN_EXPORT | 11.97 | .000 | Higher GDP levels are likely to increase exports, suggesting strong causality from GDP to Exports. |
| LN_IMP does not Granger-cause LN_EXPORT | 5.74 | .009 | Imports have a significant impact on exports. When imports rise, exports also increase, indicating a positive link. |
| LN_IMP does not Granger-cause LN_GDP | 8.59 | .002 | Imports strongly influence GDP, which indicates that import activities contribute to domestic production and economic growth. |
| LN_REM does not Granger-cause LN_IMP | 5.61 | .010 | Remittance inflows significantly drive imports. Migrant workers' earnings increase household purchasing power, which leads to high demand for imported goods. |
| LN_IMP does not Granger-cause LN_CPI | 2.59 | .096 | Weak evidence at 10%. Suggests positive but no strong link between imports and inflation. |
| LN_CPI does not Granger-cause LN_REM | 2.77 | .083 | Weak evidence that inflation affects remittances, meaning domestic prices could influence remittance behavior, but the evidence is not statistically strong. |

In Table 7, Granger causality was measured to investigate the directional relationships between the variables and variables, which is a major test for a small open economy country like Nepal (Granger, 1969). Remittances (LN_REM) increase imports (LN_IMP), consistent with the Dutch disease spending effect, whereby remittance inflows lead to higher demand for imported goods. The H5 proposed that GDP helps predict exports, and the lagged GDP term raises exports in the short run, while the long-run sign is positive but not statistically strong. Thus, this study does not find that remittances cause exports (LN_EXPORT), so there is no crowding-out of exports. GDP and imports both help explain exports, and imports also help explain GDP. The link from imports to CPI is only weak at the 10% level. Notably, the test found no significant Granger causality from LN_REM to LN_EXPORT. Thus, the results support the ARDL finding of no crowding-out effect.

## Discussions

This study examined whether remittances in Nepal crowd out exports in the sense of Dutch disease or whether they can coexist with export growth through financial and capability channels. Using an export-centric ARDL with error correction and full stability checks for 1994 to 2024, the remittance coefficient on aggregate exports is positive yet insignificant in both horizons, while remittances clearly Granger-cause imports and exports comove with GDP and imported inputs. Taken together, the evidence points to a strong absorption pathway through imports and a weak transmission from household remittance savings into export capacity. In theoretical terms, Dutch disease requires large inflows, sustained appreciation or cost pressure, and factor reallocation toward non-tradables; Nepal meets the first condition, but the second and third appear partial, so the mechanism is not a dominant macro force. This rather qualifies the theory than refutes it and, therefore, aligns with threshold and heterogeneity findings that depend on finance depth and institutions, among others (Giuliano & Ruiz Arranz, 2009; Anwar & Mang, 2022; Karki et al., 2024; Islam, 2024; Shah, 2023; Behzadan & Chisik, 2025).

Why do our results differ from studies that report Dutch disease in South Asia or in specific Nepalese lanes? Using gravity designs on a bilateral basis helps identify certain products or partner economies that respond with appreciation or income effects, while an aggregate export equation might miss them, especially when scale and imported inputs are primarily determining the macro signal (Paudel & Bhusal, 2021). The finding that remittances induce imports but not exports, coupled with long-run multipliers on remittances that are insignificant, implies that the loss in competitiveness is probably in certain products or destinations rather than across the entire system.

The finding of remittances causing imports but not exports, together with insignificant long-run multipliers on remittances, suggests that any competitiveness loss is likely concentrated in specific products or destinations rather than system-wide. This interpretation is consistent with evidence from India and Bangladesh where appreciation pressures show up, but the sign and size vary by regime and structure, and with panel work that documents nonlinearity and regimes or thresholds (Lartey et. al, 2012; Chowdhury & Rabbi, 2013; Dutta & Sengupta, 2018; Hien et. al 2019; Karki et al., 2024; Shah, 2023).

The mechanism story is central. Nepal's policy framework excels at formalizing flows and protecting workers, yet it does not hardwire remittance savings into export finance and capability building, so the savings channel that could offset spending effects remains thin. Migrant bonds exist but have not scaled as patient capital for tradables; financial intermediation continues to favor real estate and short-term commerce; logistics and compliance frictions keep the cost of moving goods high, which is typical in settings where trade costs mute learning and scale effects (World Bank, 2023; World Bank, 2025). In this environment, the households channel remittances to consumption and housing, the banks recycle liquidity into low-risk uses, and the firms rely on imported intermediates when they do export. The data mirror this reality: imports predict exports, remittances predict imports, and the remittance to export link is weak at the macro level-a pattern consistent with international evidence on networks, information frictions, and the need for intermediation to convert private transfers into exportable capability (Rauch & Trindade, 2002; Giuliano & Ruiz Arranz, 2009; Leblang, 2010; Islam, 2024).

The highlights that policy intervention should target the mechanism, not only the flow. Redesign migrant saving instruments with matched schemes and risk shields tied to verified export investment; expand export credit insurance, purchase order finance, and receivables factoring so that remittance deposits recycle into tradables; cut corridor and border time to strengthen the observed movement of imports and exports; and activate diaspora buyer networks with standards coaching so that firms can convert trust and information into orders (Rauch & Trindade, 2002; Leblang, 2010; World Bank, 2023; World Bank, 2025). For research, extend the model with finance and institutional interactions, test product-level ARDLs, and track thresholds to map where remittances can become competitive capacity, which is consistent with meta and panel evidence on conditional Dutch disease dynamics (Anwar & Mang, 2022; Shah, 2023; Behzadan & Chisik, 2025).

## Conclusion and Implications

The findings revealed that, both in the short and long run, remittances do not exert a statistically significant impact on aggregate exports. Rather, the availability of imported intermediate inputs and the domestic scale effects are the key factors influencing export dynamics. For remittance-dependent economies, the evidence is clear. No, Dutch disease is not a victory to celebrate on its own. It signals that the savings carried by remittances are not yet being converted into exportable capacity at scale. The fundamental policy tradeoff is to move remittances from pure consumption smoothing toward capability building without undermining macro stability. It suggests a partially and institutionally moderated transmission mechanism.

Theoretically, the result refines the Dutch disease framework by showing a state-dependent, institutionally moderated form where the consequences of capital inflows are not automatic. The ability of businesses to convert liquidity into productive capacity, trade costs, and financial depth all have a significant impact on Dutch diseases. Both the negative and positive effects of remittances on the tradable sector can be muted by weak intermediary channels. The banks,

remittance firms, and exporters should treat remittances as potential patient capital and design instruments that channel remittances into investment, upgrading, or scale expansion within export-oriented firms.

For policy, the priority is to shift from flow formalization toward mechanism building through remittance-linked investment vehicles, faster and more predictable border processes, targeted supplier upgrading, and diaspora buyer programs that convert trust and information into repeat orders. In addition, remittance should be treated as potential long-term capital and should focus on enhancing financial intermediation so that the household and the migrant's savings can be transformed into tradable investment sectors. Policy now must build the bridge that turns private transfers into competitive tradables while preserving macroeconomic stability.

## Limitations and Future Research

This study did not include a direct measure of financial intermediation, so the H2 could not be examined. Future work should add proxies for bank credit to firms, uptake of migrant saving instruments, availability of export finance, and indicators of logistics and regulatory frictions. Product and partner level analyses can uncover pockets of vulnerability even when the macro link is weak, and interaction or threshold tests can show when remittances flip from absorption toward capability building. It will also be useful to test for time-varying effects or regime breaks to see whether the transmission mechanism strengthened or weakened across policy and market phases. Combining aggregate time series with firm data on export entry, investment, and finance can map the mechanism more precisely and guide instruments that turn remittance savings into export growth.

## Acknowledgment

The authors sincerely thank the relevant national authority for granting access to the data necessary for this study. We also gratefully acknowledge the valuable guidance and support provided by our supervising academic throughout the research process.

## Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this study.

## Funding

This research was conducted independently by the authors and received no external funding.

## Authors' Contributions and ORCID IDs

**Toya Narayan Parajuli:** Writing-Original Draft, Review and Editing, Investigation, Data Collection, and Resources.

**: https://orcid.org/0009-0007-6869-7595**

**Prashanna Neupane**: Conceptualization, Data Curation, Data Analysis, Software, Methodology, Review-Editing, and Resources.

**: https://orcid.org/0009-0006-9000-0371**

## References

Akpan, E., & Moffat, I. (2018). Modeling the autocorrelated errors in time series regression: A generalized least squares approach. *Journal of Advances in Mathematics and Computer Science, 26*(4), 1–15. https://doi.org/10.9734/jamcs/2018/39949

Anwar, A. I., & Mang, C. F. (2022b). Do remittances cause Dutch Disease? A meta-analytic review. *Applied Economics*, *54*(36), 4131–4153. https://doi.org/10.1080/00036846.2021.2022091

Ardıc, O., Baijal, H., Baudino, P., Boakye-Adjei, N. Y., Fishman, J., & Maikai, R. A. (2022). *The journey so far: Making cross-border remittances work for financial inclusion* (FSI Insights on policy implementation No. 43). Bank for International Settlements. https://www.bis.org/fsi/publ/insights43.pdf

Barajas, A., Chami, R., Hakura, D., & Montiel, P. (2011). Workers' remittances and the equilibrium real exchange rate: Theory and evidence. *Economía, 11*(2), 45–94. https://doi.org/10.1353/eco.2011.0000

Basnet, H. C., Donou-Adonsou, F., & Upadhyaya, K. (2019). Workers' remittances and the Dutch disease: Evidence from South Asian countries. *International Economic Journal, 33*(4), 662–678. https://doi.org/10.1080/10168737.2019.1666291

Behzadan, N., & Chisik, R. (2025). The paradox of transfers: Distribution and the Dutch disease. *Southern Economic Journal*, *91*(3), 1140-1175.

Bera, A. K., & Jarque, C. M. (1981). An efficient large-sample test for normality of observations and regression residuals. *International Statistical Review, 49*(2), 199–200. https://doi.org/10.2307/1402956

Boz, E., Casas, C., Georgiadis, G., Gopinath, G., Le Mezo, H., Mehl, A., & Nguyen, T. (2022). Patterns of invoicing currency in global trade: New Evidence. *Journal of International economics*, *136*, 103604. .https://doi.org/10.1016/j.jinteco.2022.103604

Breusch, T. S. (1978). Testing for autocorrelation in dynamic linear models. *Australian Economic Papers, 17*(31), 334–355. https://doi.org/10.1111/j.1467-8454.1978.tb00635.x

Calero, C., Bedi, A. S., & Sparrow, R. (2009). Remittances, liquidity constraints and human capital investments in Ecuador. *World Development, 37*(6), 1143–1154. https://doi.org/10.1016/j.worlddev.2008.10.006

Chowdhury, M. B., & Rabbi, F. (2013). Workers' remittances and Dutch Disease in Bangladesh. *Journal of International Trade & Economic Development, 23*(4), 455–475. https://doi.org/10.1080/09638199.2012.738240

Corden, W. M. (1984). Booming sector and Dutch disease economics: Survey and consolidation. *Oxford Economic Papers, 36*(3), 359–380. https://www.jstor.org/stable/2662669

Corden, W. M., & Neary, J. P. (1982). Booming sector and de-industrialisation in a small open economy. *The Economic Journal, 92*(368), 825–848. https://doi.org/10.2307/2232670

Dickey, D. A., & Fuller, W. A. (1979). Distribution of the estimators for autoregressive time series with a unit root. *Journal of the American Statistical Association, 74*(366), 427–431. https://doi.org/10.2307/2286348

Dutta, U. P., & Sengupta, P. P. (2018). Remittances and real effective exchange rate. *South Asia Economic Journal, 19*(1), 124–136. https://doi.org/10.1177/1391561418761077

Engle, R. F., & Granger, C. W. J. (1987). Co-integration and error correction: Representation, estimation, and testing. *Econometrica, 55*(2), 251–276. https://doi.org/10.2307/1913236

Giuliano, P., & Ruiz-Arranz, M. (2009). Remittances, financial development, and growth. *Journal of Development Economics, 90(*1), 144–152. https://doi.org/10.1016/j.jdeveco.2008.10.005

Gould, D. M. (1994). Immigrant links to the home country: Empirical implications for U.S. bilateral trade flows. *The Review of Economics and Statistics*, *76*(2), 302. https://doi.org/10.2307/2109884

Government of Nepal, Ministry of Industry, Commerce & Supplies. (2023). *National Trade Integration Strategy (NTIS) 2023*. https://www.moics.gov.np/

Government of Nepal. (2007). *Foreign Employment Act, 2064 (2007)*. http://ceslam.org/docs/publication/55.pdf

Government of Nepal. (2008). *Foreign Employment Rules, 2064 (2008)*. Department of Foreign Employment.

Granger, C. W. J. (1969). Investigating causal relations by econometric models and cross-spectral methods. *Econometrica, 37*(3), 424–438. https://doi.org/10.2307/1912791

Granger, C. W. (1987). Spurious regression. In J. Eatwell, M. Milgate, & P. Newman (Eds.), The new Palgrave dictionary of economics (pp. 1–2). Palgrave Macmillan.

Granger, C. W. (1987). Spurious regression. In *The New Palgrave Dictionary of Economics* (pp. 1-2). Palgrave Macmillan, London.

Hien, N. P., Vinh, C. T. H., Mai, V. T. P., & Xuyen, L. T. K. (2019). Remittances, real exchange rate and the Dutch disease in Asian developing countries. *The Quarterly Review of Economics and Finance, 77*, 131–143. https://doi.org/10.1016/j.qref.2019.10.006

Islam, M. S. (2024). The remittance-growth nexus in leading remittance-earning nations, controlling regulatory quality, trade openness, energy use, and financial expansion. *Review of Development Economics*, *28*(4), 1676–1694. https://doi.org/10.1111/rode.13120

Joshi, U. L. (2024). Remittance and inflation dynamics in Nepal: An Econometric analysis. *International Research Journal of MMC*, *5*(5), 133–144. https://doi.org/10.3126/irjmmc.v5i5.73703

Karki, D., Dahal, R. K., Bhattarai, G., Ghimire, B., & Bastola, S. (2024). The role of remittances in building economic resilience in Nepal: a Keynesian analysis. *Journal of Logistics Informatics and Service Science*. https://doi.org/10.33168/jliss.2024.0721

Lartey, E. K. 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.1467-9396.2012.01028.x

Leblang, D. (2010). Familiarity breeds investment: Diaspora networks and international re600. https://doi.org/10.1017/S0003055410000201

López, H., Molina, L., &Bussolo, M. (2007). Remittances and the real exchange rate (World Bank Policy Research Working Paper No. 4213). World Bank. https://doi.org/10.1596/1813-9450-4213

Makhlouf, F., & Mughal, M. (2013). Remittances, Dutch disease, and competitiveness: A Bayesian analysis. *Journal of Economic Development, 38*(2), 67–97. https://doi.org/10.35866/caujed.2013.38.2.003

Manato, F. (2025). The remittance-led Dutch disease: an analysis from a two-agent, two-sector DSGE model. *Review of World Economics*. https://doi.org/10.1007/s10290-025-00608-1

Ministry of Labour, Employment and Social Security. (2022). *Nepal Labour Migration Report 2022*. Government of Nepal. https://moless.gov.np/

Nepal Rastra Bank. (2024). Foreign employment saving bonds (FESB): Public debt operations archive. https://www.nrb.org.np/

Nepal Rastra Bank. (2025). *Current macroeconomic and financial situation of Nepal*. https://www.nrb.org.np/

Paudel, R. C., & Bhusal, T. P. (2021). Role of workers' remittances in export performance of Nepal: Gravity modelling approach. *NRB Economic Review, 33*(1-2), 1–13. https://doi.org/10.3126/nrber.v33i1-2.47987

Pesaran, M. H., Shin, Y., & Smith, R. J. (2001). Bounds testing approaches to the analysis of level relationships. *Journal of Applied Econometrics, 16*(3), 289–326. https://doi.org/10.1002/jae.616

Ratha, D. (2024). Remittances slowed in 2023 – we need to take note. *World Bank Blogs*. https://blogs.worldbank.org/en/peoplemove/remittances-slowed-in-2023---we-need-to-take-note

Rauch, J. E., & Trindade, V. (2002). Ethnic Chinese networks in international trade. *Review of Economics and Statistics, 84*(1),116–130.https://doi.org/10.1162/003465302317331955

Romer, P. M. (1986). Increasing returns and long-run growth. *Journal of Political Economy, 94*(5), 1002–1037. https://doi.org/10.1086/261420

Romer, P. M. (1990). Endogenous technological change. *Journal of Political Economy, 98*(5, Part 2), S71–S102. https://doi.org/10.1086/261725

Rutledge, D., & Barros, A. (2002). Durbin–Watson statistic as a morphological estimator of information content. *Analytica Chimica Acta, 454*(2), 277–295. https://doi.org/10.1016/S0003-2670(01)01555-0

Sapkota, C. (2013). Remittances in Nepal: Boon or bane? *The Journal of Development Studies, 49*(10), 1316–1331. https://doi.org/10.1080/00220388.2013.812196

Shah, I. A. (2023). Impact of remittances on exports and economic growth: a cross country analysis. *Romanian Journal of Transport Infrastructure*, *12*(1), 1–15. https://doi.org/10.2478/rjti-2023-0001

Stark, O., & Bloom, D. E. (1985). The new economics of labor migration. *The American Economic Review, 75*(2), 173–178.

Taylor, J. E. (1999). The new economics of labour migration and the role of remittances in the migration process. *International Migration, 37*(1), 63–88. https://doi.org/10.1111/1468-2435.00066

World Bank. (2023). *Nepal development update: Restoring export competitiveness.* The World Bank. https://thedocs.worldbank.org/en/doc/f7cacc93bf594ebe0f649fe785809676-0310012023 /original/Nepal-Development-Update-2023-October-Final.pdf

World Bank. (2024). *Remittances slowed in 2023, expected to grow faster in 2024.* World Bank. https://www.worldbank.org/en/news/press-release/2024/06/26/remittances-slowed-in-2023-expected-to-grow-faster-in-2024

World Bank. (2025). *Nepal development update* (Report No. 192485-NP). The World Bank. http://documents.worldbank.org/curated/en/099032125103030263/pdf/P179761-430153ad-672c-4418-89c5-ef3740c65113.pdf

World Bank. (2025). *Nepal development update: Leveraging resilience and implementing reforms for boosting economic growth – April 2025*. World Bank Group. https://documents1.worldbank.org/curated/en/099951004022532326/pdf/IDU-c2bf0781-1145-4639-8b64-321016ade046.pdf

## Annex

**Table A1**

**Histogram Normality Test**

## Bios

**Toya Narayan Parajuli** is an MBA in Banking and Finance scholar at Lumbini Banijya Campus, Tribhuvan University. He holds a Bachelor of Business Administration in Finance and Accounting from the same institution. His research focuses on the nexus between remittances and exports.

Email: toyahtoyah123@gmail.com

**Prashanna Neupane** is an MBA in Banking and Finance scholar at Lumbini Banijya Campus, Tribhuvan University. He holds a Bachelor's degree in Hotel Management from the Nepal Academy of Tourism and Hotel Management (NATHM), Tribhuvan University. His research interests include sustainable tourism, the hospitality sector, economic policy, and startup development.

Email: neupane.prashanna2000@gmail.com

**Cite as:** Parajuli, T. N., & Neupane, P. (2025). Remittances, export performance, and policy frameworks in a developing economy: Countering the Dutch Disease hypothesis in Nepal. *Interdisciplinary Journal of Innovation in Nepalese Academia, 4*(2), 159-184. https://doi.org/10.32674/6ysx4t52

**Note:** The author used AI-based tools, including Grammarly for grammar checking and language refinement, and paraphrasing tools such as QuillBot to improve clarity and readability. These tools were used solely for linguistic enhancement. No generative AI tools were used to create original content, develop ideas, or conduct any part of the study. The author retains full responsibility for the accuracy, integrity, and originality of the manuscript.