RESEARCH REPORT
No. 166

Remittances and Investments at the Household Level in Pakistan

G. M. Arif

Pakistan
Institute of
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1. INTRODUCTION

Foreign remittances are the most attractive aspect of labour migration to the governments of labour-exporting countries and to individual migrants and their families. The literature on labour migration looks at the effects of these foreign remittances on recipient households and labour-sending countries in four main ways. First, remittances have commonly been associated with key macro-economic variables, such as the balance of payments, to emphasize the capacity of the scarce foreign earnings they bring to promote domestic economic growth. The effect of remittances on the balance of payments in labour-exporting countries is generally very favourable since they equate to a significant proportion of their merchandise exports. Second, there is continuing debate on the extent to which remittances contribute to the development of the migrants' countries of origin. In assessing their developmental effects, primary focus has been on the uses made of remittances by their recipients, but evidence is inconclusive.[1]

Third, the inflow of remittances has been used to estimate the costs and benefits of labour migration at both the micro and macro levels. Most observers acknowledge that benefits do accrue to individual migrants and their families. The benefits to the economy and the society are viewed as being more questionable, given the effects of remittances in increasing consumer demand, increasing imports and fuelling inflation [Chandavarkar (1980) and Russell (1986)]. Finally, one of the central issues in the literature is whether or not migrants and their families, who were generally able to enjoy higher standards of living during the period of migration because of the inflow of remittance income, were able to maintain these standards after migrants returned home. The maintenance of high living standards during the post-migration phase may largely depend on the ways in which their recipients handled remittances during the period of migration. If migrants and their families were successful in

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[1] For example, on the one hand, Agostinelli (1991) shows that remittances have not activated long-term development in the Philippines, and argues that employment abroad actually drains towards economically stronger overseas centres the human resources that are the most indispensable to Philippines socioeconomic growth. On the other hand, Glytsos (1993) has recently shown that remittances, particularly through their multiplier effects, have promoted economic growth, employment and capital formation in Greece. Similarly, Nishat and Bilgrami (1991) concluded after using the standard Keynesian macro-economic model that foreign remittances have had a positive effect on development in Pakistan.

directing substantial proportions of resources obtained from overseas work to investment, it is likely that they could enhance their productive capacity and thereby their ability to sustain the higher living standards.

The expectation that migrants will direct a considerable proportion of remittances to investment has a number of foundations. In the case of labour migration from Asia to the Middle East, substantial wage differences exist between domestic and overseas employment. Migrant workers receive, on average, five to eight times what they would receive from employment in their home countries. While migrants are usually discouraged from bringing their families to their countries of employment, they make great efforts to limit their consumption during employment abroad and transfer large proportions of their earnings to their families. Resultant increases in financial capacity sometimes enable migrants and their families to acquire productive assets.

Since the mid-1970s Pakistan has been one of the major labour suppliers to the Middle East. These workers remit substantial amount to their communities of origin during their overseas employment. In the early 1980s, for example, remittances to Pakistan were almost equal to the country's earnings from its merchandise exports. Despite a significant decline in the annual inflow of workers' remittances since the late 1980s, Pakistan still receives approximately 1500 million US dollars annually on this account [GOP (1997)]. The literature on remittances in Pakistan focuses mainly on the allocation of remittance money by its recipients, and little work has been done to examine systematically the determinants of uses of remittances. This study investigates the question whether return migrants and their families succeeded in directing remittances to investment. If they did succeed, what were the determinants of their success?

A conceptual framework showing factors that can influence the uses of remittances is presented in the next section, followed in Section 3 by a brief description of the hypotheses. Data sources and methods of analysis are given in Section 4. The subsequent two sections provide estimates of overseas earnings and remittances. The uses made of remittances by migrants and their families and the determinants of these uses are discussed in Sections 7,8 and 9. Concluding observations are made in section 10, followed by policy implications in the final section.

2. REMITTANCES AND INVESTMENT: A CONCEPTUAL FRAMEWORK

The flow of remittances depends mainly on the savings available to the migrant once all his expenses are met from his earnings [Wahba (1991)]. A migrant's first decision with respect to the management of these savings is whether to remit home all his savings as he accumulates them, or to keep a proportion of them with him until he returns permanently. A number of factors

are usually linked to this decision. For example, if migrants' families depend for their livelihood mainly on remittance income, it is likely that migrants will remit regularly a considerable proportion of their earnings [Connell and Brown (1995) and Stanwix and Connell (1995)].

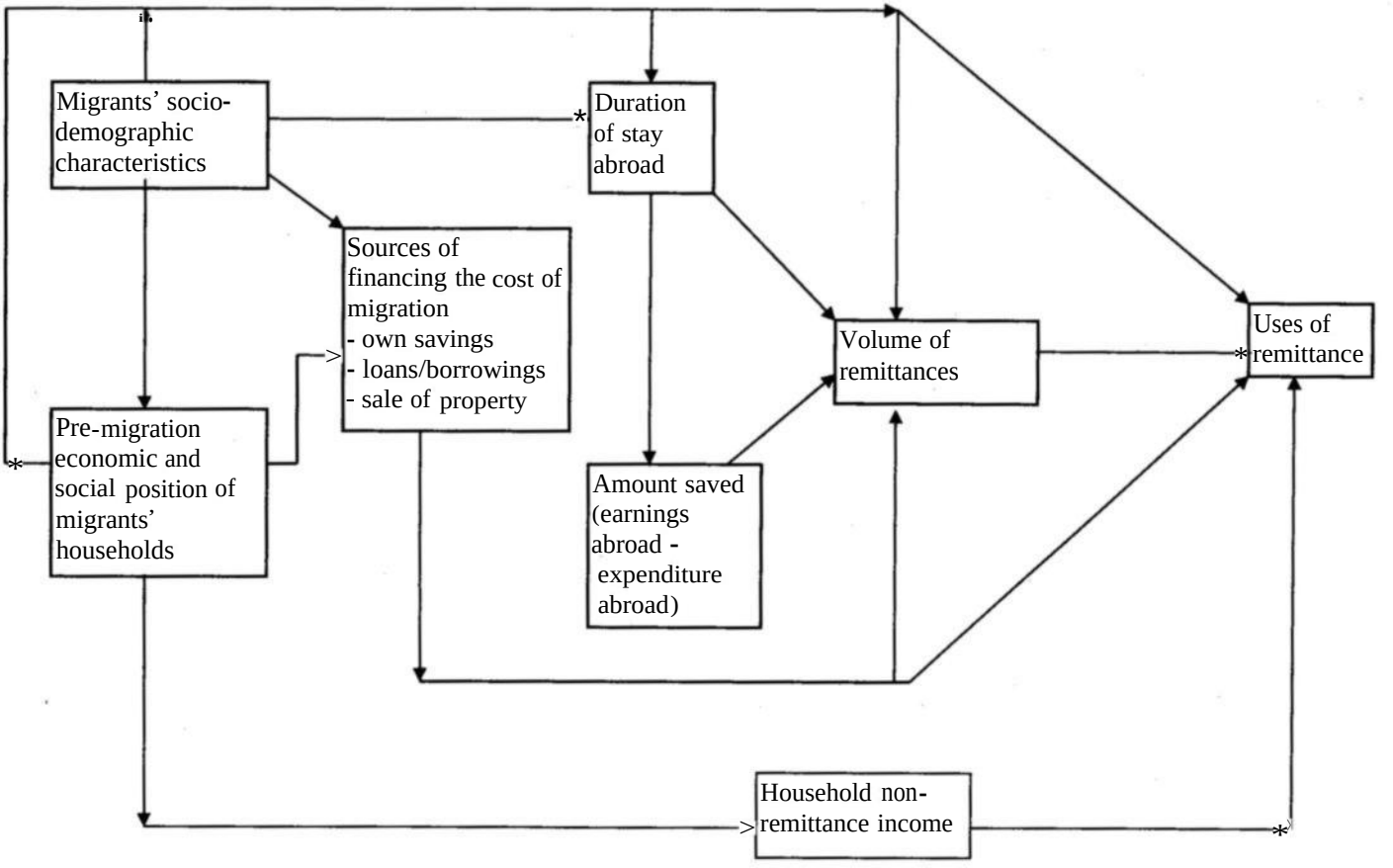
The inflow of remittances may be closely linked to the length of time since workers went abroad. Gunatilleke (1992) argues that the longer the individual has lived abroad, the less he is likely to remit because there is a possibility that he will be joined by his dependants. However, this factor might be a more important determinant of remittance flows from Western countries where policies have been more conducive to permanent settlement than in the Middle East, where the majority of workers have been single males who have generally been discouraged from bringing their families. Although there is a possibility that migrants who have been in the Middle East for long periods of time may find investment opportunities at their destinations, remittances are sustained over longer periods when the probability of return migration is greater [Connell and Brown (1995); Stanwix and Connell (1995)], a situation true of labour migration to the Middle East.

Education may also affect migrants' decisions to remit. Having been educated by the family, a migrant gains from higher wages but is then expected to repay the family in the form of remittances [Stark (1991)]. On the other hand, belter-educated migrants could find investment opportunities abroad, whereas uneducated migrants, being unaware of such opportunities, might send their savings back to their countries of origin [Gilani *et al.* (1981)].

With respect to uses of remittances, the prevailing view in the literature is that the marginal propensity to consume out of remittances is generally very high. This has motivated a number of observers to view remittances transferred to Asian countries entirely as consumption expenditure [Prakash (1978); Eelens and Schampers (1992)]. However, some studies and surveys find no difference in the propensity to consume between comparable levels of income from remittances and from other sources [Athukorala (1990); Glytsos (1993)]. Considerable proportions of remittances are found to be spent on enhancing household productive assets [Oberai and Singh (1980); Faeamani (1995)]. It is therefore likely that a complex interplay of migrant and household factors determines the ability or inability of migrants' families to shift remittances to investment or savings.

Figure 1 illustrates how various factors have to be taken into consideration, particularly when examining the investment and consumption behaviour of migrants. First, it is necessary to understand migrants' pre-migration economic and social positions in their home communities [Rhoades (1978)]. Migrants may differ widely with respect to their pre-migration household economic position. Workers from better-off households are likely to

Figure 1. Factors Affecting Uses of Remittances: A Conceptual Framework.



have access to some assets and resources before migration, and these resources may form a base for further improvements and investment from new overseas earnings. However, it may be more rational for migrants with poor economic and social backgrounds to spend money on better food, health, clothing and consumer durables such as radios, TVs and refrigerators before acquiring productive assets.

Second, migrants' life cycle stages may affect patterns of use of remittance money. For example, most Pakistani workers go abroad during that period of their lives when they are likely to have young children. Thus consumption demands of their families are likely to increase during the period of migration. Third, in Asia, including Pakistan, high costs are involved in getting a job in the Middle East, and those who succeed in finding employment abroad finance their overseas trips in various ways (Figure 1). It is evident from the studies conducted in the Asian labour-exporting countries that most migrants borrow money from relatives and friends and sell their assets to obtain overseas employment [Eelens and Speckmann (1992); Mook (1992); Nair (1992)]. Salaries earned in the first few months generally disappear as a consequence of debts incurred because of migration.

Fourth, duration of stay abroad could be one of the most important factors that determine the use made of remittances by migrant families. Because of initial low standards of living, migrants usually first spend remittances on payment of debts, better food, and consumer durables, then acquire any productive assets. The chances are that a longer duration of stay abroad would enable migrants and their families to begin to shift from consumer spending of remittances to investment. For example, Black (1993) shows that Portuguese migrants who stayed abroad for from 4 to 15 years were the ones most disposed to investment in the agricultural sector. This suggests that a longer duration of stay abroad might provide migrants and their families with the opportunity to shift from consumer spending to investment over time. If it is very short, say two years or less; migrants are unlikely even to recover the costs incurred in their migration.

Finally, the other important variable when it comes to relative success in handling remittances could be the level of household non-remittance income, particularly during the migration phase. This is important both as a supplementary source of income and as a disciplining factor regulating the economic behaviour of the family [Brochmann (1992)]. Absence of any stable income implies that wages earned from overseas employment are likely to be used for the maintenance of the household.

3. HYPOTHESES

In accordance with the theoretical discussion given in the previous section, the following five hypotheses are presented as a basis for examining the

extent to which Pakistani migrants and their families have directed remittances to investment or savings:

(1) that migrants from better-off households direct proportionately more remittances to investment or savings than those with low levels of pre-migration economic status;
(2) that families of married migrants spend greater proportions of remittances to meet household consumption demands than families of unmarried migrants;
(3) that the higher the level of non-remittance household income, the greater will be the possibility of shifting remittances from consumption to investment or savings;
(4) that migrants who finance their overseas trips by their own savings will be able to use remittances more productively than those who finance their trips from other sources; and
(5) that the amounts migrants can earn and save overseas depend directly on their length of stay in the Middle East. The longer the stay of a migrant in the Middle East, the greater will be the possibility of using remittances productively.

4. DATA SOURCES AND METHODS OF ANALYSIS

4.1. Data Sources

The main source of data used is the 1986 ILO/ARTEP Survey of Return Migrant Households (refer to hereafter as the ILO survey). This survey was conducted in three provinces, Punjab, Sindh and the NWFP, and Azad Jammun and Kashmir. The universe for the survey was those migrants who after working in the Middle East had returned at least six months prior to the survey [ILO/ARTEP (1987)]. It was restricted to districts of concentration of migrants. The selection of the districts was based on information provided by both the 1981 population census and the 1986 Airport Survey conducted by the Overseas Pakistanis foundation. Each district was taken as an independent stratum, but in some districts, the survey was restricted to those *tehsils* where a concentration of migrants was found. The ILO survey covered 1327 households. Due to problems in some data files, 76 households were excluded from the analysis (for detail on data problems, see Arif (1995). The final data set consists of 1251 records.

The ILO data set is 12 years old. Changes in the Middle East migration system during this period might have affected the ILO sample' validity now. However, it is worth noting that after this survey no nation-wide survey on overseas migration was conducted. Further, the occupational composition of Pakistani migrants in the region has not changed since the mid-1970s. Thus the ILO data set seems to be largely representative of migrants who had an opportunity to work in the Middle East.

4.2. Methods of Analysis

The ILO survey gathered information on 'average monthly income' during overseas employment. To estimate the total earnings, this income was multiplied by total length of employment in the Middle East.[2] However, the ILO survey did not provide information on workers' duration of employment while in the Middle East. It provided data on their total durations of stay and periods of unemployment while abroad. Length of employment was thus measured by subtracting migrants' total periods of unemployment from their total durations of stay in the region.

The information on remittances collected by the ILO survey was grouped into the following four categories: remittances sent home monthly while workers were abroad; remittances brought by migrants during home visits (which generally take place once a year); remittances in kind consisting of gifts, consumer durables and capital goods; and remittances brought by migrants on their final return. The first category of remittances was multiplied by worker's duration of employment in the Middle East in order to obtain the total amount transferred in monthly remittances while a worker was abroad. The sum of monies brought during each home visit was considered to be the total amount transferred during the visits. Then the four categories of remittances were added to obtain the total funds transferred by a migrant during his stay in the Middle East. According to the ILO data set, more than two-thirds of the total remittances were transferred on monthly basis while migrants were abroad (Table 1). Only 8 percent of the remittances were shifted in kind (mainly as consumer durables). The rest of the funds were brought by workers during their regular home visits or at the time of final return. It is worthy to note that migrants retained abroad only 11 percent of their total savings to bring back at the time of final return.

Table 1

Percentage Distributions of Remittances Transferred by Migrants According to Type and Rural/Urban Areas

Rural/Urban Areas	Type of Remittances				
	Monthly	On Visit	In Kind	On Final Return	Total
Urban Areas	64.8	14.8	8.9	11.5	100
Rural Areas	69.3	11.9	7.5	11.3	100
Total Sample	67.4	13.2	8.0	11.4	100

Source: Computed from the 1986 ILO Survey data.

[2]Wood and McCoy (1985) used a similar approach to obtain the seasonal earnings of West Indian contract workers in the USA.

With respect to the uses made of remittances, the present analysis was quite focused and restricted to investment and savings. Remittances in kind (mainly consumer durables) are excluded from the analysis, it being assumed that these items were brought from overseas mainly for household use. Similarly, the 1LO survey did not obtain information on the use of remittances brought by migrants during their home visits. Its focus was on the physical investment made by a migrant household out of remittances, which workers transferred while they were abroad. As noted above, these remittances accounted for more than two-thirds of the total funds transferred from abroad.

In the survey, the respondents were asked: How much of the remittances sent by you while you were abroad were used by your household to purchase property, vehicles, agricultural machinery, industrial machinery and productive assets such as shares in a business? The respondents were also asked: What was the total value of your household savings (bank deposits, bonds and loans to relatives) when you returned permanently to Pakistan (not including remittances that you sent or brought at the time of your final return)?[3] In the analysis, household financial savings have been separated from the amount spent on physical investment. However, to determine the factors which affect the household decision to transfer remittances to investment the combined value of both physical investment and financial savings was considered to be the total investment made by migrant families out of remittances.

To examine the hypothesis (5) that the amounts migrants can earn, save and shift to investment depend directly on their length of stay in the Middle East, the ILO sample was grouped according to their durations of stay into three categories: short stayers, medium stayers and long stayers. The 'short stayers' are those who stayed in the Middle East for periods of two years or less. This category contains those migrants who were relatively unsuccessful in the Middle East labour market in that they were unable to extend their stay abroad beyond a period equivalent to a single contract, or perhaps even returned before completing the period of one contract. The 'medium stayers' are those who stayed abroad for more than two years but less than six years. Return migrants who had stayed in the Middle East for six years or longer are designated 'long-stayers'. According to the ILO sample, 46 percent of return migrants were medium stayers, while short stayers accounted for 33 percent and long stayers for 21 percent.

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[3] As the sources of household savings were not specified in this question, it is difficult to ascertain to what extent money saved by migrant households was drawn from remittances as against other household income. In a situation where more than 60 percent of households in the ILO sample had access to non-remittance income during the migration period , the issue becomes complex. However, it is not uncommon in migration studies to assume that domestic income would largely have been spent on recurrent consumption [Gilani *et ul.* (1981)] and that savings (or investments) thus were primarily drawn from remittance money. It is likely that this assumption will increase the proportion of foreign resources deemed to have been directed to investment and savings.

5. WORKERS' EARNINGS FROM OVERSEAS EMPLOYMENT

Table 2 shows distributions of return migrants by level of total overseas earnings. The table also provides information on workers' average total earnings and mean durations of employment. The data were further controlled by workers' durations of stay abroad, their occupation while overseas and country of employment. Obviously, the length of employment depended directly on

Table 2

Percentage Distributions of Return Migrants by Earnings in the Middle East by Duration of Stay Abroad, Occupation and Country of Employment

	Total Earnings Range							
Characteristic	MDE	ATE	<75.000	75,000-149,999 (Rs)	150,000-299.999 (Rs)	≥ 300,000 (Rs)	Total	N
Duration of Stay Abroad								
Short Stayers	1.3	67	70.7	24.5	4.1	0.7	100	(413)
Medium Stayers	3.6	215	6.8	32.9	42.4	17.9	100	(575)
Long Stayers	7.9	555	0.0	3.4	24.4	72.2	100	(262)
Occupation Abroad								
Professional	5.3	703	6.9	8.3	16.7	68.1	100	(72)
Clerical	4.3	304	4.3	8.7	43.5	43.5	100	(23)
Service	4.0	241	19.1	24.4	31.6	24.9	100	(225)
Agriculture	3.5	165	38.8	16.7	27.8	16.7	100	(18)
Business	4.4	395	19.0	23.8	9.5	47.7	100	(21)
Skilled	3.8	247	22.3	22.3	28.2	27.2	100	(430)
Unskilled	3.1	140	38.4	29.1	22.4	10.1	100	(450)
Others	4.6	401	18.2	9.0	27.3	45.5	100	(ID
Country of Employment								
Saudi Arabia	3.5	232	24.9	25.8	27.0	22.3	100	(695)
UAE	4.4	258	23.2	23.8	26.5	26.5	100	(181)
Libya	4.3	299	8.5	20.7	34.2	36.6	100	(82)
Iraq	1.9	120	54.3	25.9	11.1	8.7	100	(81)
Oman	3.7	198	40.9	16.3	22.4	20.4	100	(49)
Kuwait	4.9	342	10.4	14.6	35.4	39.6	100	(48)
Bahrain	4.3	188	26.2	23.8	26.2	23.8	100	(42)
Qatar	4.7	349	17.9	32.1	28.6	21.4	100	(28)
Other	2.8	238	54.5	11.4	11.4	22.7	100	(44)
Total Sample	3.7	237	26.5	23.9	26.0	23.6	100	(1250)

Source: 1986 ILO Survey.

Note: One respondent who did not report his monthly earnings in the Middle East is excluded from the table.

MDE = mean duration of employment (in years).

ATE = average total earnings (in thousand rupees).

workers' durations of stay in the Middle East. The average length of employment of short stayers was only 1.3 years, while for medium stayers it was 3.6 years and for long stayers, 7.9 years. For the total ILO sample, migrants earned on average 237,000 rupees during the mean 3.7 years of employment. Approximately only one-quarter of the total ILO sample earned more than 300,000 rupees, while about three-quarters of the sub-sample of long stayers were able to earn this much.

Average total overseas earnings of the majority of short stayers were less than 75,000 rupees. Average earnings of medium stayers and long stayers were about three and eight times those of the short stayers respectively. Average total earnings differ widely across occupational categories of return migrants. About two-thirds of professional workers earned more than 300,000 rupees during their stays in the Middle East, while only 10 percent of unskilled workers earned more than 300,000 rupees. Average total earnings of professional workers were substantially higher than those of migrants in all other occupations.

Inter-country differences in earnings are also apparent. Table 2 shows that average total earnings of migrants who had returned from Iraq were only about one-third of the earnings of migrants who had returned from Kuwait and Qatar. The main reason for the low level of earnings of workers returning from Iraq was their relatively short mean length of employment: probably the main reason for this was the Iraq-Iran war which broke out in 1980. As a consequence, employment opportunities in Iraq declined substantially and migrants had to return home. The earnings of Pakistani migrants who had returned from Bahrain and Oman were also substantially lower than those of migrants who had returned from other Middle Eastern countries, even though the mean durations of workers' employment in these two countries were each approximately four years. According to the ILO data set, the main reason was the comparatively low level of wages offered in Bahrain and Oman [Arif (1995)].

6. REMITTANCES

In the ILO survey, remittances were almost universally reported; only 11 migrants returned from the Middle East without having made remittances either in cash or in kind.[4] All 11 returned within approximately four months of arriving

[4]This near-universal pattern of remittances reported by the ILO sample is quite different from the pattern that emerged from the 1980 PIDE/World Bank survey, which showed that about 12 percent of migrant households did not receive any remittances from abroad [Gilani *et al.* (1981)]. The main reason for the difference is that the PIDE/World Bank survey was conducted among the families of migrants who were still in the Middle East at the time of survey, and 15 percent of them had been away from home for less than six months. It was less likely for these recent migrants to have started remitting money home, while the ILO survey covers only migrants who had returned from the Middle East after completing their employment contracts.

in the Middle East, mainly because of health and family problems. These 11 migrants were excluded in the subsequent analyses. Table 3 shows that, on average, migrants had remitted 186,000 rupees. Approximately one-quarter of migrants were able to remit more than 200,000 rupees during their stays in the Middle East. For the total ILO sample, average remittances constituted about 78 percent of average earnings from overseas employment.

This remarkably high average propensity to remit reflects the fact that migrants consider overseas employment to be an opportunity for life-time investment. As expected, there was a strong positive relationship between the amount remitted and a worker's length of stay in the Middle East. About two-thirds of long stayers transferred more than 200,000 rupees from their overseas earnings, while more than half of short stayers transferred amounts of less than 50,000 rupees. Many medium stayers were able to remit more than 100,000 rupees. However, the propensity to remit declined from 84 percent for short stayers to 82 and 72 percent for medium stayers and long stayers, respectively.

Can it be concluded that migrants' propensity to remit tends to fall as they lengthen their stay abroad? The figures apparently support this view. However, a relatively low propensity to remit among long stayers could be attributed to their better living style abroad. There is also a possibility that some long stayers, particularly professional workers, were given permission to bring their families, which affected their propensity to remit. The other possibility is that the majority of long stayers were single and under less obligation to remit, but the ILO data show that the proportion married among the long stayers was not different from the proportions among short stayers and medium stayers.

Table 3 shows that remittances varied substantially across return migrants' occupations in the Middle East. Unskilled workers remitted on average 111,000 rupees and agricultural workers 124,000 rupees during their periods of stay in the Middle East, while the average amount remitted by professional workers was 489,000 rupees. Average remittances as a proportion of average earnings abroad were quite similar across migrants' occupations, except for business and professional workers who remitted lower average percentages of their earnings. This finding is similar to that of the PIDE/World Bank study, where Gilani *et al.* (1981) estimated that average propensity to remit was lower among business and professional workers than among other occupational groups. They suggested that this exceptional behaviour of businessmen, though not implausible, might partly be due to overstating of income.

The other possibility is that business workers may have invested some of their savings in the host country. The ILO survey did not directly question respondents about their investments abroad, but it did ask: 'Did you leave any money in a bank, or with a friend, or with anyone else abroad?' The average amount left abroad by the total sample was only 1,500 rupees, but business

Table 3

Average Remittances Made, Propensity to Remit and Percentage Distributions of Migrant by Level of Total Remittances Made According to Selected Characteristics of Migrants

Characteristics of Migrants	MDE	ATE	AAR	ATR	PR	Total Remittances Range <50,000 (Rs)	50,000-99,999 (Rs)	100,000-199,999 (Rs)	≥200,000 (Rs)	Total	(N)
Duration of Stay Abroad											
Short Stayers	1.3	68	34	57	84.0	54.3	41.4	3.7	0.6	100	(403)
Medium Stayers	3.5	216	42	178	82.4	4.7	46.6	29.7	19.0	100	(575)
Long Stayers	7.8	555	44	397	71.6	0.4	9.6	23.0	67.0	100	(261)
Occupation Abroad											
Professional	5.3	703	79	489	69.5	7.0	9.9	19.7	63.4	100	(71)
Clerical	4.3	304	54	259	85.2	4.3	13.0	52.3	30.4	100	(23)
Service	4.0	241	40	193	80.1	14.0	36.1	22.7	27.2	100	(225)
Agriculture	3.5	165	32	124	74.9	22.2	50.0	11.1	16.7	100	(18)
Business	3.9	395	41	265	67.3	19.0	23.8	4.8	52.4	100	(21)
Skilled	3.8	249	42	198	79.6	14.8	37.6	20.8	26.8	100	(426)
Unskilled	3.1	142	30	111	78.4	31.1	43.2	16.9	8.8	100	(444)
Others	4.6	401	59	318	79.4	0.0	27.3	18.2	54.5	100	(11)
Geographical Location											
Urban Areas	4.1	309	42	220	71.1	16.2	33.9	21.2	28.7	100	(439)
SRCs	3.9	325	45	222	68.2	15.8	36.0	18.2	30.0	100	(297)
bUCs	4.4	275	37	216	78.5	16.9	29.6	27.5	26.0	100	(142)
Rural Areas	3.5	201	40	165	82.4	22.0	38.9	19.1	20.0	100	(800)
Irrigated	3.3	206	40	162	78.4	22.3	38.4	19.5	19.8	100	(359)
Non-irrigated	3.7	196	37	168	85.8	21.8	39.2	18.8	20.2	100	(441)
Levels of Educational Attainment											
Illiterate	3.7	193	33	146	75.8	22.0	43.1	17.8	17.1	100	(432)
Pre-matriculation	3.5	206	38	166	80.6	23.2	38.4	18.9	19.5	100	(518)
Matriculation +	4.2	366	52	275	75.0	11.0	26.0	24.6	38.4	100	(289)

Contililted—

Table 3—(*Continued*)

Marital Status at the Time of Migration											
Unmarried	3.8	253	38	185	73.1	19.6	36.5	18.2	25.7	100	(408)
Married	3.7	232	40	185	79.5	20.1	37.4	20.7	21.8	100	(831)
Country of Employment											
Saudi Arabia	3.6	234	42	184	78.6	17.2	39.1	20.6	23.1	100	(690)
UAE	4.4	260	32	181	69.6	20.6	35.6	18.2	25.6	100	(180)
Libya	4.4	302	45	230	76.0	49	34.6	27.2	33.3	100	(81)
Iraq	1.9	121	45	105	86.3	36.7	46.8	10.2	6.3	100	(79)
Oman	3.7	197	31	148	75.1	38.8	26.5	20.4	14.3	100	(49)
Kuwait	4.9	342	43	261	76.3	6.3	31.2	25.0	37.5	100	(48)
Bahrain	4.3	188	28	151	80.3	26.2	31.0	23.8	19.0	100	(42)
Qatar	4.7	249	37	286	81.8	28.6	35.7	10.7	25.0	100	(28)
Others	2.9	249	36	198	79.4	40.5	23.8	14.3	21.4	100	(42)
Total Sample	3.7	239	39	186	77.7	20.0	37.1	19.8	23.1	100	(1239)

Source: Computed from the 1986 1LO Survey data.

Note: MDE = migrants' mean duration of employment in the Middle East (in years).

ATE = average total earnings (thousand rupees);

AAR = average annual remittances (thousand rupees);

ATR = average total remittances (thousand rupees);

PR = propensity to remit (ATR/ATE).

a: The classification of rural areas into irrigated and non-irrigated was based on the cultivated area in a district (or *telisil*) with irrigation facilities. Urban area was divided into SRCs and OUCs. The former refers to Self Representing Cities (Karachi, Lahore, Faisalabad, Hyderabad, Rawalpindi, Cujranwala, Peshawar, Multan and Quetta), while the latter include all Other Urban Centres covered in the ILO survey.

workers had on average left abroad 7,000 rupees. Although this was still only a small proportion of their overseas earnings, it seems that the lower propensity to remit among business workers may partly be due to their leaving money abroad. A relatively low propensity to remit among both business and professional workers, however, could also be due to their living style abroad, which is likely to be more costly than that of migrants in other occupational categories, particularly unskilled and skilled workers. There is a possibility that food and accommodation were provided free to unskilled and skilled workers by their employers, thus enabling them to remit the major portion of their earnings.

Urban migrants remitted more on average than their rural counterparts, but there were no major differences in remittances within the urban and rural sectors (Table 3). However, the propensity to remit was higher among rural migrants than among urban migrants. It is likely that the living styles of urban migrants while abroad were better than those of rural migrants.

There was a positive relationship between average remittances per worker and migrants' levels of educational attainment. About 38 percent of return migrants with a matriculation or higher level of education remitted more than 200,000 rupees, compared to only 17 percent of illiterate workers. The propensity to remit was slightly higher among married migrants than among unmarried workers (Table 3).

However, it is likely that differences in remittances across different categories of return migrants are to some extent due to differences in their durations of stay abroad. In order to control the effect of duration of stay on the volume of remittances, average annual remittances (AAR) are also reported in Table 3, which shows that average total remittances for professional workers were about four and a half times those of unskilled workers, but for AAR this difference reduced to only 2.6 times. Table 3 shows that differentials in remittances between rural and urban areas were mainly due to longer stays by urban migrants. The AAR of educated workers were substantially higher than those of illiterate or less educated workers, but there was no appreciable difference in the AAR across different countries of employment. For example, average annual remittances of migrants who had returned from Iraq, which showed lowest average total remittances, were higher than those from all other countries, except Libya. In short, although controlling for duration of stay reduced the magnitude of rural-urban and inter-country differentials in remittances, education and occupation while abroad remained important determinants of the amount of remittances.

7. REMITTANCES AND INVESTMENT

Table 4 provides information on average remittances received by migrants' households while they were abroad, average amounts spent on physical

investment, and average savings. For the total ILO sample, migrant households received on average about 126,000 rupees from the Middle East, and 37 percent of these remittances were directed to investment.[5] Money saved by households during migration periods was about 31 percent of remittance money. Migrant families located in urban areas invested more of the remittance money they received than their rural counterparts. However, the proportion of remittances saved (35 percent) was substantially greater among rural households than among urban households (25 percent) (Table 4).

Table 4

Investments and Savings as Percentages of Remittances Transferred while Workers were Abroad by Geographical Location"

Geographical Location/ Annual Income	Average Remittances (000 Rs)	Average Investment (000 Rs)	Average Savings (000 Rs)	Investment as % of Remittances	Savings as % of Remittances
Geographical Location					
Urban Areas	145	62	36	42.8	24.8
SRCs	151	64	38	42.4	25.2
OUCs	133	60	34	45.1	25.6
Rural Areas	115	38	41	33.0	35.6
Irrigated	113	35	43	31.0	38.1
Non-irrigated	116	40	39	34.5	33.6

Source: Computed from the 1986 ILO Survey data.

Note: Rs = Pakistani rupees.

a: The classification of rural areas into irrigated and non-irrigated was based on the cultivated area in a district (or *tehsil)* with irrigation facilities. Urban area was divided into SRCs and OUCs. The former refers to Self Representing Cities (Karachi, Lahore, Faisalabad, Hyderabad, Rawalpindi, Gujranwala, Peshawar, Multan and Quetta), while the latter includes all Other Urban Centres covered in the ILO survey.

[5] A detailed breakdown of remittances used by type of physical investment shows a heavy concentration in real estate (land and housing). For the total ILO sample, about 62 percent of physical investment went to real estate. The other major area of attraction was business, probably mostly retail trade. The heavy emphasis on real estate is understandable because such investment is instrumental in improving the socio-economic status of the family, which is usually the dominant motive behind the migration decision. Moreover, in an inflationary economic environment real estate is generally a good and risk-free long-term investment [Kazi (1989)]. The pattern of investment from remittances may not be ideal in terms of the country's long-run development. However, from the point of view of the migrants and their families it may represent the most rational application of the available resources. Almost all investment efforts, according to Athukorala (1990), are directed toward own-account employment in order to ensure continuity of the prosperity newly gained through migration. Concerning the greater weight given to investment in real estate, the Pakistani experience parallels patterns observed in other Asian labour-exporting countries such as the Philippines, India, Bangladesh, Korea and Sri Lanka.

The proportion of remittances reported to be either invested or saved in the ILO survey was higher than indicated by the well-known results of the Gilani et al.'s study, which estimated that 35 percent of remittances were either invested or saved by migrant families [Gilani *et al.* (1981)]. The proportion directed to financial savings in the Gilani et al. study was in particular very low, only 1.4 percent. The difference in proportions saved is too large to be discounted as a mere statistical artefact. One possible reason for it is that remittances brought by the ILO sample in cash during home visits were one of the main sources of household savings. However, even if all types of remittances shown in Table 1 are included in the analysis, the proportion of remittances saved by migrant families in the ILO survey was still very high – equivalent to about 21 percent of the total remittances. The other possibility is that the large amount of financial saving reported in the ILO survey may not be drawn exclusively from remittance income. But it is also evident from the ILO survey that even those households which had no stable non-remittance income during the migration period were able to save about 18 percent of remittances (see section 8.3). It thus appears that remittances created a capacity to save.

The differences between the Gilani *et al.* study and ILO samples in terms of savings could be largely due to the relatively long stays abroad reported by migrants in the ILO survey. In the case of former, there was an overrepresentation of migrants who had been abroad for less than one year, and within this category there was an overrepresentation of migrants who had been abroad for less than six months [Gilani *et al.* (1981)]. It is likely that the longer average stay abroad of workers in the ILO sample contributed to their saving a substantial proportion of remittances. It seems that capacity to save increased over time as debts incurred in migrating abroad were repaid and demands for consumer durables were satisfied. Finally, it would be a rational decision of migrants' families to save remittance money to enable the earners to use that money after returning home from abroad.

However, the proportion of remittances directed to investment and savings by the ILO sample was similar to the result obtained from a survey of Sri Lankan return migrants from the Middle East conducted in 1984 which showed that more than half of remittance money was used on physical and financial investment [Athukorala (1990)]. Results of a recent study based on the 1987-88 Pakistan Household Income and Expenditure Survey also indirectly support the ILO data. Malik and Sarwar (1993) examined empirically whether the rise in income due to remittances brings changes in consumption patterns of recipient households and found that the statements as to wasteful use of remittances cannot be applied to Pakistan overall.

A similar conclusion based on the survey of rural households in Egypt was drawn by Adams (1992): 'migrants do invest and that migrants actually exhibit a higher propensity to invest than their non-migrant counterparts'. It can be concluded that the migrant families, who receive the remittance money, do

not consider remittances to be part of their permanent incomes and tend to invest or save a considerable proportion of remittances received. Burki (1991) has drawn two important conclusions about the economic and social effect of remittances on households receiving incomes from the Middle East:

> First, the sharp increase in the current incomes of labor-exporting households .... meant a significant permanent change in their economic and social status. Even if these households were able to invest only a third of their total windfall gain in productive activity, that investment activity could result in a 50 percent increase in their incomes .... Second, by being able to meet their basic health, education, nutrition, and shelter needs, the remittance-receiving households would be better able to improve the development of their human capital. We should expect the young migrants themselves to be better nourished and, in some cases, somewhat more literate when they return home. The next generation should benefit even more. Improvements in health and education would further increase the long-term prospects of the families with migrants.

8. FACTORS AFFECTING INVESTMENT BEHAVIOUR OF MIGRANT HOUSEHOLDS

The analysis has thus far has been concentrated on the proportions of remittances directed to investment by migrants and their families. Now the question is, what factors differentiate those households, which were successful in moving remittances substantially to investment and savings from those which were not? It has been argued earlier that it is likely that a complex interplay of factors enables migrants' families to direct remittances into investment and savings. In accordance with the hypotheses set out in Section 3, in the analyses, which follow, four sets of variables are examined. One variable measuring household pre-migration economic position was included in the first set. The cost involved in obtaining overseas employment and sources of financing it make up the second set of variables. The third set contains only one variable, household non-remittance income during the period of migration. Age and marital status of migrant at the time of migration and household structure during the migration period are included as the fourth set of variables [For detail, see Arif (1995)].

All variables listed above are cross-tabulated by total amount of investment (physical investment plus financial savings) made out of remittances received. In addition, propensities to invest and to save also have been examined in relation to each variable. In order to differentiate the effect of duration of stay on the use of remittances from the effects of other variables, all analyses are controlled by worker's duration of stay abroad: short stayers, medium stayers and long stayers.

Table 5 shows that for the total ILO sample about 20 percent of migrants' households were unable to direct any remittance money to investment or savings. However, the table does indicate that about half of households in the sample were able to invest 50,000 rupees or more, which in the local context could be considered an amount likely to have lasting positive effects on the household's economy. About 38 percent of households of short stayers failed to use any remittance income for investment or savings, and only two percent were able to invest or save 150,000 rupees or more. In contrast, 42 percent of households of long stayers used 150,000 rupees or more for investment or savings, and only eight percent invested nothing (Table 5). Households in which migrants stayed abroad for between two and six years (medium stayers) also directed substantial amounts of remittances to investment or savings, and the propensity to invest for medium and long stayers was about the same.

It is likely that funds available to households of short stayers were not enough to make investments in real estate or businesses. Saving appears to be the best alternative for these households. Although there is a possibility that short stayers also were keen to re-migrate to the Middle East and apt to save to be able to pay the expenses of a second migration, the ILO data do not show a major difference in desire to re-emigrate across the three categories of duration abroad.

Table 5

Percentage Distributions of Return Migrant Households by Investments or Savings Made Out of Remittances According to Migrants' Durations of Stay in the Middle East

Duration of Stay Abroad	ARR	PI	PS	Investment/Savings Range: Nil	<50,000 (Rs)	50,000-149,999 (Rs)	≥150,000 (Rs)	Total	N
Short Stayers	39	20.5	33.3	37.7	48.4	12.4	1.5	100	(403)
Medium Stayers	123	38.2	33.3	13.3	28.0	42.4	16.3	100	(575)
Long Stayers	264	39.8	28.0	8.0	14.5	35.1	42.4	100	(261)
Total Sample	126	37.3	30.9	20.1	31.8	31.1	17.0	100	(1239)

Source: Computed from the 1986 ILO Survey data.

Note: Rs = Pakistani rupees.

ARR = Average remittances received (in 000 rupees).

PI = Propensity to invest (average amount of investment/ARR).

PS = Propensity to save (average amount of savings/ARR).

8.1. Pre-migration Economic Position

It was hypothesised in Section 3 that migrants from better-off households are likely to use remittances more productively that those with low pre-migration economic positions. The ILO sample differed widely in terms of pre-migration

household economic position: 51 percent had a low or very low position, and 32 and 17 percent had respectively middle and high status. There was a strong positive relationship between pre-migration household economic status and the amount of remittances used for investment (Table 6). For the total sample, compared to less than 8 percent of households with very low status, approximately 30 percent of households with high status had assigned more than 150,000 rupees to investment or savings. Similar patterns were observed with respect to propensities to invest and to save.

Table 6

Percentage Distributions of Return Migrant Households by Investments or Savings Made Out of Remittances According to Pre-migration Economic Status, Controlling by Duration of Stay Abroad

Duration of Stay Abroad/ Economic Status	ARR	PI	PS	Investment/Savings Range				Total	N
				Nil	<50,000 (Rs)	50,000-149,999 (Rs)	≥150,000 (Rs)		
Short Stayers									
Very Low	32	18.9	28.1	48.0	40.8	11.2	0.0	100	(98)
Low	34	14.7	26.5	42.0	50.9	7.1	0.0	100	(112)
Middle	42	19.0	47.1	31.2	56.0	11.2	1.6	100	(125)
High	55	29.1	41.8	27.9	41.2	25.0	5.9	100	(68)
Medium Stayers									
Very Low	96	32.3	22.9	17.6	38.2	41.2	3.1	100	(131)
Low	115	36.5	35.7	12.9	31.3	42.2	13.6	100	(147)
Middle	126	38.9	31.7	10.9	26.6	46.2	16.3	100	(184)
High	160	44.4	41.9	12.4	14.2	38.1	35.4	100	(113)
Long Stayers									
Very Low	225	36.0	17.3	5.2	24.1	39.7	31.0	100	(58)
Low	239	38.9	20.5	18.9	17.6	29.7	33.8	100	(74)
Middle	264	42.8	31.1	3.2	7.4	39.4	50.0	100	(93)
High	375	38.9	43.2	2.8	11.1	27.8	58.3	100	(36)
Total ILO Sample									
Very Low	100	33.0	21.0	25.4	36.2	30.7	7.7	100	(287)
Low	115	35.7	27.8	24.0	34.8	27.6	13.5	100	(333)
Middle	132	38.6	31.8	15.4	31.3	33.7	19.6	100	(402)
High	163	40.4	42.3	15.7	22.1	32.3	30.0	100	(217)
Total	126	37.3	30.1	20.1	31.8	31.1	17.0	100	(1239)

Source: Computed from the 1986 ILO Survey data.

Note: Rs = Pakistani Rupees; ARR = Average remittances received (in 000 rupees); PI = Propensity to invest (average amount of inyestment/ARR); PS = Propensity to save (average amount of savings/ARR).

Despite the tact that belter-off households were able to use proportionately more remittances for investment or savings than households with low or very low status, it is worthy of note that 31 percent of households with the poorest economic backgrounds were able to direct between 50,000 and 150,000 rupees to investment. Among respondents from very low status backgrounds, the amount of investment/savings increased significantly with length of duration of stay. Had these households not sent a member to the Middle East for employment they would not have been able to increase their assets.

Table 6 also shows the amounts of remittances invested and saved by pre-migration household economic status while controlling for workers' durations of stay in the Middle East. For the sub-sample of medium stayers only three percent of households with very low economic backgrounds directed more than 150,000 rupees out of remittances to investment or savings, while 35 percent of households with 'high' pre-migration economic status did so. For the sub-sample of long stayers, compared to 58 percent of households with high pre-migration economic status, 31 percent of households with very low status allocated 150,000 rupees or more to investment and savings. For this sub-sample, there was little difference in the propensity to invest across the four categories of pre-migration economic status, but a large difference in propensity to save. Table 6 shows that the gap in total amount invested or saved between households with different economic backgrounds narrowed with increasing duration of stay (see columns PI and PS). The findings of the present analysis are consistent with those of studies conducted in India and the Philippines. For example, Arcinas and Banzon-Bautista (1992) emphasised from their case-study of Filipino migrants that success in using remittances to enhance household productive assets was associated with access to some assets and resources before migration. Similarly, Nair (1992) found that poor economic background was one of the biggest hindrances to migrant families in Kerala (India) directing remittances to investment.

Arif (1995) shows by using the 1986 ILO data set that the amounts of remittances used for investment had very little correspondence with the pre-migration landholdings of households, although rural migrant households in irrigated and non-irrigated areas with larger landholdings (i.e. more than 12 acres) were able to direct larger amounts of remittance money to investment. A similar finding was reported in a Bangladeshi study carried out in four districts by Mahmood (1992), who shows that the level of remittances used to acquire the different types of assets seems to have very little correspondence with agricultural landholdings (prior to migration) of the migrant households. However, migrant households with bigger landholdings prior to migration tend to keep a higher proportion of their remittances in the form of assets.

8.2. Cost of Migration and Sources of Finance for Migration

It was hypothesised that migrants who finance their migration from household savings will be able to use more remittances for investment than those who finance it from other sources (section 3). According to the ILO data set, migrants spent on average about 10,000 rupees to secure employment in the Middle East, and that only one-third of workers financed their migration completely from savings. The rest had to either borrow or sell some property, or both, to cover at least part of the cost. Table 7 shows that the cost of migration was negatively related to the amount directed out of remittances to investment. For example, about one-fifth of the total ILO sample paid more than 15,000 rupees to go abroad, and 30 percent of this group were unable to free any remittance income to investment or savings, while the corresponding figure for those who paid less than 5,000 rupees was 17 percent.

Households of migrants who financed the cost of their migration from savings invested or saved more money than did those of migrants who borrowed money or sold some property to go abroad. However, Table 7 shows that saving dominated over investment among short stayers, but that the reverse was true among medium stayers and long stayers, who had remitted more money. Thus, among those households, which had financed the cost of migration from savings, the propensity to save (PS) declined substantially from 46 percent for short stayers to only 15 per sent for medium stayers, with a corresponding gain in propensity to invest. Saving seems to be easier than investment because small sums of money can be saved but relatively larger sums are required to invest. There was little correspondence between the actual cost of migration and propensities to invest. However, cost of migration had a negative relationship with propensity to save for short stayers and medium stayers. The propensity to save for those in these groups who spent more than 15,000 rupees to go abroad was substantially lower than for those in other cost of migration categories. For all duration of stay subgroups the proportion of households able to direct more than 150,000 rupees to investment and savings was highest where no cost had been incurred in migrating.

For the sub-sample of long stayers, less than one-third of migrants' households which financed migration other than through savings were able to free more than 150,000 rupees out of remittances to investment or savings, while 59 percent of households which financed migration totally from savings were able to do so. For short stayers and medium stayers, propensity to save decreased as the cost of migration increased, but there was no correspondence for long stayers.

Table 7

Percentage Distributions of Return Migrant Households by Investments or Savings Made out of Remittances According to Cost of Migration and Sources of its Financing, Controlling for Duration of Stay Abroad

Duration of Stay Abroad	ARR	PI	PS	Investment/Savings Range: Nil	<50.000 (Rs)	50.000-149.999 (Rs)	≥150.000 (Rs)	Total	N
Short Stayers									
Cost of Migration (RS)									
Nil	42	19.5	51.2	39.1	52.3	4.3	4.3	100	(23)
<5.000	39	17.9	30.8	37.9	45.6	16.5	0.0	100	(79)
5.000-10.000	38	15.8	42.1	27.5	58.8	13.7	0.0	100	(80)
10.001-15.000	42	21.4	35.7	32.1	50.9	15.1	1.9	100	(106)
>15.000	37	24.3	27.0	49.6	40.0	7.8	2.6	100	(115)
Sources of Financing the Cost									
Savings only	48	18.8	45.8	31.4	50.0	15.7	2.9	100	(102)
Other	36	22.2	30.6	39.9	47.8	11.3	1 0	100	(301)
Medium Stayers									
Cost of Migration (RS)									
Nil	136	46.3	45.6	20.9	18.6	32.6	27.9	100	(43)
<5.000	129	33.3	38.0	13.2	27.9	43.4	15.5	100	(129)
5.000-10.000	126	38.1	31.0	12.4	25.4	44.4	17.8	100	(169)
10.001-15.000	110	38.2	37.3	12.5	27.9	45.6	14.0	100	(136)
>15.000	122	42.6	22.1	**12.2**	36.7	37.8	13.3	100	(98)
Sources of Financing the Cost									
Savings only	150	42.7	15.0	12.1	17.4	44.2	26.3	100	(190)
Other	NO	35.5	30.0	13.8	33.2	41.6	11.4	100	(385)
Long Stayers									
Cost of Migration (RS)									
Nil	400	40.8	26.0	0.0	27.3	18.2	54.5	100	(22)
<5.000	292	36.0	29.5	4.8	10.5	39.0	45.7	100	(104)
5.000-10.000	214	42.1	30.4	12.2	13.3	35.6	38.9	100	(90)
10.001-15.000	200	42.0	20.5	15.4	23.1	34.6	26.9	100	(26)
>15000	276	47.5	22.8	5.2	15.8	31.6	47.4	100	(19)
Sources of Financing the Cost									
Savings only	346	41.7	31.0	2.0	13.3	25.5	59.2	100	(98)
Other	215	38.1	25.1	11.6	15.2	40.9	32.3	100	(163)
Total ILO Sample									
Cost of Migration (Rs)									
Nil	177	41.8	35.0	20.5	29.5	21.6	28.4	100	(88)
<5.000	161	34.2	32.3	16.6	26.5	35.2	21.7	100	(312)
5.000-10.000	129	38.8	31.0	15.9	30.1	34.8	19.2	100	(339)
10.001-15.000	92	35.9	33.7	20.5	36.6	32.5	10.4	100	(268)
>15.000	92	40.2	22.8	30.2	36.6	22.4	10.8	100	(232)
Sources of Financing the Cost									
Savings only	172	40.7	35.5	14.6	24.9	32.1	28.5	100	(390)
Other	104	34.6	27.9	22.6	34.9	30.7	11.8	100	(849)

Source: Computed from the 1986 ILO Survey data.

Note: Rs = Pakistani Rupees.

ARR = Average remittances received (in 000 rupees).

PI = Propensity to invest (average amount of investment/ARR).

PS = Propensity to save (average amount of savings/ARR).

8.3. Non-remittance Income During Migration Period

It was hypothesised in section 3 that migrant households, which had income other than remittances during the migration period, would be able to move more remittance income to investment than households, which had only remittance income. In the ILO sample 37 percent of households depended solely on remittances, since they had no other income during the migration period. About half of the urban migrants' households had access to no income other than remittances, while in rural areas less than one-third of migrants' households depended solely on remittance money during the migration phase.

Table 8 shows a positive relationship between household non-remittance income and amount of remittance income used for investment and savings. For example, for the total ILO sample about 26 percent of households which had non-remittance income of more than 12.000 rupees annually were able to invest or save more than 150,000 rupees, while only 13 percent of households which did not have non-remittance income used this amount for investment or savings.

Table 8

Percentage Distribution of Return Migrant Households by Investments or Savings Made Out of Remittances According to Household Annual Non-remittance Income (in Rupees), Controlling for Duration of Stay Abroad

				Investment/Savings Range					
				Nil	<50.000 (Rs)	50.000-149.999 (Rs)	≥150.000 (Rs)	Total	N
Duration of Stay Abroad	ARR	PI	PS						
Short Stayers									
Nil	40	15.0	32.5	38.2	51.9	9.2	0.8	100	(131)
<6.000	38	15.8	31.6	38.7	47.3	14.0	0.0	100	(93)
6.000-12.000	42	23.8	33.3	33.3	50.5	15.1	1.1	100	(93)
>12.000	37	27.0	40.5	40.7	41.9	12.8	4.7	100	(86)
Medium Stayers									
Nil	124	30.6	28.2	16.8	34.1	37.4	11.7	100	(214)
<6.000	114	43.9	36.8	8.5	29.2	47.7	14.6	100	(130)
6.000-12.000	112	38.4	29.5	13.5	25.2	52.3	9.0	100	(111)
>12.000	142	45.8	42.3	11.7	18.3	36.7	33.3	100	(120)
Long Stayers									
Nil	266	31.9	21.8	11.0	23.9	32.1	33.0	100	(109)
<6.000	241	44.4	30.7	5.5	7.2	41.8	45.5	100	(55)
6.000-12.000	278	39.9	35.3	5.1	6.8	37.3	50.8	MX)	(58)
>12.000	269	55.0	31.2	7.7	10.3	30.8	51.2	100	(39)
Total ILO Sample									
Nil	134	30.0	25.4	21.6	36.8	28.0	13.6	100	(454)
<6,000	113	41.6	33.6	18.0	30.9	35.3	15.8	100	(278)
6,000-12.000	124	37.9	33.1	18.6	30.0	35.7	15.6	100	(263)
>12.000	125	47.2	38.4	21.2	25.3	27.3	26.2	100	(245)

Source: Computed from the 1986 ILO Survey data.

Note: Rs = Pakistani Rupees.

ARR = Average remittances received (in (X)0 rupees).

PI = Propensity to invest (average amount of investinent/ARR).

PS = Propensity to save (average amount of savings/ARR).

However, a substantial proportion of those households which depended entirely on remittance money to meet household needs during the period of migration were able to free between 50,000 and 150,000 rupees for investment or savings. A similar pattern is evident in the propensities to invest and to save.

Table 8 further shows that for all three sub-samples—short stayers, medium stayers and long stayers—average remittances received during the migration period were similar across different categories of non-remittance income. The propensities to invest and to save vary with non-remittance income in all three sub-samples. However, for long stayers, the total amount of investment and savings was positively related with non-remittance income during migration period. Although it is difficult to conclude that the higher the level of non-remittance income, the larger the proportion of remittances moved to investment or savings, the availability of non-remittance income did increase the capacity of households of long stayers to direct more remittances to investment and savings than households of medium and short stayers.

8.4. Migrants' Ages, Marital Statuses and Household Structures

It was hypothesised in section 3 that migrants' life cycle stages may affect patterns of use of remittance money because most Pakistani workers go abroad during that period of their lives when they are likely to have young children. In the ILO survey more than 70 percent of migrants were less than 35 years of age at the time of migration, and the majority (67 percent) were married and had on average three children [Arif (1995)]. The ILO data show that in the absence of migrants, their wives and children generally lived in extended family situations, usually headed by the migrant's father. Although the majority of migrants transferred remittances to the heads of households (fathers), more than a quarter remitted monies to their wives. In this context, it seems appropriate to examine the patterns of uses of remittances not only by age and marital status of migrants but also by the structure of households to which remittances were made.

In Table 9 remittances and savings made out of remittances are related to migrants' ages at the time of migration, marital statuses and household structures while they were abroad, controlling for duration of stay. Return migrants who were unmarried at the time of migration are considered part of extended (parental) households, since unmarried persons in Pakistan usually stay with their parents and are considered part of their parents' households. Table 9 shows that for the total ILO sample, age of migrant at the time of migration had a negative relationship with the propensity to invest. Similarly, being married showed a negative association with the propensity to invest. Migrants who were 25–34 years of age at the time of migration were the most likely to be in the highest investment/savings category, and those aged 35 years or older were the most likely to be in the <50,000 investment/savings category. Perhaps migrants

Table 9

Percentage Distributions of Return Migrant Households by Investments and Savings Made Out of Remittances According to Age, Marital Status of Migrant at the Time of Migration and Household Structure, Controlling for Duration of Stay Abroad

Duration of Stay Abroad/Age, Marital Status. Household Structure	ARR	PI	PS	Investment/Savings Range: Nil	<50,000 (Rs)	50.000-149.999 (Rs)	≥150.000 (Rs)	Total	N
Short Stayers									
Age at the Time of Migration									
< 25 Years	37	23.3	31.9	42.0	42.9	14.3	0.8	100	(119)
25-34 Years	38	18.3	32.5	41.6	46.3	10.8	1.3	100	(149)
≥ 35 Years	43	19.2	37.9	29.6	55.6	12.6	2.2	100	(135)
Marital Status									
Unmarried	37	29.7	35.1	43.4	38.9	15.9	1.8	100	(113)
Married	40	17.5	35.0	35.5	52.1	11.0	1.4	100	(290)
Household Structure During Migration									
Nuclear	39	20.5	41.0	33.1	49.7	15.9	1.3	100	(151)
Extended	40	20.0	30.0	40.5	47.6	10.3	1.6	100	(252)
Medium Stayers									
Age at the Time of Migration									
< 25 Years	115	43.9	40.7	14.4	**22.6**	45.6	17.4	100	(195)
25-34 Years	128	39.5	28.9	10.7	28.6	43.3	17.4	100	(224)
≥ 35 Years	126	31.5	32.4	15.4	34.0	37.1	13.5	100	(156)
Marital Status									
Unmarried	125	45.6	38.4	11.8	22.1	43.6	22.5	100	(204)
Married	122	34.4	31.1	14.0	31.3	41.8	12.9	100	(371)
Household Structure During Migration									
Nuclear	113	35.4	29.3	14.2	30.4	44.0	11.4	100	(184)
Extended	128	39.6	35.2	12.8	26.8	41.7	18.7	100	(391)
Long Stayers									
Age at the Time of Migration									
< 25 Years	246	40.8	19.3	8.9	12.7	45.6	32.8	100	(79)
25-34 Years	277	41.1	31.1	8.1	13.1	28.4	50.4	100	(112)
≥ 35 Years	270	30.6	38.0	7.1	18.6	34.3	40.0	100	(70)
Marital Status									
Unmarried	240	51.7	22.9	6.6	13.1	38.5	41.8	100	(91)
Married	276	34.4	30.4	**8.8**	15.2	33.3	42.7	100	(170)
Household Structure During Migration									
Nuclear	265	31.7	27.9	12.8	16.0	31.8	39.4	100	(94)
Extended	266	41.7	27.4	5.4	13.9	37.3	43.4	100	(165)
Total ILO Sample									
Age at the Time of Migration									
< 25 Years	117	40.3	31.0	21.6	26.7	36.2	15.5	100	(393)
25-34 Years	137	38.4	30.2	19.6	30.5	29.6	20.3	100	(485)
≥ 35 Years	123	29.5	32.1	19.1	39.1	27.4	14.4	100	(361)
Marital Status									
Unmarried	127	46.5	31.5	19.4	24.8	34 8	21.0	100	(408)
Married	125	32.8	31.2	20.4	35.2	29.3	15.1	100	(831)
Household Structure During Migration									
Nuclear	120	31.9	30.0	20.5	34.0	31.5	14.0	100	(429)
Extended	129	38.7	31.4	19.9	30.7	31.0	18.4	100	(808)

Source: Computed from the 1986 ILO Survey data.

Note: Rs = Pakistani Rupees.

ARR = Average remittances received (in thousand rupees).

PI = Propensity to invest (average amount of investment/ARR).

PS = Propensity to save (average amount of savings/ARR).

aged 25–34 years saved/invested more because they were more often long stayers, while the older group of migrants invested/saved less because they were more likely to be short stayers. Some 23 percent of those migrating aged 25–34 were long stayers compared to 20 percent and 19 percent of younger and older migrants, respectively, and 37 percent of older migrants were short stayers compared to 30 percent and 31 percent of those aged < 25 and 25–34. Table 9 shows that marital status had a negative relationship with investment and savings only for medium stayers.

It short, it appears from the bivariate analysis that a considerable number of migrant families made progress towards improving their socio-economic status beyond the period of migration by using remittance money for investment and savings. In addition to short durations of stay in the Middle East, the main obstacles prevailing some migrants from moving in that direction were poor family economic backgrounds, dependence on remittances for household maintenance during migration, lack of household savings to finance the cost of migration and being married.[6] Some other variables which can affect the ability of migrant households to shift remittances to investment and savings such as education, occupation while abroad and geographical location were not included in the foregoing analysis. These variables have been included in the multivariate analysis.

9. REMITTANCES AND INVESTMENT AND SAVINGS: A MULTIVARIATE ANALYSIS

In the multivariate analysis which follows the amount invested or saved as a proportion of remittances transferred is used as the dependent variable. Nine explanatory variables were included in the model, and operational definitions of these variables are presented in Table 10. Several interaction terms were introduced into the model, but none turned out to be significant. Thus, interaction terms are not included in the final model. Since the dependent variable takes a value between zero and one, multivariate logistic regression is used in the analysis.[7] Results are presented in Table 11. A logit estimate was considered to be significant if it was at least double the associated standard error

[6] However, migrants' households that could not direct substantial amounts of remittances to investment and savings may have been able, because of remittance money, to discharge liabilities such as marrying off children, educating children, and providing medical treatment for any sick members of their households. These liabilities would have remained uncleared had migrant families not sent one of their members abroad.

[7] A dichotomous dependent variable cannot be estimated adequately by using ordinary least squares (OLS) for a number of technical reasons. OLS provides the best unbiased estimates where the dependent variable is a continuous, but it is less efficient for dummy dependent variables. The main danger is that some effects may falsely appear to be insignificant' [Evans (1985)]. Moreover, a linear regression line, when fitted to the data, predicts values for the dependent variable that may exceed one or be less than zero [Sirageldin, Sherbiny and Serageldin (1984)].

Table 10

Operational Definitions of Explanatory Variables Used in the Logistic Regression Analysis of Investment and Savings as Proportion of Remittances

Variables	Definitions
Age	Migrant's age at the time of migration in completed years is a continuous variable.
Marital Status	Pre-migration marital status of migrant is a dichotomous variable, and takes the value one if the respondent was married and zero otherwise.
Geographical Location	Four categories of geographical location, irrigated, non-irrigated, the SRCs, and the OUCs, were entered in the model as dummy variables.
Education	Three categories of level of migrant's educational attainment, illiterate, less than a matriculation-level and a matriculation or higher level, were entered in the model as dummy variables.
Household Economic Status	Four categories of household pre-migration economic status, very low, low, middle and high, were entered in the model as dummy variables.
Source of Financing the Cost	Sources of financing the cost of migration is a dichotomous variable, and takes the value one if there was no cost of migration or the source was household savings only and zero otherwise.
Occupation while Abroad	Eight categories of occupation while abroad are collapsed to two categories, since there were a small numbers of cases in certain occupations, for example, professional and agricultural workers. This reclassification is based on the nature of work performed by returnees during their stay in the Middle East. In view of relatively high levels of education and the non-manual nature of the jobs, professional and clerical occupations are collapsed to one category. Occupation while abroad takes the value one if a respondent was a professional or clerical worker, and zero if a respondent was not a professional or clerical worker.
Duration of Stay Abroad	Three categories of length of stay abroad in completed years, short stayer, medium stayer and long stayer, were entered in the model as dummy variables.
Non-remittance Income	Household annual non-remittance income in rupees during the migration period is a continuous variable.

Table 11

Logistic Regression Analysis of Investment and Savings as a Proportion of Remittances

Variables	Parameters	Standard Errors	Odds Ratios
Age	0.0048	0.0083	1.01
Marital Status			
Unmarried	–	–	–
Married	–0.3626*	0.1361	0.70
Geographical Location			
Irrigated	–	–	–
Non-irrigated	0.1882	0.1524	1.21
SRCs	–0.5043*	0.1724	0.60
OUCs	–0.3358	0.2144	0.72
Level of Educational Attainment			
Illiterate	–	–	–
Pre-matriculation	0.3671*	0.1419	1.44
Matriculation +	0.1282	0.1811	1.14
Pre-migration Household Economic Status			
Very Low	–	–	–
Low	0.2638	0.1683	1.30
Middle	0.4670*	0.1657	1.60
High	0.5302*	0.2116	1.70
Sources of Financing the Cost			
Borrowing/Selling Property/Savings	–	–	–
Savings only	0.3309*	0.1403	1.39
Occupation while Abroad			
Professional/Clerical	–	–	–
Others	0.3601	0.2600	1.43
Duration of Stay Abroad			
Short Stayers	–	–	–
Medium Stayers	0.8581*	0.1391	2.36
Long Stayers	0.8328*	0.1718	2.30
Non-remittance Income	0.0084*	0.0042	1.01
Constant	–0.9827*		
LRX^2	1706		
N	1238		

Source: Computed from the 1986 ILO survey data.

* Shows significance at 5 percent level of confidence or belter.

value. At the bottom of the table are the number of cases and Likelihood Ratio of Chi Square (LRA^2).

Seven variables—migrants' durations of stay in the Middle East, their pre-migration household economic statuses, sources of financing the cost of migration, household non-remittance income during the migration period, their marital statuses at the time of migration, educational levels and geographical locations—turned out to be statistically significant and had independent influences on directing remittances to investment and savings (Table 11).

Worker's length of stay abroad appears to be a crucial factor in raising the standard of living of a migrant and his family beyond the period of migration. The longer migrant workers stay in the Middle East the greater the opportunities for their families to shift remittances to investment and savings. Although it is difficult to determine precisely the length of overseas employment required for migrants' families to be able to make significant investments or savings from remittance money, it is clear from the analysis that one contract period, which is usually two years, is not sufficient time to make much progress in this direction (Table 5). It is possible that workers staying abroad beyond the period of a first contract generally would enable recipient households to use remittances in ways likely to have lasting effects on their economies.

Households with high and middle pre-migration economic statuses moved, proportionately, 60–70 percent more remittance money to investment and savings than households with 'very low' initial endowments. This suggests that initial resources form a base for further improvement through investment and savings from remittances. Similarly, the statistical significance of household non-remittance income during the migration period shows its importance as a supplementary source of income: each additional rupee of non-remittance income slightly, but significantly, increased the proportion of remittances directed to investment and savings. A higher proportion of overseas earnings went into productive investments probably because the household's day-to-day sustenance was drawn from other income sources. It appears that the greater the level of household income other than remittances, the greater the possibility of using remittances for investment and savings. It is important to note that in the ILO sample, the levels of non-remittance income of households residing in the SRCs and irrigated areas were substantially higher than those of households in the OUCs and non-irrigated areas. Thus migrants from the SRCs and irrigated areas may have been more successful in using remittances productively than migrants from the OUCs and non-irrigated areas.

However, Table 10 does not support this view and shows that urban migrants, particularly from the SRCs, were less likely to direct remittances to investment and savings than rural migrants. There are three possible explanations. First, since the cost of living in the SRCs was likely to be higher

than the cost in rural areas, it was difficult for migrants from the SRCs to free remittances for investment and savings. Second, more funds may be required to start a business in the SRCs than in other geographical locations, and migrants from the SRCs could not easily accumulate the required funds. A third possible explanation is that urban migrants do not have the same incentive to invest in land that rural migrants do.

The source of financing the cost of migration had a significant positive independent influence on the amount invested or saved by migrants' families. In the ILO sample, approximately three-quarters of the respondents partly or fully financed the cost of their migration either through borrowing or through selling some household property [Arif (1995)]. It is likely that a substantial proportion of remittances from these migrants disappeared to pay the debts incurred because of migration. Migrants who financed the cost of overseas migration by borrowing money from friends or relatives had poor economic backgrounds, which together with the cost became a major hindrance to moving remittances to investment and savings. Migrants' levels of educational attainment also had significant and positive effects on directing remittances to investment and savings, but occupation while abroad did not turn out to be significant. Education not only seems to have enhanced the importance of investment, but may have aided the recipient households in finding attractive opportunities to invest remittance money.

Migrants married at the time of migration transferred, proportionately, 30 percent less of their remittances to investments and savings than did those who were unmarried. This behaviour is understandable: families of married migrants are likely to spend more remittance income than those of unmarried migrants to meet the household's basic needs. It is also possible that migration of unmarried migrants sometimes was associated with preparations to marry. There could thus be a special incentive to direct the maximum proportion of remittances to investment or savings for households of unmarried migrants. Further, it is essential in some parts of the North Western Frontier Province of Pakistan to pay for a bride. Many young males from poor households migrate within the country or overseas to accumulate savings for their marriages.

In short, the multivariate analysis supports the bivariate analysis and indicates that a complex interplay of factors determines the success of migrant families in directing remittances to investment and savings. Workers' lengths of stay abroad, their pre-migration household economic positions, the abilities of migrant households to finance the cost of migration, the availability of non-remittance income during the period of migration, levels of education, marital statuses and geographical locations all appear to have exerted influence on the extent to which migrant families were able to use remittance money for investment and savings. However, the significance of the duration of stay

abroad suggests that despite the initial low endowments of migrant households and high cost involved in obtaining overseas employment, improvement and investment is possible over time.

10. SUMMARY AND CONCLUSION

The present study shows that average monthly earnings of migrants workers differed widely across different occupational groups and across the countries in which they were employed. Despite these wage differentials, duration of stay in the Middle East turned out to be the most important factor in determining the level of total earnings. The propensity of Pakistani workers to remit (i.e. the percentage of total earnings remitted) was remarkably high—78 percent. The majority of workers, even if their durations of stay abroad were long (more than six years), remitted about three-quarters of their earnings. This reflects the fact that migrants consider overseas employment to be an opportunity to acquire monetary reserves, although it also might reflect limited opportunities for spending in the Middle East. Migrants were able on average to send or bring home an amount (including consumer durables) equivalent to about five times what they would have received in Pakistan over the migration period.

Migrants and their families did direct a considerable proportion of remittances into investment and savings. The present study has showed that the success or failure of migrants and their families in directing remittances to investment and savings was determined by four factors: the process of recruitment, including the cost of migration and sources of its financing, pre-migration household economic position, the human capital of workers (education and skills) and marital status. It appears that education provides them with better access to the information and knowledge necessary for coping with the new demands placed on them by migration. The higher the level of education the greater the prospect of using remittances productively. It was also shown that migrant households which had access to some assets and resources before migration were more successful in directing remittances into investment and savings than households with poorer economic backgrounds, suggesting that these resources form a base for further improvements and for investment of overseas earnings.

Access to noo-remittance income during the period of migration is another important factor affecting decision-making related to directing remittances into investment and savings. This becomes clear when one contrasts the situation of those migrant households which had supplementary sources of income with that of those which depended solely on remittances. Households with modest non-remittance income seem to manage their new resources (remittances) more prudently. If the primary income earner remains at home and continues to maintain the household, earnings from migration are more easily

diverted to savings and investment. However, it is possible that migrant households which did not have non-remittance income were nuclear households. Their only earner, probably the head of the household, went abroad and they depended on remittances for their livelihood. The ILO data support this possibility, showing that 42 percent of migrant households which did not have non-remittance income during the migration period were nuclear households, while the corresponding figure for households which received more than 12,000 rupees in non-remittance income annually was only 17 percent.

The loans taken out by migrants and the fees paid by them to recruiting agents also played an important role in their success or failure in directing remittances to investment and savings. The high cost of migration is likely to be associated with unlawful recruiting practices. Although the government has fixed a reasonable fee for recruiting agents, the actual cost of migration was much higher than the prescribed one. Migrants from poor households managed these costs by borrowing money from their friends and relatives, and a considerable part of their overseas earnings may have gone to paying these debts. It seems that under the present system it is very difficult for migrants with poor economic backgrounds to make real progress in enhancing their households' economic positions by using remittances productively. However, even with poor economic backgrounds, some migrant families were able to transfer considerable proportions of remittances into investment and savings when migrants had been abroad for long periods. In contrast, short durations of stay limited migrants' accumulated savings and the major part of these savings was probably used to pay debts incurred to go abroad.

11. POLICY IMPLICATIONS

The present study has shown that migrant households were able to direct a considerable proportion of remittances into investment and savings. This ability was heavily influenced by the process of recruitment, pre-migration household economic position and the human capital of workers. These factors should be taken into account when formulating policies and programs to encourage workers to use remittances productively. Some short- and long-term measures that can enhance the investment ability of migrant household have been outlined below.

Short-term Measures

(1) The present study has shown that migrants usually remit a major part of their earnings while they are abroad and recipient households primarily use these monies. These households may not have information about investment opportunities. There is a need to develop a network in high-migration areas to provide investment-related information to migrants' families.

(2) In order to encourage migrant workers to use official channels to send home their remittances, Pakistani banks have opened their branches in the Middle East. These banks should introduce some schemes to enable workers to use their savings for productive investment in Pakistan. For example, workers who had foreign currency accounts for a certain period of time can be offered some credit to invest in the specified projects. Turkish banks had such schemes for migrants working in Germany.

(3) The Small Business Finance Corporation and the recently established Small and Medium Enterprise Development Authority should design some attractive schemes for overseas workers. A supportive infrastructure would enable migrants and their families to make a better use of overseas earnings.

Long-term Measures

(1) The present study has shown that the process of recruitment had a strong influence on the ability of migrants and their families to direct remittances to investment. There is a need to make the pre-migration phase less onerous by improving the existing recruiting system, and by disseminating information about overseas employment so that prospective migrants can exercise the necessary care in selecting channels of recruitment, and in examining and accepting contracts of service.

(2) In the long run the greatest benefits from migration will come from investment in human resources. The government of Pakistan has already outlined several skills development programs. Potential emigrants can easily be accommodated in these programs.

(3) The temporary nature of the contract labour migration process needs to be emphasised. Migrants should particularly be warned that their long-term gain from migration is likely to be limited unless they are able to secure, and are prepared to stay abroad for, more than the period of one contract, which is usually two years.

(4) There is also a need to develop a system to educate prospective migrants and their families in how to handle foreign earnings in ways that could help workers to establish the basis for sustainable improvements in the living standards of themselves and their families.

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ABSTRACT

The purpose of this study was to examine the determinants of the success of return migrants and their families in directing remittances to investment and savings. Total overseas earnings of workers and their remittances behaviour were also investigated. The analysis was based on the 1986 ILO survey. Monthly earnings differed widely across different occupational groups and across the countries in which workers were employed, but duration of stay in the Middle East appeared to be the most important factor in determining level of total earnings. For example, average total earnings of unskilled workers were considerably lower than the earnings of professional workers mainly because the former had comparatively short stays.

Return migrants in the ILO sample were in general able to remit about three-quarters of their total earnings, and the major part of these remittances was transferred regularly while the migrant was abroad. Except for professional and business workers, who constituted only eight percent of the ILO sample, the majority of workers, even if their duration of stay abroad were long (more than six years), remitted 75 percent of their total earnings. Contrary to the expectation that migrants might retain large proportions of their savings abroad to bring back at the time of final return, only 11 percent of total remittances were brought upon final return.

Migrants' families did not usually waste the money which they received from abroad. Rather they directed a considerable portion of it to investment and savings. There were several factors—worker's duration of stay in the Middle East, having a middle or high pre-migration household economic status, ability of a migrant's household to finance migration, availability of non-remittance income during migration period, being unmarried at the time of migration and having some schooling—which enabled migrants and their households to direct remittances to investment and savings. The study shows that there is a need to make the pre-migration phase less onerous by improving the existing recruiting system, and by exercise the necessary care in selecting channels of recruitment, and in examining and accepting contracts of services.

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