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Working Paper

TRADE, TECHNOLOGY AND WAGE EFFECTS OF THE ECONOMIC POLICY REFORMS ON THE INDIAN PRIVATE CORPORATE SECTOR

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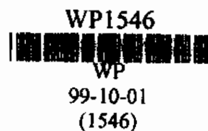
W.P.No.99-10-01 /1546
October 1999



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Trade, Technology and Wage Effects of the Economic Policy Reforms on the Indian Private Corporate Sector

Ravindra H. Dholakia
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Abstract

The economic growth achieved in India after 1991 bears an imprint of the economic policy reforms which were accelerated in 1991 with a shift in development strategy towards increasing liberalisation and globalisation of Indian economy. The present paper examines various hypotheses regarding trade, technology and wage effects of the economic policy reforms on the Indian private corporate sector. The analysis has been carried out using detailed annual financial statements of 563 non-government non-financial public limited companies for which a continuous time series data was obtained from 1980-81 to 1995-96.

It has been found that not only is there a substantial increase in the number of companies engaged in export activity but there is also an increase in export intensity of the companies after the reforms. It is also seen that both the overall import intensity and raw material import intensity are higher on an average for the exporting firms than for the non-exporting firms after 1991. Technology related expenditure showed greater increase in the exporting firms which is consistent with the neo-technology theories of international trade. It was also found that for exporting firms there was a greater decrease in the salary/wage related expenditure whereas for non-exporting firms the decrease was more for employee welfare related expenditure though both salary/wage expenditure and welfare expenses have decreased for both exporting and non-exporting firms since 1980-81. It is also argued that the real wage bill in the exporting companies increased by a substantially higher rate than in the non-exporting companies. This could be on account of increase in employment or real wage rate or both.

Trade, Technology and Wage Effects of the Economic Policy Reforms on the Indian Private Corporate Sector

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I. Introduction:

The year 1991 is an important year in the economic history of India. The structural adjustment programme initiated and the economic policy reforms accelerated since 1991 (Joshi & Little, 1996) have been considered critical factors in the economic growth achieved in the country after 1991. The accelerated trade liberalization measures and significant moves to achieve globalization through unified exchange rate, current account convertibility and remarkable progress in the direction of capital account convertibility have clearly signalled a change in the basic strategy and philosophy to achieve economic development in the country. Export pessimism, import substitution, emphasis on indigenous technology and commitment to self-sufficiency (Aksoy. 1991) have given way to export orientation, increased imports of goods and technology, encouragement to foreign investment and a shift in the focus to self-reliance since 1991 The export-import Policy of 1992 laid a great emphasis on increasing the degree of openness[1] of the economy from about 14.5% in 1992 to about 20% in 1997 The target was achieved. Dismantling the controls,

[1] Degree of openness is defined as a ratio of the total of export and imports to the GDP.

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reducing the quantitative restrictions, significant lowering of tariff barriers allowing greater participation of foreign firms in the domestic economy and considerably increasing the competition among the domestic and foreign firms had major effects on the economy. The implications were particularly harsh for the vested interests created and nurtured by the past policy regime.

The debate on the matter started focusing on the issues related to the implications of the reforms for the poor, the domestic enterprises, social infrastructure, balance of payments, employment and technology besides the fundamental concerns about sovereignty, individual freedom and culture of the Indian society. Based on stray cases and participatory observation method very popular among the social activists and media analysts, several interesting hypotheses about the implications of the policy reforms and structural adjustment came to the fore. These myths tend to perpetuate since the media keeps reporting stray cases with regular intervals to support the belief. These can very often become a public opinion and turn into a political issue. It is important, therefore, that these "hypotheses" are empirically verified with a fairly large sample to get a more reliable and acceptable idea about the situation. In the present paper, we examine some of these hypotheses regarding trade, technology and employment effects of the economic policy reforms on the Indian private corporate sector. We examined detailed financial statements of the 563 non-government non-financial public limited companies for which we could obtain the continuous time series data from 1980-81 to 1995-96. The selected

companies accounted for about 11.14% of all non-government non-financial public limited companies in terms of paid-up capital as on March 31, 1996. We obtained the data from the RBI who, in turn, received the data from the Department of Company Affairs, Government of India.

We have divided the 563 companies into two groups for each of the 16 years depending on whether a company has earned any revenue through export during the given year. Thus, we formed two groups of companies each year: (a) Exporting Companies, and (b) Non-Exporting Companies. It is important to note that the same company could be in the non-exporting group in one year and in the exporting group in another year. It is the exporting behaviour which is the basis for forming the group rather than any other characteristic of the companies. Methodologically this is necessary for examining the behaviour of the exporting firms vis-à-vis the non-exporting firms and changes therein on account of the economic policy reforms since 1991. Our sample consists of the panel data on 563 companies for 16 years from 1980-81 to 1995-96 and, therefore, does not consider the extreme phenomena of closure (deaths)[2] and emergence (births) of the companies as a result of the economic policy reforms. It basically represents the response of the existing and sustaining companies to the changes in the economic environment in the country. The behaviour of such sustaining firms is crucial in verifying several interesting hypotheses about the impact of policy reforms on the private corporate sector in India.

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[2] It may be noted that so long as the company as a whole does not close down, it would not be considered closure here. If the company changes the product portfolio or changes the line of business, it would still be considered the sustaining firm.

In the second section, we examine the effects of policy reforms on the international trade related aspects of the behaviour of the sample companies. The next section is devoted to the verification of some "hypotheses" about the technology with the help of the behaviour of the sample companies. The fourth section deals with the wage effects of the policy reforms on the selected companies. In the final section, main findings are summarised.

II. Effects on International Trade Behaviour:

The average performance of the companies over time is examined by dividing the 563 companies into two groups on the basis of their export behaviour: (a) the Exporting Companies, and (b) the Non-Exporting Companies. The average performance of these two groups is compared by considering weighted averages of the variable in question for the companies in each group during the given year. This has an effect of eliminating or reducing the biases introduced by extreme observations so that a more reliable average performance of companies in the two groups can emerge. This methodology of taking weighted averages of the required variables for the two groups for each of the years is followed throughout in the present paper.

The structural adjustment and economic policy reforms since 1991 are supposed to have resulted in a major shift in the development strategy of the country from an inward looking import substitution to globalization with export promotion. If it has actually materialised, we must find a clear evidence of improved performance of the exporting companies compared to the non-

exporting companies in terms of profitability. Similarly, it is expected that a larger number of the existing firms would start exporting if the export business is becoming more lucrative. The average export intensity of the exporting firms would also be increasing with a shift in the development strategy if it has effectively occurred. *Table 1* presents the results in this regard from our panel data on 563 companies from the Indian private corporate sector.

Table 1: Number of Exporting Companies, Average Export Intensity and Profitability in the Sample

Year	Exporting Companies			Non-Exporting Companies	
	No. of Companies	Gross Profits as Percentage of Net Sales	Export Revenue as Percentage of Net Sales	No. of Companies	Gross Profits as Percentage of Net Sales
(1)	(2)	(3)	(4)	(5)	(6)
1980-81	294	11.4	8.4	269	15.4
1981-82	289	11.0	8.4	274	11.7
1982-83	293	10.3	8.3	270	9.5
1983-84	280	8.9	7.1	283	10.2
1984-85	287	8.6	7.3	276	11.2
1985-86	288	9.8	6.6	275	9.3
1986-87	293	8.0	6.2	270	8.2
1987-88	304	8.7	7.1	259	7.9
1988-89	332	9.4	7.0	231	8.0
1989-90	332	11.2	8.4	231	10.5
1990-91	332	12.1	8.6	231	10.4
1991-92	345	11.9	8.3	218	12.7
1992-93	362	10.8	8.4	201	5.9
1993-94	364	11.0	9.0	199	7.0
1994-95	365	11.3	9.6	198	8.4
1995-96	350	11.3	10.0	213	10.1

Source: Financial data on 563 non-government non-financial public limited companies in India obtained from the RBI. Basic *Source* is Department of Company Affairs, GOI.

It can be observed from *Table 1* that upto 1984-85, the profitability as measured by the ratio of gross profits to net sales was on an average higher for the non-exporting firms than the exporting firms. However, after 1984-85, the profitability of the exporting firms has been higher than the non-exporting firms

for most of the years. The year 1991 does not appear to be a turning point in this regard. Similarly, the number of the existing firms getting into the export business also shows a steady increase from 1983-84. The table clearly supports export orientation of the existing firms after 1983-84. However, the average export intensity of the exporting firms as measured by the ratio of the export revenue to the net sales shows a marked increase only from 1993-94. Thus, the reforms after 1991 have provided incentives and encouraged the existing firms to concentrate more on the export business thereby increasing their export intensity. But the basic shift of making the export business more lucrative and attracting more firms to export began after 1985 when the government started following more realistic exchange rate policies. Thus, the Indian private corporate sector in India started perceiving a shift in the development strategy to that of export orientation much earlier than 1991.

Table 1 also points to some empirical evidence to verify a hypothesis regarding a shift in the contribution to exports in favour of the organised sector from the unorganised sector after 1991. As we can see from the table, the number of the exporting firms out of the existing firms has increased after 1991-92. Similarly, the average export intensity of the exporting companies has also increased steadily after 1991. Thus, the contribution of the company sector in the total exports has increased rapidly both on account of larger number of companies participating in exports and each company exporting more. However, the average trend rate of growth of export revenue of the sample companies

considered here works out to 20.5% per annum between 1991-92 and 1995-96 as against 22% of the total export revenue growth of the country during 1991-92 to 1995-96 in Rupee terms. Thus, the proportion of the exports from the existing companies in the private sector in our sample is marginally declining after 1991 in India's total exports. If, however, new companies have emerged after 1991 with a focus on exports, it is possible that the proportion of the organised sector in our total exports might have increased after 1991 with obvious implications for labour and the quality of products.

Another dimension of the international trade effect of the reforms on the private corporate sector is the import behaviour of firms. With trade liberalization and globalization, the imports of both the exporting and non-exporting firms are likely to increase significantly. We examine this aspect with the help of the average import intensity and the average raw material import intensity of the exporting and non-exporting firms for each of the 16 years. The average import intensity is measured as a ratio of the imports and net sales, whereas the average raw material import intensity is measured as the proportion of imported raw material value in the total raw material value during the given year. These ratios are presented in *Table 2*.

Table 2: Average Import Intensity and Raw Material Import Intensity for the Exporting and Non-Exporting Companies (in %)

	Import Intensity		Raw Material Import Intensity	
	Exporting Companies	Non-Exporting Companies	Exporting Companies	Non-Exporting Companies
(1)	(2)	(3)	(4)	(5)
1980-81	7.6	4.7	12.3	7.4
1981-82	8.0	5.0	12.4	7.4
1982-83	6.9	4.3	11.5	7.5
1983-84	6.2	4.3	11.3	7.5
1984-85	7.8	5.2	11.0	10.5
1985-86	6.2	3.9	10.6	7.7
1986-87	7.2	4.3	12.0	8.0
1987-88	6.3	3.6	11.7	7.7
1988-89	7.3	4.6	12.5	8.5
1989-90	7.5	3.8	12.9	7.4
1990-91	7.6	4.0	12.6	6.7
1991-92	6.3	3.2	10.1	5.7
1992-93	7.0	4.0	11.7	6.3
1993-94	7.2	3.0	11.6	4.7
1994-95	9.2	5.0	14.4	6.7
1995-96	11.9	5.2	16.9	6.1

Source: Same as *Table 1* above.

It can be seen from the *Table 2* that both the overall import intensity and the raw material import intensity are higher on an average in the exporting companies than in the non-exporting companies throughout the period. Thus, the Indian exports from the private corporate sector are more import intensive

than the production for the domestic economy. The notion that exports can be treated as excess supply in the domestic market appears to be too simplistic. Our exports are qualitatively and content-wise different from the production for domestic market. Secondly, the raw material import intensity is higher than the overall import intensity in both the exporting and non-exporting companies in each of the years. Import of raw material is, thus, marginally more important than other imports for production in the private corporate sector in India. This was irrespective of whether the production was for export or domestic consumption.

On comparing the export intensity from *Table 1* with the overall import intensity of the exporting companies in *Table 2*, we find that, by and large, the former exceeds the latter in all the years except 1984-85, 1986-87, 1988-89 and 1995-96. During these exceptional years, it can be observed from *Table 2* that import intensity was relatively high even in the non-exporting companies. Thus, the belief that with the liberalization of trade the exporters would start importing much more than what they export does not have enough empirical support. In order to find whether 1991 policy reforms had any notable effect on the average import behaviour of the companies, we have fitted the following linear spline trend functions (for details see, Gujarati, 1995, p. 520) on the averages reported in *Table 2*:

1. $Y = a + bt + c\,(t - t^*)\,D + U$

where Y is the dependent variable, t is the time variable, t^* is taken as 12 (1991-92), D is the dummy variable such that $D = 0$ when $t < t^*$ and $D = 1$ when $t > t^*$, U is random error variable. **a** is the intercept parameter, **b** is the basic trend rate in Y, and **c** is the rate of acceleration/deceleration in Y after t^*. The results are summarised in *Table 3*.

Table 3: Trends in Import Intensity in the Exporting and Non-Exporting Companies in India, 1980-81 to 1995-96

Dependent variable	Exporting Companies			Non-Exporting Companies		
	Intercept	Basic Trend	Accele-ration	Intercept	Basic Trend	Accele-ration
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Overall Import Intensity	0.0756*	-8.9E-04	0.0115*	0.0504*	-0.0013$	0.0049
Raw Material Import Intensity	0.1207*	-6.8E-04	0.0118$	0.0848*	-0.0013	-0.0013

* Significant at 1%; $ Significant at 5%; @ Significant at 10%

Source: *Table 2* and equation 1 above.

The table brings out clearly that the overall import intensity had the basic declining tendency which was not statistically significant before 1991 in both the exporting and non-exporting companies. However, after 1991, there is a significant positive acceleration making the effective trend rate positive in both the categories of companies. Thus, there is a strong empirical evidence favouring an increase in the overall import intensity as a result of the policy reforms and globalization. But as far as the raw material imports are concerned,

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the empirical evidence suggests that, on an average, the raw material import intensity has increased significantly after 1991 for exporting companies whereas for non-exporting companies the trend rate and deceleration therein are not statistically significant. Thus, the trade liberalization has resulted in higher raw material imports for our production in the private non-finance corporate sector engaged in export activity. The non-exporting companies seem to have reduced their dependence on the imported raw materials. This has an interesting implication that our domestic production is further integrated since a larger proportion of raw materials for the production in the private corporate sector is domestically produced. Stronger output links with the unorganised sectors and the indirect employment generation through the production growth in the private corporate sector after 1991 are suggested.

III. Technology Effects:

The neo-technology theories of international trade (Posner, 1961; Vernon, 1966) predict that the exporting firms would be stronger and relatively more advanced in terms of technology than the non-exporting firms. Trade liberalization and economic policy reforms leading to export orientation and globalization are expected to strengthen this tendency by increasing the rate of technology related expenditures by the companies (Grossman & Helpman, 1992). *Table 4* presents the average performance of the exporting and non-exporting companies in terms of the ratios of the total royalty expenditures to net

sales and the research and development expenditures (R & D Exp.) to net sales for different years.

Table 4: Royalty and R & D Expenditures as Percentage of Net Sales in the Exporting and Non-Exporting Companies, 1980-81 to 1995-96

	Total Royalty/Net Sales in (%)		R & D Exp. / Net Sales in (%)	
	Exporting Companies	Non-Exporting Companies	Exporting Companies	Non-Exporting Companies
(1)	(2)	(3)	(4)	(5)
1980-81	0.20	0.16	0.09	0.07
1981-82	0.18	0.14	0.07	0.05
1982-83	0.16	0.14	0.09	0.04
1983-84	0.17	0.10	0.11	0.05
1984-85	0.17	0.10	0.10	0.03
1985-86	0.15	0.06	0.12	0.05
1986-87	0.14	0.07	0.13	0.05
1987-88	0.09	0.08	0.12	0.06
1988-89	0.12	0.06	0.09	0.06
1989-90	0.12	0.07	0.09	0.07
1990-91	0.10	0.06	0.31	0.10
1991-92	0.13	0.06	0.33	0.22
1992-93	0.13	0.09	0.32	0.19
1993-94	0.15	0.06	0.34	0.17
1994-95	0.19	0.06	0.32	0.10
1995-96	0.16	0.09	0.29	0.14
Source: Same as *Table 1*.				

It can be observed from the table that the royalty payment as well as the R & D expenditures as proportions of net sales are higher for the exporting

companies than for the non-exporting companies for each of the years. Thus, there is a strong evidence in favour of the neo-technology theories of international trade. Moreover, the royalty payments in both the exporting and non-exporting companies have a basic tendency to decline over time, whereas the R & D expenditures had no basic tendency to change over time. The trend in these ratios after 1991 shows a marked tendency to increase. The basic trend rates and the acceleration therein are reported in *Table 5*.

Table 5: Basic Time Trend and Acceleration in Average Royalty Payment and R & D Expenditure Ratios in Sample Companies

Dependent variable	Exporting Companies			Non-Exporting Companies		
	Intercept	Basic Trend	Accele-ration	Intercept	Basic Trend	Accele-ration
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Royalty Payment as % of Net Sales	0.0019*	-7.3E-05*	2.8E-04*	0.0015*	-8.5E-05*	1.8E-04*
R & D Exp. as % of Net Sales	1.8E-04	1.9E-04*	9.7E-05	9.7E-06	1.0E-04$	-8.0E-05

* Significant at 1%; $ Significant at 5%;

Source: *Table 4* and equation 1 above.

The table reveals very clear and statistically significant declining basic trend in royalty payments as a percentage of net sales in both the exporting and non-exporting companies. It also shows a statistically significant and relatively strong positive acceleration after 1991. The globalization and policy reforms in India have encouraged the private corporate sector to pay royalty charges for the technology. The R & D expenditures as a percentage of net sales on the other hand show very clear positive time trend particularly for both the exporting

and non-exporting firms but do not show any significant acceleration after 1991. Eyeballing the time series of the averages of the exporting and non-exporting companies shows that the ratio has considerably increased since 1991. It represents more of a shift in the level of the ratio than in the rate of time trend. The shift is sharp and lacks any particular trend after 1991. As a result, the linear spline trend function fails to capture the shift in the level after 1991. However, there is a clear statistically significant evidence of the shift in the level of R & D expenditures in both the exporting and non-exporting companies. Again, there is definite evidence to support the predictions of the neo-technology theories of trade in India.

Another dimension is the import of technology and know-how. It manifests often in terms of royalty payments made to foreigners or the technical fees paid in foreign currencies or other types of expenditures incurred in foreign currencies by a company. *Table 6* provides the average ratios of royalties, technical fees and other expenditures incurred in foreign currencies to the net sales for the exporting and non-exporting companies for different years.

Table 6: Foreign Royalty Payments, Technical Fees and Other Expenditures as Percentage of Net Sales (in %)

	Foreign Royalty/ Net Sales (%)		Foreign Technical Fees/Net Sales (%)		Other Foreign Exp./ Net Sales (%)	
Year	Exporting Companies	Non-Exporting Companies	Exporting Companies	Non-Exporting Companies	Exporting Companies	Non-Exporting Companies
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1980-81	0.10	0.06	0.06	0.12	1.16	0.72
1981-82	0.10	0.05	0.05	0.02	1.10	0.63
1982-83	0.09	0.05	0.06	0.03	1.13	1.41
1983-84	0.09	0.03	0.06	0.04	1.18	0.82
1984-85	0.09	0.03	0.09	0.06	1.21	1.84
1985-86	0.10	0.01	0.05	0.03	1.29	0.64
1986-87	0.09	0.02	0.06	0.02	1.20	0.63
1987-88	0.05	0.05	0.06	0.05	0.97	0.77
1988-89	0.06	0.01	0.06	0.02	0.96	0.55
1989-90	0.06	0.02	0.09	0.01	1.16	0.39
1990-91	0.06	0.02	0.09	0.04	1.04	0.44
1991-92	0.08	0.02	0.08	0.05	1.04	0.47
1992-93	0.06	0.04	0.11	0.01	1.14	0.40
1993-94	0.07	0.02	0.09	0.01	1.18	0.42
1994-95	0.09	0.02	0.12	0.02	1.54	0.60
1995-96	0.09	0.03	0.09	0.14	1.46	0.70

Source: Same as *Table 1*.

It can be seen from the *Table 6* that the foreign royalty payments and foreign technical fees as a percentage of net sales are on an average higher in the exporting firms than in the non-exporting firms for almost all the years. Other

expenditures in the foreign currencies as a percentage of net sales also shows more or less the same pattern. Thus, even the import of technology and related expenditures in the private non-financial corporate sector support the hypothesis that the exporting firms tend to be more particular about the foreign technology and importing the know-how than the non-exporting firms. It is possible that the goods from the private corporate sector face certain non-tariff barriers which can be overcome only with the help of foreign technology. Or it is also likely that export market for such goods require the producer to follow foreign technology in production and packing on the quality consideration. In this sense, the domestic market of such products is perhaps not truly integrated with the global market.

In order to examine the effect of the policy reforms and trade liberalization on the trends of the import of technology and related expenditures, we fit the linear spline trend function to the ratios presented in *Table 6*. The estimates of the parameters are presented in *Table 7* for both the exporting and non-exporting companies.

The table shows that the basic trend rate in all the three ratios was negative and statistically significant for the non-exporting companies. However, the acceleration in the trend rate since 1991 was positive and significant only for the ratio of foreign technical fees to net sales. Thus, for the non-exporting companies, the policy reforms did not have any significant effect on the import of technology except for the foreign technical fees. On the contrary, in the case of the exporting companies, the economic policy reforms had significant positive

effect of accelerating the basic trend rates in the other two ratios. The effect is so powerful that after 1991 the effective trend rate become positive in these ratios

Table 7: Basic Time Trend and Acceleration in Average Foreign Royalty Payments, Technical Fees and Other Expenditures as Percentage of Net Sales

Dependent variable	Exporting Companies			Non-Exporting Companies		
	Intercept	Basic Trend	Accele-ration	Intercept	Basic Trend	Accele-ration
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Foreign Royalty Payment/Net Sales	0.0011*	-3.9E-05*	1.3E-04*	4.9E-04*	-2.6E-05$	5.1E-05
Foreign Technical Fees/Net Sales	4.7E-04*	3.5E-05*	9.9E-06	7.1E-04*	-4.9E-05@	2.3E-04$
Other Foreign Expenditures/ Net Sales	0.0121*	-1.4E-04@	0.0013*	0.0116*	-6.1E-04$	0.0011

* Significant at 1%; $ Significant at 5%; @ Significant at 10%

Source: *Table 6* and equation 1 above.

from the negative and significant basic trend before 1991. The exporting firms are more encouraged to use the royalty payments for foreign technologies and spend on other expenditure items in foreign currencies after 1991.

IV. Effects on Wages:

As per the traditional Heckscher-Ohlin theory (Heckscher, 1919; Ohlin, 1933), a labour abundant country like India may have comparative advantage in labour intensive goods. The Indian exports may, therefore, be relatively labour intensive. Globalization and export orientation are likely to be beneficial to the labour in India by creating greater demand. It may either result in more

employment or higher wages. These expectations are countered by the alternative theory which predicts more capital intensive exports from India on account of modern technology, better quality and large scale production for the export goods (Vernon, 1966 and Posner, 1961). *Table 8* presents the average of total remuneration, salaries, wages and bonus and employee welfare expenditures as proportion of net sales for the exporting and non-exporting companies over years.

Table 8: Remuneration, Bonus and Welfare Expenditures as Percentage of Net Sales (in %)

	Total Remuneration/ Net Sales (%)		Salaries & Bonus/ Net Sales (%)		Welfare Exp./ Net Sales (%)	
Year	Exporting Companies	Non-Exporting Companies	Exporting Companies	Non-Exporting Companies	Exporting Companies	Non-Exporting Companies
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1980-81	16.1	22.5	13.4	18.9	1.60	2.31
1981-82	15.6	17.8	12.9	15.1	1.61	1.71
1982-83	16.1	20.6	13.3	16.9	1.74	2.60
1983-84	16.3	18.0	13.4	15.3	1.80	1.57
1984-85	16.0	25.4	13.2	21.0	1.66	2.79
1985-86	15.9	19.5	13.1	16.6	1.69	1.78
1986-87	16.3	19.3	13.4	16.4	1.83	1.76
1987-88	15.6	19.9	12.9	17.0	1.64	1.67
1988-89	15.2	18.9	12.5	16.1	1.63	1.62
1989-90	13.6	18.5	11.2	15.6	1.45	1.66
1990-91	13.2	18.1	10.8	15.3	1.46	1.62
1991-92	12.9	19.1	10.5	16.1	1.45	1.72
1992-93	13.4	19.4	10.7	16.3	1.62	1.84
1993-94	13.8	19.4	11.1	16.5	1.66	1.60
1994-95	13.2	19.5	10.5	15.2	1.66	1.86
1995-96	12.7	17.9	10.1	15.0	1.61	1.75

Source: Same as *Table 1*.

The average ratios reported in the *Table 8* show that total remuneration and both its major components like salaries and labour welfare as percentage of net sales are higher among the non-exporting companies than among the exporting companies. It appears that the non-exporting companies in the private non-financial corporate sector are better paymasters than the exporting companies. However, this hypothesis cannot be directly tested since we do not have sufficient data on the number of employees or the wage rates in the exporting and non-exporting companies. What we can say is that the wage share in the total output is higher in the non-exporting firms than the exporting firms in each of the years. In order to infer the above conclusion from this observation, we need to assume relative indispensability of labour in the sense that the elasticity of substitution between labour and capital is less than unity. If that is so, the wage bargaining in the exporting companies should improve their share in the net sales. However, the substitution elasticity is not likely to be very low particularly in the exporting firms on account of improved technology in such firms. In that case, the empirical evidence reported in *Table 8* may be consistent with better pay and higher remuneration rate for workers in the exporting companies than in the non-exporting companies.

Table 9 presents the results of linear spline trend function of equation 1 fitted on the series reported in *Table 8* with 1991 as the dividing point. The table shows that policy reforms and the export orientation since 1991 had no significant effect on the basic trends in these ratios either in the exporting

companies or in the non-exporting companies. The basic trend in all the three ratios in both the categories of the companies is statistically significant and declining over years. The wage share and the share of labour welfare in the total output are declining over time. The rate of decline in the wage share in the exporting companies is almost 50% higher than in the non-exporting companies. On the other hand, the rate of decline in the share of labour welfare in the non-exporting companies is almost three times higher than in the exporting companies. In terms of labour welfare as a percentage of net sales, the exporting and non-exporting firms are becoming similar by the year 1995-96.

Table 9: Basic Time Trend and Acceleration in Average Remuneration, Bonus and Welfare Expenditures as Percentage of Net Sales

Dependent variable	Exporting Companies			Non-Exporting Companies		
	Intercept	Basic Trend	Acceleration	Intercept	Basic Trend	Acceleration
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Total Remuneration as % of Sales	0.1702*	-0.0027*	7.0E-04	0.2105*	-0.0018	0.0016
Salaries and Bonus as % of Net Sales	0.1410*	-0.0021$	-0.0016	0.1762*	-0.0013	-4.1E-04@
Labour Welfare as % of Net Sales	0.0175*	-1.8E-04$	5.1E-04	0.0227*	-5.5E-04@	0.0011

* Significant at 1%; $ Significant at 5%; @ Significant at 10%
Source: *Table 8* and equation 1 above.

The declining share of wages has an interesting implication. It shows that the wage rate on average is rising at a lower rate than the labour productivity in the private non-financial corporate sector in India after 1980-81. For our sample

of 563 companies, the total remunerations in absolute terms per firm are growing at the instantaneous trend rate of 10.4% p.a. in the exporting companies and at 9.5% p.a. in the non-exporting companies. Considering the consumer price index for industrial workers, the average annual rate of inflation over the same period works out to 8.2% (Economic Survey, 1998-99). Thus, the wage bill in real terms has increased over the 16 year period in both the exporting and non-exporting companies by 2.2% p.a. and 1.3% p.a. respectively. This increase in the wage-bill in real terms could be either on account of increased employment or increased real wage rate or both. The employment in the private organised sector as a whole is growing at 0.94% p.a. during 1981-96 in India (Economic Survey, 1998-99). Thus, real wage rate in the exporting and non-exporting companies might have increased. In any case, the rate of improvement in the condition of labour seems to be higher in exporting companies than in the non-exporting companies. Inasmuch as the export orientation and policy reforms have resulted in increasing the absolute number of firms exporting their products, our findings here suggest that labour would substantially benefit by increase in both employment and real wage-rate at higher rates.

V. <u>Summary and Conclusions</u>:

The trade liberalisation, globalisation and policy reforms carried out in India have increased the importance of export activity for the private non-financial corporate sector as seen by the increasing number of exporting companies in our sample of the 16 year panel data of 563 companies. It is

argued that policy reforms started earlier than 1991 in India. The basic shift of making the export business more lucrative and attracting more companies to export seems to have begun around 1985 when the Government of India started following more realistic exchange rate policies. This is shown by the increasing profitability of the exporting companies, as also increasing number of existing companies getting into the export business. However, a major shift in the development strategy began only with the acceleration of the reform process from 1991.

Secondly, the average export intensity of the exporting companies as measured by the ratio of the export revenue to net sales increased substantially from 1993-94 indicating that the reforms have provided incentives to the existing companies to concentrate more on the export activity.

Thirdly, the overall import intensity and the raw material import intensity are higher on an average in the exporting companies than in the non-exporting companies throughout the study period 1980-81 to 1995-96.The overall import intensity showed a declining tendency which was not statistically significant before 1991 in both exporting and non-exporting companies. After 1991, there is a significant positive acceleration and the effective trend rate becomes positive for both the exporting and non-exporting firms. It was found that the reforms have resulted in higher raw material imports for private non-finance corporate sector engaged in export activity. The non-exporting companies, on the other hand, seem to have reduced their dependence on the imported raw materials.

Fourthly, R & D expenditure as a proportion of net sales is higher for the exporting companies than for the non-exporting companies for each of the years from 1980-81 to 1995-96. The R & D expenditures as a percentage of net sales shows a shift to a higher level after 1991 reforms for both exporting and non-exporting firms.

Fifthly, it was found that the exporting firms were more particular about foreign technology and importing know-how than the non-exporting firms. For the non-exporting companies the economic policy reforms do not seem to have any significant effect on the import of technology except for the foreign technical fees. On the other hand, in the case of exporting companies, the economic policy reforms seem to have a significant positive effect as far as foreign royalty payments and other foreign expenditure are concerned. This effect becomes positive after 1991 for these two ratios from a negative and significant basic trend before 1991.

Lastly, total remuneration and both its major components like salaries and labour welfare as percentage of net sales are higher among the non-exporting companies than among the exporting companies. The economic policy reforms and the export orientation of companies since 1991 did not have significant effect on wages etc. for both the exporting and non-exporting companies. The wage share and the share of labour welfare in total output continues to decline even after 1991. The rate of decline in wage share is more for exporting companies whereas decline in labour welfare is more for non-exporting

companies. The wage bill in real terms has increased over the 16 year period by 2.2% p.a. for exporting companies and 1.3% p.a. for non-exporting companies. This could be on account of either increased employment or higher real wage rate or both.

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