Trends and Structures of Remittance and its Impact on Inflation in Nepali Economy

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Abstract

The purpose of this study is to explore remittance inflow trends and structures, as well as their influence on inflation in the Nepali economy. This study was mainly based on secondary data published by the Nepal Rasta Bank annual report and an Economic survey published by the Ministry of Finance, Nepal, for the fiscal year 2000/01 to 2019/20. The data were analyzed, using descriptive statistics and correlation. During the study period, the remittance inflow in Nepal showed an increasing trend. The remittance to Gross Domestic Product ratio stood at around 25.42% in fiscal year 2017/18. Remittance showed a strong positive association with the national gross domestic product (r = 0.9867) and a positive but low association (r = 0.492) with inflation. In the short run, growing remittance inflows benefit the economy by increasing household consumption and lowering poverty, but in the long run, they may contribute to economic decline. Therefore, the government must develop strategies, policies, and programs to stimulate long-term investment in productive sectors through remittances to support long-run economic growth and sustainable development of our country.

Keywords: remittance inflow, inflation, gross domestic product, foreign exchange, consumption

Introduction

Remittances are often associated with migrant workers sending money back to their home countries or individuals sending financial support to family members living elsewhere.

According to Roy and Rahman (2014), remittances have grown into a more steady and important source of foreign exchange profits than government development aid, foreign direct investment, and other forms of capital flow. Remittances offer certain comparative benefits since, unlike capital flows, they do not generate future repayment obligations, and recipient nations are not required to meet particular political and economic requirements, as foreign aid does. So, remittances are critical to Nepal's economic and social fabric.

Remittances have garnered escalating attention within the international discourse, primarily due to their substantial scale and consistent positive growth trajectory spanning the last three decades. A prevailing consensus is now emerging, underscoring the considerable role played by remittances as a noteworthy source of external financing. (Panta, 2014). The Nepali economy heavily relies on these incoming funds from Nepali migrant workers living abroad. These remittances have multi-

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dimensional impacts on economic growth, household incomes, poverty reduction, and even social dynamics within the country.

For a long time, remittance money from abroad work has played an important role in reducing poverty and expanding economic activity in Nepal. Nepal is one of the countries with the huge share of remittances to GDP. The average remittance inflow over the last decade has been 25% of GDP. In addition to remittance inflows, overseas employment is supposed to foster entrepreneurship by accumulating knowledge, skills, and experience as social and human capital (Economic Survey, 2019).

Inflation is defined as a prolonged increase in the overall price level of goods and services in an economy over time, which reduces a currency's purchasing power. In simpler terms, it means that, on average, prices for everyday goods and services are rising, causing each unit of currency to buy fewer goods and services.

Inflation can be caused by various factors, including higher demand for goods and services, expensive production costs, changes in consumer and investor confidence, or monetary policies pursued by central banks. Likewise, Nepal's inflation is influenced by Indian inflation and other international factors. Moderate inflation is generally considered normal in a healthy economy, but excessive or hyperinflation can have detrimental effects, such as eroding savings, distorting economic decisions, and creating uncertainty in financial markets. Central banks often aim to manage inflation within a target range to maintain economic stability.

Over the last ten years, Nepal's inflation rate has averaged 8.4 percent. During this time, the average inflation rate in the food and beverage group was 10.4 percent, while the non-food and services group stayed at 6.7%. Similarly, the average inflation rate over the past five years was 9.3 percent. During this time, the average inflation rate in the food and beverage category was 11.8 percent, while in the non-food and services category, it was 7.2 percent. In recent years, the food and beverage industry has contributed more to increased inflation than other sectors. Historical observations also suggest that the price of the food and beverage category has stayed higher and more variable than the nonfood and services group (Economic Survey, 2014/15).

The result of the National Living Standard Survey 2010/11, is that more than 79 % of the remittance income received in Nepal is spent on consumption, which leads to demand-pull inflation.

This study attempts to investigate the extent to which remittance inflows affect domestic inflation in Nepal.

Objectives

The objectives of this study were designed to examine trends and structures of remittance inflow and to investigate its impact on inflation in the Nepali economy.

Review of Literature

In this section, some empirical literature on the impact of remittance inflow on inflation is included. Neupane (2019) studied the trend of remittance in the Nepali economy. He also examined the impact of remittance inflows on Inflation in Nepal using secondary data from 1975 to 2017. He utilized several tables and figures to display the facts. Using regression, unit root test, and co-integration tests, they discovered a positive relation and not a statistically significant association between the consumer price index (CPI) and remittance inflows in Nepal. The study also discovered a positive and substantial correlation coefficient between the Nepalese and Indian consumer price indexes. Furthermore, the association between the consumer price index and actual GDP in Nepal is determined to be negative and substantial. The coefficients of the association between broad money supply and revenue deficit with Nepal's consumer price index are positive but not statistically significant.

Using a bounds-testing approach, Abdul-Mumuni and Quaidoo (2016) examined the impact on inflation caused by international remittances in Ghana from 1979 to 2013 by incorporating international remittances as an exogenous variable into the standard inflation function. In the long run, they found that, international remittances have a significant effect on inflation in Ghana, but no significant relationship between these two variables in the short run. Abdul-Mumuni and Quaidoo advocate that the government develop public infrastructure to lessen the influence of overseas remittances on inflation and boost the impact on growth. This would eliminate unnecessary transfer costs, allowing remittances to be diverted into more productive areas rather than being utilized primarily for consumption.

According to Roy and Rahman (2014), workers’ remittance inflows have been growing significantly over the past decade in Bangladesh. They conclude that remittances contributed 12.3% to the GDP in 2012, and the contribution was 6.4% in 2003. They used monthly data from July 2003 to July 2013 to find the relationship between remittances and inflation in long-run, using Johansen's (1988) and Johansen & Juselius' (1990) cointegration techniques. The relationship's direction, size, and significance were then estimated using the Vector Error Correction Model (VECM) technique. Both methodologies reveal that remittance inflows induce inflationary pressure in Bangladesh, with food inflation responding about two and a half times faster than general inflation.

Nisar and Tufail (2013) investigated the influence of remittances on inflation in Pakistan, specifically food inflation, footwear and textile inflation, and housing and construction inflation. They collected yearly data on the CPI, food price index, textile index, money supply, footwear, and per capita income in Pakistan from 1970 to 2010. This study used Johansen's (1990) and Johansen and Juselius's (1990) cointegration approaches to determine the presence of a long-run link between remittances and inflation. The Vector Error Correction approach is also used to investigate the size and direction of variable relationships, as well as to ensure model stability. Furthermore, money supply, remittance income, and real per capita income have been shown to have a favorable influence on inflation and its various components. According to the findings, remittances have the greatest impact on food inflation and the least on housing and construction inflation. The budget shortfall is important in terms of decreasing footwear and textile inflation alone. On the other hand, trade openness reduces all forms of inflation by the same amount and strength. They proposed that due to the inflationary nature of remittances, the government should redirect the remitted income into productive investment to avoid a rise in demand-pull inflation.

Narayan et al. (2011) analyzed the factors of inflation in 54 developing nations throughout the world. Their findings revealed that remittances cause a rise in inflation, which becomes more noticeable with time. However, this study is based on aggregate data collected over ten years from 1995 to 2004 and does not focus on specific remittance feathers in Asian and Pacific developing countries.

Methodology and Data

To examine the trend and structure of remittance inflows in Nepal, as well as their influence on inflation, a descriptive and analytical approach of the study was employed. This analysis was completely based on secondary data spanning 20 years, from fiscal year 2000/01 to 2019/20. All the required data and information were collected from the Economic Survey (published by the Ministry of Finance), and various data from the Nepal Rastra Bank publication. Trend line and table were used to show the trend of the inflow of remittance and the correlation its impact on inflation.

Result and Discussion

Status of Remittance Inflow

Remittance inflow has become a major source of foreign exchange in Nepal. The size of workers' remittance inflows has grown to around one-fourth of the size of the national economy. According to Nepal Rastra Bank, Nepal received Rs 879367.15 million in worker remittances in 2018/19, which accounted for 25.42 percent of the country's GDP. Because of the extent of the remittance stream, it has become a significant source of foreign exchange revenues for Nepal. Despite the expanding trade deficit, Nepal maintains a current account surplus due to increased remittances. Despite the expanding export-import deficit and the rising cost of debt servicing, remittances appear to be sparing the country from a balance-of-payments disaster. Several studies have shown that remittance inflows have had a favorable impact on Nepal's health, education, and social sectors.

The trend of National GDP and Remittance Inflow in Nepal

Table 1 shows the trend and structure of remittance inflow in Nepal from FY 2000/01 to 2019/20.

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Table 1

Trend and Structure of Remittance inflow in Nepal with compared GDP

Fiscal year	GDP	Remittance	Remittance to GDP ratio in percentage	Percentage Change in Remittance
2000/01	441518.55	47216.10	10.69	-
2001/02	459442.55	47536.30	10.35	0.68
2002/03	492230.78	54203.30	11.01	14.03
2003/04	536749.05	58587.60	10.92	8.09
2004/05	589411.67	65416.00	11.10	11.66
2005/06	654084.13	97688.50	14.94	49.33
2006/07	727826.97	100144.80	13.76	2.51
2007/08	815658.20	142682.70	17.49	42.48
2008/09	988271.53	209698.50	21.22	46.97
2009/10	1192773.57	231725.30	19.43	10.50
2010/11	1366954.07	253551.60	18.55	9.42
2011/12	1527343.57	359554.40	23.54	41.81

continued

Table 1 (Continued)

Trend and Structure of Remittance inflow in Nepal with compared GDP

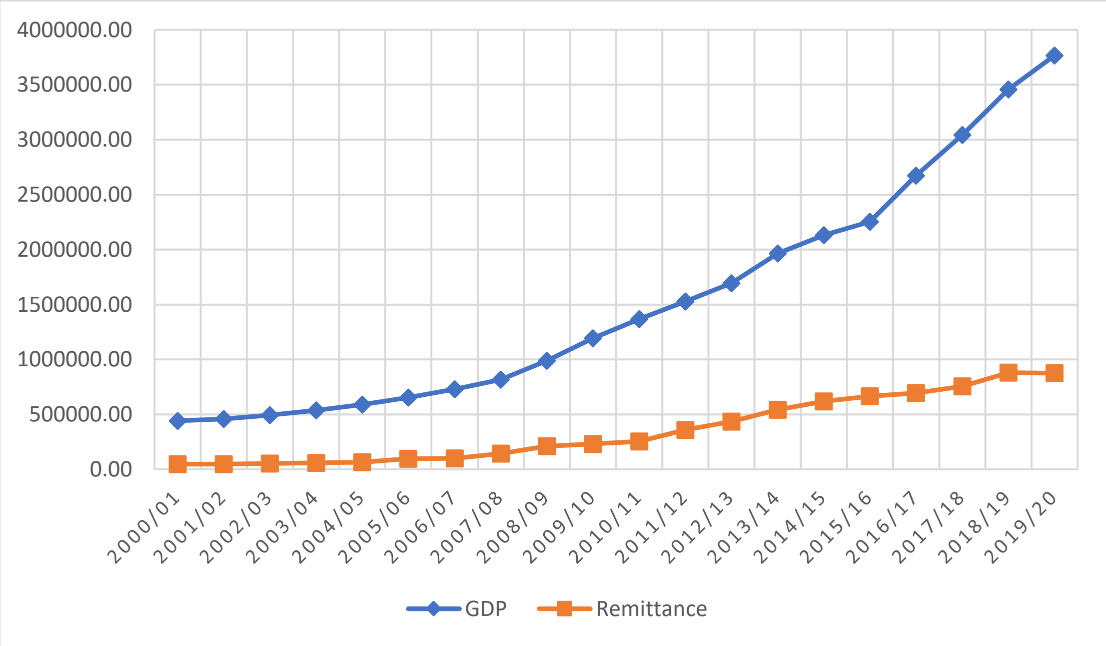
Fiscal year	GDP	Remittance	Remittance to GDP ratio in percentage	Percentage Change in Remittance
2012/13	1695011.10	434581.70	25.64	20.87
2013/14	1964539.58	543294.10	27.66	25.02
2014/15	2130149.57	617278.80	28.98	13.62
2015/16	2253163.10	665064.35	29.52	7.74
2016/17	2674492.75	695452.40	26.00	4.57
2017/18	3044927.12	755058.58	24.80	8.57
2018/19	3458792.91	879367.15	25.42	16.46
2019/20	3767043.20	875026.96	23.23	-0.49

Note. The figures are measured in million rupees. Data taken from Current-Macroeconomic-and-Financial-Situation (2019/20), Current Macroeconomic Situation (2009/10), National-Accounts by Nepal Rastra Bank. GDP = Gross domestic product

Figure 1 was drawn by using columns 1, 2, and 3 to show the trend and structure of remittance inflow in Nepal as compared to the GDP

Figure 1

The trend of remittance inflow in Nepal as compared to the GDP



Note. Compiled by the researcher using Excel 2017

Table 1 presents the trend and structure of GDP and remittance inflow from fiscal year 2000/01 to 2019/20. The total remittance income received in Nepal form 2000-2020. Remittance inflow in Nepal has increased continuously over that period. Worker's remittance inflow has increased from Rs 47216.10 million to Rs. 875026.96 million in 19 years.

Figure 1 reflects the trend of remittance inflow in Nepal in various fiscal years. In the figure, the remittance inflow increases per year but decreases in fiscal year 2019/20.

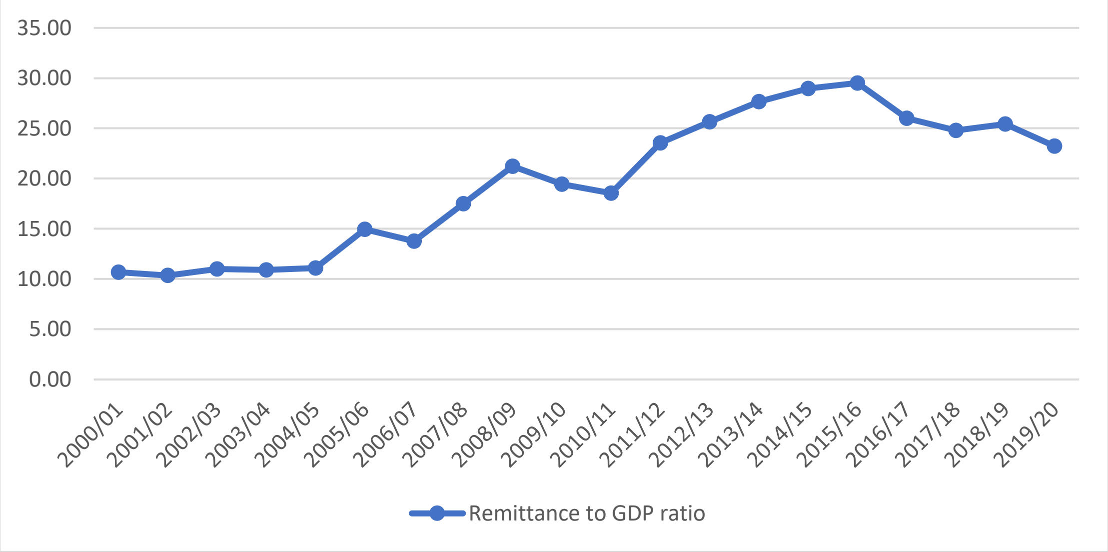
Correlation analysis between GDP and remittance inflow in Nepal shows a positive and strong correlation (r = 0.9867) at a 10% level of significance. This value shows that with an increased amount of remittance inflow economic growth of the country also increases. According to Ekanayake and Moslares (2020), in developing countries, remittance is one of the most stable sources of household income. Remittance affects economic growth by improving credit constraints on the poor, raising national savings, and contributing to the development budget of the country.

Remittance to GDP ratio in Percentage

The ratio of remittance to national GDP was found highest in the fiscal year 2015/16 which is 29.52% of the national GDP ratio making the country highly dependent on remittance. The ratio of remittance to national GDP was found lowest in fiscal year 2001/02 and it is 10.35%. This shows that Nepal is also one of those countries in the world whose economy is highly dependent on remittance.

Figure 2

Remittance to GDP ratio in Percentage



Note. Compiled by the researcher using Excel 2017 using table 1, columns 1 and 4

Figure 2 shows the remittance to GDP ratio from fiscal year 2000/01 to 2019/20. It increases first five years in constant rate and then seems to be fluctuations. Remittance to GDP ratio highest in fiscal year 2016/17 and lowest in 2001/02.

Relationship between Remittance and Inflation in Nepal

Table 2

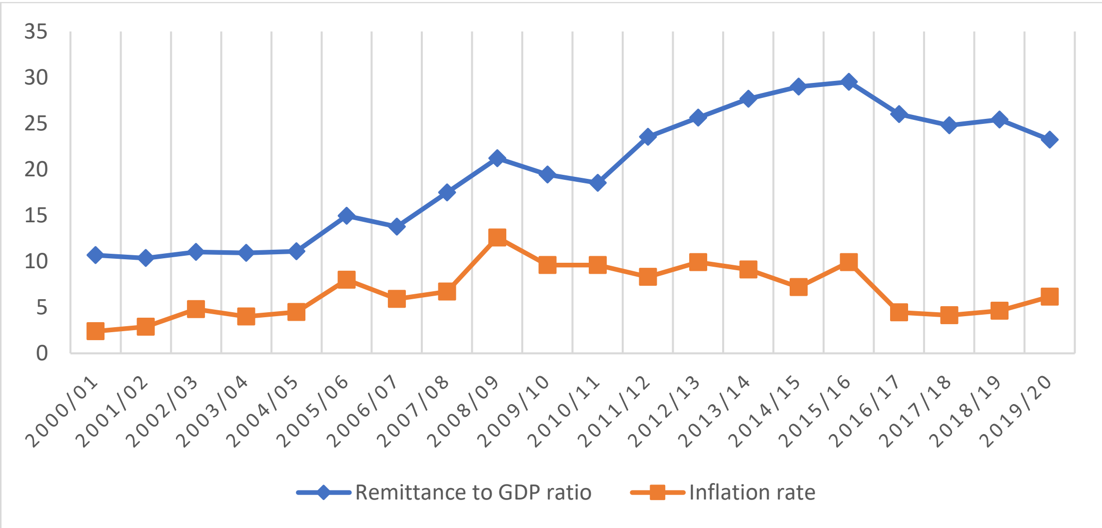
Relationship between inflation rate and remittance to GDP ratio

Fiscal year	Remittance to GDP ratio	Inflation
2000/01	10.69	2.40
2001/02	10.35	2.90
2002/03	11.01	4.80
2003/04	10.92	4.00
2004/05	11.10	4.50
2005/06	14.94	8.00
2006/07	13.76	5.90
2007/08	17.49	6.70
2008/09	21.22	12.60
2009/10	19.43	9.60
2010/11	18.55	9.60
2011/12	23.54	8.30
2012/13	25.64	9.90
2013/14	27.66	9.10
2014/15	28.98	7.20
2015/16	29.52	9.90
2016/17	26.00	4.45
2017/18	24.80	4.15
2018/19	25.42	4.64
2019/20	23.23	6.15

Note. The figures are measured in million rupees. Data taken from Current-Macroeconomic-and-Financial-Situation (2019/20), Current Macroeconomic Situation (2009/10), National-Accounts by Nepal Rastra Bank, Kathmandu, Nepal.

Figure 3

Relationship between inflation rate and Remittance to GDP ratio



Note. Figure 3 based on Table 2

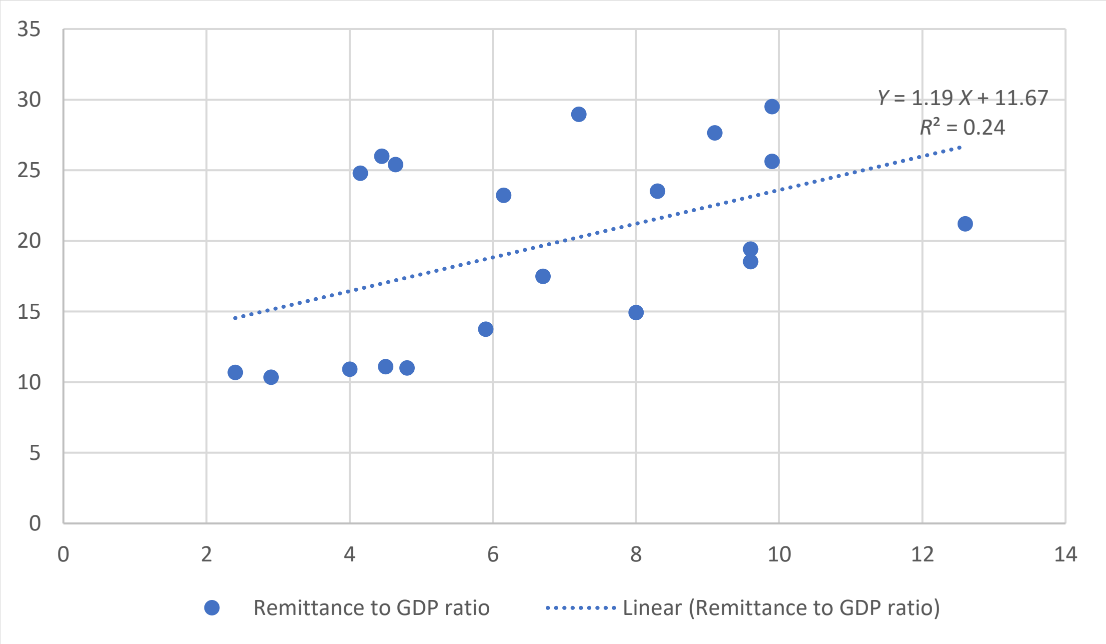
The trend of remittance to GDP ratio is increasing from 2000 to 2020 except in the years 2007, 2011, and 2019 to 2020. However, the trend of the inflation rate is fluctuating reaching to lowest in 2001 (2.4) and highest in 2009 (12.06). For the year

2020, the remittance to GDP ratio is 23.23%, and the inflation rate is 6.15% in Nepal. The relationship between the rate of inflation and remittance to GDP ratio shows a positive but low correlation (0.492) at a 10% level of significance.

In Nepal, growing remittance inflows have increased consumption, but the utilization of remittance in productive sectors has been minimal, it leads tong to inflation. Thus, there is no substantial association between the inflation rate and remittances since remittances may not have a direct influence on the size of the economy.

Figure 4

Scatter Plot Diagram Showing the Relationship Between Inflation Rate and Remittance to GDP Ratio



Note. Authors' calculation

Figure 4 shows that the association between the percentage of remittances to GDP ratio and inflation is positive but low. It means that the increase in remittance inflows in Nepal has a minor impact on inflation.

Conclusion

In globalization, there is a growing tendency in Nepal for people overseas in quest of better work prospects and higher education. Remittances to the country are increasing as more people go to foreign countries to earn money. Remittance has become the main and largest source of foreign currency in Nepal. When foreign remittance inflow increases, it leads to an increase in GDP and consumption

Expenditure, and then the trade deficit also increases. While agricultural activities are decreasing with increased remittance. Moreover, a very small portion of remittance received in Nepal is being used in the productive sector of the economy. Then most of the remittance is used for daily household consumption and comfort/luxury goods. Our country's trade deficit is growing as a result of less investment and increased consumption. In Nepal, the inflation rate is rising as money income in the form of remittances rises, increasing consumption but not considerably expanding production. All of these circumstances are favorable to expanding the gap between rich and poor.

In the short run, growing remittance inflows benefit the economy by increasing household consumption and lowering poverty, but in the long run, they may contribute to economic decline. Therefore, the government must develop strategies, policies, and programs to stimulate long-term investment in productive sectors through remittances to support long-run economic growth and sustainability of our country.

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