Real Wages of Industrial Workers in Pakistan: 1954 to 1970

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Wages perform a number of vital economic functions in all societies. They allocate labour among different branches of the economy according to demand and supply conditions. They provide signals regarding the type and level of skills required for growth. They dictate, along with the price of capital, the proportions in which labour and capital are combined in production. And they establish incentives for the internal migration of labour among the regions of a country and between the rural and urban sectors. Like most developing countries today, Pakistan faces an employment problem of major proportions and the solution of this employment problem may very well rest in the adoption of an appropriate labour policy—especially a well-designed wage policy—that allows wages to perform these functions in an effective and efficient manner. A misdirected labour policy, or no policy at all, is likely to retard the growth of employment, promote unnecessary internal migration and worsen the distribution of income.

What this wage policy should be is one of the most complex problems facing Pakistan's planners today. No one would suggest that the price of labour should be allowed to fall to its equilibrium level because unskilled workers simply can not sustain themselves at this wage. On the other hand, high wages limit the expansion of employment by encouraging capital-labour substitution and tend to augment, rather than reduce, problems of disparities in wealth and status. Charting a course for wages between these two constraints is hardly an enviable task, but is one from which there is really no escape. Our purpose in this paper is to approach the question of the appropriate wage policy for Pakistan by a rather indirect route. We examine the past trends in the wages of one important category of workers—production workers in Pakistan's large-scale manufacturing sector—and explore the past role of government, trade unions and employers in determining wage levels in this sector. In spite of its preoccupation with the past, this study does yield several insights into the problems of framing an appropriate wage policy for Pakistan.

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Real and Money Wages in Pakistan

The trends in wages of industrial production workers have already been analysed by A.R. Khan for the period 1954 to 1963-64 in a 1967 study [8] and then subsequently extended by him to include the years up to 1966-67 [5]. Using data on the wages paid to production workers gathered from *Census(es) of Manufacturing Industries* (CMI's), Khan found that real wages declined between 1954 and 1966-67, losing more than 12 percent of their purchasing power during this period. To determine what has happened to wages since 1966-67, we have extended the CMI wage series through 1969-70, the latest year for which CMI data have been published. At the same time, we have made new estimates of real wages for the earlier years, using a broader definition of wages and drawing on new information concerning wages and employment which was not available to Khan at the time of his study. Our broader definition of wages includes non-cash benefits, i.e. fringe benefits paid in kind or through subsidies such as rent-free housing, subsidized medical care, etc. which Khan excluded. The new information consists of the final tabulations for some of the earlier year CMI data, which have been published only recently and differ from the unpublished, preliminary tables that were the only sources of data available to Khan.

As it turns out, the effects of the broader definition of wages and more up-to-date information on trends in real wages are not inconsequential. Khan's conclusion from his first study —that real wages declined or at best remained constant during the 1954 to 1963-64 period—is borne out by the revised wage series. But after 1963-64, real wages rose dramatically, gaining more than 20 percent during the next six years. The increase in real wages during this period upsets the conventional wisdom about Pakistan's development, for one of two unconventional conclusions must be true: either real wages can rise in a labour-surplus economy or Pakistan was transformed, toward the middle of the 1960's from a labour-surplus to a labour-scarce economy, at least in terms of the labour demand and supply conditions prevailing in urban areas. Why real wages rose so sharply—and indeed why they rose at all—is admittedly a puzzle which has remained obscured too long under the illusion that "nothing" was happening to real wages. In the last part of the paper, we try to fit some of the pieces of the puzzle together by examining the influence of various market and non-market forces on the level of industrial wages. Finally, we discuss the different implications which the past trend in real wages has for Pakistan's future labour policies.

Data on Wages

Khan has already described the limitations of the CMI data, and we need only to review very briefly the definitions which the CMI employs in collecting information on wages and employment. Following Khan, we use the term "wages" to refer to the totality of employee compensation, which is reported in the CMI under the heading of "Employment Cost." To compute the annual wage, the total employment cost for each industry is divided by the average number of workers employed in that industry during the year. Since employment cost and employment are reported separately for production and non-production workers, we have limited our study, as Khan did, to the wages of production workers. From time to time, the tabulation plans and definitions used in the CMI's are altered and, therefore, a number of minor adjust-

ments must be made to maintain a consistent series over time. These adjustments are described in the "Appendix on Data."

As has been noted, we include non-cash benefits in our definition of wages whereas Khan excluded them. The fact that these non-cash benefits cannot be spent like other earnings hardly justifies their exclusion from the income received by workers. They are as much a part of employee compensation as cash benefits, and the decision by a firm to compensate workers through cash or non-cash benefits is essentially an arbitrary one which leaves the workers' welfare unaffected. Non-cash benefits were a small part (approximately 1.5 percent) of wages in 1959-60 and Khan may have chosen to ignore them on account of their smallness. Over the decade, however, they have risen to about 3 per cent of wages and to omit them would understate the growth in the average earnings of workers.

Data on Consumer Prices

To trace movements in the real value of workers' average earnings, it is necessary to deflate money wages by a cost-of-living index that reflects an appropriately weighted average of the price movements for the goods and services purchased by workers. The trouble with most cost-of-living indexes is that in periods of rapid shifts in relative prices, an appropriate set of weights is hard to find: consumers tend to alter their usual basket of commodities to economise on those products which have become relatively expensive. Thus, where fixed weights are used to average price changes over a long period of time, these substitution effects are ignored and the overall index may overstate the true change in the workers' cost of living. However, several empirical studies of consumer price indexes comparing Laspeyres (base-year weighted) indexes with Paasche (terminal-year weighted) indexes have found that the two types of indexes give approximately the same answers, even when the period of comparison extends for as much as two decades. See, for example, Ulmer's study [2, pp. 71-76] for the United States.

Khan used a cost-of-living index based on weights derived from a 1955-56 survey of consumer expenditures [11]. For our study we have constructed both a Laspeyres index using the 1955-56 weights and a Paasche index using weights drawn from a 1972 survey [12], with 1959-60 serving as a reference year for both indexes. The price relatives for twenty commodity groups and the weights relating to these two time periods are shown in Appendix Tables 2a and 2b. While these tables show the Laspeyres and Paasche indexes to be reasonably similar, small differences between them do exist and we have followed the standard practice of computing the geometric average of the two indexes, known as the Fisher index, which we then use in the deflation of money wages.

Trends in Money and Real Wages

The Meaning of Changes in Real Wage Rates

Real wages are calculated by deflating money wages by the appropriate cost-of-living index, but there remains the question of what real wage rates actually measure. Increases in real wages clearly make someone better off, but "who" and "by how much" cannot be inferred from the time series data alone. To interpret the trends in real wages correctly, a number of "caveats"

must be observed. First, and most obviously, only employed workers and their dependants stand to benefit from increases in real wages. Such an obvious qualification would hardly be worth making if certain subtle factors behind the change in real wage rates were not frequently overlooked. For instance, if higher real wages are brought about by higher money wages rather than by decreases in the cost of living, substitution of capital for labour in production may take place, resulting in a loss of employment opportunities (assuming a given capital stock). In a dynamic context, capital-labour substitution would manifest itself in a slower rate of employment growth than would have occurred had money wages not risen. Thus, increases in real wages via rises in money wages benefit the employed workers, but to a certain extent at the expense of the unemployed and the underemployed.

A second caveat concerns the level of effort required to achieve a given level of earnings. If workers earn more by working longer hours, their welfare will increase but by less than the rise in real income because of the disutility of the extra effort. Similarly, a stable level of real wages over time, accompanied by a reduction in hours worked, also represents an increase in workers' welfare. Without adjustment of the levels of real income for the amount of effort expended in acquiring it, comparisons of workers' welfare over time can be misleading.

A third caveat concerns the changes in the composition of the labour force which may accompany changes in workers' average earnings. A higher percentage of persons in the labour force possessing skills—either specific skills or general skills (such as literacy and work habits)—may tend to raise the average level of earnings with no alteration of skill-specific wage rates. A higher real wage due to a changing skill composition of the labour force does represent an increase in the welfare of employed labour, but it should be recognised that workers may have borne some of the costs of their training and that a part of increased earnings may represent the amortization of their investment in human capital. Also, an increase in the proportion of skilled workers in the labour force may be accompanied by the introduction of more capital-intensive methods of production, reducing the number of jobs for unskilled labour. Thus, once again, the change in the welfare of unskilled labourers as a group cannot be deduced directly from changes in the real wages of production workers.

A final caveat is that an increase or decrease in real wages may be the result of shifts in the composition of production. In Pakistan, as in other countries, the average earnings of production workers differ among industries for reasons which are not altogether clear, but which are related to such factors as the skill composition of each industry's labour force, barriers to inter-industry mobility of labour (e.g., trade union membership and geographic concentration) and the importance of foreign-owned firms in each industry. Wherever inter-industry wage differentials exist, the average wage of production workers in the industrial sector will fluctuate over time merely because of shifts in the pattern of final demand and not necessarily because of changes in wage rates.

Trends in Money and Real Wages

Keeping in mind these limitations on the meaning of changes in real wage rates, we can proceed to examine the trends in the real and money wages during

the 1954 to 1969-70 period. The money wages of production workers, the consumer price index and real wages are shown in Table 1. We have already sounded a note of caution about the quality of the CMI data, but even making generous allowance for errors, several conclusions emerging from these data seem incontrovertible. First, money wages rose substantially over the period and at a rate significantly greater than that of consumer prices. For the entire period, the rate of increase in real wages is more than 20 percent, implying a compound rate of growth of slightly more than one percent per annum. Obviously, a rate of growth computed between any two years can be misleading to the extent that one or both of those years may be atypical in some respect. An alternative procedure is to compute the trend rate of growth by fitting a semi-log regression, using time as the independent variable, to the wage data for each year. We have calculated both types of growth rates for the entire period and two sub-periods and these are shown in Table 2. It is apparent that all of the growth in real wages took place after 1959-60, which is consistent with the finding of Khan's original article that real wages in West Pakistan were stagnant from 1954 to 1963-64, but not with his later contention that the stagnation continued through 1966-67 [5]. Our data indicate that real wages began to rise in 1963-64 and have never returned to their pre-1963-64 levels.

Table 1

Real and Money Wages of Production Workers

Year	Money Wages (Rs.)	Index*	Cost of Living Index*	Real Wages (Rs.)	Index*
1954	981	89.9	87.4	1122	102.8
1955	896	82.0	84.7	1058	97
1957	994	91.1	93.3	1059	97
1958	1045	95.8	95.5	1094	100.3
1959-60	1091	100	100	1091	100
1962-63	1028	94.2	107.1	960	88
1962-63**	(1189)	(109)	(107.1)	(1110)	(102)
1963-64	1195	109.5	109.8	1088	99.7
1964-65	1340	122.8	113.6	1180	108.1
1965-66	1464	134.1	117.1	1245	114.1
1966-67	1510	138.4	127.0	1189	109.2
1967-68	1536	140.8	137.4	1116	102.3
1969-70	1932	177.1	143.0	1351	123.8

Source: Appendix Tables.

*1959-60=100

**Estimate from the Punjab Board of Economic Inquiry Survey; See p. 369 below.

Table 2

Compound Rates of Growth in Wages and Prices

Period	Money Wages		Cost-of-Living Index		Real Wages	
	Annual Average	Trend	Annual Average	Trend	Annual Average	Trend
1954 to 1963-64	2.2	2.1	2.5	2.9	-0.4	-0.7
1959-60 to 1969-70	5.9	6.2	3.7	3.9	2.2	2.3
1954 to 1969-70	4.6	4.5	3.3	3.4	1.2	1.1

Source: Appendix Tables.

Second, it is important to recognize that the rise in real wages was spread over all industries and not concentrated in just one or two industry groups. From Appendix Table 1, it can be seen that money wages grew in almost every industry. We have summarized the pattern of growth rates of money wages in Table 3 below. More than three-quarters of the industries grew at a compound rate between 5 and 8 percent per annum and all but one had growth rates falling in the 4 to 8 percent range. This suggests that whatever forces lay behind the growth in wages, they affected all industries more or less uniformly.

Table 3

Annual Average Rates of Increase in Money Wages: 1959-60 *to* 1969-70

Annual Rates of Growth %	No. of Industries*
0—3.9	1
4.0—4.9	4
5.0—5.9	6
6.0—6.9	4
7.0—8.0	4
Total	19

Source: Appendix Tables.

*Petroleum was excluded for lack of data. The 1959-60 wages for wood, cork and allied industries are assumed equal to the wage level reported in 1962-63.

Finally, the growth in real wages during the period was far from steady: the two spurts of growth in real wages were separated by an abrupt decline (1965-66 to 1967-68). Both the growth periods were immediately preceded by periods of rising prices and stagnant money wages, a pattern which suggests that the erosion of living standards triggered a series of wage increases which propelled workers' real wages past their old levels on to a new and higher plateau.

Comparisons with other Wage Data

There are two other important sources of information on the earnings of industrial workers in Pakistan which should be compared with the CMI data. One source is the annual reports of wages and salaries compiled from data collected under the Payments of Wages Act (PWA) of 1936. The Act requires those establishments registered under the Act to submit annual statements indicating the total value of wages and salaries paid and the number of employees. Because of the penalties for non-response, the PWA data are, in a strict reporting sense, more accurate than the CMI data, but a number of factors limit their usefulness in an analysis of wage trends. First, no distinction is made between production and non-production workers, as is done in the CMI's, making it impossible to differentiate between changes in wage rates and changes in the skill composition of the labour force. Second, the PWA data are confined to wages and salaries and thus exclude various fringe benefits which have grown in importance during the past decade. Finally and perhaps most importantly, the data suffer from a number of erratic and wholly inexplicable aberrations. Between the years 1968 and 1969, for example, the reported levels of both employment and total wage payments jumped a mind-boggling 400 percent. Also the implicit annual wage of workers in 1962 is shown to be more than 50 percent higher than in the preceding or the following years [13, pp. 36-37].

The PWA series, nevertheless, confirms the generally upward trend in wages over the period, as can be seen in column 3 of Table 4. For 1967-68, the last year common to both the series, the rate of growth in wages since 1959-60 differed by only three percentage points. For some of the intervening years, however, the correspondence is not nearly as good. This is at least partly due to the erratic movements in the PWA data which have been moderated somewhat in Table 3 by the averaging necessary to approximate fiscal year data with calendar year data.

The other source of data consists of a survey carried out by the Punjab Board of Economic Inquiry (PBEI) and reported by Bokhari [1]. A sample of 74 manufacturing firms was drawn for this survey from a universe of 241 firms in West Pakistan employing more than fifty workers and located in the nine major industrial centres outside of Karachi. The survey collected annual data on wages, cash benefits and non-cash benefits for production workers in the 1955-63 period.

The wage series from the survey is shown in column 4 of Table 4 where it has been converted to fiscal year basis by averaging data for adjacent years. Despite the fact that Karachi was excluded, the PBEI and CMI wage series are strikingly similar with the exception of 1962-63 and, to a lesser extent, 1955. The fact that the average wage in the 1962-63 CMI is substantially below its trend value and below the value provided by both the PWA and PBEI sources suggests that something is amiss with the 1962-63 CMI data on employment and

wages. It is certainly possible that some errors could be present because, in 1962, the responsibility for compiling and tabulating the Census was handed over by the Central Statistical Office to provincial agencies. The year 1962-63 was certainly a normal year for manufacturing, with a more than 10 percent expansion in value added. Thus, anomalies in the CMI data for this year seem more attributable to misreporting than to any other factor. In electrical machinery, for example, wages per worker plummeted in 1962-63 to about half their level in the previous census and then doubled the following year. Under close scrutiny, it is apparent from the data on wage payments and employment for this industry that the erratic swing in wage per employee is due to an abnormally high recorded level of employment in 1962-63, which can be attributed only to mis-reporting. If a trend value of employment is used in place of the actual value, the average wage in electrical machinery rises significantly; the adjustment in this one industry alone raises the average wage in all industries by Rs. 40 and brings wages almost back up to the 1959-60 level.

Table 4

Comparison of Annual Wages (Earnings) per Worker from Different Sources

Year	CMI: Production Workers		Survey: Production Workers		PWA: All Workers	
	Rs.	Index*	Rs.	Index*	Rs.	Index*
1954	981	89.9	—	—	893	79.0
1955	896	82.0	925	86.3	1060	94.0
1956	—	—	952	88.8	1093	96.9
1957	994	91.1	981	91.5	1041	92.3
1958	1045	95.8	1026	95.7	1097	97.2
1959-60	1091	100.0	1072	100.0	1128	100.0
1960-61	—	—	1098	102.5	1177	104.3
1961-62	—	—	1142	106.6	1384	122.7
1962-63	1028	94.2	1172	109.4	1454	128.9
1963-64	1195	109.5	—	—	1408	124.8
1964-65	1340	122.8	—	—	1488	131.9
1965-66	1464	134.1	—	—	1507	133.6
1966-67	1510	138.4	—	—	1510	133.9
1967-68	1536	140.8	—	—	1545	137.0
1968-69	—	—	—	—	1760	156.0
1969-70	1932	177.1	—	—	—	—

Sources: CMI: Appendix Tables I-a and I-b.
Survey: Bokhari [1]
PWA : CSO [13]
*1959-60=100

To summarize, the other sources of wage data tend to bear out the wage trends derived from the CMI's with the possible exception of 1962-63 where the CMI data do appear to give an abnormally low estimate for wages. If one accepts the PBEI data for that year as being more reliable, real wages in 1962-63 were slightly higher than in 1959-60. The PBEI estimate seems more plausible for if wages declined sharply in 1962-63, as the CMI data would lead one to believe, they certainly left no visible traces in the contemporary literature on industrial relations. For example, in the labour disputes reported in the *Pakistan Labour Gazette* during this period [15], one is struck by the absence of any reference to wage cuts. It is possible that bonuses were omitted or that workers were retrenched, but the more than 30% growth in value added between 1961-62 and 1963-64 gives no hint of a severe price-cost squeeze or sluggish demand which would cause employers to resort to either of these actions. Until some convincing explanation for a decline in money wages for 1962-63 can be given, we believe that PBEI data offer a more accurate measure of the level of money wages in that year.

Effect on Workers' Welfare

Did the welfare position of workers improve? For the period up to 1963-64, the answer seems clearly 'no,' but for subsequent years the answer shifts to the affirmative as there was a marked upward shift in real incomes. Moreover, there were simultaneous changes in the lives and working conditions of labourers which tended to increase their welfare further. First, the average work-week apparently shrank between 1963-64 and 1969-70, as can be seen in Table 5. While these results are drawn from

Table 5

Selected Characteristics of Industrial Workers in Urban Areas

Period	Percentage of manufacturing labour working more than 48 hours per week	Number of dependants per earner
1963-64	66[a]	3.8[c]
1965 (Jan.-June)	49[b]	3.5
1966 (Jan.-March)	NA	3.1
1966-67	49	NA.
1967-68	42	NA.
1968-69	34	3.3
1969-70	41	3.1

Source: (i) *Household Income and Expenditure Survey* (Various Years)
(ii) *Labour Force Survey* (Various Years)

[a]Estimated from all Pakistan figure on the basis of Jan.-Sept. 1965 ratio of West Pakistan Urban to All Pakistan figure.
[b]Relates to Jan.-Sept. 1965
[c]Relates to Jan.-Sept. 1965
Note: Production workers are assumed to fall in the monthly income bracket of Rs. 100—149.

surveys for which sampling errors are not reported, the decline, from 66 to 41, in the percentage of workers normally spending more than 48 hours on the job would seem to be statistically significant. Second, data from another survey suggest that households in the income classes encompassing most industrial workers experienced an increase in the number of earners and a decrease in the number of dependants, causing the dependency ratio to decline. Thus, the larger real pay package was spread among fewer people.

While it is difficult to deny that some workers were made better off by increases in wages in the manufacturing sector, it would be difficult to argue that urban unskilled workers as a group experienced any improvement in their standard of living. If the experiences of other countries are any guide, it is more probable that their relative standards, and possibly even their absolute standards, worsened and that this deterioration can be traced back to the rise in wages of industrial workers. The rise in wages in the manufacturing sector acts in two ways to depress wages in the non-formal sector. On the one hand, wage increases in manufacturing produce a reduction in the demand for urban labour by inducing the substitution of capital for labour, provided, of course, that the price of capital does not rise at the same rate. At the same time, the rise in wages acts to expand the supply of urban labour as rural workers are lured to the cities with the prospect, often very slim, of obtaining one of the higher paying jobs and find themselves instead as part of the labour supplied to the non-formal sector, where they depress the wages even further. This inverse relationship between wages in the formal and non-formal sectors has been observed in other developing countries, most notably in Kenya and Nigeria. In Nigeria, Kilby [9] found that the real wage in the urban non-formal, i.e., non-industrial and non-governmental, sector declined absolutely, while real wages in industry grew by more than 5 percent a year over the same period.

As no data on wages in Pakistan's non-formal sector are available on a systematic basis, it is impossible to say whether this pattern has been repeated in Pakistan. The finding that the urban distribution of income did not improve during the period 1963-64 to 1969-70 [10] is certainly consistent with the hypothesis that incomes in the non-formal sector did not keep pace with those in the formal sector. But at the same time, income from wages may not have expanded as fast as the income from other sources. In this case, a deterioration would have occurred as well. Obviously, until wage data for the urban non-formal sector become available, the size and even existence of a wage gap will remain unknown. What is clear, though, is that real wages in the formal sector of a country widely acclaimed to be suffering from a chronic surplus of labour have been significantly raised and the factors that made this possible need to be examined in some detail.

The Determinants of Wages in Pakistan

In the classical model of labour markets, the wage level is set by forces of supply and demand operating through the individual preferences of the users and suppliers of labour services. In practice, however, non-market forces, such as trade unions, government minimum wage legislation, and the general political climate, are also present, making it difficult to know if market forces or non-market forces have been more important in determining the general

wage level. Moreover, labour markets in many developing countries have undergone such rapid structural changes that the relative importance of market and non-market factors has no doubt shifted over time. In spite of these problems of analysis, it is nevertheless worthwhile to explore the type of market and non-market forces which could have influenced the level of wages in Pakistan and to examine in particular the objectives and strategies of the three major parties to wage negotiations—trade unions, employers and government.

The Institutional Setting

In Pakistan, the power and functions of these three groups have undergone substantial change during the past two decades. In 1955, Pakistan's First Labour Policy was declared, but its lofty ideals of improved working conditions, fair returns to labour and creation of worker participation in management could not be put into practice because of the political instability in the country.[1] Wage determination during the 1950's was very much a matter of what employers felt they could afford. The Revised Labour Policy, instituted by the Ayub government in 1959 shortly after it took office, marked a sharp departure from the past. Rather than remain a neutral observer as before, the government assumed a central role in wage disputes by requiring conciliation if the collective bargaining process broke down. If conciliation failed, disputes were referred to judicial bodies known as Industrial Courts. The decisions of the Court carried legal authority, and any breach of an "award", as the Court's decisions were called, was made a penal offense. The Revised Labour Policy prohibited strikes in "public utility services," the definition of which was sufficiently elastic to incorporate almost any industry which the government felt was important. Strikes were also proscribed for the "non-public utilities" once a strike notice had been issued by the trade union. Through the supression of the workers' right to strike and the ultimate authority of the three-man Industrial Courts in which government held the swing vote between the representatives of labour and management, the central government wielded far-reaching powers in setting wages in the industrial sector.

Another instrument by which the government operated on the wage level was the Minimum Wage Ordinance promulgated in 1961 and gradually put into effect beginning in 1962 with the establishment of Minimum Wage Boards for the major industrial groups. The decisions of the Minimum Wage Boards carried the same legal force as those of the Industrial Courts.

In 1969, Pakistan received a new political regime and a new labour policy. The principal changes from the previous labour policy were the expansion of the workers' power to choose their own leaders through secret ballot, restoration of workers' right to strike and a strengthening of minimum wage laws and enforcement procedures. The government retained many of its previous powers—for example, the right to terminate strikes which were not in the public interest —but there was a discernible shift back from an interventionist role and much more reliance was placed on the bilateral negotiations between labour and management, in which labour's strength had been markedly increased by the right to go out on strike.

[1]This review of Pakistan's labour policy is based on Usmani's article [21].

Government's Role

The government's potential for influencing the level of wages reached a maximum between 1959 and 1969 and evidence can be marshalled to demonstrate that the government did affect the trend in wages during this period. The same evidence does not show, however, any tendency for this influence to be applied in a consistent fashion, suggesting that the government lacked a coordinated wage policy.

It must be noted at the outset that the government itself set a major precedent for sizeable wage increases in the early 1960's through substantial raises in the pay of its own employees. In September, 1962, well before money wages began rising in the industrial sector, the government announced an interim relief ranging from Rs. 5 to Rs. 25 for civil servants earning up to Rs. 600 per month. Three months later, an additional relief was provided, amounting to between 10 and 12.5 percent of the basic salary for non-gazetted staff [14]. In 1963, a new pay scale was adopted which primarily consolidated the old scale and the various *ad hoc* relief measures into one new scale, but which also appears to have boosted the earnings of government employees even further. The combined effect of all of these measures was to raise the earnings of the lowest paid government employees—those in the Rs. 50-70 per month bracket —by a minimum of 20 percent over a two-year period beginning in 1962. The magnitude of these increases certainly did not go unnoticed by trade unions; very shortly thereafter they began pressuring for comparable wage increases.

At approximately the same time, the government began to intervene more directly in the wage rates for unskilled labour in the private sector. The Minimum Wage Boards, established for each industry under the Minimum Wage Ordinance of 1961, started issuing their directives. In cotton textiles, the major absorber of labour in the manufacturing sector, a wage floor of Rs. 71.5 to Rs. 78, depending on the region, was declared, which according to contemporary accounts lifted the pay of the least skilled workers by more than 30 percent [3, p. 63]. In other industries, the impact of Minimum Wage Boards was negligible, as either pressures from trade unions or the presence of foreign firms had already pushed up pay scales. But for a number of labour-intensive industries, it would appear that the government's minimum wage legislation had a measurable effect, though not as much as could have occurred had the decisions of these Boards been rigorously enforced.

In another area, the government's intervention was less obvious but perhaps even more important. Under the Revised Labour Policy all disputes between unions and employers which could not be resolved collectively with the aid of a Conciliation Officer were automatically referred to an Industrial Court for a decision which was legally binding on both the parties. The Courts issued judgements on each of the demands presented by the unions. It was never made clear, however, what criteria were to be applied in judging the merit of labour's claims. The one criterion which appears to have been adopted implicitly—that similarly situated firms should have similar pay scales —was too vague to be applied in a consistent fashion and reveals an absence of any coherent wage policy on the part of government. The insistence on similar wage levels among firms in the same industry certainly did not automatically narrow inter-industry wage differentials and may even have had the reverse effect. Moreover, the lack of any definite criteria for comparability among

firms opened up the possibility for wide judicial discretion in determining "fair wages." As a result, what should have been decided in accordance with economic and social objectives frequently seems to have been resolved on the basis of rather narrow legalistic principles of comparability.

The Court's influence was not limited to cases which were brought before it. The threat by either labour or management to submit a dispute to the Industrial Courts was often effective in reaching wage settlements that were in line with previous court decisions.

In spite of its pervasive influence in setting industrial wages, there is no indication that the government was able to evolve a systematic policy with regard to wage levels and wage increases. Government influence was exerted through several different channels, which lacked any visible coordination. In sum, the government's efforts to control wages were sporadic and unrelated to the objective of long-term economic development.

Trade Unions

The fact that the wage increases of the 1960's were accompanied by a growth in trade union membership and a marked increase in their visibility and stridency is strong circumstantial evidence that pressure from labour was a principal cause of the increases in real wages. But there are several reasons for doubting whether unions had as much influence over the wage level as government. It goes without saying that had unions not existed at all, wages would have been lower. Nonetheless, the Revised Labour Policy introduced in 1959 had stripped trade unions of much of their power, particularly of their option to go out on strike. Much of their agitation during the early 1960's was directed at restoring their rights lost in 1959, particularly their right to choose union representatives by secret ballot. The procedures for recognizing union representatives contained in the 1959 reforms could easily be manipulated to create management-controlled unions—the so-called "pocket" unions. In 1963, more than 50 percent of the industrial disputes were for "personal" reasons [13, pp. 42-43]. The heavy emphasis placed by labour on non-wage issues can also be observed from the number of demands related to such issues listed in the petitions submitted by trade unions to the Industrial Courts, as recorded in the issues of the *Pakistan Labour Gazette* for the 1962-64 period [15].

Still, the close association between industrial disputes—both their numbers and intensity—and increases in trade union activity during the period cannot be entirely overlooked. Table 6 shows the number of mandays lost and wages for two of the important industries in West Pakistan, and the correlation between the series is striking. The basis for this agitation may, however, have had more to do with politics than with economics. The two periods of greatest union activity, namely 1963-64 and 1969-70, came at times of widespread political turmoil and manoeuvring among rival political groups. If these strikes had any effect on wages, it was more likely to have operated indirectly through the government's desire to maintain industrial peace and domestic tranquility rather than directly through union pressures on management. The generally authoritarian and discriminatory labour policy adopted by the Ayub regime would suggest that the government could have safely ignored threats made by labour. But in 1964, when preparations were being made for a general election in which the govern-

Table 6

Indexes of Mandays Lost and Money Wages of Production Workers in Textile and Engineering Industries 1954—1969-70
1954 = 100

Year	Textiles			Engineering		
	Mandays Lost	Index of Mandays Lost	Index of Money wages	Mandays Lost	Index of Mandays Lost	Index of Money wages
1954	196069	100	100	258	100	100
1955	60963	31	96	9016	3494	99
1956	168843	86	NA	4127	1599	NA
1957	110930	57	99	34753	13316	100
1958	150036	77	100	11344	4396	117
1959	2964	15	105	1200	465	105
1960	44260	23	NA	4682	1807	NA
1961	49790	25	NA	22	8	NA
1962	125504	62	104	21999	8526	110
1963	1200989	612	114	49823	19236	139
1964	444463	227	127	118728	46018	150
1965	382919	195	137	12013	4656	176
1966	68766	35	140	56351	21757	172
1967	80566	41	137	69331	26872	190
1968	233378	119	NA	16176	6245	NA
1969	1173626	598	184	113233	43888	210

Sources: 1. *25 Years of Pakistan in Statistics.*
2. *Census of Manufacturing Industries* for Various Years.

Notes (1) Money Wage index pertains to fiscal year after 1958.
(2) Engineering Industry includes Basic Metal, Metal Products except machinery, Machinery except electrical machinery, and Electrical Machinery.

ment wanted to project an image of broad-based political support in both the urban and rural sectors, and again in 1968 when the regime's political strength had begun to slip away, attempts may have been made to appease trade unions by granting wage increases through higher minimum wages and more favourable decisions by the Industrial Courts.

What needs to be emphasized, however, is that whatever influence the unions wielded over wage levels, it operated through the unions' leverage on government and, in turn, through the government's ability to control wage settlements in the manufacturing sector. Whether it can be said that in this framework trade unions or government determined the level of wages depends primarily on the analytical perspective and political model which one adopts.

Employers' Role

Up to this point, attention has been focussed solely on the non-market or institutional determinants of wages. But market forces may have been at work as well, and these can be observed through an analysis of the employers' role in raising wage rates. Given labour-surplus conditions and the industrialists' normal propensity to maximise profits, it might be supposed that the only pressures exerted by employers on wages were in a downward direction. But this simplistic notion overlooks several important reasons, related to the supply and demand relations for labour in Pakistan, for the employers' possible acquiescence to, and even active encouragement of, higher wages. To treat the latter possibility first, an insistence on paying low wages is not always a profit-maximizing strategy. Low pay encourages labour turnover and even for the least skilled jobs there is a start-up cost of hiring and orienting new workers. If existing employees can be induced to stay on with better wages, firms can recoup more of the investment in such training and avoid additional outlays. In the early 1960's profits in Pakistan's industrial sector began to recede from their plush levels of the 1950's and businessmen woke up to the fact that profits could be made by raising productivity almost as easily as by raising prices. This causal link running from higher wages to higher productivity has been examined statistically by Horowitz [6] for India's manufacturing sector, and she finds significant empirical support for the hypothesis.

But perhaps an even more important market force operated through the link between urban and rural wages. The classical two-sector model of economic development postulates that the supply price of unskilled labour to the urban sector is composed of the basic subsistence wage of rural labour and an incentive-differential necessary to compensate rural migrants for the higher costs of urban living. Any movement in either the subsistence wage or the incentive-differential will have an effect on the urban wage. In Pakistan, rural wages appear to have stagnated during the 1950's but then suddenly accelerated during the early 1960's. Data taken from farm management surveys show, for example, an annual increase in the wages of farm labourers of more than 5% between 1962-63 and 1968-69 and a study by Eckert [4] reports a growth rate of rural wages of about 6 percent per annum between 1966-67 and 1970-71. In the first half of the decade, rural wages were raised by the growth in labour demand arising out of a more intensive and extensive land cultivation made possible by the "tubewell revolution;" while in the second half of the decade, a higher agricultural surplus resulting from the bio-chemical revolution permitted wages to rise still further. Rural wage data are among the most fragile of all

economic statistics, but all of the available evidence which can be brought to bear on the subject of rural incomes suggests that even the wages of the most unskilled rural workers rose significantly, in real terms, during the 1960's and could, therefore, have been responsible for at least part of the increase in urban wages during that period.

Conclusion

The major findings concerning the movement of real wages during the 1954-70 period can now be stated. Real wages stagnated between 1954 and 1962-63 but began to rise in 1963-64 and eventually gained more than 20 percent by 1969-70. The rate of growth of wages exhibited a very uneven pattern: two periods of rapid growth,—1963-64 to 1965-66 and 1967-68 to 1969-70—were separated by a period of sharp decline. The rise in real wages over the period was spread fairly evenly over all of the industrial groups and not concentrated in one or two "modern" industries. The increases in workers' real wages were accompanied by decreases both in the average length of the work week and in the number of dependants in the workers' households, adding further support for the view that the welfare position of production workers employed in large-scale industry registered a marked improvement over the period.

Under the conditions of a general labour surplus widely presumed to exist in Pakistan, increases in the real wage of unskilled labour is somewhat paradoxical. Certainly, the fluctuations in the real wage levels can be traced to the alternating cycles of consumer prices and money wages. The lagged response of money wages to changes in the level of consumer prices caused real wages to rise and fall over time. But a definite upward trend in the average real wage can be discerned over the period. Our analysis has suggested that both market and non-market forces were responsible for raising the level of real wages. On the market side, an upward push on urban wages was exerted by improvements in rural real wages. Moreover, as has been observed in other developing countries, a decline in profit rates can induce industrialists to take the initiative in raising wages as they begin to recognize the value of a stable labour force to the maintenance of high levels of productivity, and this factor may have been at work in Pakistan.

Among the non-market forces, trade unions played a highly visible but relatively ineffective role in raising wages. Their power and tactics were tightly controlled by the Revised Labour Policy adopted in 1959. Industrial disputes rose in number and intensity prior to both the periods of rapid wage increases during the 1960's, but no evidence was found that this activity had any direct effect on the negotiation of higher wages at the bargaining table. The fact that real wages rose in almost all industries while union strength was concentrated in a relatively small number of industries casts more doubt on the impact of trade unions on real wages. To the extent they were effective, union pressures were more likely to have operated indirectly through the political process rather than directly on labour-management negotiations.

The principal non-market influence on wage levels was exercised by the government itself. Through its dominant role in the Industrial Courts, the establishment and enforcement of minimum wages and its wage policies vis-a-vis its own employees, the government wielded considerable power to determine

raise living standards will undermine the vital allocative role which wage rates perform and any gains to the employed may be more than offset by the losses incurred by those denied employment through the distortions which such wage policies create.

A second principle of labour policy suggested by the patterns of development in other countries is that uniformity in the wages of unskilled labour in the different branches of the economy is essential. Only where real differences in the cost of living exist among sectors should the wage of unskilled labour be allowed to vary. This does not hold true, however, if distortions, such as monopoly or monopsony power exist which impair the efficiency of the economy. Under these conditions, a differential wage policy can be an optimal second-best policy, but such situations are generally the exception rather than the rule. Besides, the differential wage policy requires a degree of "fine-tuning" which most governments cannot achieve.

A third principle is that increases in wages should be implemented gradually. Sporadic wage increases disrupt the normal process of resource allocation and tend to generate unrealistic expectations on the part of labour and unwarranted concern about the future cost of labour on the part of industrialists. Much has been written about the effects of high wage levels on the introduction of labour-replacing capital equipment in industry. But it is also true that a low level of wages, coupled with erratic and unanticipated changes, can create precisely the same desire among industrialists to minimize the use of labour.

Appendix on Data

The main sources of data for our study are the reports of the Census of Manufacturing Industries which have appeared annually from 1954 to 1969-70 except for four years, viz. 1956, 1960-61, 1961-62, and 1968-69. No two Censuses are alike in terms of coverage, tabulation plan, and definitions employed, thus making the consistency of time series diffcult to ensure. The problems of non-reporting and mis-reporting in the CMI's are well known and we do not discuss these further. In any event, they are beyond our control and in this appendix on Data we consider only those inconsistencies and omissions we have been able to eliminate or at least mitigate.

Coverage

From 1954 to 1962-63, the coverage of the CMI's was limited to the (2j) factories, so-called because they are registered under section 2(j) of the Factories Act of 1934. Beginning in 1963-64, the 5(1) firms were also included in the Census, which means that the minimum size of a factory was lowered from 20 workers to 10 workers. The inclusion of these smaller firms in the totals could influence the calculation of the average wage, but inasmuch as the 5(1) firms account for no more than 10 percent of the employment, the inconsistencies between the pre- and post-5(1) wage data cannot be serious. We checked for the possibility of another bias in our wage estimates due to change in coverage by computing the average wage of all workers in firms having more than 250 employees. These firms appear to be among the more reliable respondents to the CMI and we felt that the average wage reported by these firms would be more accurate than that reported for all firms. As it turns out the growth in real wages in the 250+ firms is very similar to the growth in all size classes, which is perhaps not surprising since the larger firms account for approximately two-thirds of industrial employment.

Employment

The CMI's generally report wage and employment data for production and non-production separately, but not always. For 1962-63 and 1963-64, no detailed data for the two categories of employees are available. We have estimated the wages of production workers in these two years by applying the ratio of production workers' average wage to all workers' average wage for 1964-65 to the average wage of all workers for these two years. We had available an independent estimate of the share of production workers in total workers for 1963-64, and since this share was very similar to the share of production workers in 1964-65, our estimation procedure for the average wage of production workers for the year 1962-63 and 1963-64 appears justified.

In the 1969-70 CMI, different procedures were followed for the four provinces in the breakdown of employees into different sub-categories. In the N.W.F.P. and Sind, employees were divided among four groups: production; non-production; Managers, Engineers, Professional and Administrative; and Others. In the Punjab, four different catagories were identified: Administrative, Supervisory; Skilled; and Unskilled. For the Punjab, we have considered both skilled and unskilled workers as part of production workers. Baluchistan reported only total employment. We have estimated the shares of production and non-production workers for that province on the basis of the shares obtaining in other three provinces.

A third aspect of coverage concerns contract labour. We excluded payment to contract labour — i.e. those workers engaged through labour contractors or sub-contractors for work in manufacturing activities—from total employment cost except for 1957 and 1958 in which years the CMI's did not report payments for contract labour as a separate category.

Cash and Non-Cash Benefits

The treatment of cash and non-cash benefits in the CMI's is not uniform and adjustments in the data for a number of years have been necessary.

1957: The value of non-cash benefits has been reported only for all workers. We have distributed the total between production and non-production workers according to their shares in total employment cost.

1958: Cash and non-cash benefits are reported separately and we again apportion the total between the two categories of workers according to employment cost shares. On the basis of this method, cash and non-cash benefits appear to be approximately 7 percent of wages and dearness allowances which is approximately the same percentage as in the preceding and following years.

1959-60: No data are reported for non-cash benefits. We estimate their value by assuming that the ratio of non-cash benefits to other wages was the same in 1959-60 as in 1957, i.e. 1.9 percent.

1967-68: The same procedure has been adopted for estimating non-cash benefits for this year as for 1959-60, except that we applied the percentage figure for 1966-67 (2 percent) to the 1967-68 value of wages and cash benefits.

Cost-of-Living Index

We have constructed two cost-of-living indexes with different sets of weights for two different geographical locations. The two sets of weights are taken from a 1955-56 survey [11] and from an unpublished survey undertaken in connection with a revision of the consumer price index in 1972 [12]. The 1955-56 survey was based on a sample of industrial workers in Karachi and Lahore, presumably covering all income groups, whereas the 1972 weights pertain only to industrial workers in these two areas earning less than Rs. 300 per month. The differences between the two sets of weights because of the different coverage are negligible.

The price relatives for the twenty commodity groups have been taken from CSO [13]. As noted elsewhere, the base-year weighted (Laspeyres) and end-year weighted (Paasche) indexes do not differ substantially, but we have nonetheless taken a geometric average (Fisher index) as our cost of living index. The cost of living indexes for Karachi and Lahore do differ significantly in certain years, and therefore the proportional weights assigned to these two regional indexes in calculating an overall index for West Pakistan can make a difference. We have assumed that the Lahore index is representative of the indexes applicable to other industrial centres outside of Karachi. The CMI's suggest that Karachi accounted for 40 percent of industrial employment in 1959-60, 45 percent in 1964-65 and 30 per cent in 1969-70. Rather than interpolate the weights for the intervening years, we used a simple average of the two regional indexes which imparts an upward bias to our cost-of-living index for West Pakistan, since the price index for Karachi has risen more rapidly then the index for Lahore.

Appendix Table I-a

Wages of Production Workers (Including Non-cash Benefits)

Name of Inds.	1959—60	1962—63	1963—64	1964—65	1965—66	1966—67	1967—68	1969—70
All Industries	1091	1028	1195	1340	1464	1510	1536	1932
Food except Beverages	1050	976	1174	1430	1417	1590	1494	2103
Beverages	794	1435	1302	1490	1790	1710	1982	1488
Tobacco	1730	1734	1716	1157	1596	1720	2358	1882
Textiles	1032	1017	1116	1240	1337	1370	1335	1795
Footwear	1469	1263	1625	1700	1481	1730	1451	2314
Wood Cork & Allied	NA	761	1134	1005	1305	1230	1177	1535
Furniture & Fixture	1144	1562	1274	1514	1789	1690	1957	2301
Paper & Paper Prod.	1407	1113	1310	1667	1902	2050	2223	2319
Printing & Publishing	1463	970	1736	1913	1832	1940	2233	2272
Leather	869	970	1242	1434	1634	1539	1522	1637
Rubber	1087	889	1340	NA	2099	1960	2022	1838
Chemical	1296	1306	1420	1515	1688	1960	2036	2684
Petroleum	NA	NA	NA	NA	NA	NA	NA	NA
Non-Metallic	1137	1238	1205	1318	1485	1408	1522	1979
Basic Metal	1200	1302	1408	1600	2187	1770	2016	2090
Metal Products	977	1071	1241	1245	1489	1500	1638	1752
Machinery Except Electrical	1032	1087	1164	1296	1402	1408	1488	1588
Electrical Machinery	1147	630	1361	1444	1464	1712	1928	2381
Transport	1311	1088	1456	1578	1706	1719	1830	2061
Miscellaneous	955	779	1060	1161	NA	1359	1204	1507

Source: *Census of Manufacturing Industries* for various years.

Appendix Table I-b

Money Wages of Production Workers (Including N.C.B.)

Year	Wages
1954	981
1955	896
1957	994
1958	1,045
1959—60	1,091
1962—63	1,028
1963—64	1,195
1964—65	1,340
1965—66	1,464
1966—67	1,510
1967—68	1,536
1969—70	1,932

Source: *Census of Manufacturing Industries* for various years.

Appendix Table II-a

Price Index for Industrial Workers, Karachi
1959-60 = 100

Item	1955/56 Weights	1972 Weights	1959-60	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70
Wheat	.127	.102	100	119	117	108	117	117	119	130	130	125	164
Rice	.030	.027	100	100	100	100	100	100	100	165	227	152	131
Pulses(Gram)	.030	.017	100	100	110	110	102	123	110	131	156	167	392
Milk(Buffalo)	.080	.067	100	104	105	107	122	130	153	174	174	174	175
Pure Ghee	.056	0	100	106	104	101	100	109	110	119	122	127	137
Edible Oils (Mustard)	.020	.013	100	98	95	88	87	57	138	160	122	—	146
Vegetable Ghee	.012	.049	100	104	104	93	84	113	122	139	123	116	133
Sugar	.042	.028	100	100	105	105	114	114	114	114	124	133	133
Tea	.027	.025	100	98	96	117	113	113	121	140	113	119	110
Meat (Beef)	.048	.050	100	100	105	105	115	126	126	143	160	182	202
Long Cloth	.087	.060	100	104	106	105	104	103	109	117	117	127	138
Shoes	.022	.019	100	100	100	100	100	100	104	117	100	100	79
Cigarettes	.014	.032	100	100	100	111	121	114	128	125	128	128	125
House Rent	.044	.102	100	100	99.9	98.9	99.5	104.6	108.8	120	124.8	124.9	125.2
Firewood	.050	.011	100	110	107	105	107	113	121	137	145	145	145
Kerosene	.008	.027	100	100	100	100	94	106	112	147	147	147	147
Soap(Washing)	.014	.010	100	90	85	81	82	89	99	109	105	101	108
Medicine	.054	.013	100	98	82	86	80	44	45	47	54	54	51
Transportation	.040	.038	100	101.2	102.12	104.9	105.8	107.1	113.4	116.7	120.2	127.8	131.5
Others(Misc)	.195	.310	100	101.2	102.12	104.9	105.8	107.1	113.4	116.7	120.2	127.8	131.5
Fisher index	—	—	100	103.1	103.1	103.1	104.7	107.4	113.8	125.0	129.8	129.9	144.4
Laspeyres index		—	100	103.7	103.1	103.1	104.7	106.1	112.9	123.9	129.2	128.6	145.4
Paasche index	—	—	100	102.9	103.1	103.2	104.8	108.5	114.7	126.1	130.4	130.7	143.3
Average of Fisher index for Karachi and Lahore.		—	100	103.7	106.6	107.1	109.8	113.6	117.6	127.0	137.6	137.0	143.0

Appendix Table II-b

Price Index for Industrial Workers, Lahore
1959-60 = 100

Item	1955-56 Weights	1972 Weights	1959-60	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70
Wheat	.200	.119	100	109	127	115	136	154	136	161	188	158	154
Rice	.024	.030	100	104	99	104	104	100	103	117	181	121	109
Pulses(Gram)	.018	.016	100	102	102	104	100	117	121	128	149	158	198
Milk(Buffalo)	.060	.076	100	107	114	127	125	119	122	127	134	149	146
Pure Ghee	.096	0	100	102	97	98	93	105	109	116	120	122	129
Edible Oil (Mustard)	.019	.5	100	100	100	94	92	143	139	178	134	115	145
Vegetable Ghee	0	.059	100	100	100	100	133	160	181	197	186	185	192
Sugar	.048	.038	100	100	100	101	109	109	109	109	109	128	128
Tea	.012	.008	100	100	96	117	115	104	123	136	115	119	111
Meat (Beef)	.030	.040	100	104	110	108	117	120	108	113	132	147	153
Long Cloth	.055	.076	100	127	145	158	150	148	154	164	170	176	199
Shoes	.017	.019	100	100	100	100	100	100	104	117	100	100	79
Cigarette	.022	.012	100	100	104	111	129	118	129	132	132	136	132
House Rent	.055	.120	100	100	101	101	104	107	109	116	123	125	128
Firewood	.075	.023	100	104	106	105	104	112	118	130	144	148	156
Kerosene	.005	.017	100	104	100	100	112	112	120	144	136	136	132
Soap(Washing)	.034	.018	100	96	106	101	104	122	146	62	351•	333	131
Medicine	.023	.013	100	98	82	86	80	44	45	47	54	54	51
Transportation	.003	.018	100	101.2	102.1	104.9	105.8	107.1	113.4	116.7	120.2	127.8	131.5
Others(Misc)	.204	.283	100	101.2	102.1	104.9	105.8	107.1	113.4	116.7	120.2	127.8	131.5
Fisher Index			100	104.4	109.1	109.9	114.9	119.8	121.4	129.0	145.4	143.9	141.6
Laspeyres Index			100	104.4	109.4	109.5	113.7	119.7	120.0	127.7	147.4	144.1	140.1
Paasche Index			100	104.3	108.9	110.5	116.0	120.0	122.8	130.3	143.7	143.7	143.0

Appendix Table III

Real Wages of Production Workers: Wages, Cash Benefits and Non-Cash Benefits

Name of Industry	1959-60	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1969-70
All Industries	1091	960	1088	1180	1245	1189	1116	1351
Food	1050	910	1069	1259	1210	1266	1087	1482
Beverages	794	1340	1178	1312	1528	1361	1443	1048
Tobacco	1730	1619	1563	1018	1362	1369	1716	1325
Textiles	1032	950	1016	1092	1141	1091	972	1264
Footwear	1469	1179	1480	1496	1264	1377	1055	1619
Wood, Cork	NA	710	1033	885	979	979	857	1081
Furniture and Fixture	1144	1458	1160	1333	1527	1345	1424	1620
Paper and Paper Prod.	1407	1039	1193	1467	1624	1632	1618	1696
Printing and Publishing	1014	906	1581	1684	1564	1545	1625	1600
Leather	869	906	1131	1262	1395	1218	1108	1153
Rubber	1087	830	1220	NA	1792	1543	1472	1294
Chemicals	1296	1219	1293	1334	1441	1561	1482	1890
Non-Metallic	1200	1156	1097	1160	1268	1108	1106	1394
Basic Metals	1031	1218	1282	1408	NA	1409	1467	1454
Metal Products	977	1000	1130	1096	1272	1194	1192	1234
Machinery	1032	1015	1060	1141	1197	1121	1083	1118
Electrical Machinery	1147	588	1240	1271	1250	1363	1403	1676
Transport	1341	1016	1326	1389	1456	1369	1332	1451
Miscellaneous	955	727	965	1022	NA	1022	876	1061

Source: Derived from Appendix Tables I-a, II-a, and II-b.

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