Policy Brief

Determinants of Inflation in Nepal: A Comparative Analysis of Indian Price Transmission and Domestic Factors

Shashwat Pokharel, Summer Intern, IIDS-2026

Institute for Integrated Development Studies

Abstract

Inflation is an important macroeconomic challenge in Nepal because it affects purchasing power, household welfare and economic stability. As a small open economy that relies heavily on imports, Nepal is highly exposed to external price movements, particularly from India. At the same time, rising remittance inflows have increased household income and consumption, creating additional demand pressures in the economy. This study examines the determinants of inflation in Nepal using annual data from 2000 to 2024. Two ordinary least squares (OLS) models are estimated to compare the role of Indian inflation and domestic macroeconomic factors. The results show that Indian inflation is the strongest determinant of inflation in Nepal during the study period. Remittances also contribute significantly through demand-side effects. Overall, inflation in Nepal is shaped more by external price transmission and demand conditions than by domestic monetary factors alone. Strengthening domestic production, improving supply conditions, and promoting productive use of remittances can help reduce inflationary pressures over time.

Keywords: Inflation, Indian Inflation, Remittances, Nepal, Price Transmission

Introduction/Background

Inflation refers to a continuous increase in the general price level of goods and services over time. It reduces purchasing power and increases the cost of living. In developing economies like Nepal, inflation is an important macroeconomic concern because it affects income, consumption, and overall economic stability (Chaudhary & Xiumin, 2018).

Nepal is highly dependent on imports for essential goods such as fuel, food, and machinery. As a result, domestic prices are sensitive to changes in international prices and exchange rate movements. Nepal also has strong trade linkages with India, and a large share of imports is either directly sourced from India or routed through India. Therefore, price movements in India may influence domestic price levels in Nepal.

Another important factor is remittances. A large number of Nepalis work abroad and send income back home. These inflows increase household purchasing power and can raise consumption demand. If demand increases faster than domestic supply, it may contribute to upward pressure on prices (Ghimire & Paudel, 2025).

Monetary theory suggests that growth in broad money supply can influence inflation through changes in liquidity in the economy. However, in small open economies with strong external linkages, the short-run relationship between money supply and inflation may vary (Acharya, 2019).

Previous studies have identified both domestic and external factors as drivers of inflation in Nepal. Ghimire and Paudel (2025), Joshi (2023), and Nepal (2022) found that remittances contribute to inflation by increasing household income, consumption, and aggregate demand. Paudyal (2014), Sapkota and Joshi (2023), and Acharya and Joshi (2023) show that exchange rate movements influence inflation by affecting the cost of imported goods and overall price levels. Humagai (2023) and Bishwakarma (2024) identified Indian inflation as an important determinant of inflation in Nepal due to strong trade and import linkages between the two countries.

Most existing research on inflation in Nepal uses data ending around 2021 or 2022, which does not capture recent inflation dynamics. In addition, many studies estimate a single model, making it difficult to assess the specific contribution of Indian inflation. This study addresses these gaps by using updated annual data up to 2024 and comparing two OLS models to evaluate the role of Indian inflation in explaining inflation in Nepal.

Current Problem

Inflation has remained an important challenge for Nepal in recent years. As a small open economy that depends heavily on imports, domestic prices are highly influenced by changes in international markets. India plays a particularly important role because it is Nepal's largest trading partner and a major source of imported goods. At the same time, remittance inflows continue to increase household income and consumption demand. When demand grows faster than domestic production, inflationary pressures can emerge.

To better understand these factors, this study uses annual data from 2000 to 2024 and estimates two Ordinary Least Squares (OLS) models. The first model includes Indian inflation together with the other explanatory variables, while the second excludes Indian inflation to compare the two models and assess its role in explaining inflation in Nepal.

Empirical Results and Discussion

The results show that Indian inflation and remittances are important factors influencing inflation in Nepal. Indian inflation is the strongest determinant in the model and has a positive and statistically significant effect. This suggests that price changes in India are transmitted to Nepal through trade and import linkages. Given Nepal's dependence on imported goods, especially from India, changes in Indian prices can have a noticeable impact on domestic inflation.

Remittances also have a positive and statistically significant effect on inflation in both models. Higher remittance inflows increase household income and consumption. When demand increases faster than domestic production, upward pressure on prices can emerge. These findings are broadly consistent with previous studies on inflation in Nepal.

Other variables such as money supply, exchange rate, imports, and GDP per capita were not statistically significant in the estimated models. While this suggests that they did not have a strong independent effect on inflation during the study period, this does not necessarily mean that they are unimportant, as their influence may vary over time and across different economic conditions. The model including Indian inflation explains about 62 percent of the variation in inflation in Nepal. When Indian inflation is excluded, the explanatory power falls to about 41 percent. This highlights the importance of Indian inflation in explaining price movements in Nepal.

Multicollinearity was tested using VIF and most variables remain within an acceptable range. This does not affect the main interpretation of the results.

Dependent Variable: INF
Method: Least Squares
Date: 06/03/26 Time: 16:03
Sample: 2000 2024
Included observations: 25

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	29.59642	12.14359	2.437204	0.0248
REM	0.339255	0.131186	2.586060	0.0181
IMP	-0.056961	0.146321	-0.389288	0.7014
MS	0.046933	0.066557	0.705165	0.4893
LGDPPC	0.073773	2.235663	0.032998	0.9740
LEXR	-6.518247	4.381816	-1.487568	0.1533

R-squared	0.536860	Mean dependent var	6.290197
Adjusted R-squared	0.414981	S.D. dependent var	2.736155
S.E. of regression	2.092790	Akaike info criterion	4.520436
Sum squared resid	83.21563	Schwarz criterion	4.812967
Log likelihood	-50.50546	Hannan-Quinn criter.	4.601572
F-statistic	4.404864	Durbin-Watson stat	1.809426
Prob(F-statistic)	0.007842		

Dependent Variable: INF
Method: Least Squares
Date: 06/03/26 Time: 15:31
Sample: 2000 2024
Included observations: 25

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.403888	12.70700	0.189178	0.8521
INDINF	0.671164	0.200054	3.354920	0.0035
REM	0.258079	0.108454	2.379616	0.0286
IMP	-0.016298	0.118539	-0.137491	0.8922
MS	0.034954	0.053756	0.650242	0.5237
LGDPPC	-2.358666	1.942101	-1.214492	0.2403
LEXR	2.186061	4.381899	0.498884	0.6239

R-squared	0.715044	Mean dependent var	6.290197
Adjusted R-squared	0.620059	S.D. dependent var	2.736155
S.E. of regression	1.686548	Akaike info criterion	4.114741
Sum squared resid	51.20001	Schwarz criterion	4.456026
Log likelihood	-44.43426	Hannan-Quinn criter.	4.209399
F-statistic	7.527952	Durbin-Watson stat	2.516492
Prob(F-statistic)	0.000377		

Policy Recommendations

The findings suggest that inflation in Nepal is influenced more by external factors and demand-side pressures than by domestic monetary factors, with Indian inflation emerging as the strongest driver. This means controlling inflation requires more than monetary policy alone. Since Nepal depends heavily on imports and remittance-driven spending, efforts should focus on increasing domestic production, improving the supply of essential goods, and reducing reliance on imports. These measures can help reduce the impact of external price increases and support more stable prices over time.

1. Encouraging Productive Use of Remittances

The results show that remittances are an important factor in inflation in Nepal. While remittances increase household income and improve living standards, a large part of this income is spent on daily consumption, housing, land, and imported goods. This increases demand in the economy, but domestic production does not increase at the same level because of this, prices go up. Instead of focusing only on the amount of remittances, the focus should be on how this income is used. Policies should encourage people to invest remittance income in productive areas like farming, small businesses, and local industries. This can be done through special savings and investment schemes in banks, concessional loans, and government support for small investments. Financial awareness programs can also help families understand how to use remittance money for investment instead of only spending.

2. Improving Supply-Side Stability

Inflation can increase when essential goods become difficult to access due to supply disruptions, transport problems, or shortages in local markets. To reduce these pressures, Nepal should invest in better storage facilities, warehouses, and transportation networks so that goods can move efficiently across the country. Improving cold storage facilities can help reduce food losses, while maintaining adequate stocks of essential goods can help manage temporary shortages during natural disasters or seasonal disruptions. These measures would improve the availability of goods in the market and help prevent sudden increases in prices.

3. Strengthening Domestic Production and Reducing Import Dependence

The strong influence of Indian inflation on Nepal's inflation highlights the country's dependence on imported goods. Reducing this dependence requires increasing domestic production of goods that Nepal has the capacity to produce locally. This can be achieved by supporting farmers and local businesses through easier access to finance, better infrastructure, reliable electricity supply, and improved market access. Priority should be given to products that Nepal imports in large quantities but can produce domestically. Over time, greater domestic production would reduce reliance on imports, make the economy less vulnerable to external price shocks, and help maintain more stable prices.

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