

Money from Abroad, Growth at Home: The Role of Remittances in Pakistan's Economy

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Abstract

The impact of international remittances on Pakistan's economic growth and income over the years 2000 to 2023 is explored in this study. Foreign exchange is mostly driven in Pakistan by remittances, after the amount of foreign direct investment. Using information from the World Development Indicators (WDI) and performing regression analysis in EViews, this analysis finds that remittances are related to higher GDP growth and GNI, with statistical significance. Although the remittance variable has a positive coefficient in the GDP growth model, the model faces problems with a low R-squared value and possible autocorrelation. Meanwhile, the GNI model shows good performance, as remittances explain 78.86% of how GNI changes. The evidence indicates that remittances greatly support Pakistan's national income and economic development and to solve problems and omitted variable biases, more studies are necessary. The research ends by suggesting policies that could help remittances support financial security, economy stability and sustainable development.

Key words: Remittances, GDP Growth, GNI Gross National Income, Pakistan's economy, Economic development

Introduction

For developing countries, the finances sent home by workers who live abroad are now crucial for their economy. Remittances are now a major source of foreign exchange in Pakistan, just behind foreign direct investment (FDI) in the aspects of volume and influence (as shown by Hussain & Anjum, 2014). The funds transmitted from overseas not only back up domestic consumption but also contribute to the main factors of the economy, like GDP, GNI and foreign exchange reserves.

Remittances provide many different benefits to the economy. On a positive note, banks lessen the problem of domestic credit, support new investments and help build up human capital (Abduvaliev & Bustillo, 2020). At the same time, Microfinance fills in for weak financial services in places where typical banking is not widely available (Giuliano & Ruiz-Arranz, 2009). It is very important for Pakistan, with a large number of people earning abroad, to study how remittances support economic development for better policy decisions.

In this study, the effects of personal remittances on Pakistan's economy are studied by focusing on GDP growth and GNI. Data from the World Development Indicators (WDI)

covering the years 2000 to 2023 is used by the research to find out how remittances affect economic growth and other results. As a result, it provides proven insights that support better budgeting, investment decisions and access to finance across the country.

Research Question of the Study

How does the remittances influence the Economic growth of Pakistan?

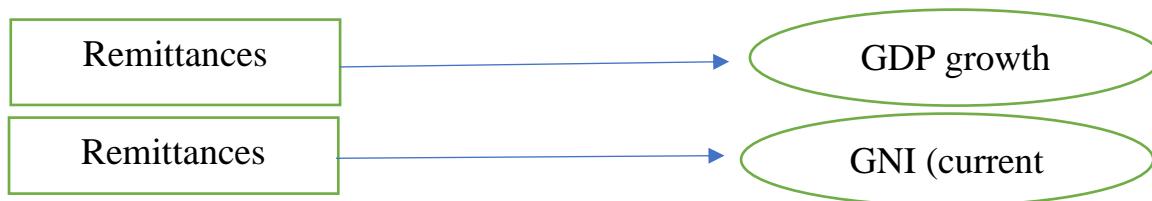
Research Objective of the Study

Study aims to find the impact of Remittances on Economic growth of Pakistan

Variables of the Study

Research study contains the three main variables Personal remittance received (% of GDP) as independent or predictor, GDP growth (annual%) as dependent variable or outcome, and Gross National Income GNI (current US\$) as supporting variable

Framework of the Study



Hypothesis of the Study: Remittance has a positive impact on economic growth of Pakistan and it helps to increase in Pakistan's liquid foreign exchange Reserves position.

Literature Review:

Remittances are the funds which are earned by international migrants and send back them to countries of origin. Remittances have major contribution to GNI Gross National Income of country which is the sum of GDP plus net receipts of compensations of employee and property income they earned from abroad(Ghosh, Powell et al. 2010). (Hussain and Anjum 2014) Have defined that the worker's remittances have a positive and significant impacts on economies of developing world, and after FDI it is the second largest source of financial inflow. Positive effects of remittances on growth and development likeability of developing world include impacts of remittances on domestic investment , balance of payment, ease domestic credit constraints, exports, diversification of economic activities level of employment and wages, human capital development and technological progress (Abduvaliev and Bustillo 2020). Financial inflow through remittances have considerable impact on standard living of country (Capelli and Vaggi 2016). (Giuliano and Ruiz-Arranz 2009) Present evidence that remittance can be used for consumption and these remittances also used for investment. And this case is particularly for in countries where the financial sector is unable to meet with credits needs of local entrepreneurs SMEs. Remittances have role in overall

income distribution in the initial stage income distribution depends on the magnitude of remittances in relation to income from other sources(Stark, Taylor et al. 1986). Remittances played vital role become a catalyst for the supply of basic needs such as education and health for developing countries (Amakom 2009). Flow of remittances between two countries is known as bilateral remittances(Abduvaliev and Bustillo 2020). In some Asian countries, the influence of financial development, foreign aid, and remittances, on human development was investigated by. Gillani and Fouzia In their investigation about the influence of financial development, foreign aid, and remittances on development of human. Through the random effect technique. The findings of there study demonstrate how improvement in human development and living standard effected by the increase in foreign aid and remittances in the Asian economies. And, the study also emphasizes that the how financial prosperity play role to support both human accumulation and urbanization. (Gillani, Fouzia et al. 2023)

Methodology of the Study:

The purpose of this study is to examine how the remittances impacts the economic growth of Pakistan. Study is conducted through the quantitative research design. The main element of this study is those which elements are closely engaged in the economic growth of Pakistan impacted by remittances. As we know that it will not easy to collect data on primary research data base such as survey, interviews, and examine personally. So, decision made to examine how remittance impact the economic growth of Pakistan will based on secondary data collected from WDI data base. For regressions I have select the time series from 2000 - 2023. Furthermore, following methods and procedures were used in examination to how remittance impact the Economic growth of Pakistan.

Data Collection:

Prefer to use secondary data for the paper and data collected from WDI data base.

Data Analysis Technique:

Data analysis techniques including correlation and regression tools which are used to analyze the data. Moreover, to run these tools, Microsoft excel, STAT, and EViews software were helpful.

Results

Results are computed through the EViews software which is bellowed respectively

Remittances and GDP growth

As I selected Remittances as independent variable and GDP growth as dependent variable result is accordingly

Econometric Model

Econometric model for the Remittances and GDP growth

$$GDPGrowtht = \alpha_0 + \alpha_1 \cdot Remittancest + \epsilon_t$$

On the basis of this model, I have run ordinary least square method the result is below

Dependent Variable: GDP_GROWTH

Method: Least Squares

Date: 05/24/25 Time: 19:03

Sample: 2000 2023

Included observations: 24

Variable	Coefficient	Std. Error	t-Statistic	Prob.
REMITTANCES	0.628019	0.110968	5.659453	0.0000
R-squared	-0.875281	Mean dependent var	4.027063	
Adjusted R-squared	-0.875281	S.D. dependent var	2.203021	
S.E. of regression	3.016838	Akaike info criterion	5.087069	
Sum squared resid	209.3301	Schwarz criterion	5.136155	
Log likelihood	-60.04483	Hannan-Quinn criter.	5.100091	
Durbin-Watson stat	0.843730			

Analysis of the Relationship Between Remittances and GDP Growth

Table present the result of an Ordinary Least Square (OLS) regression that analyze the impact of remittance on GDP growth in sampling covering years from 2000-2023 which are 24 observations. The dependent variable in the model is GDP growth while independent variable is Remittances in model.

Results

The regression shows the positive and statistically strong relationship between remittances and GDP growth with coefficient = 0.628, p-value 0.000. However negative R-squared = -0.875 and low Durbin-Watson statistics= 0.84 suggest model issues such as fit and autocorrelation

Remittances and GNI (CURRENT US\$)

As I selected Remittances as independent variable and GNI (Current US\$) as dependent variable result is accordingly

Econometric Model

Econometric model for the Remittances and GNI (Current US\$)

$$GNIt = \beta_0 + \beta_1 \cdot Remittances + \mu_t$$

On the basis of this model, I have run ordinary least square method the result is below

Dependent Variable: GNI

Method: Least Squares

Date: 05/24/25 Time: 19:07

Sample: 2000 2023

Included observations: 24

Variable	Coefficient	Std. Error	t-Statistic	Prob.
REMITTANCES	4.39E+10	1.54E+09	28.51141	0.0000
R-squared	0.788566	Mean dependent var	2.30E+11	
Adjusted R-squared	0.788566	S.D. dependent var	9.10E+10	
S.E. of regression	4.18E+10	Akaike info criterion	51.79284	
Sum squared resid	4.03E+22	Schwarz criterion	51.84193	
Log likelihood	-620.5141	Hannan-Quinn criter.	51.80587	
Durbin-Watson stat	1.054554			

Analysis of the Relationship Between Remittances and Gross National Income

Table present the result of an Ordinary Least Square (OLS) regression that analyze the impact of remittance on GNI in sampling covering years from 2000-2023 which are 24 observations. The dependent variable in the model is GNI while independent variable is Remittances in model.

Results

The regression analysis reveals the strong and statistically significant positive relationship between remittances and Gross National Income GNI.

The coefficient of remittances is 4.39×10^{10} Indicating that for every one unit increase in remittance (in Current US\$) will lead to increase in GNI of \$43.9B.

This relationship is highly significant with a t-statistics of 28.51 and p-value of 0.00 confirming that the effect of remittance on GNI is no due to chance. The model explains approximately 78.86% of the variation in GNI $R^2 = 0.7886$, showing a strong fit. The standard error of the regression is 4.18×10^{10} which reflecting the average deviation of the observed values from the predicted ones. However, the Durbin-Watson statistic is 1.05 which suggests potential positive autocorrelation in the residuals, indicating that further diagnostic testing may be necessary. Overall, the results provide strong evidence that remittances significantly contribute to GNI.

Conclusion

It can be concluded that; there is the positive and statistically strong relationship between remittances and GDP growth. However negative R-squared and low Durbin-Watson suggest model issues such as fit and autocorrelation and in other relationship which is remittance and GNI reveals the strong and statistically significant positive relationship between remittances and Gross National Income (GNI). However, the Durbin-Watson statistic is 1.05 which suggests potential positive autocorrelation in the residuals, indicating that further diagnostic testing may be necessary. Overall, the results provide strong evidence that remittances significantly contribute to GNI.

Limitations of the study

- A negative R-squared with GDP Model shows the regression misspecification is shown by the negative R^2 .
- Only a Few Things to Consider:
 1. Only remittances are used as a predictor and others important in affecting GDP or GNI are not included in the study. As a result, there was omitted variable bias.
- The Time Frame was from 2000 to 2023.

Gaps of only 24 years in the data can create errors because events such as global financial crises, COVID-19 and changes in policies can affect the trends.

Policy Formulation:

Because remittances have a good effect on both GDP and GNI, governments ought to remove obstacles for laborers abroad and help them make easy and low-cost transfers.

Foreign Exchange Reserves include

When remittances help increase Pakistan's foreign exchange reserves, the country could limit its borrowing from others which may balance payments.

How Islington Sustainability Strategy is Incorporated into Development Planning
National development and fiscal plans ought to officially recognize remittances because they usually provide a reliable flow of money.

Financial Inclusion:

Preferring to use legal ways to transport money helps more people include in the financial sector, specifically in rural places.

Investment Opportunities:

Remittances that have shown to bring benefits may be used for things like SME development, supporting education and upgrading infrastructure.

More research is needed here.

This study shows that there is a need for better econometric models, greater use of control variables and a breakdown of where remittances go for each industry.

Macroeconomic Stability:

Because remittances help absorb financial shocks, central banks can take them into account in making monetary and currency decisions.

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