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# Impact of Migration on the Domestic Labour Market\*

## A Preliminary Analysis

### 3.1 INTRODUCTION

The return flow of emigrants could become increasingly important in the not-too-distant future. Based on our projected estimates of return migration the total number of return migrants between 1983-88 may be as high as 600,000. Even on the assumption that 40 per cent of the return migrants return to the Middle East the total number returning between 1983-1988 could be as much as 360,000. Nevertheless, these estimates also show that based on growth projections of the Middle East economies and trends in the share of Pakistani labour in the Middle East a significant outflow of Pakistani labour will continue to take place. What needs to be examined therefore are important influences that continued out migration and return migration of workers are likely to have on the domestic employment situation.

We start by examining the skill composition of the outmigrants in the past and the impact on the economy

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through pressures located in the domestic labour market. On the basis of the available data and the nature of the labour market we propose hypotheses regarding the pattern of wage increases in domestic industry and agriculture which took place during this period.

In the next two sections we analyse the consequences on the domestic economy if the earlier situation persists. Taking into account not only the outflow of labour but also remittances we study in Section 3.4 its impact on the sectoral composition of the domestic economy and the choice of technology. The long-term implications for the employment generation capacity of the economy of these changes are also discussed mainly to illustrate how the coincidence of output and employment objectives may not be borne out in the Pakistani context.

To what extent will these trends be mitigated and with what effect? If there is a slowing down in net migration accompanied with a significant increase in return migration? This issue is taken up in Section 3.5 based on the available evidence on job preferences of return migrants and the likely patterns of investment with the incomes brought back by them. We also consider some of the conceptual issues that are involved in analysis the return flow of migrants in the event that the return flows become substantially more important than the outflows. This also helps us identify areas for further research and kind of information that needs to be generated through field surveys for further analyses.

We wish again to emphasize that this is a preliminary analysis. We should point out that data on return migration and satisfactory projections regarding the magnitude and pattern of net outflows are yet to be generated. Therefore this chapter has focused on the analytical issues involved in examining the entire phenomenon of out and return migration from the perspective of the employment generation capacity of

the domestic economy. The scope of the discourse has of course been determined by whatever little data or information we have been able to generate on the principal analytical issues raised in this report.

### **3.2 EFFECTS OF THE NET OUTFLOW OF SKILLED LABOUR ON DOMESTIC INDUSTRY AND AGRICULTURAL SECTORS**

Demand projections for Pakistani labour in the Middle East over the decade of the 1980's show that in spite of a decline in the percentage share of labour in the Middle East, the stock of Pakistani labour in the Middle East is expected to increase. It is important to start by examining the effects of the continuing outflow of Pakistani labour on domestic industry. Essentially the impact of the continued outflow of labour (especially skilled labour) would be initiated at two levels:

- (1) Effects on the wage cost per unit of output.
- (2) Effects on the choice of technique in the industrial and agricultural sectors.

Let us briefly examine the implications of these two types of impact on the basis of the evidence available.

#### **3.2.1 EFFECTS OF NET OUTFLOW OF SKILLED WORKERS ON WAGE COSTS IN INDUSTRY: IMPLICATIONS**

There are three sources of data at present available regarding the skill composition of outmigrants: The Bureau of Emigration, the PLM (PIDE) Survey, and the PIPO/PIDE Survey. All three sources of data indicate a predominance of production workers in the outmigrants during the 1970's. The Bureau of Emigration estimates that production workers constitute 79.13 per cent of the outmigrants in the period 1972-82; the figure in the PLM (PIDE) Survey is 81 per cent

for the period 1972-79, while it is 83.2 per cent in the PIPO/ PIDE data for the year 1979.

(a) Skill composition of emigrants. In order to assess the impact of outmigration on the domestic labour market, it is necessary to consider the outmigrants in each skill category as a percentage of domestic employment in that category. In terms of this criterion also, production workers are by far the most important. The ILO/ARTEP 1983 Study estimated that 'In terms of the one digit occupational classification, outmigrants as a percentage of domestic employment in all occupations was not greater than 10 per cent, except in the case of production workers (excluding agricultural workers) where the figure was as high as 25 per cent'. Although, in term of the broad classifications, the skill loss to the domestic economy in most cases may have been negligible, nevertheless, at a detailed occupational classification level, loss of certain skills may have been substantial. In such cases migrants constituted one half to double the domestic employment for example, plumbers, carpenters and masons (see Table 1).

From the viewpoint of the efficiency and growth of domestic industry, what gives cause for concern is not only the large share of production workers in the outmigrants, but the tendency for this share to increase since 1977. For example, the Bureau of Emigration data show that the percentage of production and related workers in total emigrants in the period 1971-77 was 68.1 per cent, but increased to 80.5 per cent in the period 1971-82.<sup>1</sup>

(b) Skill Shortages. In order to assess the impact of outmigration during the seventies and early eighties on the labour shortages of certain occupations and hence on wages, the domestic supply and demand situation for each skill category needs to be compared. This can be done on the basis of a projection exercise for demand and supply of labour by skill, conducted in connection with the Fifth

**TABLE 1**  
**Estimated Domestic Employment for Major Migrating Occupations and Migrants**  
**As a Percentage in 20 Major Occupations**

	Manpower Division Estimates 1977/78 (Numbers)	Migrants	
		Bureau Data (All)	PIPO/PIDE Data (Middle East)
		(Percentages)	
<b>PROFESSIONAL &amp; MANAGERIAL WORKERS</b>			
Engineers <sup>a</sup>	39,470 <sup>a</sup> (Exact. Technicians)	31.92	84.29
Accountants & Auditors	12295	43.92	55.74
Managers/ Executives	155978 <sup>b</sup>	2.31	-
Teachers	423822 <sup>c</sup>	6.9	1.03
Doctors	13172 <sup>d</sup>	54.54.77	17.1
Nurses	4300 <sup>e</sup>	209.3	58.0
Computer Programmers/ Operators	1208 <sup>f</sup>	-	25.7
<b>PRODUCTION WORKERS</b>			
Masons	114691	105.2	66.1
Carpenters	142271	94.9	54.6
Electric Fitters/ Electricians	125728 <sup>g</sup>	31.5	33.1
Plumbers & Pipe Fitters	29048	62.0	56.6
Cable jointers/ Electric Linemen	36773	19.6	
Mechanics	241340 <sup>h</sup>	25.4	12.6
Drivers (motor vehicles)	249590	-	39.1
Tailors	117235	-	50.2
Machine Tool Operators/ Setters	85846	-	32.2
Blacksmiths	88201	-	1.7
Watchmakers	5735	-	15.2
Painters	119.230	18.1	16.4
Foremen/ Supervisors	690948	41.2	16.4

- Note: (a) Includes civil engineers, electrical and electronics engineers., mechanical engineers including marine and aeronautical engineers and engineers n.e. c.  
 (b) Excludes managers, working proprietors, sales supervisors/ representatives shown under Sales Workers (37,539)  
 (c) All teachers including primary educations teachers (135, 745).  
 (d) Only doctors and surgeons, i.e. excludes medical assistants, dentists, veterinarians.  
 (e) Professional nurses,  
 (f) Computing machine operators, card and tap punching machine Operators.  
 (g) Includes electrical fitters, electronics fitters, electrical and electronic equipment assemblers and electrician / wireman.  
 (h) Machine fitters, machine assemblers, motor and other vehicle mechanics.

SOURCE: ILO / ARTEP, 1983, OP. CIT.

**Table 2**  
**Projected imbalances for Selected Occupational Groups**  
**Affected by Emigration (in '000) 1982/83**

	Demand	Supply	Emigration	+ = Surplus - = Shortages
<b>PROFESSIONAL, TECHNICAL &amp; RELATED WORKERS</b>				
Civil Engineers	17	19	4	-2
Electrical and Electronics Engineers	11	12	4	-2
Mechanical Engineers incl. Marine and Aeronautical Engineers	10	11	3	-2
Engineers n.e.c.	8	9	3	-2
Surveyors	5	6	4	-3
Civil Engineers Technicians	41	46	6	-2
Electrical & Electronics Engineering Technicians	42	47	7	-2
Mechanical Engineering Technicians	22	25	6	-3
Engineering & Related Technicians	21	24	5	-2
Medical Doctors & Surgeons	25	25	2	-2
<b>PRODUCTION AND RELATED WORKERS, EQUIPMENT OPERATORS AND LABOURERS</b>				
Bricklayers, Stone masons and Till Servers	97	99	28	-26
Well-drillers, Borers, & Related Workers	4	4	2	-2
Machine Tool Setters	53	56	6	-3
Machine Tool Operators	46	47	5	-4
Reinforced Concreters Cemen: Finishers verrazzo workers	21	22	10	-9
Roofers	16	17	5	-4
Carpenters, Jointers and parquetry workers	76	77	34	-33
Radio & Television Repairmen, Electrical and Related Electrical & Electronics Workers n.e.c.	9	10	5	-4
Plumbers and Pipe Fitters	34	35	23	-22
Welders and Flame Cutters	115	117	25	-23
Crane hoist operators, earth moving and related machinery operators.	22	23	11	-10

Source: Government of Pakistan (Manpower Division), 1981, Occupational and Educational Manpower Requirements and Supply of the Fifth Five Year Plan (1978-83), Islamabad).

Five Year Plan (1978.83).<sup>2</sup> This exercise suggests that production workers were the only skill category in which a shortage could be expected at the level of a broad skill classification: the projected shortage of production workers in 1982 being 8.1 per cent of their domestic employment, and 49.4 per cent of the production workers abroad. However, analysis of the Fifth Five Year Plan projection exercise at a more disaggregated level (Table 2) suggests that there would also be shortages in such skill categories as engineers, surveyors and medical doctors. The shortage of all engineers as a percentage of domestic demand was expected to be 16.2 per cent, while in the case of surveyors it was as high as 60 per cent. Most of the serious shortages were, however, expected in various categories of production workers. It would also clearly appear from Table 2 that the construction and manufacturing industry can be expected to be amongst the worst hit by the skill shortages because it employs to a substantial degree most of the skill categories which were expected to have a serious supply shortage.

**(b) *The impact of outmigration on wage Increases: some implications for the domestic economy***

Wage increases may occur in industries that experience supply shortage of skilled labour and may result in increased wage costs per unit of output. This may happen if (i) wage increases occur faster than the growth of productivity, and (ii) employers are unable, due to time and/or financial constraints, to bring about rapid increases in capital labour and improvement in management techniques to bring productivity growth in line with the growth rate in wages.

That the above prediction represented the nature of the link between the mechanics of the labour market and entrepreneurial behaviour in Pakistan can be supported by circumstantial evidence of wage increases in the 1970s.

Table 3 gives real wages rate data for selected industries for the period 1971-72 to 1982-83. They show that till 1978-79, a period of very high rate of inflation and considerable slowing down in overall manufacturing sector growth, real wages declined only marginally. However, in the subsequent period 1978-79 to 1982-83 real wages increased by over 24 per cent and this coincides with a period of rapid outmigration.

To the extent that in formal institutions the balance of bargaining power might be in favour of the management, market demand and supply forces for labour may be better indicated by the wage changes in the informal sector. Here we have the interesting evidence that real wage increase during the 1970's was higher in the informal than in the formal sector. Informal sector construction workers experienced a substantial increase in real wages. For example, the real wages of masons and carpenters increased during the decade of the 1970's by 41 per cent and 41 per cent respectively and those of unskilled workers by as much as 57 per cent (Table 4).

Similarly the little evidence that is available on earnings of agricultural/landless labour also suggests that there were substantial increases in real wages especially after 1977. (Table 5). A part of this increase was of course due to the high growth rate of the agricultural sector mainly after 1979, but here is little doubt that labour shortages especially during the peak harvest and sowing seasons were also responsible for the increases that took place. High levels of outmigration was certainly a factor in accentuating these shortages in the rural areas.

### **3.3 MIGRATION IN THE EIGHTIES AND ITS IMPLICATIONS FOR CHOICE OF TECHNIQUE AND INCOME DISTRIBUTION.**

If the outflow of labour to the Middle East continues



**TABLE 3**

**Real Wages and Salaries including non-cash Benefits of a Production Worker in the Punjab  
(inconstant 1969-70 purchasing power)**

(Rupee/month)

Year	Cotton Textiles	Vegetable Ghee	Sugar	Cigarettes	Cement	Fertilize rs	Aggregate 6 Industries
1971-72	131	178	181	270	218	424	147
1972-73	131	188	160	239	214	385	144
1973-74	125	162	163	237	207	425	138
1974-75	128	170	183	207	236	287	142
1975-76	132	218	154	221	244	279	146
1976-77	126	232	146	225	243	378	142
1977-78	120	239	154	222	299	379	139
1978-79	118	245	151	247	318	425	140
1979-80	137	253	149	273	370	427	158
1980-81	138	253	145	311	344	448	159
1981-82	138	266	149	290	374	479	163
1982-83	141	298	151	287	416	530	173

*Sources:* Based on Monthly Survey of Industrial Production and Employment, Bureau of Statistics, Lahore. (Various Issues) in Meekal Ahmed. Et al. 'Recent Trends of Real Wages in the Industrial Sector', (Rineo, 1984)

from the skill categories where a labour shortage already exists, real wages in these sectors may well continue to increase over the next five years. There may also be a tendency for the cost per unit of output in skill-short industries to increase. This would be due partly to wages rising faster than productivity and partly due to increased maintenance costs resulting from the poor skill level of remaining workers. The phenomenon could also have a significant effect on inflationary pressures on the economy.

The pattern of growth of wages during the 1980's may follow a rising step-ladder formation. With the high turnover of skilled labour, as fresh entrants are hired, wages tend to fall or remain constant due to the fact that the new workers are in effect undergoing on-the-job training. However, as soon as the current crop of fresh entrants has learned enough to go abroad, the employer is obliged to raise wages of the workers to induce them to extend their stay in the firm, at least for some time. In interviews with manufacturing firms we were told that the management had to increase the wages of skilled workers by 70 per cent to 100 per cent, six months after they were hired. Although the increased wage is still much less than the wage the workers could get in the Middle East, this "device" delayed the flight of the now-trained workers to the Middle East.

As we have suggested earlier, in the skill-short industries, wages may rise faster than productivity in the near future, thereby raising the cost per unit of output. We proposed that this may happen if employers are unable to substitute labour with capital fast enough. There is in fact some evidence to suggest that in the construction industry, which more than any other industry is subject to skill shortages, there has been an increase during the 1970's both in the capital-labour ratio and in the wage cost per unit of output.<sup>6</sup>

It is also important to emphasize that even though some

**TABLE 4****Index of Real Wages for Certain Skills and Unskilled Workers**

<b>Year</b>	<b>Carpenters</b>	<b>Masons</b>	<b>Unskilled</b>
<b>1971-72</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>1972-73</b>	<b>595</b>	<b>93</b>	<b>101</b>
<b>1973-74</b>	<b>107</b>	<b>105</b>	<b>82</b>
<b>1974-75</b>	<b>107</b>	<b>104</b>	<b>107</b>
<b>1975-76</b>	<b>119</b>	<b>116</b>	<b>147</b>
<b>1976-77</b>	<b>128</b>	<b>136</b>	<b>161</b>
<b>1977-78</b>	<b>141</b>	<b>147</b>	<b>157</b>

- Source: a) Data for money wages for carpenters, masons and unskilled labour-are for the construction industry for Lahore only. Date colleted by the Statistics Division and reproduced in Gilani et.al. 1981op.cit.
- b) Money wages were deflated by the Consumer Price Index for Industrial Workers obtained form Pakistan Economic Survey 1982-83 op.cit.

TABLE 5

**Earnings per day of Male Agricultural/ Landless Labour  
(also includes the value of payments made in Kind)**

<b>Year</b>	<b>Rupees / Day</b>	<b>Index of Money Wages</b>	<b>General Consumer Price Index 1975=100</b>	<b>Index of Real Wages</b>
1975	7.53	100	100	100
1976	7.69	102	107	95
1977	9.06	120	118	102
1978	10.00	133	126	106
1979	11.31	150	138	109
1980	13.30	177	154	115
1981	19.53	259	175	148

**Source:** Compiled from ILO, 'Year Book of Labours  
Statistics'  
(Various issues), Geneva.

projections might predict an accelerating return flow of migrants in the second half of the eighties and an easing of the labour supply situation domestically entrepreneurs will tend to react to the situation as it presently exists as they cannot be expected to have a long-term horizon. This is especially so in a situation of considerable uncertainty and the absence of any reliable study on the probabilities of return flow of migrants for each skill category.

Two sectors where there is already considerable evidence of increasing mechanization are the agricultural and construction sectors. In the case of the agricultural sector not only has there been a rapid increase in tractors imported especially after 1975-76 (see Table 6) but increasing use of threshers and more recently cutters and binders to n labour short ages felt by the larger farmers especially during the peak harvesting and sowing seasons. Similarly there is evidence that mechanization is already occurring in the construction industry where skill shortages have been most manifest due to the large outflow of construction workers.

### **3.4 THE RELATIONSHIP BETWEEN REMITTANCES, STRUCTURAL CHANGE, AND CHOICE OF TECHNIQUE: SOME IMPLICATIONS FOR LABOUR ABSORPTION.**

#### *(a) Remittances, Structural Change and Labour Absorption*

Remittances to Pakistan by Pakistani workers in the Middle East have increased at a remarkable pace: from \$178 million in 1974 to \$2,224 million in 1981-82 (at current prices), according to official estimates.<sup>8</sup> This is likely to be an underestimate since it does not include unofficial remittances and remittances in kind, some of which are converted into cash on receipt within Pakistan. The particular goods and services on which this remitted amount is spent within Pakistan would affect the labour absorptive capacity of the economy at two levels.

**TABLE 6****Tractor Imported in Pakistan**

<b>Year</b>	<b>Numbers</b>	<b>Year</b>	<b>Numbers</b>
<b>1970-71</b>	<b>3879</b>	<b>1976-77</b>	<b>15554</b>
<b>1971-72</b>	<b>4224</b>	<b>1977-78</b>	<b>11902</b>
<b>1972-73</b>	<b>1847</b>	<b>1978-79</b>	<b>15178</b>
<b>1973-74</b>	<b>5216</b>	<b>1979-80</b>	<b>19313</b>
<b>1974-75</b>	<b>7190</b>	<b>1980-81</b>	<b>16137</b>
<b>1975-76</b>	<b>10,809</b>	<b>1981-82</b>	<b>18858</b>
		<b>1982-83</b>	<b>20000</b>
		<b>(Provisional)</b>	

*Source:* Government of Pakistan, Finance Division, Pakistan Economic Survey 1982-83, Islamabad, 1983, Statistical Annexure, P.35.

(i) The composition of demand generated by the remittances could influence the relative rates of growth of sectors (such as agriculture, manufacturing industry, construction, services and trade, etc.). To the extent that, the employment coefficient of value added varies across sectors, the overall employment generation in the economy for given growth rates of GNP could be affected by the remittances.

(ii) Since the expenditure of remittances tends to be weighted in favour of relatively expensive goods and services, remittances could also change the composition of demand within each sector. To the extent that high-valued items involve more capital-intensive production techniques, or involve a higher import component, the employment generation capacity of particular sectors could also be adversely influenced by remittances.

Since remittances are projected to continue to increase over the next decade, albeit at a slower rate than before, the above-mentioned consequences for employment generation need to be examined closely. During the period of the 1970's there is some evidence to show that both the above-mentioned phenomena appear to have occurred.

In the period of the 1970's the growth rate in value added in the tertiary sectors such as construction, transport services appears to have been faster than the manufacturing sector. A similar pattern is observed with respect to the sectoral composition of investment. Thus, for example, there was a decline in the percentage share of manufacturing industry in total private investment, while there was an increase in the percentage share of construction and agriculture sectors.<sup>9</sup>

The possibility that there may be a tendency for the technology to become more capital-intensive within the rapidly growing sectors is also indicated by the evidence. For example, it is precisely in the rapidly growing sector (tertiary Sector which includes 'construction and services) that the elasticity of employment with respect to value added has declined during the 1970's. In spite of the Increased capital intensity In the tertiary sector, there was a net increase in employment in this sector, for the percentage share of the tertiary sector in total employment increased over the period.' °. The changes in the labour absorptive capacity of each' sector (in terms of the employment coefficient with respect to value added) appear to have been influenced by the composition of expenditure of remittances. A Study of PIDE suggests, for example, that 62 per cent of the remittances went into current consumption 22 per cent went into real estate purchases the remaining 13 per' cent went into investment. I

The figures on sectoral growth rates, changes in the employment coefficients, and shares of employment by sector, 'and the composition of expenditure of remittances indicate 'that there 'Is at least circumstantial evidence to suggest the' following hypothesis:

The composition of expenditure of remittances in Pakistan is such that it could adversely affect the labour absorptive capacity of the economy. This could occur through the influence of such expenditure on the sectoral composition of aggregate growth on the one hand, and the choice of increasingly capital-intensive techniques within particular sectors on the other.

**(b) *Choice of Technique and the Conflict between output and Employment Objectives.***

In section 3.2 we have indicated that if the net outflow



of migrants continues then the heavy weightage of this outflow towards skilled production workers is likely to set up supply side pressures to induce increasing capital intensity of technology choice in Pakistan. In the last section we have suggested that there is circumstantial evidence for the hypothesis that the particular form in which remittances are being spent may set up demand side pressures towards a growing capital intensity of technology through their effect on the 'product-mix' over the next five years. If an increasing capital intensity does occur during the next decade, it is ironic that such a technology selection will have long-term consequences for employment and income distribution. Yet the pressures in response to which the technology choice is being made (the outflow of migrants to the Middle East) may be a temporary phenomenon, restricted to a decade or so.

The question we intend to examine in this section is, If in fact increasing capital intensity of technology selection does occur over the next five years, what will be its longer term implications for employment generation over, say, the next two decades? If we examine the issue in terms of the standard choice of technique models, it has been shown that under special circumstances there may not be a long term conflict between output and employment objectives, if the capital-intensive technique is selected.<sup>12</sup> In these models, the choice of the capital-intensive technique (rather than the labour-intensive technique), over time, generates both more output and more employment compared to the labour-intensive technique. This is because the larger investable surplus afforded by the capital-intensive technique generates a higher growth rate of output than that afforded by the labour-intensive technique. Let us see the conditions under which this predication may not prove correct, and why Under the conditions induced by the net outflow of migrants from Pakistan, there may in fact emerge a long-term conflict between output and employment objectives.

The essential assumption of these models is that the reinvestment of the surplus in every round occurs within the same technique, i.e., it is assumed that there is no technical change during the growth process and the choice of technique exist only at a single point of time. If, however, the selection of the capital-intensive technique in an under-developed country like Pakistan locks the country into continuing technology imports from the advanced capitalist countries where techniques are becoming increasingly capital-intensive, then the conclusion regarding the 4 of output and employment objectives may not hold. As reinvestment takes place in increasingly capital-intensive techniques, the output growth path of the capital-intensive technique may be much faster than that of the labour-intensive technique.

There is reason to suggest that the high turnover of skilled labour in Pakistan's industry due to the Middle East factor, and the recurrent fluctuations in the competence level of domestic workers associated with the turnover process (see Section 3.1), may induce Pakistanis industrialists to go for increasingly capital-intensive techniques. This could well become a continuing phenomenon if shortages of skilled production workers continue over this period.

### **3.5 IMPACT OF RETURN MIGRATION AND GOVERNMENT SKILL DEVELOPMENT PROGRAMMES ON THE DOMESTIC ECONOMY: SOME PRELIMINARY OBSERVATIONS.**

The discussion in the previous sections has analysed the consequences on the domestic economy if the trends of substantial outmigration of skilled workers as witnessed in the seventies and early eighties continued into the second half of the eighties. Two factors could have an important influence on this situation. The first is the policies of the government especially the programmes for skill development, to meet both domestic shortages as well as external

demand. The second is the growing possibilities, of significant increases in return migration resulting in a substantial slowing down in net migration during this period. In this section we analyse the impact of these two factors.

The important point to grasp is that the overall process of migration (both out and Inflows) is occurring simultaneously with the process of investment and rapid growth of the domestic economy. Therefore changes in the demand for labour induced by the level and capital intensity of investment activity will interact with changes in the labour market induced by out and inflows.

What causes special concern, as we have discussed in the f previous section, is the strong possibility of the economic system increasingly getting locked into a level of capital intensity as a result of temporary shortages so that it is not flexible enough to alter itself in a changed situation especially in the medium-term future. In fact such a situation could become even worse if because of special circumstances, especially job preferences of return migrants, the problems being felt in the labour market were in fact further accentuated rather than eased by return migration.

Before we discuss these possibilities and conditions under which this might or might not take place, let us briefly list some of the important factors which will influence the impact of return flows of migrants on the domestic labour market especially if such return flows become substantial.

**(a) Supply Side Factors**

Not only the absolute numbers but also the composition of returnees with respect to location, skill and job preferences on return will be extremely important. If the composition of returnees by skill (assuming perfect mobility across space), or their new job preferences do not correspond to

the composition of demand for labour by skill, then there will be a higher unemployment for a given number of returning migrant<sup>8</sup>. This frictional unemployment would in fact have a cumulative effect over time on the domestic unemployment situation by artificially keeping domestic wages for certain skilled jobs high. The same predictions would hold, a fortiori, if the location of returning migrant's residence is different from that of his new job and there are obstacles to mobility (economic and/or sociological).

**(b) Demand Side Factors**

The effect of returning migrants on the demand for labour would depend mainly on:

(i) The proportion of these migrants who are investors (as opposed to employees), and the total amount invested by them. The investment made by returning migrants would in turn depend on the facilities and inducements available locally for investment.

(ii) The capital/labour ratios of the projects in which the returning migrants invest.

Let us examine on the available evidence how these factors will influence the domestic economy during the Sixth Plan period. Projections prepared by the Manpower Division for the Sixth Plan both for the additional annual employment by major occupational groups and the overall position at the end of the Sixth Plan, i.e. July, 1978, indicated that given an estimated outmigration of 550,000 workers the only occupational group for shortages would take place are those of production workers.<sup>9</sup> For our subsequent analysis we concentrate only on this category and within it that of skilled workers as this is the one for which shortages would be most strongly felt. It is of course quite possible that at a more detailed skill composition level especially of professional,

technical, administrative and managerial workers shortages would be felt in the domestic economy for given levels of outmigration. However, because of lack of available information at the disaggregated level for these skill categories, both as regards domestic demand and overseas migration, we have not been able to carry out this exercise at this stage.

According to the Manpower Division estimates, approximately 54,000 additional skilled workers are required to meet the demand generated by the investment activity and economic growth during the Sixth Plan. Supply estimates of skilled workers through both formal and informal training were also made and are given in Table 7. The major arguments given for little increase during the Sixth Plan in the informal system (the 'ustaad-shagerd' system) are the large outflows of the best skilled workers and the limited training capacity of those left behind. The most important result which flows from these estimates is that regardless of any overseas migration the economy would face shortages for skilled workers. Even if we assume that the supply of the informal system were to be substantially higher, the gap would at best be reduced.

A continuing high level of outmigration would substantially worsen the situation. The Manpower Division earlier estimated the number of skilled workers migrating each year as 60,000. In Table 8 we have also reported our results (only for Alternative 1) for skilled workers which shows approximately the same figure for earlier years and slightly higher for later years. Based on our estimates of return migration for skilled workers and on the assumption that these workers take up jobs in the same skill, the situation is substantially altered and the pressures due to outmigration alone are substantially reduced.

A crucial factor would therefore be the kind of skills

**Table 7**

Annual output of skilled workers in both formal and informal sectors in Pakistan

Source	Annual Output	
	A981-82	Projected, 1987-88
(i) Institutional Programmes		
(a) Output from 37 institutions in the National Vocational Training Project NVTP (Twos Shift operation)	4,670	20,000
(b) Output from 7 institutions of the Punjab Government outside the NVTP (Twos Shift operation)	—————	1,250
(c) Output from the 6 reorganized Training institutions of the Overseas Pakistan Foundation (Two Shift operation).	2,800	3,200
(ii) Apprenticeship Programmes (500 establishments)	1,270	2,000
(iii) Programmes of Establishments Outside the Apprenticeship Programme (Viz. Pakistan Steel, Ali Institute, Railways, PIA, Shipyard, Karachi Port Trust.)	4,000	4,000
(iv) Non-Formal System	15,000	15,000
TOTAL:-	27,740	45,450

Source: Manpower Division, "Vocational Training in Pakistan", op. cit., pp. 25-26.

**Table 8**  
**Output and Return Migration of Skilled Production Workers**  
**Alternative 1**

Years	Outmigration	Return Migration	Net Cut Out Migration	
			(i) If all return migrants return to their jobs	(ii) If 50% of return migrants return to their jobs
1983-84	57,446	40,814	16,632	37,039
1984-85	59,553	41,829	17,724	38,639
1985-86	65,521	42,910	22,611	44,066
1986-87	72,074	44,289	27,785	49,930
1987-88	74,675	45,984	28691	51,683

*Source:* Based on tables 2.6 and 2.7. Production of skilled workers in total production workers is taken as 46.83 per cent (Table 2.3)

return migrants would take up on their return. There is unfortunately only limited evidence on this but what is available is indeed revealing. A survey carried out by the Overseas Pakistanis Foundation in 1983 asking overseas Pakistanis what they expected to do on their return showed that the vast majority, i.e over 60 percent intended to move into business and trading activities. About 15 per cent wanted to move into agricultural sector.<sup>15</sup> Since the overwhelming majority of those leaving are production workers these results show that most migrants rather than go back to their original skills would prefer to go into activities where they do not have to do manual work. Similarly the percentage of those who wish to go into the agricultural sector would in all probability like to become small land-owners.

The results of the Overseas Pakistanis Foundation Survey is reflective of future expectations and not what returnees actually do when they permanently return. They results of an earlier survey by the PIDE unemployment status of returnees' occupations is shown in Table 9. in this case demand for skilled and unskilled jobs is substantially higher. However, those engaged in business activities and the agriculture sector are still substantially higher as compared to the breakdown by skills of both out and return migrants. It is also interesting to see that almost 60 per cent of returnees wanting to work in skilled and semi-skilled jobs were still looking for work. Given the prevailing domestic shortages, this would indicate that a major factor responsible for this was their expectation of higher wages than those presently prevailing.

These results have important implications for the impact of return migrants who are skilled workers on the domestic supply/demand situation. What results is that even if as many as 50 per cent of return migrants who are skilled production workers return to jobs in these skills, the shortages



of such workers given the level of domestic and overseas demand, will still be substantial (Table 8)

The nature of the job which migrants take up on return will also primarily depend on the way in which they invest savings on return. Also the level and pattern of investment undertaken by them will influence demand for particular skills in the domestic economy. It is also important to remember that the savings that return migrants may bring with them will have slightly different implications than the remittances that are sent while the migrants are still abroad. The reason is that the returning migrants may not only wish to construct a house for themselves but may wish to invest their savings so as to acquire a regular income. This could mean investment in financial assets (like bonds, etc.), or investment in real estate (to get rental income), or even investment in small-scale industries, retail shops, or transport. The particular projects in which the returnees invest will depend on, among other factors, the following:

- (1) The size of the savings that the returnees bring back with them;
- (2) The composition of domestic demand, and access of the return migrants over information regarding viable projects;
- (3) Government policy package to induce the investment into what it regards as priority projects. The policy package could consist of a system of financial incentives/disincentives, infrastructural facilities, streamlining of procedures regarding the acquisition of government permission for project investment, and facilities, streamlining for providing supplementary finance in cases where returnees are investing in high priority projects.

Some evidence on this is available on the basis of the

**TABLE 9**  
**Employment Status of Returnees by Occupation**

Type of Jobs	Percentage of returnees doing the job	Percentage of (3) returnees looking for the job	Percentage of (2)
1	2	3	4
Professional jobs	6.2	1.4	22.5
Skilled & semi-skilled	23.1	13.8	59.5
Clerical Jobs	2.4	2.9	120.8
Unskilled Jobs	6.7	2.4	36.0
Business	21.9	8.6	34.7
Agriculture	12.4	0.0	0.0
All Jobs	72.7	28.1	38.0

Source: PIDE Research Report Series, 132, reproduced in Manpower Division, "Emigration of Pakistani Manpower to the Middle East", op. cit., p. 128, (Table 65).

survey carried out by the Overseas Pakistan Foundation in 1983. It shows that 44 percent of overseas Pakistanis show preference for investment in business/ industry, 25 percent for real estate and 24 per cent for liquid saving.<sup>16</sup> While it is difficult to draw any firm conclusions from this survey, it is perhaps indicative of the fact that as distinct from a much higher expenditure on consumption, compared to remittances this share would be much lower in the case of savings that returnees bring back with them. In our follow-up study it would be fruitful to consider the return flow of migrant first in terms of their direct on the labour market and then indirectly in terms of the possible investment of returning migrants. In the latter case the pattern of investment with respect to product selection and choice of technique will have to be considered if the issue of employment generation is to be adequately analysed.

## **CONCLUSION**

In this section we have analyzed the implications of the continued net outflow of workers on the domestic employment generation capability over the next two decades or so. We examined first the pressures to use labour displacing technology located in the tendency towards labour shortages in certain key skills. We then indicated the pressures leading to use of more capital-intensive technologies over time arising out of the changing composition of goods and services induced by the pattern of expenditure of remittances and returnees' income. We suggested that the confluence of these supply side and demand side pressures for the selection of capital-intensive technologies could create a tendency to select such technologies not just at a point in time, but on a continuing basis, whereby increasingly capital-intensive technologies may be employed. Under such circumstances, there may in fact arise a conflict between output and employment objectives in the Pakistani conditions.

In examining the Supply side aspects of the domestic labour market we suggested, on the basis of existing data and our own Interviews of managements of firms, that there was a high turnover of workers in firms using skills which were prone to emigration. The turnover was associated with on-the-job training at low wages and then a sharp wage increase until the worker departed. So, over time, a rising step-ladder pattern of wage increase may be induced by this labour market peculiarity. Evidence indicated that industries suffering from skill shortages (e.g. construction) were characterized by both rising wage cost per unit of output and declining employment coefficients in terms of value added. This indicated that, in spite of increasing use of labour displacing technology, the growth of labour productivity was not keeping pace with the growth of wages. This implies that if the existing financial constraints to foster mechanization might accelerate with its cheap credit, the growth of mechanization might accelerate with its attendant adverse consequences for employment generation.

On the demand side we indicated that the composition of expenditure of remittances appeared to be influencing a structural change in the economy towards construction and tertiary sectors, and within these sectors demand appeared to be weighted in favour of items whose production involved high capital-labour ratios. Apart from the long-term effects on labour absorption, the tendency towards growing capital intensity may induce long-term changes in income distribution in favour of capital and away from labour. Such long term changes ironic would be the result of technology choices induced perhaps by short-term labour shortages over the next five years or so.

Our analysis further shows that return migration even at a very high level will only dampen the effects that these changes are bringing about. This is for two reasons. Firstly, as a result of the high level of investment activity and economic

growth expected during the Sixth Plan the demand for skilled workers will be substantial and based on existing supply estimates a net shortfall may well be expected despite the present skill development programmes launched by the government. Also depending upon the extent of stay abroad and savings accumulated, return migrants will have a tendency to opt for non-manual jobs such as those in business, trade or industry rather than to work in their original skills. What this would mean is that return migration will not substantially reduce the demand pressures for skilled production workers as the supply situation will not be affected to the extent of the return flows of such workers. The important implication for this is that the skill development programmes being presently initiated might well have to be further expanded and strengthened to meet demand, unless of course return migration assumes dimensions much greater than those indicated by our present projections.

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4. Ibid. Table 20, p. 68.

5. These interviews were carried out with a well-known paper manufacturing firm and a ballpoint pen manufacturing firm in Lahore.
6. For details see M. Irfan, 'Consequences of Outmigration on the Domestic Labour Market: A Case Study of Pakistan', ARPLA Research Studies, Bangkok, 1983.
7. For a more detailed discussion of Increasing mechanization in the agricultural sector see ILO/ARTEP 1983 Report, Section 3.5
8. The 1974 estimate is from Serageldin et. al. Manpower and International Labour Migration, op. cit., 1983 and that of 1981- 82 from Manpower Division, 'Emigration of Pakistani Manpower to the Middle East', op. cit. Islamabad, 1974.
9. As a share of total private gross fixed capital formation between 1969-70 and 1982-83 that of manufacturing declined from 40 to 26.8 per cent, while that of agriculture Increased from 13.6 to 21 per cent and ownership of dwellings/construction sectors almost doubled from 16.2 to 29.1 per cent. (Calculated from Pakistan Economic Survey, 1982-83, op. cit., Statistical Annexure, Table 4.)
10. For evidence on this see ILO/ARTEP, 1983, Report Section 1.2.
11. Gilani, et al., Labour Migration from Pakistani, op. cit., p. 143.
12. This is best illustrated by the 'Sen Model'. See, A.K. Sen, Choice of Techniques (3rd Edition), Basil Blackwell, Oxford, 1968.
13. Manpower Division, "Emigration of Pakistani Manpower to the Middle East", op. cit., Table 68, p. 142,
14. Government of Pakistan, Manpower and Overseas Pakistanis Division, "Vocational Training in Pakistan — Costs and Benefits", Table 1, Islamabad, 1984, p. 22.
15. In Manpower Division, "Emigration of Pakistan Manpower to the Middle East", op. cit., the results of the survey are reproduced. See Table 59, p. 120.

16. Results of the Survey are re-produced in Manpower Division, "Emigration of Pakistani Manpower to the Middle East", op. cit., Table 61, p. 121,