Trends in Intersectoral Wages
in Pakistan

FAIZ BILQUEES

I. INTRODUCTION

In Pakistan intersectoral wage trends have been analysed by Guisinger and Hicks (1978); Irfan (1982) and Irfan and Ahmed (1985). The studies show that over the period 1970 to 1984 real wages of the large-scale manufacturing, construction and agriculture sectors increased while that of the government employees declined significantly. The study shows international migration to be one of the major determinants of the rise in real wages, in addition to important policy interventions. The present study is an extension of Irfan and Ahmed's work. It has been under-taken for two reasons. First there is great scarcity of empirical evidence on this very important issue. Second, the more important factor is the sharp reversal in one of the major variables – outmigration. Since 1981 there has been net return migration. This phenomenon *a priori* is expected to upset the labour market and the wage rates in the opposite direction.

The study is planned as follows: Section II describes the trends in real wages between the formal and informal sectors.[1] Section III describes the factors behind the observed trends in real wages, and finally Section IV gives the conclusions of the study.

II. REAL WAGES IN THE FORMAL AND INFORMAL SECTORS

(a) Wages of the Government Employees

Irfan and Ahmed (1985) have looked at the trends in real wages of the government servants over the period 1972–83. This study covers the period 1977–1991. The period 1977 and 1983 are included once again because the increase in

Faiz Bilquees is Senior Research Economist at the Pakistan Institute of Development Economics, Islamabad.

[1]Nominal wages of all categories of workers are deflated by the CPI because the Federal Bureau of Statistics has discontinued the publication of separate indices for various categories of employees.

wages, on the revision of pay scales, is not complete at one point of time. The government has continued to provide ad hoc reliefs from time to time to hedge against occasional upsurges in inflation after every revision. Also sometimes, the regular allowances have been increased with an interval after the initial revision. Therefore, in this study we consider total emoluments prior to the next revision for the estimation of real wages. Since new pay scales are usually implemented on a fiscal year basis, we consider July 1977 to June 1983 as one period. Similarly, July 1983 to June 1987 and July 1987 to June 1991 constitute the second and the third periods. Therefore, we deflate the nominal wages by the consumer price index of the end period rather than the initial year of revision; i.e., the total emoluments of 1977–83 are deflated by the Consumer Price Index (CPI) for the year 1982-83. The CPI for 1977-78 would tend to underestimate the erosion in the real wages of the government employees.

The period 1977–83 is included again in this study to incorporate the ad hoc reliefs as well as some additions to the salaries estimated by Irfan and Ahmed (1985). These include housing subsidy in terms of total rent entitlement rather than housing allowance at 45 percent of the salary. Second, the transport allowance of the two highest grades is estimated as full car maintenance expenditure. Furthermore, grade XXII employees are entitled to two orderlies whose salaries are accounted here. These non-cash benefits are accounted for in full because, while on the one hand, they protect the employees against inflation, on the other hand, they represent direct costs to the exchequer. Other non-cash benefits like medical facility, newspaper and magazines (provided to grades XX–XXII only), and pension benefits are not included due to estimation problems.

The relative gains and losses in real terms of various scales in wage adjustments over the period 1977 to 1991 are shown in Table 1. Between the first two periods (1977–83 to 1983–87) the major beneficiaries of wage adjustments were the two highest grades. Furthermore, it will be seen from column 3 that excluding the two highest grades, the lowest grade earns the lowest increase in salary compared to the average increase of 9.3 percent increase for grades I to XX. On the other hand the increase of 19 percent enjoyed by grade XX is considerably higher than the average.

Between the second and the third period of pay scale revisions (1983–87 to 1987–91) the trends are completely reversed except for the two lowest grades. Grade III–V retain positive growth on real wages but this growth rate is below the previous increases. The real growth rate is negative for all the employees between grades VII to XXII and the two highest grades face the highest erosion in their real wages.

The erosion in the real wages in the earlier period is the outcome of sharp

disparity in incomes of the lowest and the highest groups during 1983–87. The ratio of highest to lowest salary which was 13 to 1 during 1977–83 increased to 23 to 1 during 1983–87. It declined to 17 to 1 during 1987-90.

Table 1

Percentage Changes in Nominal and Real Wages

| Grades I | 1983–87 — 1977–83 | | 1987–91 — 1983–87 | |
	Nominal Wages II	Real Wages at 1969–70 Prices III	Nominal Wages IV	Real Wages at 1969–70 Prices V
I	28	4	49	8
II	30	5	48	7
III	32	7	42	3
IV	33	8	42	2
V	33	8	40	1
VI	32	7	39	1
VII	33	8	35	–2
VIII	32	7	35	–2
IX	33	8	35	–2
X	34	9	34	–3
XI	36	10	31	–6
XII	36	11	30	–6
XIII	37	11	30	–6
XIV	36	10	29	–6
XV	36	11	29	–6
XVI	31	7	29	–7
XVII	37	11	28	–8
XVIII	32	7	27	–8
XIX	30	6	27	–8
XX	45	18	25	–10
XXI	118	77	16	–16
XXII	116	76	15	–17

(b) Real Wages in the Manufacturing Sector

The last study estimated the real wages in the manufacturing sector over the period 1970–1981. These estimates are extended to 1986. The outcome of the later period (1981–86) is compared with the estimates of the previous period. Later the results are discussed with reference to the employment situation and the return migration phenomenon.

It will be seen from Table 2 that the real wages of the production workers increased by 8.8 percent during 1981–86 compared to the previous period. The real wages of non–production workers increased only by 7.9 percent compared to 9.2 percent in the last period.

Table 2

Nominal and Real Wages in the Manufacturing Sector

	1970–76	1976–81	1981–86
I. Nominal Wages			
All Workers	15.8	17.1	15.52
Production Workers	17.3	16.6	16.5
Non-production Workers	14.5	19.6	11.7
II. Real Wages			
All Workers	1.4	7.6	7.96
Production Workers	2.6	6.5	8.83
Non-production Workers	0.1	9.2	7.92
III. CPI	14.4	9.5	9.0

(c) Real Wages in the Construction and Agriculture Sectors

Real wages of the construction workers both skilled and unskilled reported in Table 3 show a sharp acceleration between 1974-75 – 1980-81, the period of their heavy outmigration. Thereafter they have stagnated until 1985-86. They peaked once again in 1987-88 but did not recover to the 1980-81 level. In the agriculture sector the estimation of real wages by Irfan and Ahmed show considerable fluctuations in wages in the agriculture sector over the period 1973–84. However their data does not cover wage trends on all-Pakistan basis. The data used in the present study which pertains to all-Pakistan covers the period 1983-84 – 1989-90. The estimates

Table 3

Wages of Construction Workers Rs/Day

Year	Money Wages			Real Wages		
	Carpenter	Mason	Unskilled	Carpenter	Mason	Unskilled
1969-70	12.25	12.96	5.06	1.4	8.9	3.5
1970-71	13.0	13.50	5.46	12.30	12.77	5.16
1971-72	13.88	14.54	5.37	12.55	13.44	4.85
1972-73	14.16	14.97	5.66	11.67	12.37	4.66
1973-74	18.57	19.01	8.58	11.77	12.05	5.44
1974-75	25.05	25.11	11.83	12.52	12.56	5.92
1975-76	32.11	32.98	13.32	14.68	15.08	6.09
1976-77	37.50	39.09	16.15	15.54	16.20	6.69
1977-78	42.49	43.96	18.04	16.11	16.66	6.04
1978-79	45.33	55.58	20.27	16.29	19.97	7.28
1979-80	52.58	53.33	22.61	17.10	17.34	7.35
1980-81	64.33	64.58	24.65	18.88	18.96	7.23
1981-82	68.75	68.72	26.81	17.74	17.74	6.92
1982-83	68.70	70.84	28.68	17.26	17.54	7.10
1983-84	73.01	74.04	29.84	16.62	17.04	6.87
1984-85	76.31	77.17	32.50	16.60	16.79	7.07
1985-86	79.25	79.75	35.61	16.52	16.62	7.42
1986-87	83.89	80.81	37.40	16.18	16.06	7.51
1987-88	91.89	87.92	39.78	17.40	16.66	7.53
1988-89	99.71	98.08	43.65	17.09	16.94	7.48
1989-90	105.78	106.13	47.79	17.12	17.18	7.73

Source: NESPAK (Various Issues.)

of real wages of both casual and regular workers reported in Table 4 show a rising trend for both categories of workers. Both the nominal and real wages peak in 1989-90 with a slight decline in real wages in 1988-89. However, the decline in the real wages of the casual workers is more pronounced than the regular workers.

Table 4

Nominal and Real Wages of Agricultural Workers

	Nominal		Real (1969-1970 Prices)	
	Regular	Casual	Regular	Casual
1983-84	17.21	20.28	3.96	4.66
1984-85	19.70	21.93	4.29	4.77
1985-86	21.21	23.99	4.42	5.0
1986-87	22.67	25.55	4.56	5.14
1987-88	25.34	27.21	4.80	5.15
1988-89	27.94	29.24	4.79	5.01
1989-90	30.89	32.0	5.00	5.18

Source: Monthly Statistical Bulletins, July 1987, June 1985 and March 1991.

Overall, the wages in the informal sector have been rising steadily, as well as wages of the production workers. However, the position of government servants has deteriorated sharply.

III. FACTORS AFFECTING REAL WAGES

The earlier study attributed the rise in real wages to international migration. It also highlighted consequent capital intensity and decline in employment growth and elasticities of employment with respect to value added. However, the period covered by this study relates to the period when outmigration had started to decline after reaching its peak in 1981. By 1985 net return migration was estimated at 54,835 [ILO-ARTEP (1987)]. Therefore in this section we look at the trends in real wages with respect to return migration. The employment growth rates and employment elasticities with respect to value added for the period 1978-79 – 1986-87 compared to 1974-75 – 1978-79 are shown in Table 5. The employment growth rate shows a decline for all sectors. The largest decline is for the construction sector followed by large-scale manufacturing. This is the result of the increased adoption of capital-intensive technology after the large-scale outmigration in the late seventies. Falling employment and increasing growth consequent to new technology reduced employment elasticities with respect to value added for all sectors except for the services sector.

In the agriculture sector slow but steady increase in wages also led to the increased mechanisation of agriculture. Tractor imports peaked in 1983-84 at 27840.

Table 5

Employment Growth and Employment Elasticities

	Employment Growth % per Annum		Elasticity of Employment with Respect to Value Added	
	1974-75 to 1978-79	1978-79 to 1986-87	1974-75 to 1978-79	1978-79 to 1986-87
Agriculture	1.8	1.7	0.86	0.45
Manufacturing	4.8	1.0	1.06	0.08
Construction	8.6	3.6	1.03	0.55
Transport and Commerce	4.9	2.1	0.48	0.29
Services	2.7	4.8	0.92	0.84
All Sectors	3.1	2.9	0.57	0.36

Source: Employment estimated Labour Force Survey, Value added taken from Pakistan Economic Survey.

Over time mechanisation also extended to harvesting and threshing displacing labour still further.

The return migrants do not appear to have created a glut in the labour market and the wages have continued to rise because the majority of the return migrants do not want to go back to their previous occupations. They have preferred to start their own business, mainly in trade and services sectors (see ILO-ARTEP survey of return migrants 1987 Vol. II). This has led to the further widening of the informal sector creating more jobs and preventing wages from declining. This is confirmed by a comparison of wages in the formal and informal sector in appendix Table 1 which shows that between 1982-83 and 1989-90 a grade I employee in the government service earned substantially less than a carpenter. He earned even less than unskilled workers during 1986-87 and only rupees five higher during 1989-90. Similarly, a grade V employee earned less than the carpenter. Furthermore, his salary was higher than the unskilled worker by less than rupees one hundred. A grade V employee is a Low Division Clerk with a minimum qualification of Matric. In actual fact a large number of over qualified persons are working against posts in lower grades.

IV CONCLUSIONS

The trends in intersectoral wages for the period 1981 to 1991 conform to the patterns observed for the earlier periods. Except for government employees real

wages have risen for informal sector and formal sector workers in the large-scale manufacturing sector. The outmigration in the earlier periods led to the adopfion of more capital-intensive technology. This led to the reduction in employment elasticity of the growing economy while wages continued to rise. This phenomenon has not changed with the rapid return migration over the later period. The reabsorption of the return migrants has not been a very serious issue because the majority of the return migrants have preferred to start their own businesses in the trade and services sector. They have thus expanded the informal sector and opened up new employment opportunities in this sector. This has three implications. First, without a matching increase in investment and output in the commodity-producing sectors the increased incomes in the services and trade sectors lead to inflation. Second, the scope of tax evasion in the informal sector is vast. Finally, it has led to an unequal rise in wages between the formal and informal sectors. The educated in the formal sector are earning less or marginally more than the uneducated skilled and unskilled workers in the informal sector.

These developments call for a serious appraisal of the investment policies between production and services sectors, investment in human capital, labour policies and income distribution policies.

Appendix

Appendix Table I

Absolute and Relative Wage Differentials of
Unskilled Labour and Carpenter in Construction
Compared to Government Employees

Grades	Carpenter		Unskilled	
I	2.44	(–316)	1.00	(–1)
	2.28	(–294)	1.01	(–4)
	2.16	(–286)	0.97	(6)
V	1.89	(–253)	0.78	(62)
	1.71	(–218)	0.76	(72)
	1.72	(–223)	0.77	(69)
XVII	0.58	(378)	0.24	(694)
	0.51	(495)	0.23	(785)
	0.56	(417)	0.25	(700)
XVIII	0.49	(547)	0.20	(862)
	0.45	(636)	0.20	(926)
	0.49	(538)	0.22	(828)
XX	0.28	(1373)	0.11	(1683)
	0.23	(1721)	0.10	(2011)
	0.26	(1492)	0.12	(1782)

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Comments on
"Trends in Intersectoral Wages in Pakistan"

To begin, I would like to offer my apologies to the author. The study labour markets and wage formation in general has not been a specialiastion of mine, nor, having just recently begun research in Pakistan, do I have much knowledge of the specific context. Therefore, my remarks are going to be somewhat brief and for the most part will be in the form of questions that came into my mind as I read the paper.

Methodologically, the author has taken time-series data on nominal wages for *four occupation groups* and has deflated these nominal wages by the consumer price index. She has attempted to relate the trends in real wages in these four sectors to trends in the outmigration of workers overseas and adjustments in the use of capital in response to this outmigration. In particular, the author focuses on the recent phenomenon of a net inflow of returning outmigrants and finds that despite this increase in the supply of labour, real wages for the most part have continued to increase.

My first question is what has been the magnitude of the outflows and inflows of international migrants relative to the size of overall labour force? What types of occupations did outmigrants give up when they left Pakistan?

Second, is it appropriate to deflate wages for all occupations by the same consumer price index? For example, the basket of goods purchased by agricultural labourers is almost certainly different from that of urban workers.

Third, has the price rise in real agricultural wages been due primarily to rural to urban migration and migration out of the country, or due to increased demand for labour say through an increase in cropping industry? Similarly, what has been the trend in factors that would affect the demand for labour in construction and manufacturing, in particular investments new plants, equipment, and buildings?

Fourth, I would imagine that government pay scales, while not completely insulated from changes in wages in the private sector, are to some extent determined as a matter of government policy. What are the political and fiscal factors that have contributed to the recent decline in real terms in wages paid to government employees? There is much discussion about valuing non-salary income such as housing subsidies, car maintenance, orderly allowance and so on. What percentage of

government workers receive these benefits and what causes the government to rely on such forms of compensation instead of simply increasing salaries?

These are a few questions that I had as I read the paper.

Thank you for giving me the opportunity to comment.

Howarth E. Bouis

International Food Policy
 Research Institute.,
Washington, D.C., U.S.A.