Remittances and poverty in Pakistan: a note

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Remittances and Poverty in Pakistan: *A Note*

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There is now fairly strong evidence that remittances sent by overseas migrants from developing countries to their countries of origin have a favourable impact on poverty levels as well as on economic growth.[2]

Overseas migration from Pakistan starting in the mid-1970s has accounted for a significant proportion of the incremental labour force thus reducing pressure on the domestic labour market. It has also significantly contributed to the country's foreign exchange earnings and gross domestic product (GDP) [see Figure 1]. In 2008-2009, the size of the Pakistan diaspora is variously estimated as between 8 to 10 million (with the country's population at 165 million), and remittances

1 The author had the privilege of working with Dr A.R. Khan in ILO/ARTEP, Bangkok from 1980-1983. His association with Dr Khan, however, dates back to 1969 and he has remained closely in touch with him since then. The author is grateful of Ms Rizwana Siddiqui for assistance in compiling and analysing data for the study and to Khalil Hamdani, Dilip Ratha, and Sikander Rahim for their helpful views on the issues discussed in the article.

2 See Adams and Page (2003) which based on a data set of 74 low and middle-income developing countries concluded that, 'international remittances – defined as the share of a remittances in a country's GDP – has a strong, statistical impact on reducing poverty. On average a 10 percent increase in the share of international remittances in a country's GDP will lead to 1.6 percent decline in the share of people living in poverty' (p. 1, line 19-20).

projected over US$7.5 billion. This would be equivalent to over 35 percent of the total projected export earnings of goods and services of US$20 billion and around 5 percent of the GDP projected at around US$150 billion for 2008-2009.[3]

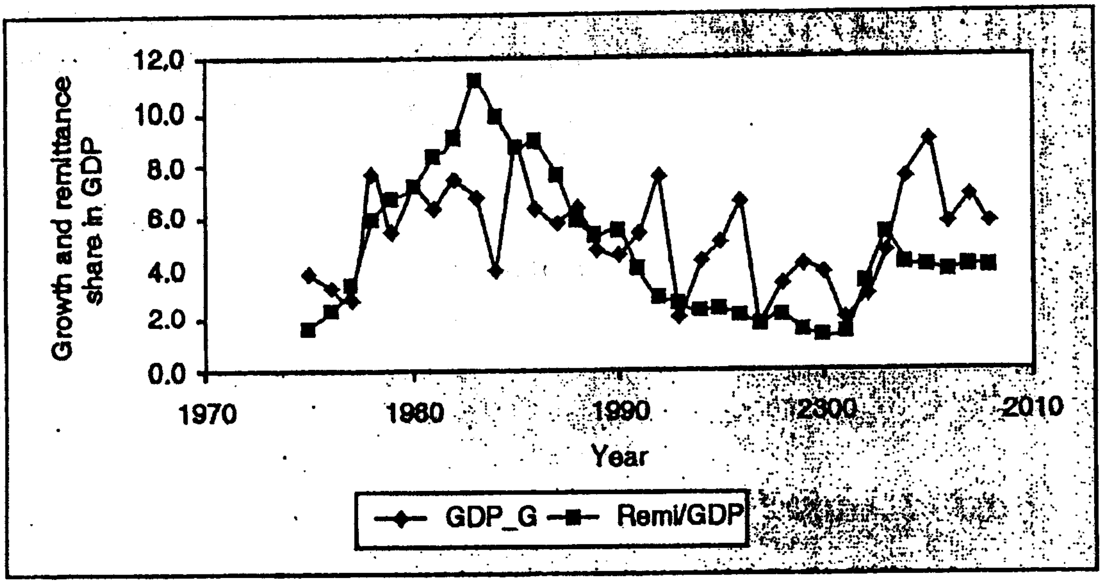

Figure 1: GDP growth rate and remittance share in GDP

Source: Pakistan Economic Survey (Various Issues), Ministry of Finance, Government of Pakistan, Islamabad [see Annex Table I].

There is a large body of literature examining the impact of overseas migration and remittances on the Pakistan economy including on poverty where this impact has been shown positive and significant[4] [see Figure 2]. However, while examining this relationship between remittances and poverty, sufficient attention has not been paid to two important characteristics of remittances which can significantly impact this relationship. First, the income, skill level or professional group to which the migrants belong and the income group of the household who receive them; and second, the extent to which the remittances are sent through legal or illegal ('hawala') channels.

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[3] Projections for 2008-2009 are based on actuals for the first three quarters and expected growth in the last quarter.

[4] For studies on Pakistan, see Amjad (1986), Burney (1987), Iqbal and Sattar (2005), Amjad (2004) and Qayyum, et al. (2009).

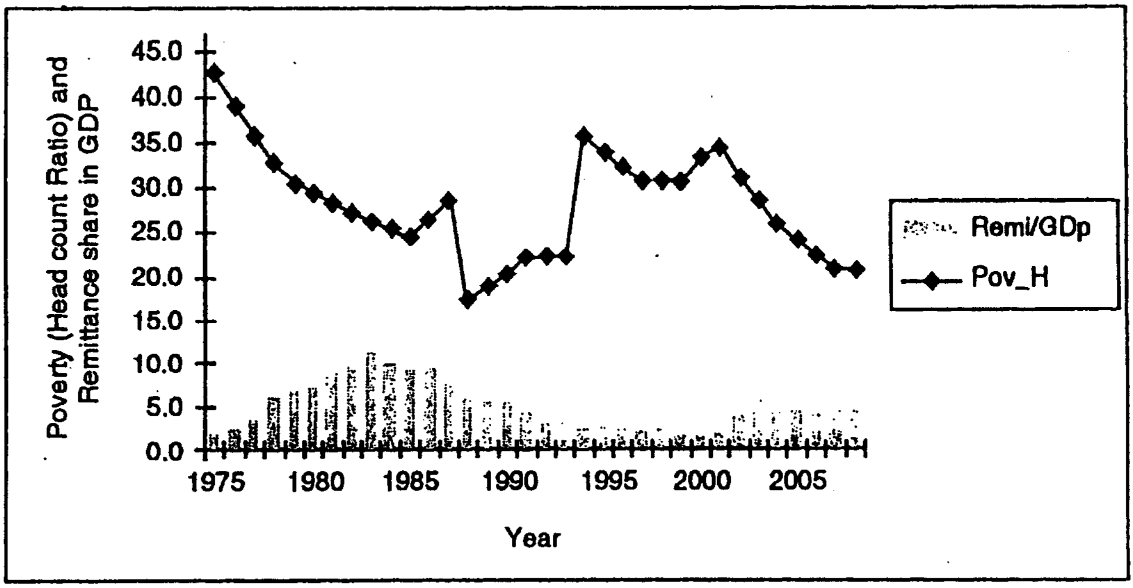

Figure 2: Poverty and remittance share in GDP

Source: Pakistan Economic Survey (Various Issues) for remittances and series on poverty constructed by the author from Amjad and Kemal (1997) till 1992 and rest from Pakistan Economic Survey (Various Issues) [see Annex Table I].

The earlier literature on Pakistan examining the relationship between remittances and poverty from the mid-1970s till the end of the 1980s took the premise that since most of the migration was to the Middle East, consisting overwhelmingly of semi-skilled and skilled workers engaged in the construction industry, they belonged mainly to poor or lower income households. These workers sent back as remittances a very large share of their wages/incomes to their households in Pakistan who also belonged to similar income levels. These remittances, therefore, had a direct impact on improving economic conditions of their families back home and in drawing them out of poverty. Also, the expenditure patterns of the households receiving the remittances was more towards locally produced goods with low import content and high employment intensity [ILO/ ARTEP (1987)]. The second round or indirect impact of their expenditure on reducing poverty was therefore also likely to be significant.

Subsequently, post-1985 and especially post 9/11, the remittances from the Middle East as a proportion of total remittances have declined and those from the United States have significantly increased [see Figure 3]. Pakistani migrants in the US mainly belong to the professional or business classes whose income levels are significantly higher as compared to the Pakistani migrants in the Middle East. The remittances of these relatively more well-to-do middle class migrants have either gone to better-off families in Pakistan or as investment in luxurious housing and durables (with high import content), real estate and portfolio investment in the country. The 'direct' and second round 'indirect' impact of these remittances on reducing poverty is, therefore, correspondingly less as compared to the migrants from the Middle East.

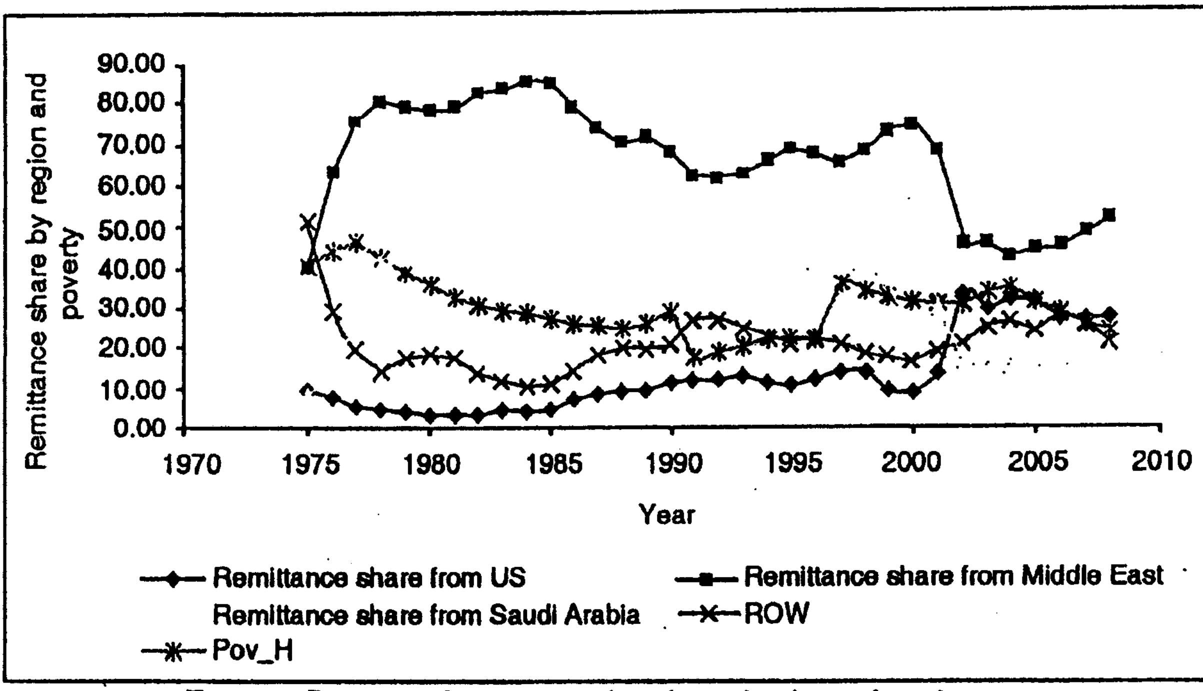

Figure 3: Poverty and remittance share by region in total remittance

Source: see Annex Table II.

REMITTANCES: LEGAL VS ILLEGAL (HAWALA) CHANNELS

Remittances sent through legal channels have the considerable advantage that they add to the country's foreign exchange reserves. This addition allows a country to pursue a more liberal trade policy and expansionist fiscal policy which otherwise may not be possible. Remittances also contribute to greater stability of the domestic currency's rate of exchange with major trading partners and dampens inflationary pressures.[5]

On the other hand, remittances that are sent through illegal channels do not add to the country's foreign exchange reserves. Also the mechanism through which the households of the migrants residing in Pakistan receive the equivalent rupees resources are significantly different. The overall impact of these latter flows on the economy and through it on poverty, are therefore also different.

However, the general assumption in the literature is that since the rupee equivalent resources of the remittances received by household through legal

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[5] If remittance flows become a very large proportion of a country's foreign exchange reserves they can lead to the 'Dutch disease' by overvaluing its currency in terms of a competitive price for its major exports. There is a feeling that this may have happened in Pakistan post 9/11.

channels or illegal channels is the same therefore the overall impact on the economy is the same (except for the favourable impact on foreign exchange reserves in the case of former).

However, on closer reflection, it can be seen that the macroeconomic effects of transfer of remittances through illegal ('hawala') channels would be different from those of legal channels remittances, because the illegal channel relies on book transfers, involves capital flight and results in much less total rupee resources being injected into the economy.

Let us explain with a simple illustration why this can happen. Start with the 'hundiwallah' or the person who basically handles this 'hawala' operation for sending money through illegal channels as being located in country X. The Pakistani migrant working in country X hands him US$100 to transfer the equivalent rupee account to a household in Pakistan. The 'hundiwallah' would then call up his agent in Pakistan and ask him to make the equivalent rupee transfer. This transaction cycle is completed when the agent in Pakistan asks the hundiwallah to pay US$100 to a household, person or firm in country X on behalf of a household in Pakistan who has requested him to make this transaction.

The important point to note in the above transaction is that US$100 remains in country X and that the rupee equivalent of this is transferred from one Pakistani household to another Pakistani household.[6] The "hundiwallah" and his agent make a small profit through this transaction by charging a fee from the migrant for transmitting this money as well as charging a higher rate of exchange from the household making the reverse transfer. The total cost of transmitting this money (i.e. US$100) to the migrant is in most cases still lower and the transfer much faster as compared with the official channels. This is an important attraction for sending remittances through unofficial channels.

The fact is that in the case of remittance flows through illegal channels, only a transfer payment takes place between two households in Pakistan and there is no additional rupee equivalent injected into the economy as would have

6. The question that can be raised is that in the absence of this illegal channel for the Pakistani household that wishes to transfer US$100 what other options are then open to undertake this transaction? We could assume that the improved foreign exchange position as a result of increased flows makes it now possible to make this transaction in a legal manner. This would mean an equivalent amount (i.e. US$100) flows out of the country. However, if the foreign exchange regime now discourages such a transfer then it may not be actually undertaken. The course of action this household follows in transmitting the US$100 or not can have varying macroeconomic implications for the economy which are not followed through in this article, though this would be an interesting area of further research.

been done by the State Bank if the remittance had come through official channels.[7] Therefore, there is no overall increase in total aggregate demand and this dampens the multiplier income and employment effect which would have taken place if the money had been transferred through legal channels.

It would be interesting to note the implication of the above if the proportion of remittances being received in Pakistan significantly changes in favour of legal channels due to stricter controls (and corresponding fines/punishments) imposed in country X to illegal flows as appears to have happened in the US post 9/11, 2001. A priori, on the basis of the above reasoning, the macroeconomic impact of remittances on the economy would be greater in terms of economic growth and employment generated and correspondingly on reducing poverty.

PROPORTION OF REMITTANCES SENT THROUGH 'LEGAL' VS 'ILLEGAL' CHANNELS

A study by the International Labour Organizations [ILO/ARTEP (1987)] attempted to make an estimate of the amount of remittances sent through 'legal' and 'illegal' channels to Pakistan since they became a significant flow of resources. This estimate for the 1980s was based on a survey of return migrants and the average money they remitted during their stay abroad. The study estimated that 57 percent of total remittances flowing into Pakistan came through official channels and the remaining 43 percent, through illegal channels. The author is not aware of any other study which has tried to make this calculation for the period or later.

However, there is a general view held with credible justification that post 9/11, due to much stricter controls enforced there was a significant increase in remittance flows through official channels and that this explains to a large extent the rapid increase in remittances from just over US$1 billion before 9/11 to over US$ 7.5 billion expected in 2008-2009.

EMPIRICAL ANALYSIS

Is it possible to demonstrate that the impact on poverty of remittances varies as a result of the changes in flows, in terms of the income group who sends them and the proportion sent through legal channels? We have adopted a rather crude way of trying to show this but this is the best that can be done with the available data on key variables.

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7 To the extent the State Bank 'sterilizes' the rupee resources generated due to remittance flows to dampen inflationary pressures on the economy, this increase in aggregate demand would also be reduced.

As a proxy for a change in the income groups that send the remittances we can take the total remittances sent from the Middle East as a proportion of total remittances. The hypothesis being tested is that the larger this share the greater would be the impact of remittances on reducing poverty. Since this was the case for most part of the 1980s the impact of remittances on poverty should be higher compared to the other time periods when this share was lower.

As regards flows between legal and illegal channels, if the assumption is that the former significantly increased post 9/11, then as a result, the impact of remittances on poverty would be greater in the period starting 2000-2001 as compared to earlier periods.

We try to capture these two effects by using dummy variables for the periods of the 1980s, 1990s and post-2000.

There are data problems in that a consistent and comparable time-series on poverty for the overall period does not exist and has to be constructed through different sources with missing values estimated on the basis of interpolation and extrapolation for different time periods. This methodology does not sufficiently reflect the fact that poverty estimates can show considerable year to year fluctuations depending on a number of factors like foodgrain harvests and inflationary pressures.

Data on remittance flows, i.e. through legal channels from countries of origin are available from the State Bank of Pakistan and are considered reliable.

Keeping in mind these caveats the results of the regression analysis are as follows:

$$lPov = \underset{(7.2)}{7.19} - \underset{(2.2)}{0.15} lRem - GDP - \underset{(3.8)}{1.28} lGDP + \underset{(1.2)}{0.16} D_{80} + \underset{(2.4)}{0.47^{*}} D_{90} + \underset{(2.5)}{0.57^{*}} D_{2000}$$

$R^2 = 0.59$ $\overline{R}^2 = 0.52$ D = 0.8 F = 8.14 No. of Observations = 37

Where

Rem-GDP = Remittances as a percentage of GDP

POV = Poverty incidence measured by Head-Count ratio of FGT indices

D_{80} = 1 for t=1980-81 to 1989-90 otherwise zero

D_{90} = 1 for t=1990-91 to 1999-2000 otherwise zero

D_{2000} = 1 for t=2000 to 2008 otherwise zero

Note: All variables are in log. Figures in parenthesis are t-statistics (*: 95% significance level)

The results show that overall the remittances do have a positive impact on reducing poverty. An increase in remittances share in GDP by 1 percent reduces poverty by 0.15 percent. Also this impact is more significant in the post-2000 period when by all indications there was an increase in the share of remittances through official channels. Also the overall size of remittances through formal channels increased almost seven-fold (see Annex Table II).

The results do not show, however, that the impact on poverty was significantly different in the 1980s as compared to the period from 1975 to 1980 when remittances from the Middle East were much higher as a share of total remittances, as compared to other periods. This may be because while the overall share of the Middle East declined after the mid-1980s, they were still significantly higher as compared to other sources till 2000 and this also explains why the impact of this variable is also high in the 1990s.

However, the overall results show that the impact of remittances on poverty was greatest post 9/11 as compared to other periods. This was due of course to the almost seven-fold increase in remittances during this period but also that the amount as we argue that came from official channels significantly increased.

CONCLUSIONS

This note makes two points. First, that the impact of remittances on poverty depends on who sends the remittances. If those who send it come from poorer households (semi-skilled and unskilled workers), its impact on poverty would be greater. Second, that the manner in which remittances are sent, i.e. through legal or illegal channels, also makes a difference in terms of its overall impact on the economy and through this on poverty.

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ANNEXURE TABLE I

Year	GDP_G	Remittance_T/ GDP	Remittance share from US	Remittance Share from Middle East	Remittance Share from UK	Remittance share from Saudi Arabia (SA)	Remittance Share from Rest of the World (ROW)	Poverty (Head Count Ratio)
1974-1975	3.88	1.63	9.09	39.62	35.11	8.18	16.19	36.92
1981-1985	6.69	9.45	3.88	83.11	6.11	50.16	6.91	26.42
1986-1990	5.60	6.66	8.95	72.40	9.29	42.29	9.36	22.31
1991-1995	4.92	2.87	11.67	63.89	9.76	42.56	14.68	27.30
1996-1900	3.98	1.79	11.34	69.70	8.49	35.51	10.48	31.68
2001-1905	5.26	3.72	27.84	49.15	7.74	17.92	15.28	28.96
2006-1908	6.13	3.98	27.11	48.28	8.13	17.96	16.47	21.30
1975-1908	5.33	4.75	12.74	66.25	9.26	34.52	11.75	27.80

Source: Pakistan Economic Survey (Various Issues), Ministry of Finance, Government of Pakistan, for poverty series till 1992 based on Amjad and Kemal (1997) and rest Pakistan Economic Survey (Various Issues). Missing years for poverty based on interpolation and extrapolation of available numbers.

ANNEXURE TABLE II

Years	GDP_G	REMIT_T(Rs)	REMIT_US	REMIT_UK	Middle East including SA	Saudi Arabia (SA)	Middle East other than SA	Poverty
	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)
1975	3.9	2091.5	190.0	734.3	829	171	658	36.92
1976	3.3	3358.9	255.3	538.8	2121	459	1661	35.25
1977	2.8	5723.9	290.5	488.4	4332	1574	2758	33.66
1978	7.7	11456.7	510.5	759.8	9297	4598	4699	32.13
1979	5.5	13851.1	531.5	1180.2	10908	5889	5019	30.68
1980	7.3	17279.2	609.0	1483.4	13489	7881	5608	29.55
1981	6.4	20964.9	703.2	1832.2	16511	9752	6759	28.45
1982	7.6	26366.3	854.5	1437.5	21906	13384	8522	27.40
1983	6.8	36670.4	1696.5	2054.9	30602	18322	12280	26.39
1984	4.0	36905.2	1426.9	1911.9	31610	19431	12179	25.41
1985	8.7	37059.8	1596.2	2060.3	31352	18867	12485	24.47
1986	6.4	41881.0	3138.4	3603.4	32743	18768	13975	26.45
1987	5.8	39151.6	3297.4	3520.6	28789	16243	12545	28.60
1988	6.4	35427.6	3138.5	3784.9	25031	14568	10463	17.32
1989	4.8	36451.6	3358.5	3287.0	26066	15756	10310	18.79
1990	4.6	41646.8	4487.2	3820.7	28363	16989	11374	20.38
1991	5.4	36480.1	4265.5	4037.2	22548	15292	7256	22.11
1992	7.6	31116.0	3735.1	3404.1	19042	12824	6218	22.25
1993	2.1	32151.5	4096.5	2959.9	20039	13653	6386	22.40

Cont.

Years	GDP_G	REMIT_T(Rs)	REMIT_US	REMIT_UK	Middle East including SA	Saudi Arabia (SA)	Middle East other than SA	Poverty
	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)
1994	4.4	32979.9	3694.8	3052.3	21731	14890	6840	35.70
1995	5.1	40654.2	4352.9	3392.5	27739	17094	10645	34.06
1996	6.6	41197.8	4764.0	3683.8	27604	16892	10712	32.49
1997	1.7	42037.1	5702.8	3819.0	27536	16316	11219	31.00
1998	3.5	53462.6	7183.0	4269.0	36432	20512	15920	30.80
1999	4.2	40967.3	3834.5	3443.3	29986	14902	15084	30.60
2000	3.9	47292.2	4139.6	3793.3	35306	10864	24442	33.50
2001	2.0	59699.5	7878.0	4756.3	40510	17790	22720	34.50
2002	3.1	143784.9	47849.5	9332.4	65733	23117	42616	31.47
2003	4.7	245155.6	72394.3	16018.9	111239	33974	77265	28.71
2004	7.5	220289.2	70533.9	19226.4	92943	32546	60397	26.20
2005	9.0	246470.0	76813.5	22072.7	109927	37228	72698	23.90
2006	5.8	274623.9	74371.2	26256.1	123496	44919	78577	22.30
2007	6.8	332940.6	88504.1	26075.1	160522	62063	98459	20.81
2008	5.8	404150.2	111852.3	28303.1	208830	76282	132547	20.81

where: Col. (i) is GDP of growth
Col. (ii) is total remittances in Rs. million
Col. (iii) is remittances from the US in Rs. million
Col. (iv) is remittances from the UK in Rs. million
Col. (v) is remittances from Middle East in Rs. million
Col. (vi) is remittances from Saudi Arabia in Rs. million
Col. (vii) is remittances from Middle East other than Saudi Arabia in Rs. million.