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AN ECONOMIC ANALYSIS OF
INDUSTRIAL DISPUTES
IN BANGLADESH

HIID
WORKING PAPER # 18

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1. Introduction

Several studies of Bangladesh's industrial sector by HIID,

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~~_____~~ have revealed that manufacturing investment has been sluggish and manufacturing output has stagnated, particularly since the NIP82 was introduced. Among possible explanations offered by various actors in the field include the following, among others: the state of industrial environment, characterized by uncertainties of policies; smuggling and corruption and the existence of a large number of high-cost industries, probable reasons for both of which are high protection and effective assistance; lack of competitive environment; exogenous factors, such as floods, fall in jute prices; the debt-default disease and the consequent credit squeeze; the inexperience of the nation's entrepreneurs and managers as well as low industrial base; inharmonious industrial relations; and so forth. Some of these issues and several others are dealt with elsewhere in this issue, particularly see Study No. 7. In the present paper, we analyze industrial disputes, attributed by employers mainly to indiscipline among workers and the politicization of labor unions.

We look at the extent and the distribution of industrial disputes over time and verify whether labor militancy and industrial unrest are the cause or the effect of industrial sickness that has gripped this country for some time.

The paper is divided into the following sections: Section 2 describes the sources of data. The types and extent of industrial disputes are studied in Section 3. In Section 4, we discuss the causes of industrial disputes. Section 5 summarizes the methods by which most disputes were resolved. The economic costs of disputes are assessed in Section 6. Effects of industrial disputes on the productivity of labor in the jute sector is examined in Section 7. The final section summarizes the findings of the study.

2. Sources of Data

Aggregate data on industrial disputes were obtained from various issues of the Bangladesh Labor Journal (BLJ). The BLJ is published annually, except for the period 1974-76. The data for recent years, 1986 through 1988, were tabulated manually with the assistance of the Directorate of Labor personnel. The statistics on estimated production and wage losses due to industrial disputes, for key industries, were also collected from unpublished documents of the labor office.

To cross-check the data of the Directorate of Labor, work stoppages emanating both from within and outside the firm were tabulated by studying every single issue of the leading daily English newspaper, The Bangladesh Observer, and the popular

Bengali daily, The Ittefaq, that reported any strike, "hartal" or similar other activity resulting in work stoppages in the industrial sector for the period January 1986 through September 1989.

3. Type and Extent of Industrial Disputes

According to labor statutes, firms belonging to the formal industrial sector are required to report industrial disputes in a prescribed form provided by the Directorate of Labor. An industrial dispute may be defined as a disagreement between the employer and employees or between groups of workers. Industrial disputes are divided into two categories. (1) Those due to economic causes and (2) those due to political causes. The former type of disputes may arise when workers collectively (usually through a union, if it exists) present a charter of demands to which the management does not yield. The deadlock may lead to work stoppage or may be resolved very quickly without causing loss in production either via bilateral negotiations between workers and the management or through tripartism involving government officials, usually from the Directorate of Labor. Other examples of factors that causes dispute are dismissal of a worker, retrenchment of workers or union leaders and similar factors.

The scenarios that are categorized under political causes of industrial disputes include inter-union or intra-union rivalry, call of general or industry-wide strike by federations or associations, and personal clashes between groups of workers. Although a dispute may or may not lead to work stoppage or a

strike, it is serious enough to warrant a settlement either through voluntary methods, such as collective bargaining, mediation, arbitration or via direct intervention by a governmental body urging unconditional return to work.

Over time, the frequency of disputes has not shown any obvious trend (see Table 1 and Fig. 1). It may be seen that the years 1975, 1976, and 1988 experienced low numbers of industrial disputes (2, 5 and 9 respectively), while the highest number of disputes was recorded in 1984. Did the divestiture of nationalized industries and the liberalization environment that was ushered in by a leap frog by the NIP82 make any difference to industrial disputes? While there is some suggestion for a break (see Fig.1), the sharp reversal of the curve tends to minimize the impact of the NIP82 per se on industrial disputes. On the other hand, as a first approximation political factors seem to fit the facts better.

The very low number of disputes in 1975 and 1976 can probably be attributed largely to political events. The significant jump in the number of disputes during 1978 through 1981 was, probably in part, due to the lifting of the martial law in 1978. Parallel explanation seems to apply to the fall in disputes during the martial law of 1982-84 and an outburst of strikes in 1984 due to the lifting of the martial law in the latter year. The downward trend in the number of disputes reported for the period 1985-88 is an interesting phenomenon. Possible explanation for that and other possible explanations for

the changes during the entire period will be explored in the next section.

Disputes by Region/District

Most of the formal sector industries are located in the three major cities (and hence districts) of Bangladesh: Dhaka, Chittagong, and Khulna, with Dhaka claiming the lion's share. Although an overwhelming number of firms are located in Dhaka, Dhaka's share in labor disputes is proportionately lower. From 1973 through the NIP Year 1982; Dhaka's share in industrial disputes was 28 percent. Since then it averages out to 23 percent. During 1982, Dhaka did not have a single industrial strife. That was not true in other parts of Bangladesh. In none of the years Dhaka registered more than 50% of the disputes--the highest being 43.8% in 1983. However, in terms of total mandays lost Dhaka's share was much higher (46 percent) upto 1982 but a low of 24 percent (same as the percentage share of the number of disputes) in the post-NIP period. The predominance of large enterprises in Dhaka and the location of the bulk of the industry may explain this finding.

Various explanations may be offered for the low frequency of industrial disruption in Dhaka. It is generally believed that traditionally the incumbent government maintains strong liaison with labor leaders in-and-around Dhaka, and are very perceptive to maintaining overall peace and discipline around the capital. Further exploration into this imbalance is in order, but beyond the scope of this study. A knowledge of the success of Dhaka in keeping the incidence of industrial strifes and output losses

relatively low should help in enhancing peace in other parts of the country.

4. Nature of Industrial Disputes

Industrial disputes do not always occur because of failure of management and trade unions to come to an agreement. In Bangladesh, inter-and-intra-union rivalries, political issues and token and sympathy strikes often contribute significantly to the national loss of output and employment. The latter type of phenomena are classified as disputes emanating from political causes. Economic factors include demands for higher wages, better working conditions, and fringe benefits. According to Table 2, during the Pre-NIP period, 1973 to 1981, economic factors clearly dominated the cases that led to disputes--84.2%; the remaining disputes were due to political factors. A total reversal is evident for the Post-NIP period 1983 through 1988, when 82.0% of the disputes were due to political reasons. (See also Fig. 2.

The increasing proportion of political factors in industrial disputes have important ramifications. Employers are likely to get frustrated as they cannot avoid or discourage these phenomena internally, irrespective of their managerial acumen, paternalism towards workers, and similar other traits that are useful for running an enterprise smoothly. In fact they may have to spend time and resources to ward off political disturbances via various legal and other means.

5. Settlement of industrial disputes

Unlike most western countries, in Bangladesh a relatively low percentage of disputes are resolved through employer-employee bargaining, mediation, arbitration or the legal system. Rather, an increasing number of disputes are terminated through "unconditional return to work." As one may observe from Table 3, the most commonly used method of settlement of disputes used in Bangladesh, in recent years, has been unconditional return to work (over 60% since 1983). This finding can be interpreted in two ways: One interpretation can be that the complaints that commenced the dispute are being quelled through government intervention. This would reflect the absence of a well-developed industrial-relations system in which collective bargaining plays a key role. Consequently, one of the two parties may remain disgruntled, prompting industrial unrest in due course. The second interpretation is that the good offices of the government in promoting industrial peace are succeeding. That is a progress for industrial health.

6. Effects of Disputes

The economy-wide economic loss of industrial disputes is difficult to quantify. However, the Directorate of Labor attempts to assess the losses in terms of (1) mandays lost, (2) wages lost, and (3) production lost due to industrial disputes. Mandays lost were reported in Table 1. A high percentage of disputes results in mandays lost in the range of 1001 to 10000. One implication of this finding is that most disputes reported are in large firms, or involve more than one enterprise.

Nominal and real wage and production losses, as reported by the Directorate of Labor, are summarized in Table 4 and Fig. 3. The average annual production loss during the past 9 years comes to a little more than 8 million US dollars or a total of US\$ 75 million during the 9 years from 1980 through 1988.

High magnitudes of wage and production losses occurred roughly in years 1980, 1981, and 1986. Puzzlingly, those also happen to be roughly the years with high rates of growth of real GDP and private industrial investment. A possible explanation may be that Bangladeshi workers simply want to share in the prosperity of the economy, and they can afford to suffer transitory losses for permanent gains in the future. On the other hand, when the economy is sluggish and wages continue to be stagnant, workers tend to be cautious so they do not jeopardise their jobs by going on economic strikes. But they seem to be germane to resort to political hartals, reflecting a disenchantment with the prevailing economic conditions, perhaps

wishing or expecting that the alternative government would do better to ameliorating their economic conditions.

Industrial unrest is a common phenomenon in the jute sector. This is quite evident from Table 5. It is the only industry which has the distinction of incurring foregone production due to industrial disputes every year of this decade. The jute industry is the biggest among all industries with 61% of employment in the early 1980s, which was reduced (mainly by the cotton mill sector) to a little over 40 percent in the late 1980s. Jute industry is dominated by powerful unions. It was almost 100 percent in the public sector till 1982, and about 50% of it is still publicly owned. Cotton, printing presses, and, of late, chemical and pharmaceutical sectors are also bearing the brunt of labor unrest.

7. Industrial disputes and productivity

Productivity of labor is dependent on many factors, including technology, optimal mix of inputs, managerial efficiency, workers skills and motivation, and so forth. Industrial disputes usually lead to work stoppages. But even when they do not, they reflect a degree of disharmony prevailing in the industrial sector. As such, a hypothesis is that, ceteris paribus, productivity of labor is inversely related to the frequency of industrial disputes.

It is also important to determine the causality relationship between industrial disputes and productivity. On the one side industrial disputes may reduce the amount of work done, and thereby reduce short-run output and productivity per employee.

They may also discourage future investors, thereby adversely affect long-run productivity growth through reduced embodied technology and lower quantum of experience in industrial jobs. On the other side, lower productivity growth will weaken the firm's capacity to give wage raises and consequently cause dissatisfaction among workers and exacerbate industrial disputes. The cause and effect, therefore, may run both ways and may have feedback effects.

Although causality relationships are theoretical, in the sense that they are usually derived through observation and intuition and their consistency is tested by deductive logic. Not all relations have one-way causal flow. Feedbacks and simultaneous determination are also common. Where the nature of the interrelationship between two variables is not theoretically established, rough empirical tests of the direction of causality have been employed. One such approximation is the Grangerian test, in which one variable is regressed upon the present and several past values of the other, and vice versa. The one with the better fit and superior behavior of the signs of the coefficients of different lags and their statistical significance is considered to give a more probable direction of the causality flow.

The test was applied to the disputes and productivity data in the jute industry. The test, however, gives inconclusive results. Only the contemporaneous relationship is consistently negative. The signs become erratic and unsystematic from one lag

onward. There is, thus, no evidence for the direction of the causality flow. Both variables are perhaps influenced by some other variables, but do have some interactive effects. The regressions given below, for the contemporaneous relationship, for the jute industry, for 13 annual observations, are of some interest.

$$1. \quad \text{LnPROD} = 80.123 - 0.038t - 0.075\text{LnDIS} - 0.096\text{DML}$$

(4.95)	(-4.66)	(-2.03)	(-1.31)
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$$R^2 \text{ Adjusted} = .65$$

$$2. \quad \text{LnPROD} = 75.890 - 0.036t - 0.033\text{LnMAN} - 0.094\text{DML}$$

(4.10)	(-3.83)	(-0.93)	(-1.12)
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$$R^2 \text{ Adjusted} = .53$$

$$3. \quad \text{LnDIS} = 374.90 - 0.178t - 4.180\text{LnPROD} - 0.446\text{DML}$$

(1.90)	(-1.86)	(-2.03)	(-0.77)
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$$R^2 \text{ Adjusted} = .10$$

$$4. \quad \text{LnMAN} = 202.90 - 0.090t - 2.63\text{LnPROD}$$

(0.75)	(-0.68)	(-0.93)
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$$R^2 \text{ Adjusted} = .09$$

Here productivity (PROD) is defined as gross output per employee. The term t stands for time, serial number of years starting in 1973 and running through 1988, except years 1974-76; DIS is the number of disputes, DML stands for a dummy variable for martial law years; MAN the mandays lost in disputes; and Ln stands for natural log. The numbers in parentheses are t values.

It may be seen that the decline in productivity in jute is explained largely by the trend factor. The coefficient suggests that labor productivity in the jute industry has probably declined at about 4% per year on the average. The result is consistent with the negative TFP found in Papers 1 and 3 from independent data sources. This cannot be due merely to the sharp decline in the price of jute products since the mid-1980s, because in earlier years jute price was favorable. There exists a negative relationship between productivity and frequency of disputes. The coefficient of log disputes suggests that a doubling of industrial disputes will probably be associated with a 7% decline in labor productivity. The doubling of disputes implies 107 disputes per year instead of the sample mean of 53.4--a possible but unlikely occurrence. A halving of them to 27 will probably be associated with (not necessarily caused by) an increase in labor productivity of 7%. Even that high improvement in labor disputes will, however, be more than washed off in 2 years by the sheer trend rate of decline in productivity. While a reduction in disputes is highly desirable, not only to reduce the direct loss of output but also their indirect effect on industrial investment, major gains in productivity and growth really lie in arresting the declining trend in productivity and then raising it upwards. The sources of decline in productivity and remedies thereto are discussed in Paper 7 of this issue.

The coefficient of the martial law year dummy has the negative sign, but is not measured with precision. The negative

or zero value of the coefficient suggests that restricting workers from their right to strike will probably not enhance productivity of workers. Mandays lost are hardly explainable by any variable. Disputes are negatively associated with productivity and significantly so, though the direction of the causal flow remains in doubt. The remedy for labor disputes is improbable to be different from the remedy for industrial stagnation.

7. Summary and Conclusions

The salient findings of this paper are as follows:

Overall industrial disputes indicate a downward trend in the 1980s. Mandays lost in industrial disputes have, however, not shown any downward trend over the years. Political factors have become a dominant cause of industrial strifes in Bangladesh.

Industrial disputes are lower in Dhaka than Chittagong and Khulna areas, both in terms of relative industrial manpower and industrial output.

Jute, and to a lesser extent cotton, printing press, chemicals and pharmaceutical industries, are more prone to labor unrest than other sectors.

A finding of major concern of this study is that, in the 1980s, labor productivity in the jute industry has probably declined at a trend rate of 4% per year, other things being held constant. The negative short-run effect of disputes on output is perceptible, but nowhere comparable to the negative trend effect.

For instance, a halving of disputes from its annual mean will hardly cancel out two years' negative trend effect on productivity. The real damages of disputes are not to be found in the output loss, which is rather moderate. The real impact is to be seen in the industrial climate, which may scare away the potential investor. That is, in part, likely to explain the negative trend in labor productivity. For significant improvements in productivity take place through embodied technical change in new investment.

Employees and employers of the Bangladesh industry are fighting for maintaining or increasing their shares of a pie that, relative to their numbers, has not grown bigger for years. Complaints are heard about Bangladeshi workers lacking discipline, being strike-minded, and politicized. Entrepreneurs complain of the fact that besides the rate of return from their investment in industry being nowhere near those from indenting, trading, and smuggling, they have to face the additional risk of personal and financial losses from having to deal with workers. They find it costlier to dismiss a worker than hire one, more difficult to shut a plant down than build one (at least in small part because of inviting the wrath of workers).

On the other side, workers have not experienced any increment in their productivity for a long time. Indeed, the index of gross product per employee declined from 100 in 1980 to 96 in 1986. Workers' frustration is thus not hard to understand.

We hear stories about relatively harmonious labor relations in Japan and other East-Asian countries. In these countries, employer-employee relations are said to be like a family. Workers are loyal and employers are paternalistic. Various cultural and other reasons are advanced as explanations for that happy state. A reason that is pertinent to note here is that Japanese workers have been receiving close to two-digit annual raises in their real wages for decades. Naturally that state must have some salubrious effect on industrial relations. As a result, cordial relations are believed to exist between employers and workers in Japan. The prevalence of political strikes in Bangladesh could possibly be due, in part, to the fact that they have not experienced significant improvement in their living lots. So instead of blaming the poor performance of their industry on economic factors, they tend to blame on political factors. Accordingly, a possible remedy for deteriorated industrial relations is a substantial increase in the residual factor of productivity, which workers and employers together can share.

Table 1.--Frequency of industrial disputes, number of workers involved, and mandays lost, 1972-88

Year	No. of Disputes	Percent Change in Dispute	No. of Workers Involved	Percent Change in Workers Involved	No. of Mandays Lost	Percent Change in Mandays Lost
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1972	39	..	43615	..	126000	..
1973	58	49	35027	-20	285177	126
1974	32	-45	57387	64	231736	-19
1975	2	-94	28327	-51	162000	-30
1976	5	150	14517	-49	25618	-84
1977	22	340	76675	428	81715	219
1978	89	305	113209	48	662332	711
1979	96	8	114248	1	647629	-2
1980	104	8	164032	44	1160436	79
1981	80	-23	117031	-29	1198460	3
1982	55	-31	21788	-81	238658	-80
1983	16	-71	175787	707	392616	65
1984	142	788	481004	174	444817	13
1985	95	-33	198118	-59	284920	-36
1986	46	-52	105977	-47	2079671	630
1987	18	-61	88795	-16	175278	-92
1988	9	-50	28874	-67	49398	-72
Over-all Mean	53	..	109671	..	485086	..

Source: The Bangladesh Labor Journal, various issues.

Supplemented from unpublished data of the Directorate of Labor.

Table 2.--Causes of industrial dispute, economic and political

Year	Economic	% share economic	Political	% share political
1973	51	87.93	7	12.07
1977	15	68.18	7	31.82
1978	67	75.28	22	24.72
1979	75	78.13	21	21.88
1980	95	91.35	9	8.65
1981	75	93.75	5	6.25
1982	55	100.00	0	0.00
1983	2	12.50	14	87.50
1984	15	10.56	127	89.44
1985	18	18.95	77	81.05
1986	19	43.18	25	56.82
1987	1	5.56	17	94.44
1988	4	44.44	5	55.56
Mean:				
Pre-NIP 73-81	378	84.19	71	15.81
NIP82	55	100.00	0	0.00
Post-NIP 83-88	59	18.21	265	81.79
Post-NIP as % of Pre-NIP	13.5	21.6	78.9	517.34

Source: The Bangladesh Labour Journal, unpublished data of the Labor Directorate.

Table 3.--Nature of the settlement of disputes

Year		Direct Negotiation	Mediation by Govt. Conciliatory Officer	Arbitration by Independent Tribunal	Unconditional Return to Work	Other Methods	Total
1973	No.	30	13	0	15	0	58
	%	51.7	22.4	0.0	25.9	0.0	100.0
1977	No.	2	4	0	16	0	22
	%	9.1	18.2	0.0	72.7	0.0	100.0
1978	No.	32	53	0	4	0	89
	%	36.0	59.6	0.0	4.5	0.0	100.0
1979	No.	20	37	0	33	6	6.3
	%	20.8	38.5	0.0	34.4	6.3	100.0
1980	No.	19	14	1	0	70	104
	%	18.3	13.5	0.96	0.0	67.3	100.0
1981	No.	23	18	0	25	5	80
	%	40.0	22.5	0.0	31.3	6.3	100.0
1982	No.	33	12	0	1	9	55
	%	60.0	22.0	0.0	1.82	10	62.5
1983	No.	4	0	0	10	2	16
	%	25.0	0.0	0.0	62.5	12.5	100.0
1984	No.	10	15	0	103	14	142
	%	7.0	10.6	0.0	72.5	9.9	100.0
1985	No.	10	0	0	84	1	95
	%	10.5	0.0	0.0	88.4	1.1	100.0
1986	No.	3	5	0	30	8	46
	%	6.5	10.9	0.0	65.2	17.4	100.0
1987	No.	0	1	0	16	1	18
	%	0.0	5.6	0.0	88.9	5.6	100.0
1988	No.	3	0	0	6	0	9
	%	33.3	0.0	0.0	66.7	0.0	100.0

Source: The Bangladesh Labour Journal, various issues.

Also unpublished data of the Directorate of Labor.

Table 4.--Wage and production losses in industry due to industrial disputes, HIID estimates

Year	Wage losses		Production losses	
	In current prices (Tk million) (1)	In 1988 prices (Tk million) (2)	In current prices (Tk million) (3)	In 1988 prices (Tk million) (4)
1980	9	20	106	236
1981	178	359	143	288
1982	15	27	51	91
1983	4	7	15	26
1984	21	31	159	233
1985	13	17	75	96
1986	84	101	544	656
1987	11	12	93	100
1988	11	11	13	13
Total	346	585	1199	1739

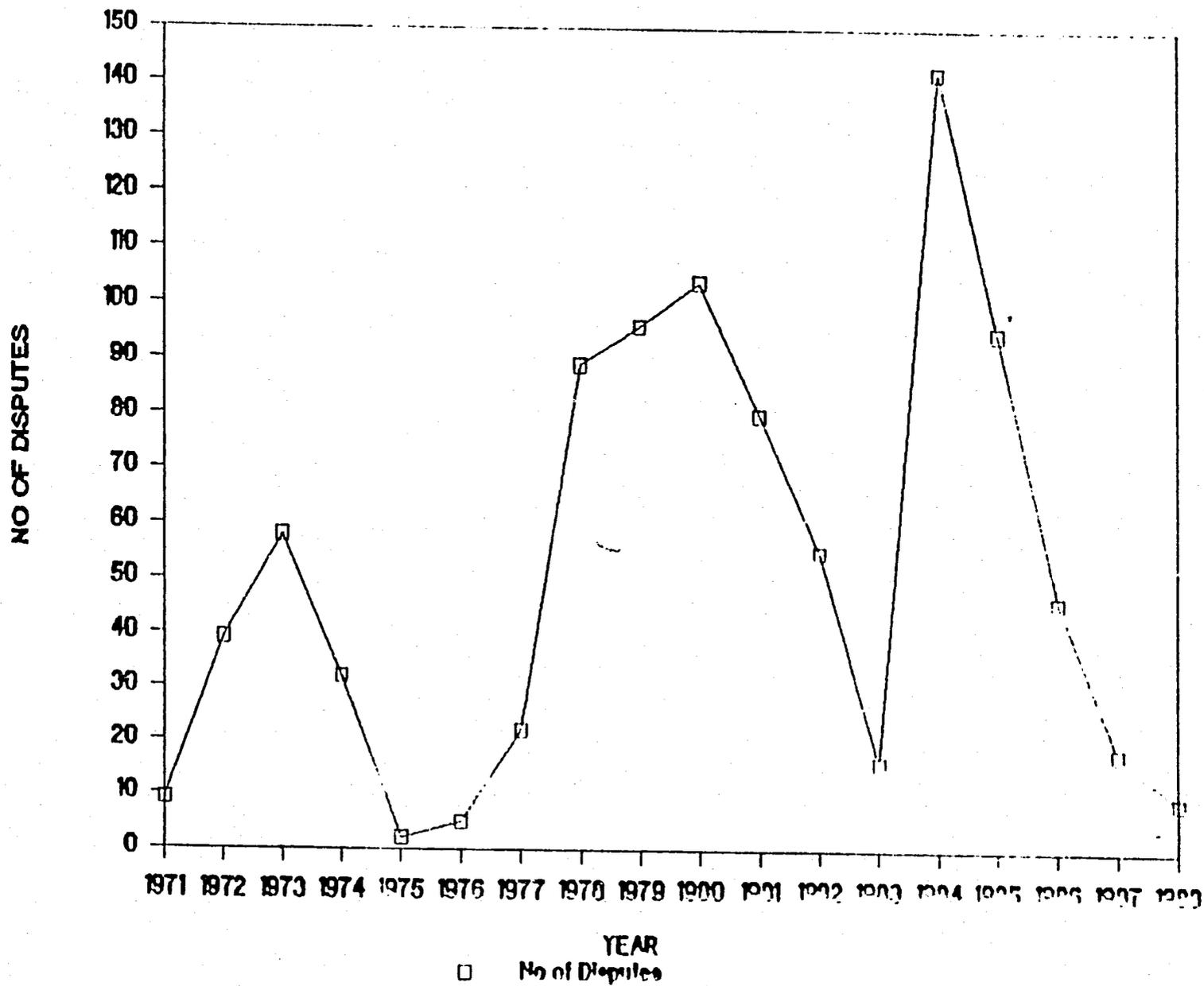
Source: The Bangladesh Labour Journal, various issues. Also, unpublished data of the Labour Directorate; the Statistical Yearbook of Bangladesh, various issues.

Table 5.--Wages lost due to labor disputes by industry
(Takas thousands)

Name of	1980	1981	1982	1983	1984	1985	1986	1987	1988
1 Jute	33867	12781	6810	4035	18637	12028	48066	8331	1388
2 Cotton	0	2267	0	0	312	589	1511	133	45
3 Printing	0	27	0	0	26	62	0	0	0
4 Iron & Steel	0	0	0	0	12	11	107	0	0
5 Chemical & Pharma.	0	0	0	0	2	60	0	2595	287
6 Aluminium	0	87	0	0	0	100	0	0	0
7 Paper	53	0	0	0	0	0	0	0	0
8 Oil mills	0	121	0	0	0	0	0	0	0
9 Shoe	1300	0	0	0	0	0	0	0	0
10 Ship bu- ilding	115515	0	0	0	0	18	0	0	0
11 Hotel & restau- rant	16	0	0	0	0	0	0	0	0
12 Misc. Industry	0	0	0	11	1	0	0	0	0
13 Jute press	0	84	0	0	0	0	0	0	0
14 Tea	0	876	0	0	0	0	0	0	0
15 Bank	0	162124	0	0	0	0	0	0	0
16 Leather	0	0	1816	0	0	0	0	0	0
17 IWTA	0	0	40	0	0	0	0	0	0
18 Water	0	0	8	0	0	0	0	0	0
19 Garments Industry	0	0	0	0	0	94	0	0	0
20 Petroleum	0	0	0	0	277	0	0	0	0
21 News Paper	0	0	0	0	720	0	0	0	0
22 Gas	0	0	0	0	4	0	0	0	0
23 Rubber products	0	0	0	0	2	0	0	0	0
24 Engg.	0	0	0	0	12	16	0	0	0
25 Match	0	0	0	0	0	0	123	12	0
26 Total	46735	178383	8674	4046	20005	12979	49808	11070	1720
27.1 As % of 26	72	7	79	100	93	93	97	75	81
28. Employment in jute as % of total Employment	59	61	61	61	47	45	44	42	..

^aThe last line = employment in jute mills as a percentage of total employment in the following major industries: cotton mills, jute mills, sugar mills, cement, glass, match, paper, & engineering. Source of data on wage loss: The Bangladesh Labor Journal and published data of the Directorate of Labor.

Fig.1.-- INDUSTRIAL DISPUTES



Source: Table 1

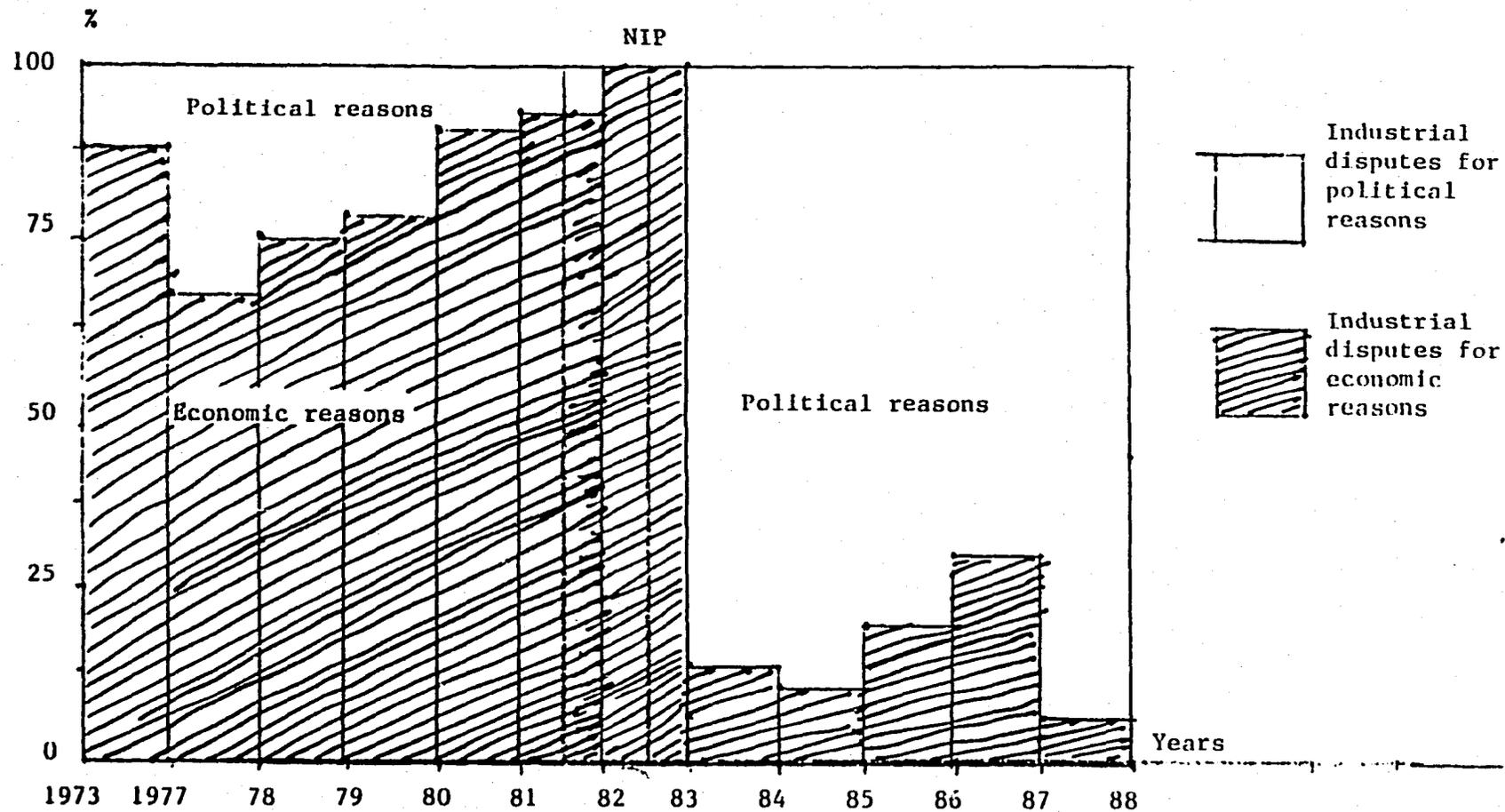


Fig. 2.--Industrial disputes due to political versus economic reasons, 1973-1988.

Source: Table 2.

Man-days
Lost in
10,000's
Wage
Loss
Mill
Takas
in
1987-88
Prices

Pro-
duction
Loss
Mill
Takas
in
1987-88
Prices

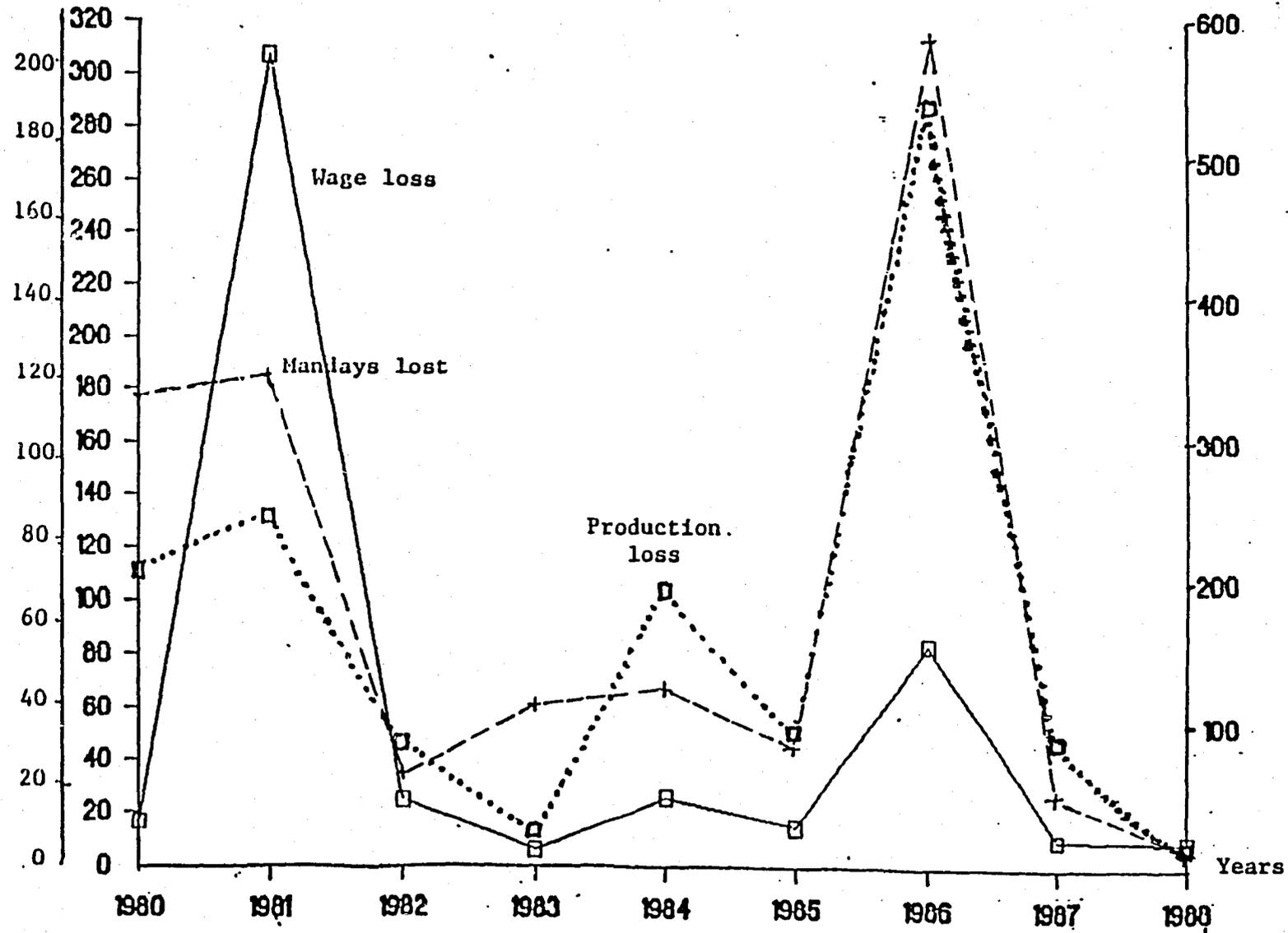


Fig. 3.--Estimated economic losses due to industrial disputes, 1980-1988.

Source: Tables 1 and 4.

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