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Impact of Foreign Remittances on Macroeconomic Variables in Receiving Countries

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ABSTRACT

This paper investigates how workers' remittances impact macroeconomic variables, income distribution, and living standards in receiving countries, specifically Pakistan. Remittances are injections into the economy, which, through the multiplier effect, increase the total amount of money circulating in the economy. Money injection causes demand-pull, cost-push, and imported inflation, which depreciates the currency. Depreciation of the currency does not increase exports of the receiving country because the Marshall-Lerner-Condition does not hold in Pakistan. Remittances increase the standard of living, consumption level, and aggregate demand. The interest rate rises because the LM curve in the money market shifts to the left due to a reduction in the real money supply. The supply of labour is reduced, which in turn increases the country's dependency ratio. Immigration leads to acculturation. The injection of money decreases the Gini coefficient, showing a fairer distribution of money. Remittances reduce macroeconomic volatility and have a negative impact on the current account component of the balance of payments because a rise in imports is more than the rise in exports. Remittances positively impact the capital account of the balance of payments and increase the country's foreign exchange reserves. The financial gap between the haves and have-nots decreases. Owing to remittances, the borrowing requirements of the receiving country decrease.

INTRODUCTION

In reality, foreign remittances are vitally important for the survival and development of developing countries' economies. They have exponentially increased in the past few years and are now the largest source of foreign exchange earnings for them. Migrants from India contributed \$125 billion in 2023 which was 3.4 percent of its GDP; Pakistan received \$24 billion in 2023, which was 7 percent of its GDP. Pakistan is among the top four remittance -receiving countries in the world. India is at the top of the list of remittance-receiving countries. Remittances are a major source of foreign exchange earnings for Pakistan. In Pakistan, remittances consistently grew between 2015 and 2021 but decreased from \$31.3 billion in 2022 to \$24 billion in 2023. Saudi Arabia, the UAE, the USA, and the UK are the main sources of remittances to Pakistan.

Remittances are more uniformly distributed among developing countries as compared to capital flows and foreign direct investment (FDI). They reduce the number of poor people (Adams and Page 2003,2005; Gupta, Patillo, and Wagh 2009) in receiving countries. They improve the standard of living (real per capita income) in receiving countries. Migrants are invisible exports of the receiving countries. Remittances reduce the gap between the haves and have-nots.

Table 1 speaks volumes about the emigration level from Pakistan. Net negative migration of Pakistan was recorded to be 1.6 million people, the highest of all countries in 2023. The government must make it more orderly and safe, discouraging the brain drain. "The percentage of highly qualified/skilled out-migrants has remained less than 10 % of all registered migrants for most of Pakistan's migration history since 1971. The percentage of doctors, teachers, and IT experts comprised about 0.4%, 0.2%, and 0.3% respectively, among all migrants" (Pakistan Migration Report 2024).

Table 1 lists the top 14 countries that are losing people to other countries. The emigration rate of Pakistan has been continuously increasing over the last decade. Pakistan is at the top of the list of net negative migrant population and even surpasses India.

**Table 1. Net Negative Migration of 14 Countries in 2023
(in descending order)**

S. No.	Countries	Net Migration
1	Pakistan	-1.6M
2	Sudan	-1.4M
3	India	-979K
4	China	-568K
5	Bangladesh	-550K
6	Nepal	-410K

7	Turkiye	-318K
8	Ukraine	-300K
9	Brazil	-240K
10	Phillippines	-164K
11	Greece	-159K
12	Uganda	-126K
13	Venezuela	-113K
14	Mexico	-101K

Source: UN World Population Prospects 2024

LITERATURE REVIEW

This paper aims to examine how remittances impact macroeconomic variables, the standard of living, and the distribution of income in the receiving country.

Different studies regarding the relationship between remittances and economic growth have contradictory conclusions. Remittances negatively impact economic growth in Pakistan (Sutradhar,2020), and remittances positively and significantly impact GDP growth in Pakistan (Hussain & Anjum, 2014). Per capita consumption at the aggregate level increased by 0.59 due to a unit increase in the per capita remittances (Ahmad, N. 2014). This is another indication of a rise in the standard of living due to remittances.

In reality, the impact of remittances on the exchange rate and inflation in the receiving countries is complex and depends on so many countervailing factors that vary from country to country. Pakistan is a politically unstable and economically weak country, and needs foreign exchange to buy oil and machinery and pay loans. Remittances are therefore highly needed for these purposes. Remittances enable a country to import more goods and services than it otherwise could. An exchange rate will rise if a flexible exchange rate system makes foreign goods and services cheaper and domestic goods expensive for foreigners, provided the Marshall-Lerner condition holds. In most countries, the domestic money supply will increase due to the remittances, because the demand for the receiving country's currency increases. This exerts upward pressure on the exchange rate, which in turn makes the receiving country's exports more expensive than imports, resulting in exports being less competitive on the international market. When the supply of foreign currency increases, the state bank will buy and sell its foreign currency to protect its exchange rate. Remittances can increase consumer spending, which can increase demand-pull, cost-push, and imported inflation. However, the caveat is in order; the state bank can curb inflation by increasing interest rates or decreasing the money supply.

The direction of labour flows is from developing low-wage countries to relatively developed high-wage countries (Ratha,D. (2013). A study reveals that a 1%

increase in remittances as a % of GDP leads to a 22% drop in poverty (Asian countries. 1981-2014 evidence).

GDP in the current prices of Pakistan in 2024 was 375 billion US\$. It means 1% of the GDP of Pakistan amounts to 3.75 billion US\$; if remittances increase by this amount, the poverty level in Pakistan will decrease by 22%. In another study, it was concluded that *ceteris paribus*, remittances increase the per capita income and reduce the poverty level of the households both in rural and urban areas (Iqbal, Asif. (2013).

Remittances may adversely affect economic growth through currency depreciation, thereby making exports less competitive in the international market (Ratha, D. 2013).

Most of the time, remittances are used for conspicuous consumption rather than productive investment (Hassan, 2017).

METHODOLOGY

Math Type 4 and WordPerfect X4 software were used to write mathematical equations and draw figures in this paper.

Impact of remittances on the GDP

The aggregate growth effects of remittances on recipient economies remain uncertain; because of several countervailing factors. Remittance can increase economic growth due to increased investment and easy credit. They may help in initiating self-employment and new small-scale businesses. On the other hand, remittances may foster conspicuous consumption and decrease savings. Also, if remittances are more than the recipient's expected earnings from work, it may discourage labour force participation and thus; increase the dependency ratio and induce voluntary unemployment. Thus, the remittances-output relationship has been noticed to be positive for some countries, while it is negative for other countries. Remittances have been noted to negatively impact economic growth in Bangladesh, Pakistan, and Sri Lanka, while they have had a positive impact on economic growth in India (Sutradhar, S.R., (2002)).

Inter-relationship between various economic variables

Let us consider a developing country like Pakistan that is receiving remittances from its migrants. According to the Fischer equation of exchange $M\bar{V} = P\bar{T}$, an increase in money supply (M) due to an increase in remittances causes the price level (P) to rise; this increase in prices causes interest rates to rise in the money market because the real supply of money decreases. This rise in the interest rate increases the inflow of money, positively impacting the capital account component of the balance of payments. Inflation makes exports less competitive in the international market; which causes a reduction in exports causing decreased demand for our currency by foreigners, leading to the depreciation of Pakistan rupee.

According to the purchasing power parity (PPP) formula, $E_{Pak} = \frac{P_{world}}{P_{Pak}}$, when P_{Pak} rises E_{Pak} (exchange rate) falls. Since the Marshall-Lerner-condition does not

hold in the case of Pakistan (Azim, P. 2017), a fall in the exchange rate does not increase Pakistan's exports. It is also to be noted that inflation reduces the real wage rate in the labour market. Remittances increase consumption (Nisar, A. 2007), which increases the aggregate demand for both durable and nondurable goods which results in inflation. The impact of remittances on the output in the receiving countries is uncertain. Remittances adversely affect net exports; because the marginal propensity to import is greater than the marginal propensity to export. In the case of Pakistan, the marginal propensity to import (MPM) and marginal propensity to export (MPX) are 0.33 and 0.088, respectively. Thus, income-induced imports are more than income-induced exports, which decreases net exports. Negative net exports mean the current account component of the balance of payments is negatively impacted.

Human costs of immigration

Foreign remittances have human costs. Migrants make significant sacrifices in the shape of separation from their near and dear ones and face the risk and hardship of finding work in other countries. They face cultural shock, language barriers, climatic adversities, and other oddities. Most of the time they must work extremely hard to save enough out of their meager earnings to send money to their families. Furthermore, migrants may drown during their journeys in small dinghies and trawlers or caught and end up in jail as illegal migrants in transit. Many migrants drown during their ordeal. More than 10,000 migrants died in 2024 (BBC News).

Impact of remittances on macroeconomic volatility

Regarding the countercyclicality of remittances, volatility tends to increase during economic recession (contraction) or after a natural disaster like floods or earthquakes in the migrant's home countries. They provide an economic lifeline to the poor. The injection of money into the economy in the form of remittances acts as a cushion. It reduces the magnitude of amplitudes and duration of the economic cycle. Remittances increase investment, decrease unemployment, and enhance the GDP growth rate. For example, foreign remittances in Pakistan grew from \$9.69 billion in 2010 to \$26.56 billion in 2023. It showed an annual compound growth rate of 7.96 percent. The GDP grew from \$173 billion in 2010 to \$374.6 billion in 2024. The current account deteriorated from negative \$13.1 billion to negative \$24.8 billion in 2023 and positive 0.582 billion in 2024. (Table 2). According to the smoothing hypothesis, remittances are countercyclical concerning income in the worker's home country and procyclical for income in the worker's host country (the sender of the remittances) Jeffery (2009).

Impact of remittances on the interest rate

According to the quantity theory of money ; a rise in money supply causes inflation.

The quantity theory of money in terms of equation is stated as given below. The causality runs from money to prices. Foreign remittances increase money supply which increase prices in the country.

$M_S \bar{V} = P_R \bar{Y}_R$ taking its log and differentiating with respect to time yields

$\% \text{ change in } M_S + \% \text{ change in } \bar{V} = \% \text{ change in } P_R + \% \text{ change in } \bar{Y}_R \Rightarrow$

$\% \text{ change in } M_S = -\% \text{ change in } \bar{V} + \% \text{ change in } P_R + \% \text{ change in } \bar{Y}_R$

$M_S =$ Remittances in the shape of money supply in receiving country

$\bar{V} =$ Velocity of money in circulation in receiving country (assuming constant), $\bar{V} = 0$

$P_R =$ Consumer price index of receiving country

$\bar{Y}_R =$ Output level of receiving country (assuming constant), $\bar{Y}_R = 0$

$\% \text{ change in } M_S = \% \text{ change in } P_R$, inflation is linked with money supply.

A rise in money supply leads to inflation.

Figure 2 shows the composite impact of remittances on the interest rate. Remittances leads to a rise in money supply and inflation, which in turn increase the interest rate in the country. Real savings decrease due to inflation causing a shifting of the IS curve to the left from IS_0 to IS_1 . The LM curve may shift to the left from LM_0 to LM_1 because the real money supply (M/P) decreases due to inflation. The real money demanded $L(I, Y(i))$ increases because of increased transactions and precautionary demand for money. This causes a rise in interest rates from i_0 to i_1 as shown in Figure 2. A rise in interest rates exerts downward pressure on the demand for money. Higher interest rates make borrowing money more expensive, which decreases investment and consumption, causing a shift of the IS curve to the left. The new equilibrium point O_1 shows reduced output Y_1 at I_1 (Figure 2).

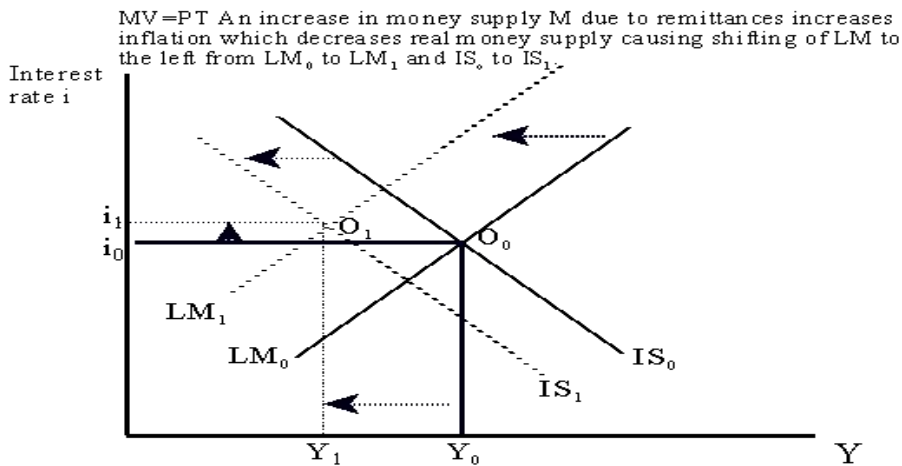


Figure 2: Composite impact of an increase in money supply and inflation on the rate of interest

Impact of remittances on the standard of living and the poverty level

Among other things, the real per capita income represents the standard of living (SOL). It could be written in equation form as given below.

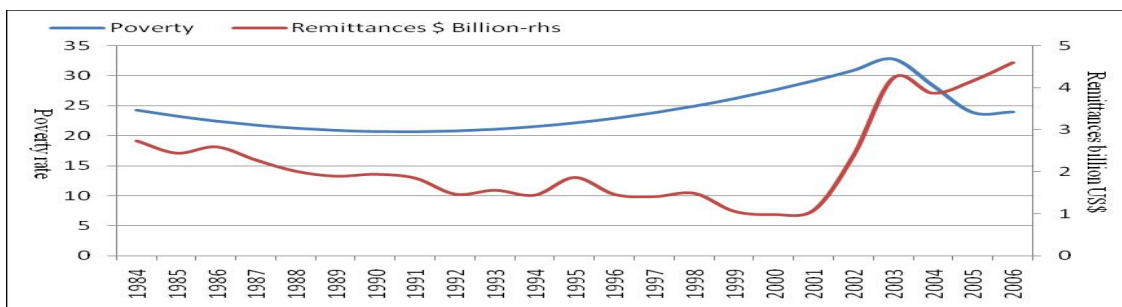


Figure 3 Relationship between remittances and poverty level

Figure 3: Relationship between remittances and the poverty level

Figure 3 (adapted from Iqbal, Asif (2013)) depicts the relationship between inflows of remittances and poverty level in Pakistan from 1984-2006. The inverse relationship between these two is evident; when remittances decreased from 1984 to 2001, poverty increased, and when remittances increased from 2004 and beyond poverty level decreased. "...remittances enhance the per capita income by 45 percent when compared to the per capita income of the households that do not receive remittances. This percentage is even higher at 64 percent for the case of urban households. Remittances also reduce the probability of households getting under the poverty line by 30 percent. The percentage is higher for the rural households, 36 percent, compared to the rural households at 23 percent. Therefore, the government should facilitate and encourage Pakistani immigrants to send more remittances reducing macroeconomic volatility and poverty (Iqbal, Asif (2013)". It is concluded that *ceteris paribus*, remittances increase the per capita income and reduce the

poverty level, and the probability of households getting under the poverty line in the receiving country.

$$\text{Standard of living (real per -capita income)} = \frac{\left(\frac{\text{Nominal GNP (including remittances)}}{\text{CPI}} \right)}{\text{Population}} = \frac{\text{Real GNP}}{\text{Population}}$$

taking its log and differentiating with respect to time yields

$$\% \text{ change in SOL} = \% \text{ change in RGNP} - \% \text{ change in population}$$

Remittances raise real GNP which increases, *ceteris paribus*, the standard of living. Remittances increase the standard of living of receiving families and decrease the standard of living of sending families.

Impact of remittances on the supply of labour

Remittances decrease the supply of labour in the receiving country. According to the backward-bending supply curve of labour theory, remittance-receiving families start demanding more leisure and less work after receiving remittances in the form of non-labour income. Leisure is a normal good; its demand increases when non-labour income increases. Work is substituted for leisure. Consequently, the labour supply decreases from n to z as shown in Figure 4. Reduction in the labour supply (number of hours worked) exerts upward pressure on the nominal wage rate.

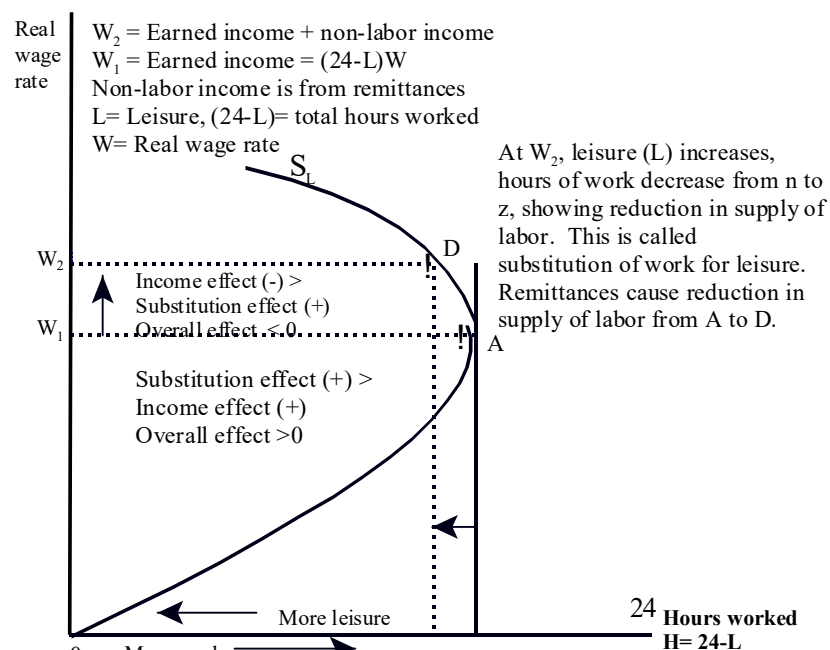


Figure 4: Remittances and the backward-bending supply curve of labour

Impact of remittances on the current account and capital account

The balance of payments = current account + capital account + official financing.

Remittances harm the current account because imports exceed exports, as demonstrated in Figures 5 and 6 below, while remittances have a favourable impact on the capital account due to the inflow of capital. The current account of Pakistan deteriorated from negative \$13.1 billion in 2010 to negative \$24.8 billion in 2023 (Table 2). The capital account increased from \$109 million in 2010 to \$167 million in 2023 (Table 2).

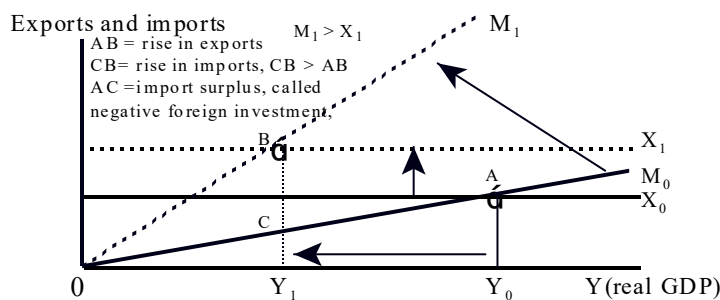


Figure 5: Impact of inflation on net exports and GDP

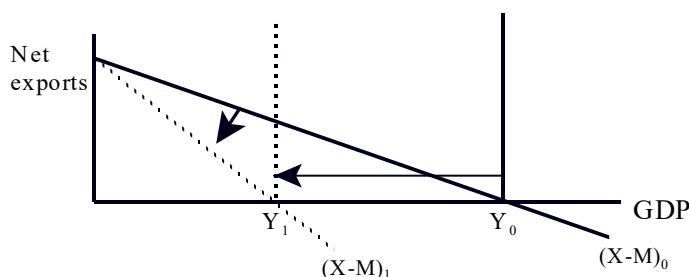


Figure 6: Shifts in net exports functions and GDP

Impact of remittances on the exchange rate

The impact of remittances on the exchange rate of the receiving country's currency is a highly debatable topic. Several researchers argue that there is a positive correlation between remittances and the exchange rate, as shown in Figure 8. Some studies reveal that over time, the real exchange rate of a currency appreciates as remittance inflows increase in the economy (Bourdet & Flock, 2006), Acosta et al.; (2009), and Chowdhury & Rabbi; (2011). On the contrary, certain studies stress that there is a negative correlation between remittances and the exchange rate, as shown in Figure 7. "A 1 percent increase in the gross international reserves leads to a statistically significant 0.06 percent decrease in the real effective exchange rate (Ceasay, Habib, and Limbe, M., 2024)".

According to the purchasing power parity theory, the relationship between the exchange rate of a currency and price level can be written as given below.

$E_R P_R = P_S$, taking its log and differentiation with respect to time yields

$\% \text{change in } E_R + \% \text{change in } P_R = \% \text{change in } P_S \Rightarrow$

$\% \text{change in } E_R = -\% \text{change in } P_R + \% \text{change in } P_S$

E_R = Exchange rate of a remittances receiving country's currency

P_R = Consumer price index of a remittances receiving country

P_S = Consumer price index of sending country (assuming fixed)

Inflation and the exchange rate are inversely related to each other. Remittances cause inflation which depreciates the exchange rate of currency of the receiving country.

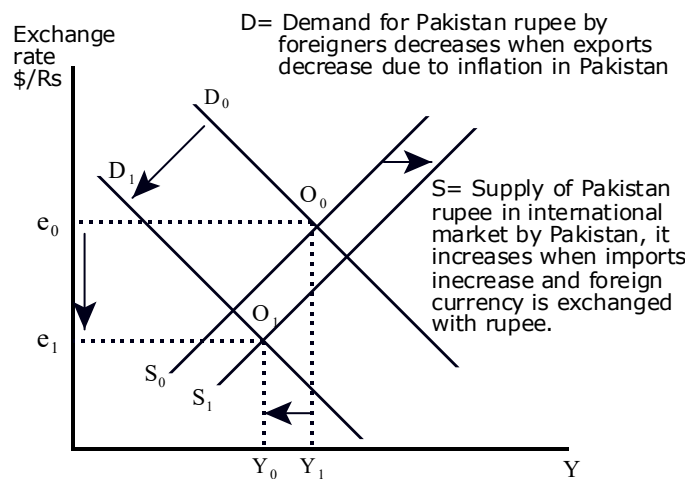


Figure 7: Negative impact of inflation due to remittances on the exchange rate of Pakistan's currency

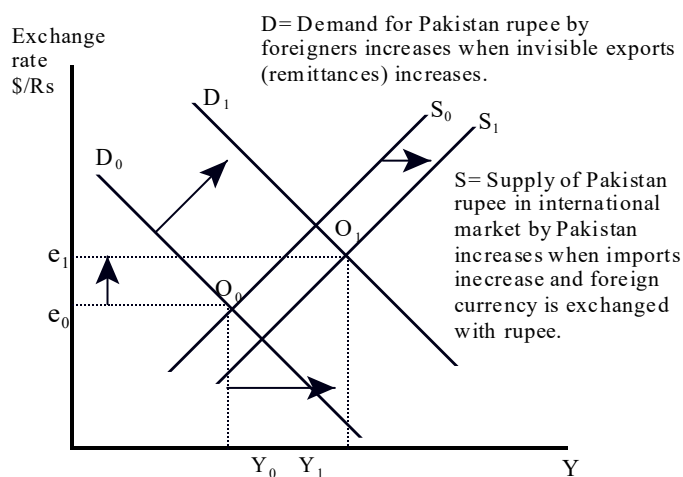


Figure 8. Positive impact of remittances on the exchange rate of Pakistan currency

“The volume of foreign exchange transactions was found to have a significant

negative relationship with the real effective exchange rate (Boundet and Flack, (2006)”. A higher volume of remittances may indicate an increase in demand for foreign currencies relative to the domestic currency, resulting in the depreciation of local currency, exerting a downward pressure on the exchange rate as shown in Figure 7. In light of the quantity theory of money and the Fisher equation of exchange. We conclude that there is a negative correlation between the inflow of remittances and the exchange rate of the receiving country’s currency. A rise in money supply due to remittances increases inflation, inflation makes our exports less competitive in international markets, and fewer exports mean a reduction in demand for our currency, which in turn depreciates the currency as shown in Figure 7. Depreciation of Pakistan’s currency does not increase its exports because Marshall-Lerner’s condition does not hold (Azim, Parvez, 2017). According to our study, since MPM (0.33) is greater than MPX (0.088), income-induced exports and imports increase; more imports than exports means the supply of Pakistan currency exceeds the demand for the currency, consequently, the exchange rate decreases as shown in Figure 9.

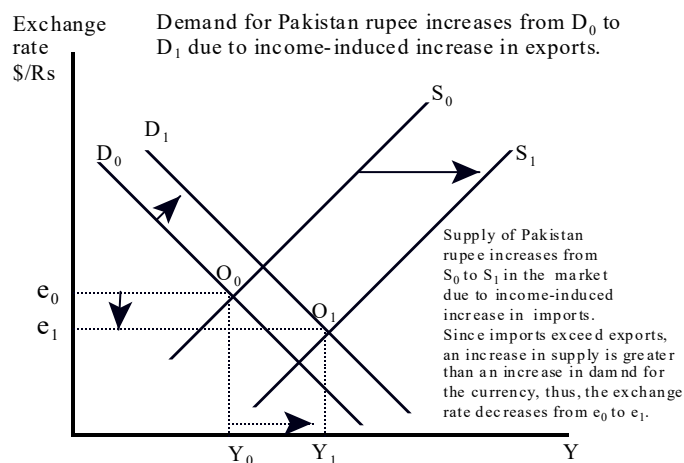


Figure 9. Negative impact of remittances on the exchange rate of Pakistan currency

Remittances and Gini Coefficient

Remittances reduce poverty by 0.0015% of the country’s poverty headcount in the long run (Gaaliche, Makram 2014). They also lead to a fairer distribution of income as shown by a reduction in the Gini coefficient caused by the shifting of the Lorenz curve inwards, as shown in Figure 10. Besides, the income gap increases between the families who receive remittances and those who don’t receive them.

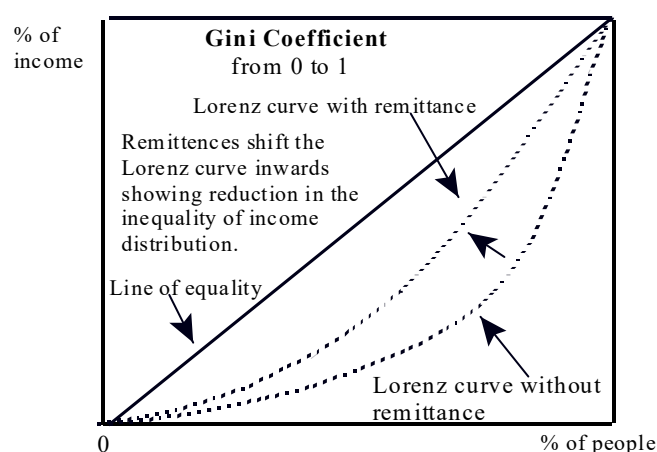


Figure 10: Remittances and the Gini Coefficient

Impact of remittances and the dependency ratio

Emigrants decrease the working-age portion of the population and increase the dependent population, which results in an increase in the dependency ratio in the country. The dependency ratio increases when labour supply (working hours) decreases, as shown in Figure 4.

Employment level and remittances

Emigration is a blessing in disguise. It decreases the unemployment level in the home country. Most unemployed people are unemployable in their home countries because they have no formal education or professional training. The unemployment rate in Pakistan is due to a high population growth rate coupled with a lack of capacity to absorb unemployed people in the economy. People emigrate due to both push factors and pull factors. More emigration means more remittances, improving living standards, increasing foreign reserves, and mitigating the intensity of business cycles.

Table 2. Data on Main Macroeconomic Variables of Pakistan (2010-2024)

Year	Unemployment rate %	Inflation rate (%)	Migrant remittances US\$ billion	Current account position (X-M) \$ billion	Net capital Account (BOP, current US\$) million	Nominal GDP in current US\$ billion
2010	0.65 (4%)	12.9	9.69	-13.1	109	173.95
2011	0.80 (5%)	11.9	12.26	-18.3	NA	212.54
2012	1.85 (13%)	9.7	14.01	-19.2	191	211.84
2013	2.95 (23%)	7.7	14.63	-18.7	329	258.89
2014	1.83 (15%)	7.4	14.24	-22.8	1960	271.75

2015	3.57 (33%)	4.1	19.24	-21.9	274	300.36
2016	3.78 (19%)	13.0	19.73	-26.5	232	313.95
2017	3.92 (36%)	4.0	19.71	-28.5	436	339.57
2018	4.08 (37%)	3.8	21.08	-28.3	323	356.77
2019	3.54 (21%)	10.5	22.13	-28.3	294	321.83
2020	4.30 (25%)	9.9	25.94	-32.0	214	300.84
2021	4.35 (25%)	10.2	31.07	-32.0	213	348.92
2022	6.20 (19%)	24.5	30.18	-44.8	406	375.40
2023	6.40 (12%)	42.0	26.56	-24.8	167	341.3
2024	8 (52.19%)	4.1	30.3	+0.582	-	374.6
C. Ann. growth Rate	19.62%	-7.85%	8.48%	-19.93%	3.33%	5.63%

Source: Internet, [data.worldbank.org/indicator, www.ceicdata.com/en/indicator/pakistan/nominal-GDP](https://data.worldbank.org/indicator/www.ceicdata.com/en/indicator/pakistan/nominal-GDP)
<https://tradingeconomics.com/pakistan/net-capital-account-bop-us-dollar-wb-data.html>

Calculating the multiplier effects of remittances

The impact of remittances on various macroeconomic variables could be measured with the help of a complex multiplier (K) using the following formula. The components of the marginal propensity to withdraw from the receiving country of Pakistan are: the marginal propensity to save (MPS) is 0.21; the marginal propensity to import (MPM) is 0.33, and the marginal propensity to pay taxes is 0.35. This gives us the multiplier $K = 1.12$ as calculated below.

$$K = \frac{1}{\text{Leakages}} = \frac{1}{MPS + MPM + MPT} = \frac{1}{0.21 + 0.33 + 0.35} = \frac{1}{0.89} = 1.12 \quad \text{where,}$$

MPC is marginal propensity to consume = 0.79, since $MPC + MPS = 1 \Rightarrow MPC = 1 - MPS$

MPS is marginal propensity to save = 0.21

MPM is marginal propensity to import = 0.33

MPT is marginal propensity to tax = 0.35

With $K = 1.12$, $\Delta I = \$30.3$ billion $\Delta I = \text{Total injection (remittances to Pakistan in 2024)}$

The multiplier formula is $K = \frac{\Delta Y}{\Delta I}$

$$K \Delta I = \Delta Y \Rightarrow \Delta Y (\text{final income}) = 1.12(30.3) = \$33.94 \text{ billion}$$

The cumulative effect of remittances of \$30.3 billion (Table 1) added to the economy of Pakistan in 2024 was \$33.94 billion.

Thus, an injection of \$30.3 billion (remittances in Pakistan in 2024) in the economy will increase the national income by a multiplier factor of 1.12 to \$33.94 billion. Owing to this increased income, the consumption spending will increase by \$26.81 billion ($MPC \times \Delta Y = 0.79 \times 33.94$), income-induced imports will increase by \$11.20 billion (0.33×33.94), income-induced tax revenue will increase by \$11.88 billion ($= 0.35 \times 33.94$), income-induced exports will increase by \$2.99 billion (0.088×33.94), and income-induced savings will increase by \$ 7.13 billion ($= 0.21 \times 33.94$). This rise in imports will exert downward pressure on the exchange rate; more imports mean a rise in the supply of the Pakistani rupee in the global market. When supply increases, the currency depreciates (Figure 7). Thus, depreciation of the currency should increase our exports, provided both the elasticities of exports and imports are elastic, because depreciation of the currency makes our goods cheaper for foreigners. The marginal propensity to spend by the government (MPG) is 0.12, therefore, income-induced spending by the government will increase by \$4.07 billion ($= 0.12 \times 33.94$), and income-induced exports will increase by \$2.99 billion ($= 0.088 \times 33.94$). Since imports will be increasing at more than twice the rate of exports, the balance of trade will deteriorate. It is also important to mention that when the injection increases, the multiplier and accelerator will play their role to enhance the aggregate demand and income by an even greater amount.

The Export Multiplier (K_T)

The export multiplier is also known as the foreign trade multiplier. This multiplier shows an increase in exports, which act as injections that tend to raise domestic income, but the increased income also encourages imports, which act as 'leakages'. These tend to reduce the full employment multiplier effect. If imports are greater than exports, there would be a reverse multiplier effect on the national income of a country. This holds in the case of Pakistan because imports are always in excess of exports. The multiplier coefficient is calculated as shown below. The marginal propensity to save MPS is 0.21, whereas the marginal propensity to import (MPM) is 0.33. This gives us the numerical value of the multiplier $K_T = 1.85$ as shown below.

$$K_T = \frac{1}{MPS + MPM} = \frac{1}{Leakages} = \frac{1}{0.21 + 0.33} = \frac{1}{0.54} = 1.85 \quad \text{where,}$$

$K_T = 1.85$ means that one unit increase in aggregate expenditure will have 1.85 unit of change in GDP of Pakistan.

MPS is marginal propensity to save = 0.21

MPM is marginal propensity to import = 0.33

With $K_T = 1.85$, $\Delta T(\text{net exports}) = \Delta X - \Delta M = \$2.99 - \$11.20 = -\8.21 billion
(negative net exports), $K_T \times \Delta T = \Delta Y \Rightarrow \Delta Y = 1.85(-8.21) = -\15.19 billion

Since the imports of Pakistan outweigh the exports, there would be a reverse export multiplier effect; that is, a decrease in net exports ($X-M < 0$) will decrease our

GDP from OY_0 to OY_1 as shown in Figure 5. Therefore, there would be a contraction effect, not an expansion effect. As more imports are consumed, smaller amounts of domestic goods are consumed. An increase in national income increases exports, which leads to an appreciation of the exchange rate, while a rise in imports will exert a downward pressure on the exchange rate. Since a rise in demand for the Pakistani currency due to a rise in exports will be less than its supply in the global market, consequently, the exchange rate will depreciate (Figure 7). In the second round, theoretically, depreciation should increase our exports, provided the Marshall-Lerner condition holds. Since the Marshall-Lerner condition does not hold in Pakistan's case, depreciation of the currency will not increase exports.

Since income-induced increases in exports are less than income-induced increases in imports, it will have a contractionary impact on national income, as shown in Figure 6. A rise in exports is shown by shifting the X_0 curve upward to the X_1 , since imports also rise, the M_0 curve shifts to the M_1 as shown in Figure 5. The negative current account, i.e. $(X-M) < 0$ ($CB > AB$), is shown in Figure 5. The level of national income reduces from OY_0 to OY_1 .

CONCLUSION AND SUGGESTIONS

Remittances not only impact macroeconomic variables in the receiving countries but also increase cultural diversity in the countries due to the acculturation of immigrants. The inflow of remittances leads to inflation, causing depreciation of the currency. Inflation decreases the real money supply, which raises the interest rate, and a rise in the interest rate increases the inflow of capital, which has a positive impact on the capital account of the country. Remittances make exports less competitive; imports more than exports negatively impact the current account component of the balance of payments. Remittances increase the foreign reserves of the country, thus, dependence on loans decreases. Aggregate demand for both durable and non-durable goods increases, which in turn leads to inflation.

In contrast to other studies, our findings reveal that remittances cause the depreciation of the currency.

Emigration of engineers, doctors, IT experts, and other professionals may cause brain drain. Emigration reduces the supply of labour (reduction of working hours). Remittances decrease the Gini index, implying a fairer distribution of income in the country. The standard of living increases because real per capita income increases.

A large exodus of unemployed people decreases the unemployment percentage in the sending countries. The emigration of employed people will increase the dependency ratio in the receiving country. Remittances have adversely impacted the country's output level as elaborated upon and shown in Figures 5 and 6. The majority of migrants from Pakistan are untrained and unskilled workers, and not highly trained professionals. The government intends to send more and more people abroad to earn more foreign exchange for the country. The growth rate of remittances (8.48%) was greater than that of nominal GDP (5.63%) during 2010-2024 (Table 2).

Owing to the countercyclicality of remittances, remittances decrease the country's macroeconomic volatility. Remittances decrease export competitiveness in international markets. Fewer exports mean less demand for Pakistani currency by foreigners, which decreases the exchange rate (Figure 7). The remittances-receiving countries should minimize the transaction costs of remittances to enhance remittances. Remittances increase the per capita income and reduce both the poverty level and the probability of households getting under the poverty line in the country.

Considering all the pros and cons of remittances, it is in Pakistan's best interest to make policies to help increase remittances and boost transaction flows. The government should crack down on smugglers who charge migrants extortionately to send them illegally abroad. Policymakers and financial institutions should work together to maximize the positive impact of remittances while mitigating risks. Necessary steps must also be taken to make migrants' outbound journeys safe.

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