REMITTANCES AS A DETERMINANT OF CONSUMPTION FUNCTION
(An Empirical Evidence From Pakistan)

Munir Khan, Tariq Rahim, Yahya Bakhtiar and Badshah Nawab

ABSTRACT
In this paper an attempt has been made to see the relationship between remittances and consumption. For this purpose data from secondary sources mainly the Economic Surveys of Pakistan for various years have been sighted. A Consumption Function Model has been applied to investigate the relationship between remittances and consumption. It has been examined that the flow of remittances of overseas Pakistanis to their relatives is mainly consumed. The estimated consumption function reveals that remittances play a significant role in the determination of private consumption in the economy.

Keywords: Consumption Function, Determination, Remittances

INTRODUCTION
Every country intends to maximize the benefits of labor migration and its resultant remittances. Among other benefits accrued to the economy, are the huge remittances sent by migrants to their home country. Emigration on temporary basis, generally, generates the flow of remittances. These remittances can influence the key macro-economic variable such as consumption which occupy lion’s share in aggregate demand. It has advantages such as remittances can cushion up the adverse effects of external shocks such as energy crisis, rising foreign exchange rates, etc. While on the other hand, it can improve the standard of living of recipients and improve the distribution of income. Contrary to these benefits it is fact that it is an uncertain source of foreign exchange and it depends upon immigration policies of the host countries. Similarly increased consumption by monetary expansion that follows remittances fuel up inflation at home. [Irfan, 1983].

In most of the less developing countries (LDC’s) it has been observed that balance of payment problems (because of a consumption oriented societies) can be eased with the flow of remittances. The area of impact of remittances has really fascinated many researchers for decades. For instance, Straubhaar (1985) and Swamy (1981), concluded that remittances have partially resolved foreign exchange problems and helped in improving the balance of payments situation in the developing countries.

Noman (1991), studied that Pakistan's economy has experienced a dramatic increase in emigration of both skilled and unskilled labor since the mid-seventies, which resulted in a significant inflow of remittances. These remittances have been a valuable and inexpensive source of foreign exchange available for the economic development of the country. During 1983 a significant improvement in remittances was experienced. It reached to its peak point of Rs 3.2 billion. A salient feature of these remittances is that they not only comprised of 40% of the total foreign exchange reserves but also financed 86% of the total trade deficit. He further reported that due to the present construction trend in the Middle East and its future prospects, remittances are likely to play a crucial role in growth profile of Pakistan which also greatly alleviated poverty in rural areas. Similarly Burney (1987) observed that the remittances jumped up from US$ 436 millions in 1976-77 to US$ 2,344 millions in 1985-86. In other words their share increased from 3.16% of the GDP in 1976-77 to 9.39% of the GDP in 1982-83. In another study, while analyzing the effects of remittances on consumption also found that marginal propensity to consume for official remittances was 0.95 and for actual remittances it was 0.85.

Remittance income is considered as an injection of resources into the economy. It is, therefore, worthwhile to analyze its impact on the main macroeconomic component of GNP. The present study is an empirical attempt of remittances on consumption. A variety of research studies in multiple directions have emerged over the last two decades but most of the work dealt with simple arithmetic of percentages and proportions. [Irfan (1986), Amjad (1986), Gilani et al. (1981), Kazi (1989), Noman (1991), Quibria (1986), Adelton (1984). However, Burney (1989) empirically estimated the impact of remittances on some macro-economic variables such as consumption, national income and savings.

OBJECTIVES
To investigate the relationship between remittances and private consumption.

MATERIALS AND METHODS
The study mainly deals with determining statistical relationships between remittances and private consumption. The data have been collected from Pakistan Economic Survey various issues (1980-81, 1990-91, 2000-01, 2003 04, 2004-05). A simple
regression model has been estimated by using Ordinary Least Square (OLS) technique. The Durban-Watson test-statistic has been applied and SPSS programme has been used.

**Consumption Function**

Private consumption ($C^D$) is specified to depend upon disposable income ($Y^d$) adjusted for remittances and also on remittances (REMT) itself. It is assumed that both $Y^d$ and REMT are positively related to consumption. The consumption equation used in our model is as follows:

$$C^D = c_0 + c_1 Y^d + c_2 REMT + E_i \quad c_1>0, c_2>0 \quad (1)$$

where $c_1, c_2$ are marginal propensities to consume due to disposable income adjusted for remittances and remittances respectively and $E_i$ is random error term.

**RESULTS AND DISCUSSION**

The estimated results for private consumption are reported in equation (2). Since we have included the disposable income adjusted for remittances and remittances itself as explanatory variable. The coefficient of adjusted disposable income is positive as theory predicts. The marginal propensity to consume (MPC) is 0.84 with 1% level of significance. The MPC in the estimated results confirm the findings of previous study by Kazmi (1989) and Amjad (1986), respectively. Our result confirms the findings of Burney (1989). Our result confirms the findings of previous study by Kazmi (1993), while estimating saving function for India and Pakistan. The estimated coefficient of remittances exceeds unity i.e. 1.58 significant at 1% level of significance which also confirms the findings of Naqvi, et.al.,(1983). Since $k=2$, $n=20$, $d=1.8$ suggests that there is no autocorrelation in the modal. Moreover the $P$-value of $d=1.80$ is 0.001 which shows its significance at 99%.

**Private Consumption ($C^D$)**

$$C^D=12.61 + 0.84 Y^d + 1.58 REMT \quad (2)$$

(Equation 2)

<table>
<thead>
<tr>
<th>SE of Regression</th>
<th>Adjusted $R^2$</th>
<th>Durbin - Watson</th>
<th>F-Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1552.01</td>
<td>0.99</td>
<td>1.80</td>
<td>47865.12</td>
</tr>
</tbody>
</table>

* Shows statistical significance at 1% level.

The results of the study confirm the major impact on consumption expenditures as found by Burney (1989) and Amjad (1986), respectively.

It is a well known fact that a researcher confronts frequently with the problem of inadequate and non-reliable data. Sufficient and accurate data set is indispensable for advanced empirical research.

Generally in developing countries and particularly in Pakistan one would come across serious deficiencies in the quality of economic data. In this study the data regarding gross national product, private consumption, exports, and imports, rate of interest, direct taxes, investment, government expenditures and remittances are taken from Pakistan Economic Surveys and International Financial Statistics (IFS) for various years. The GNP deflator with 1959-60 as base year was computed by taking the ratio of GNP at current prices and GNP at constant prices. Imports, unit value of imports, and import taxes are taken from various issues of Pakistan Economic Survey. The real exchange rate was calculated by using a simple formula1. Disposable income was calculated by simply subtracting direct taxes from GNP. Disposable income adjusted for remittances was computed by subtracting remittances from disposable income. Capital inflow was adjusted for remittances by subtracting remittances from capital inflow. The base year for all the data is 1959-60.

As the choice of estimation technique is concerned it is stated that the use of Ordinary Least Square (OLS) to estimate the system of simultaneous equations would yield biased and inconsistent estimates, also OLS regression underestimate the values of the coefficients (Khan and Saqib, 1993).

**CONCLUSION AND RECOMMENDATIONS**

The study finds a positive correlation between income and consumption. Furthermore, the coefficient i-e MPC is positive but less than one. Similarly remittance income is available to workers and their families to fulfill their needs. The change in income due to change in investment depends upon the value of multiplier. But the value of multiplier itself depends on the values of propensities to consume. It can be inferred that maximum the availability of resources higher will be the standard of living and more and more will be the economic development of country.

The government needs to consider measures to attract as much remittances as it can, by making the process convenient, profitable and certain.

The government should make firm commitment to increase the saving rate as it is too low, as it is evident from the estimate of high propensity to consume in Pakistan. Several measures could be taken to tap the potential saving into productive channels, special saving schemes should be offered to migrants.

The returnees can be encouraged to invest in small-scale industrial units. This is mainly because that the returnees want to establish businesses of their own after finally returning home.

---

1The formula for the computation of real exchange rate is as follows: \(\text{REER} = \frac{ER}{1 + t} \times \frac{\text{foreign prices}}{\text{domestic prices}}\), where ER=Nominal exchange rate and t=average tariff rate.
REFERENCES
Amjad, R. 1989. Economic impact of migration to the Middle east on the major Asian labor sending countries: An overview. To the Gulf and back, studies on the economic impact of Asian labor migration, New Delhi. Asian Regional Team for Employment Promotion.


