Role of remittance in GDP growth of Nepal

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ABSTRACT

This article deals with the analysis of role of remittance in gross domestic production (GDP) growth of Nepal where compression is made with import and export as well. Considering the GDP as dependent variable and the remittance, import and export as the independent variables,the analysis is performed based on the secondary sources of data published by Nepal Rastra Bank (NRB) in last 10 years (2012-2022) and other data available in literatures using the linear models under multiple regressions.The role of remittance has been seensignificanteffect on the GDP. For the mentioned study period, average GDP growth is 4.49% however it was in decreased by 2.36% in the 2019/20. The possible reason of the decrease will be due to the outburst of COVID-19 pandemic worldwide. At the same time, average remittance inflow was 11.09% where it was negative 0.48% in 2020/21. In addition, the flow of remittance is rising, which boosts economic expansion and import volume. Imports make up two thirds of all trade, with exports accounting for the remaining below one third. Economic growth is positively impacted by both imports and exports. When the effects of exports and imports are combined, exports have a negative impact on Nepal's economic growth. Exports have no beneficial effect on economic growth, despite favorable effects from imports.

Key words: remittance, imports, exports and GDP, Remittance and GDP, Inflow

INTRODUCTION

Remittances are a substantial source of foreign cash and are recognized in many developing countries as a crucial tool for decreasing extreme suffering. These involve the distribution of money as a bill, an invoice, or even a gift between parties. However, the term "remittance" is used more widely to describe the money that migrants send to their family members while working and living abroad. Transfers of workers or migrants are other names for them. Due to the rising opportunities for foreign labor and population mobility, the countries have recently witnessed an upsurge in remittances. Given the increase of remittances, it is not surprising to observe how they impact the economies of underdeveloped countries. The raises the issue of how effectively policymakers should use significant inflows of cash. Since developing countries' main objectives are strong and sustained economic growth, it is crucial to assess the value of remittances for these countries in terms of how they influence the recipient's economic situation.

The total monetary worth of all the goods and services produced inside a nation's boundaries over a given time period is known as the gross domestic product (GDP) of that nation. Although GDP is typically measured annually, it can also be calculated quarterly. For instance, the US government releases its GDP on a regular and annual basis. The GDP is sometimes seen as a scorecard for a country's economic health because it gives a comprehensive gauge of a nation's output. Remittances, exports, and imports all contribute significantly to the GDP growth of developing nations like Nepal.

A country has a trade imbalance if the value of its imports exceeds the value of its exports. Most of the time, countries will import goods or services if their own industry cannot do so efficiently or cheaply in the exporting country. In addition, if a country's borders prohibit the import of a good or a raw resource, it may import them. As an illustration, many countries import oil because they cannot produce it domestically or because there is not enough supply to meet demand. Frequently, free trade agreements and tariff schedules list the goods and commodities that are less expensive to import. Which products and resources are less expensive to import frequently depends on free trade agreements and tariff schedules. The benefits and drawbacks of imports are disputed by economists and policy specialists.

Remittances, according to the World Bank (2021), typically lower the level and severity of poverty, which has positive effects like increasing human capital accumulation, improving health and education spending, improving access to information and communication technologies, boosting small business investment, improving preparedness for adverse shocks like natural disasters, and contributing to a decrease in child labor.

Solimano (2003) had a similar viewpoint when he claimed that remittances function as a beneficial instrument for the growth and development of recipient countries due to their influences on consumption, investment, growth, and savings.

Musaduzzaman(2014)conducted a study on Bangladeshi workers that found a long-term positive association between remittance inflow and gross domestic product, showing that remittances are more likely to contribute to Bangladesh's longer-term economy. Remittances are also shown to have a considerable positive impact on GDP and financial growth. The ratio of bank deposit credit to the private sector and the money supply to GDP are both used in the study to examine the relationship between financial development and remittance inflow. It turns out that remittances have a very good impact on economic growth. The surge in domestic spending brought on by trade surpluses displaces resource allocation and appreciates real exchange rate in a small dependent country was studied by Salter and Swan (Salter 1959; Swan 1960). According to Javaid (Javaid 2011), remittances would result in a significant cash inflow, which will eventually lead to the spread of the Dutch Disease throughout the nation. Remittances may also be referred to as "capital influx," "private help," and other words. Different terms are the result of various studies. Remittances are viewed in our study as "resources (labor) revenue" from overseas.

Lartey, Mandelman and Acosta 2012, According to the argument, as remittances are sent into the country, more money is available to spend and the demand for both tradable and non-tradable items would rise. As a result, "spending effects," one of the Dutch Disease phenomena, will occur. Prices will rise when demand for both tradable and non-tradable goods is higher. Due to the rise in prices, the country's ability to compete internationally in the commerce sector may be jeopardized because domestic customers are more likely to purchase foreign imports that are significantly less expensive than domestic goods. In a case study of Pakistan, Ahmed and Muhammad (Ahmed and Muhammad2009) discovered that the early 1980s, notably 1982–1983, coincided with a strong inflow of remittance from the Middle East and saw the highest induced growth rate by remittance to production growth.

While the micro economy focuses on using remittances for family social security, consumption, and investment at the home and community level, the macroeconomic base primarily focuses on the GDP, including foreign reserve and balance of payment, capacity to import products, etc. Remittances sent by foreign migrants are a relatively reliable source of income, according to the study.

Pant 2013,conducted research on utilizing remittances in Nepal for productive purposes and discovered that remittances increased from Rs47.5 billion in 2001/02 to Rs142.7 billion in 2007/08. Furthermore, the proportion of remittances received through the authorized method has been increasing. Similar to this, the percentage of remittances to GDP ratio climbed from 10.3% in 2001/02 to 17.4% in 2007/08. In this regard, an analysis of the contribution of remittances to GDP growth in relation to imports and exports was made. This study's major goals are to examine how remittances contribute to Nepal's GDP growth and to examine how imports, exports, and remittances relate to GDP.

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Neupane (2011) According to the study, remittances are important for raising both domestic consumption spending and a country's GDP. Yet, since a major amount of remittances were spent on the unproductive sector, remittances have decreased domestic investment in the country.

Malekoo (2015), The gross domestic product and the total amount of commercial banks' deposits are positively and significantly impacted by remittance inflow. The study also reveals that consumption and capital formation formations significantly and favorably affect the nation's GDP.

According to International Monetary Fund (IMF 2018) remittances refers to income of household from the temporary or permanent movement of people to those economies. Remittances include cash and noncash items that flow through normal channels, such as via electronic wire, or through informal channels, such as money or goods carried across borders. The largely consist of funds and noncash times or sent or given by individual who have migrated to a new economy and become residents there, and the net compensation of border, seasonal, or other short-term workers who are employed in an economy in which they are not resident"(IMF, 2006). Few researchers also supported the positive relationship between remittances and financial development tends to improve the economy in the home country (Chowdhury, 2011; Aggarwal, Demirguc- Kunt&Peria 2011, Giuliano, Ruiz-Arranz, 2009). A sound institution environment also plays an important role on attracting investment and securing the financial sector as well as quality of services. It then encourages the household to the use of their saving for investment purpose (Catrinecu, Leon- Ledensma, Piracha, Quillin, 2009). However, increase in remittances inflow might deteriorate the institutional quality (Abdih, Chami, Dacher, Montiel, 2011). The inflow of remittances may have a broad effect on the decision of recipients about labor market participation, consumption, investment, education, migration, and shelter with potential implication for the country's long run economic performance (Repo port and Daiquiri, 2005, p.6). Remittances have a direct effect on recipient through serving as a source of income, regardless of the motives of the remitter.

However, remittances inflow has raised up the concern of losing competitiveness in international market will stunt the economic growth in long term. Economist pointed out the possibility of the countries to behave like "youngster" nowadays which is "enjoyed first, suffer later".

RESEARCH METHODOLOGY

The analysis is based on secondary data that was gathered from Nepal Rastra Bank annual reports from 2012 to 2021. An analysis of secondary data used a descriptive research strategy. For additional model description, statistical tools including mean, standard deviation, correlation, and regression were used. For data analysis, MS Excel and SPSS are used. The research mentioned above provides a model equation. The equation explains the relationships between the dependent and explanatory variables. The study uses linear and multivariate models to investigate the relationships between dependent and independent variables.

$GDP = \alpha_0 + \alpha_1 REM + \alpha_2 EXP + \alpha_3 IMP + U$

Where, IMP= Import

REM= Remittance

EXP = Exports

GDP = gross Domestic Product

U = Error term

$\alpha0$, $\alpha1$, $\alpha2$, $\alpha3$ are the coefficients.

RESULT AND DISCUSSION

To explore the role of remittance for GDP growth in Nepal, relationship between the dependent and independent variables are analyzed. The collected data were tabulated for further comparison. Table 1 show the result based on available data. In table 1,the percentage change of GDP from year 2012/13 to 2021/22 is shown in second column and the corresponding change in the remittance, imports and exports were presented in third, fourth and fifth column, respectively.

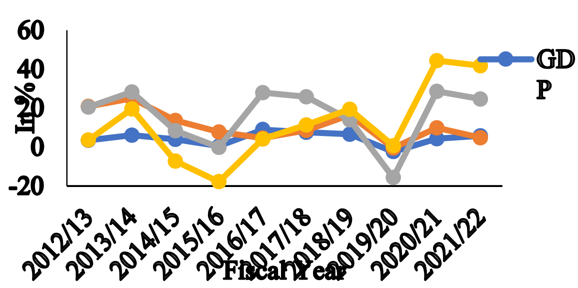
Table 1. Yearly Percent change of variables from 2012/13 to 2022

Year	GDP	Remittance	Imports	Exports
2012/13	3.52515	20.86675	20.5933	3.57666
2013/14	6.01148	25.01541	28.3122	19.5982
2014/15	3.97605	13.61780	8.44363	-7.2532
2015/16	0.43311	7.74132	-0.1401	-17.818
2016/17	8.97728	4.56920	27.9879	4.18144
2017/18	7.62238	8.57085	25.7536	11.3769
2018/19	6.65706	16.45075	13.9291	19.3581
2019/20	-2.3696	-0.48272	-15.631	0.61743
2020/21	4.24694	9.83142	28.663	44.4329
2021/22	5.83752	4.81266	24.7176	41.7412
Average	4.49173	11.099344	16.2629	11.9812

Source: NRB annual reports

In the table 1, GDP is 3.525 in the year 2012/2013 and increases to 6.011 in the year 2013/2014. Similarly, it decreases in the two year 2014/2015and2015/2016with 3.97 and 0.433 respectively. There is a little bit fluctuation up to the year 2018/2019 but in the year 2019/2020 due to the pandemic of COVID 19, the GDP is negative i.e.-2.369. Similarly, the average GDP is 4.491.The remittance is 20.866 in the year 2012/2013 and fluctuations are seen up to the year 2018/2019. Similarly in the year 2019/2020 there is seen negative in the remittance i.e., -0.482 due to the COVID 19outburst. The average remittance is 11.099%, average imports are 16.26% and average exports is 11.98% in the study period.There is seen negative in the year 2015/2016 i.e., -0.14. Moreover, there are seen fluctuations in the remaining year except in the year 2015/2016 and 2019/2020. The average value of exports is 11.98. The highest value of exports is 44.43 in the year 2020/2021 and lowest value of exports is -17.81.The figure1 clearly shows the fluctuations and relationships of variables.

Figure.1 Variables' percentage changes during the previous ten years.



Source : NRB annual report analysis

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The correlations between the variables are shown in the table 2 below. The correlation coefficient between exports and import is positive and moderate degree which is 0.60. The correlation between export and GDP is positive degree 0.67, the correlation between exports and remittances is positive and low degree i.e. 0.05. Similarly, the correlation between imports and GDP has high degree of relation which is 0.86. The correlation between imports and remittance also has positive and moderate relationship which is 0.41. And lastly remittance and GDP has positive relation.

Table .2 Correlations between variables.

	GDP	*Remittance*	*Imports*	*Export*
GDP	1			
Remittance	0.2897068	1		
Imports	0.8617577	0.412275	1	
Export	0.3943043	0.050123	0.602102	1

Source: researcher's analysis

The correlation coefficient between the imports and GDP is very high degree. The correlation between remittance and exports is low degree of positive. It is usual looking to the effect of the remittance. Due to the increment in total remittance the imports, exports of the selected study period is increased when there is increase in remittance. Due to the increment in total remittance that is simultaneously increasing the total trade, import and exports. This increment in the total remittance is increase than reduce the poverty and increase the GDP.Represents the regression result of the effect of remittance, imports, and exports on GDP. The value of R square indicates 0.7811 which is 78.11% of the variance in the dependent variables that the independent variables are explained by the model.

Table .3Impact of Regression on imports, exports and remittance with GDP

R	R Square	Adj. R Square	Std. Error	F	Significance F	p-value
0.883809	0.781118	0.671677	1.943506	7.13733	0.0209653	0.203092

Source: Calculation of data

The independent variable along with constant term is statistically significant at five percent level. The adjusted coefficient of determination $(Adj. R^2)$ is 0.6717 which is 67.17% and it shows that the model is fit which means that dependent variable GDP depend on import, remit, and exports 67.17 percent and remaining 32.83 percent others. The F-statistics shows the overall fitness of the model. The value of F is high and its p value is statistically significant at 5 percent. The coefficient is 2.15 which show one percent increase in the real import whereas, exports and remit increases real GDP by 2.15 percent.

The coefficient of GDP is positive and significant, meaning that increases in the real import trade increases economic growth in Nepal. The positive and significant coefficient confirms that real imports cause the economic growth to rise. The positive value of independent variables and GDP indicates country imports of raw material, technology, human capital etc. and these factors contribution domestic economy.

CONCLUSION

The study was conducted to analyze the role of remittance in GDP growth with the help of secondary data. Domestic data sets published by Central Bureau of Statistics (CBS) Nepal from its National Accounts Section are collected for the period 2012/13 to 2021/22.The coefficient of remit is positive, meaning that increases in the real total trade which increases economic growth in Nepal. The positive coefficient conforms that remit causes the economic growth to rise. Due to the increment in total remittance, there simultaneously increase in the import and exports. This increment in the total remittance reduces the poverty and increase the GDP. The study reveals that economic growth is low and unstable in Nepal. Real imports trade is increasing very fast whereas real exports are not following import trends.

The results infer that Nepalese economy is dominated by import trade. Import substitution policies are now also a remedy for Nepalese economy. At least basic goods should be sufficiently produced at the domestic level so that imports are sustainably reduced. Export competitiveness is too weak for Nepal economy. Therefore, trade as well as production policies should be linked to export promotion. To utilize remittance in long term investment government should priorities the remittance income for investment and should be applying policy to maximize consumable goods production.

Recommendation

Most of the part around 95 percent of remittances is only spent on daily consumption by earning group so government should formulated saving increasing policy. The results infer that Nepalese economy is dominated by import trade. Import substitution policies are now also remedy for Nepalese economy. At least basic goods should be sufficiently produced by domestic level so that imports are sustainably reduced.

Export competiveness is too weak for Nepal economy. Therefore, trade as well as production policies should be linked to export promotion. The results infer that Nepalese economy is dominated by import trade. Import substitution policies are now also remedy for Nepalese economy. At least basic goods should be sufficiently produced by domestic level so that imports are sustainably reduced.

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