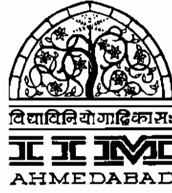

Working Paper

ECONOMIC POLICY REFORMS AND TRADE PERFORMANCE OF PRIVATE CORPORATE SECTOR IN INDIA

By

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Economic Policy Reforms and Trade Performance of Private Corporate Sector in India

Ravindra H. Dholakia
and
Deepak Kapur

Abstract

After 1991-92, India has witnessed widespread policy reforms in order to integrate its economy with the rest of the world. In this fact-finding study, the balance-sheet data of 557 private sector companies are considered over the 16 years period with several ratios and indicators of performance or trade behavior. The companies are divided into exporting and non-exporting groups and annual median values of different ratios are examined fitting linear spline trend with a kink at 1991-92. On the whole, the exporting companies are performing much better than the non-exporting companies. The policy reforms have, however, helped the non-exporting companies to improve their margins though they have been pushed to the lower end of the domestic markets. The data considered here do not seem to support the hypothesis of a significant shift in the development strategy of the government from import substitution to export promotion.

Economic Policy Reforms and Trade Performance of Private Corporate Sector in India

--Ravindra H. Dholakia* and Deepak Kapur**

I. Introduction

After gaining the political Independence in 1947, India followed the Soviet model of planned economic development with greater emphasis on heavy industries and self - sufficiency. Moreover, it adopted the goal of the socialistic pattern of society in 1954 that necessitated curbing concentration of economic power in the few hands. Coupled with the export pessimism, the whole development strategy in India centered on direct intervention of the state in terms of providing direction, controls, regulation and even direct participation in economic activities. The restrictive interventionist policies meant the existence of a complex structure of permissions, licenses, quotas, rationing and absolute bans in many spheres including industrial production, infra-structural facilities, raw materials, credit, foreign exchange and trade. In short, the government policy interventions distorted the price and the quantity signals in all the three markets—goods, money and factors. The economic policy reforms in India initiated hesitatingly around 1985 experimented with internal liberalization like selective price decontrol and deregulation of industries, increased exchange rate adjustments, monetary policy reforms and some institution creation. However, the balance of payment crisis of 1991 forced the government to expedite the reform process and increase its canvas, coverage and pace. Thus, major macro-policy reforms like wide-spread decontrol of prices and de-licensing of industries, external liberalization of imports and investment, market determined exchange rates and interest rates, fiscal policy rationalization and procedural simplification, and major strategy shift from import substitution to export orientation (or promotion) started only from 1991-92. In the Indian case, therefore, the year 1991-92 is

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often regarded as providing a significant break in the policy environment faced by a production unit.

There are several empirical studies about the impact of the policy reforms since 1991-92 on the performance and/or behavioral parameters of Indian firms compared to the pre-reform period. The aspects more commonly examined or commented upon empirically include factor productivity (see, Goldar, 2000 for a critical review of studies), profitability (see, Kambhapati and Parikh, 2001 for a critical review of studies), and employment (see, Katrak, 2001 for a critical review of studies). The impact of reforms on the trade related behavior of the Indian firms has, however, received much less attention of the researchers. In the present paper, therefore, we examine important parameters and indicators of the Indian firms' performance and trade behavior on an average over a long period of 16 years from 1980-81 to 1995-96- to measure the impact of the policy reforms. In the next section, the data sources and methodology followed in the present study are briefly described. We have considered 24 different parameters or indicators of the firms' performance and/or trade behavior over the 16 years period. These are examined by dividing them into the following four categories: (1) trade aspects, (2) technological aspects, (3) tax performance, and (4) financial performance of the firms. Ratios reflecting the firms' performance or trade behavior in each of these four categories are examined in a separate section. The final section presents the summary of the main findings.

II. Data Sources and Methodology

In order to examine the impact of the economic policy reforms on the performance and trade behavior of the private corporate sector in India, standard performance indicators and ratios reflecting the trade behavior of the representative firm over time are required. The Reserve Bank of India (RBI) is regularly collecting and collating a detailed set of the balance-sheet data from the non-government, non-financial public limited companies operating in India on comparable definitions, concepts and accounting practices over a long period of time. RBI's data consist of a relatively large, but independently drawn annual samples from the companies in this sector. We have obtained the company specific annual balance-sheet data for the 16 years period from

1980-81 to 1995-96. In this set, the sample size varies from year to year. For meaningful examination of the data and drawing valid conclusions about the overall effect of the policy reforms on the existing firms, we culled out a panel data set of 557 firms commonly available in every year during the 16 years period. Thus, our panel data set is not the result of a specially designed sample of companies for collecting the panel data over 16 years, but accidentally formed panel data set from much larger annual random samples independently collected. Our data set is, therefore, less likely to suffer from any inherent sample selection biases. Moreover, the 557 firms present in each of the 16 years account for almost 11 per cent of all non-government, non-financial public limited companies in terms of paid-up capital as on march 31, 1996.

Since our interest is to examine the impact of economic policy reforms on the trade behavior of the private corporate sector in India, we have characterized all the companies as either exporting companies or non-exporting companies every year depending on whether a company has earned any revenues from exports during the year. Thus, a company could be a non-exporting firm in one year but could become an exporting company in another year or vice versa. Since the total number of firms in our sample remains the same at 557 every year, the composition of exporting and non-exporting firms would go no changing year after year. Thus, the composition itself becomes an interesting finding about the export behavior of firms over time. However, our method of selecting the sample panel of companies over time is not expected to capture the extreme phenomena of closure (deaths) and emergence (births) of companies as possible consequences of the economic policy reforms. Our selected sample is expected to examine responses of only the existing and sustaining companies to the changes in the economic environment in the country.

The behavior of such firms would enable us to verify several hypotheses about the impact of policy reforms on the private corporate sector in India. For testing our hypothesis regarding the trade behavior of firms, we have treated the whole sample as one since we are not interested in the individual firm behavior but in understanding the behavior of the corporate sector as a whole. In fact, we are interested in establishing the

correlates, and not causal links between the environmental changes on account of reforms and the firms' trade behavior.

As we know, arithmetic mean, median, and mode are the three commonly used measures of central tendency to arrive at a single value that can be considered as typical of the complete data set. Arithmetic mean may not be the best measure of central tendency when one or two extreme values are present in the data set. This problem is removed by the use of median, which does not get affected by extreme values. We have, therefore, used the median value of the variable in question for the firms in a given year to compare the two groups of firms- exporting and non-exporting. As explained above, use of median helps to considerably reduce the effect of any bias introduced by extreme observations. It was, however, found that for some variable under consideration in the sample firms, the median value of the variable had a zero value due to large number of zero values for the variable in the sample. In such cases, we have considered the average value of that variable to identify any pattern. We have followed this methodology of taking the median values for different variables in the two groups of firms for each of the years.

In order to find whether the 1991 policy reforms have had any notable effect on the variable under consideration in these two groups of the sample companies, we have fitted the following linear spline trend function (for details see, Gujarati, 1995, p. 520) on the annual median (or if necessary average) values of the variable:

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

Where **Y** is the selected (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 the random error variable, **a** is the intercept parameter, **b** is the basic trend rate in Y, and **c** is the rate of acceleration (or deceleration) in Y after t^*.

The principal advantages of this methodology are: (i) unlike several studies on the impact of the economic policy reforms on specific variables, this methodology takes into account the 'with-without' reforms scenario rather than 'before-after' reforms situation; (ii) the basic trend and acceleration parameters help in estimating the incremental effect

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of policy reforms on the time path behavior of the variable; and (iii) the group-wise annual averages (median or mean) help capture the behavior of a representative firm in the category rather than focus on individual or firm-specific behavioral factors.

III. International Trade Aspects

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 that of an inward looking import substitution to globalization with export promotion. If this shift has actually materialized, we must find a clear evidence of improved performance of exporting companies vis-à-vis that for non-exporting companies in terms of profitability. Similarly, it is expected that an increasing proportion of existing firms would start exporting if the reform process has made the export business more lucrative. Moreover, the export intensity of the exporting firms should also to increase with the shift in the development strategy of the country. *Table 1* presents the results in this regard from the panel data on 557 companies for the Indian private corporate sector.

Table 1: *Number of Exporting Companies, Median Export Intensity and Profitability of 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	291	14.41	2.94	266	13.10
1981-82	286	13.40	3.31	271	11.78
1982-83	291	12.15	2.99	266	10.33
1983-84	278	10.38	2.43	279	8.97
1984-85	285	10.64	2.33	272	9.45
1985-86	286	10.73	2.00	271	11.05
1986-87	291	9.55	1.78	266	9.75
1987-88	302	9.24	2.39	255	8.58
1988-89	330	10.16	2.64	227	9.00
1989-90	330	12.13	3.33	227	10.78
1990-91	330	12.84	3.67	227	10.13
1991-92	343	12.78	3.69	214	9.41
1992-93	360	11.76	3.54	197	8.42
1993-94	363	11.87	4.47	194	9.03
1994-95	364	11.26	4.90	193	8.21
1995-96	349	10.92	4.99	208	9.54

Source: *Financial data of 557 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 median profitability as measured by the gross profits to net sales is higher for exporting firms than that for non-exporting firms during the period from 1980/81 to 1984/85. After 1984/85, the median profitability has become higher for non-exporting firms during the years 1985/86 and 1986/87. Thereafter, the profitability of the exporting firms has been always higher than that for non-exporting firms. The year 1991 does not appear to be a turning point in this regard. Similarly, the number of existing firms getting into the export business also shows a steady increase from 1984/85. However, the median export intensity of the exporting firms as measured by the ratio of the export revenue to net sales shows a marked increase only from 1987/88 and more markedly after 1992/93. Thus, the reforms, after 1991, seem to 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 activity seems to have begun with the 1985 reforms when the government started following a more realistic exchange rate policy. This is indicated by an upward turn in the declining time trend after 1987/88 for the export intensities and profitability ratios in the case of exporting companies. Thus, the Indian private corporate sector seems to have started perceiving a shift in the development strategy to that of exports orientation much earlier than 1991.

Another dimension of the international trade effect of the reforms on the private corporate sector is the import behavior of firms. With trade liberalization and globalization, it is expected that the imports of both the exporting and non-exporting firms would increase significantly. This aspect has been examined with the help of the median (average) export intensity and the median (average) raw material import intensity of the exporting and non-exporting firms for each of the 16 years. The median (average) import intensity is measured as a median (average) value of the ratio of the total value of imports to net sales, whereas the median (average) raw material import intensity is measured as a median (average) of the proportion of imported raw material value in the value of total raw material during a given year. Both the median (average) overall import intensity and the median (average) raw material import intensity are higher for the exporting companies than for the non-exporting companies throughout the period in our sample. Thus, the Indian exports from the private corporate sector are more import

intensive than the production for the domestic economy. Perhaps, Indian exports are qualitatively and content-wise different from the production for the domestic market. On comparing the median export intensity from *Table 1* with the overall import intensity of the exporting companies, we find that median import intensity exceeds the median export intensity in all the years. This feature of the Indian private corporate sector is interesting because the depreciation of the Indian Rupee in itself may not be profitable directly to the exporting companies, but an appreciation may be.

The results of the spline trend function (as discussed in section II) for the import intensity (IMINT) and raw material import intensity (RMINT) are summarized in *Table 2* below. It brings out clearly that the overall import intensity had a basic declining tendency, which was not statistically significant before 1991-92 for the exporting companies. However, after 1991, there is significant positive acceleration making the effective trend rate positive in the exporting companies. Thus, there is strong empirical evidence favoring an increase in the overall import intensity for exporting companies in the private corporate sector in India as a consequence of the economic policy reforms and globalization. As far as the raw material imports are concerned, the empirical evidence suggests that on an average, the raw material import intensity has increased significantly after 1991 for the exporting companies. Negative sign for the basic trend and acceleration, however, indicate reduced dependence on the imported raw materials for non-exporting companies. This could imply that the production for the domestic market by the Indian private corporate sector is getting more integrated and provides larger backward linkages in the economy. The reform process has not altered this basic trend.

IV. Technology Aspects

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. It is expected that trade liberalization and economic policy reforms would strengthen this tendency through higher technology related expenditures by the companies. It is also likely that the companies engaged in exports spend more on export promotion measures through expenditure such as

advertisement. We have examined the median R&D and advertisement expenditures as a proportion of net sales for the exporting and non-exporting companies in the given panel data. It is found that the average R&D expenditure and the average advertisement expenditure as a percentage of net sales is higher throughout for exporting companies than that for non-exporting companies. Higher expenditure for exporting firms provides strong evidence for the neo-technology theories of international trade. It shows that the exporting companies have greater realization of the importance of R&D and advertisement in improving their sales.

The results of the spline trend function for the R&D expenditure as a percentage of net sales (R&DNS) do not show any significant acceleration after 1991 (see *Table 2*). However, the basic trend rate was found to be significantly positive for both exporting and non-exporting companies. Eyeballing the time-series of the averages of the exporting and non-exporting companies shows that the ratio of R&D to net sales has considerably increased after 1991. Thus, there is a statistically significant evidence of the shift in the level of R&D expenditures for both exporting and non-exporting companies before 1991. We do not find, however, any significant acceleration for either exporting or non-exporting companies in the case of advertising expenditures (ADVNS) after 1991-92 (see *Table 2*).

The variable 'other expenditure in foreign currency' (OEFNS) includes expenditure incurred in foreign currency on payments of royalty, technical fees, interest payments, dividend payments, and such other related expenditures as a proportion of net sales. The behavior of this variable shows that 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 foreign technology, import of know-how and getting foreign capital than the non-exporting firms. It is possible that the goods from the private corporate sector face certain non-tariff barriers that can be overcome only with the help of foreign technology or foreign capital. The trend values of this variable reported in *Table 2* show that there is a statistically significant positive acceleration for the exporting companies after 1991-92. The basic trend for both the exporting and non-exporting companies is seen to be negative and significant.

Balassa (1977) argued that the comparative advantage of a country would change as a result of the accumulation of physical and human capital. He argued that with the passage of time, comparative advantage of more advanced developing countries would be lost in those products that require more of cheap, unskilled labor and would instead shift to products requiring greater capital and skill input. Thus, Indian companies that entered the export markets might have taken advantage of low cost labor available in India during the initial years, but they would be expected to increase their capital intensity by investing in high quality machinery and equipment to remain competitive. If this is true, the capital intensity of the Indian firms engaged in export activity should have increased over the years. The capital intensity has been calculated as the ratio of the gross value added minus total remuneration given to workers divided by total remuneration, as suggested by Balassa (1977).

The median value of capital intensity was found to be higher for non-exporting firms than the exporting firms in the initial years. However, after 1982/83, the median value of the capital intensity (CPINT) has become higher for the exporting firms. The capital intensity, moreover, has been found to be increasing over the years for the exporting firms but decreasing for the non-exporting firms as can be seen from *Table 2*. For the exporting and non-exporting companies, there has been no significant change observed in their respective basic trends after 1991-92. Thus, the policy reforms with increased globalization and liberalization have not exerted any significant incremental influence on the capital intensity of the exporting or non-exporting firms in India.

V. Taxation Aspect

This aspect has been examined to see the contribution of exporting and non-exporting companies to the revenue collection effort of the government. It is often believed that export promotion measures provide incentives to the companies in terms of tax rebates, tax-cuts and tax exemptions if they export. Such export promotion measures existed even before the policy reforms in India. It is, therefore, expected that the contribution of the exporting firms in the form of taxes would be much less than for the non-exporting companies throughout the period and that the policy reforms would only make the difference sharper. However, the data provide a very different picture. The

median value of tax provision as a percentage of net sales (TXPNS) turns out to be considerably higher for the exporting companies than the non-exporting companies for each of the years from 1980-81 to 1995-96. There could be several reasons for this. Firstly, the tax incentives for exports are not as substantial as they are made out to be. After all, they are proportional to the export intensity that is not very high for the Indian private corporate sector. Secondly, the exporting firms have higher profitability than the non-exporting firms. Thirdly, the non-exporting firms also enjoy several tax concessions and exemptions on account of 'backward area development', 'priority sectors', etc. Such firms, moreover, are typically catering only to the domestic markets because they are considered to be otherwise handicapped for international competition.

The time trend in the tax provision as a proportion of the net sales (TXPNS) for the exporting and non-exporting companies as reported in *Table 2* below are not statistically significant. Tax policy or the export incentives do not seem to be the major influencing factors. It is perhaps the profitability and financial performance of the firms that could be determining the behavior of this ratio over time. However, as can be seen from Table 2, a significant deceleration in this ratio is observed for the non-exporting companies after 1991-92. This finding does not seem to be supporting the hypothesis of a categorical shift in the development strategy from the import substitution to the export promotion actively pursued by the government in India since 1991.

VI. Financial Performance

We have considered several financial ratios from the balance sheet of companies to measure different aspects of the performance. They also reflect financial policy and risk taking behavior of the firms. These ratios can be broadly divided into four categories: (1) Ratios reflecting the capital structure of the companies such as - (a) Net Fixed Assets to Total Net Assets (NFANA); (b) Net Worth to Total Net Assets (NWTNA); and (c) Debt to Equity (DBTEQ); (2) Liquidity ratios such as – (d) Current Assets to Total Net Assets (CATNA); and (e) Sundry Creditors to Current Assets (SCRCA); (3) Ratios reflecting asset utilization by the firm and its turn-over such as – (f) Net Sales to Total Net Assets (NSTNA); (g) Net Sales to Gross Fixed Assets (NSGFA);

(h) Inventories to Net Sales (INVNS); (i) Sundry Debtors to Net Sales (SDBNS); (j) Gross Value Added to Gross Fixed Assets (GVGFA); and (k) Raw Materials Consumed to Value of Production (RMCVP); and (4) Profitability and dividend ratios such as – (l) Gross Profits to Total Net Assets (GPTNA); (m) Gross Profits to Net Sales (GPRNS); (n) Profits After Tax to Net Worth (PATNW); (o) Tax Provision to Profits Before Tax (TPPBT); (p) Profits Retained to Profit After Tax (PRPAT); and (q) Dividend to Ordinary Paid-up Capital (DIVOC).

1. Capital Structure Ratios

Capital Structure gives an indication about the financial policy of the firm. The use of debt capital (financial leverage) is generally considered to exercise a positive influence on the firm value. The annual median values of the three capital structure ratios calculated for the exporting and non-exporting companies in our sample of 557 companies reveal sharp differences between the two sets of the companies.

The ratio of net fixed assets to total net assets is higher for non-exporting companies than that for exporting companies. There is a significant negative basic trend and a significant positive acceleration observed after 1991 for the non-exporting companies (*Table 2*). For the exporting companies neither the basic trend nor the acceleration are statistically significant. This indicates that either the exporting companies are proportionately spending less than the non-exporting companies on building fixed assets like land, buildings, plant and machinery etc., or they are claiming higher depreciation. In practice, both these factors could be playing a role as the capital intensity for exporting companies has been found to be less in the initial years but high during the later years. The economic policy reforms in India seem to encourage more the non-exporting firms to build fixed assets than the exporting firms. The level of the net worth to total net assets ratio is higher for exporting companies as compared to the non-exporting companies. There is a significant positive acceleration observed for both exporting and non-exporting companies in the post-1991 period. Thus, the policy reforms have increased the net worth of companies irrespective of their exporting status. This could be due to a greater proportion of profits being transferred to the reserves and surplus account with a rise in the profitability of firms in general. The level of the debt-

equity ratio for exporting companies is observed to be higher than the non-exporting companies. The basic trend rate reported in *Table 2* is significantly positive for exporting companies and significantly negative for non-exporting companies. There is a significant negative acceleration (or deceleration) observed for exporting companies in the policy reform period with the result that after 1991-92, the debt-equity ratio for the exporting companies has actually started declining. However, the value of debt-equity ratio still continues to be higher for exporting companies indicating greater need and also improved access to non-equity capital to meet business obligations. It also indicates their greater risk-taking behavior. The policy reforms have provided an environment where the exporting firms are not required to take more and more risk.

2. Liquidity Ratios

Liquidity ratios indicate the ability of a firm to meet its financial obligations in the short run, generally one year. We have looked at the two ratios viz. current assets to total net assets ratio and sundry creditors to current assets ratio.

The annual median values of current assets to total net assets ratio are higher for exporting companies than the non-exporting companies. This indicates greater cash solvency of exporting firms and also their ability to remain solvent in the face of adversities. Next, the ratio of sundry creditors to current assets is found to be lower in all the 16 years for exporting firms. This indicates that exporting firms have lesser amount of 'accounts payable' than non-exporting firms. Perhaps, the exporting firms make less use of credit for the purchase of goods and services vis-à-vis non-exporting firms. From *Table 2*, we can see that for the ratio of current assets to total net assets, there is a significant negative basic trend for exporting companies and a significant positive basic trend for non-exporting companies. This indicates a decline in cash solvency of exporting firms over the years. There is also a significant deceleration observed for non-exporting companies in the post-1991-92 period. Thus, policy reforms seem to have reduced the ability of non-exporting firms to service short-term debt. Regarding the ratio of sundry creditors to current assets, a significant positive trend is observed before 1991 for non-exporting companies. The acceleration is positive, though not significant, for non-exporting companies after 1991-92. This indicates greater resort to credit purchase by

non-exporting companies, and consequently their greater vulnerability. For the exporting companies, we find a negative basic trend and deceleration in the post-1991-92 period. This indicates conservative behavior of exporting firms.

3. Assets Utilization and Turnover Ratios

These ratios indicate how efficiently firms employ their assets and are based on the relationship between the levels of assets and firm activity level, viz. sales. The sales to total net assets ratio and the sales to gross fixed assets ratio indicate the relative efficiency with which a firm utilizes its resources in order to generate output. The higher is the ratio, the greater is the efficiency. The inventory to sales ratio, on the other hand, is a function of the efficiency with which various asset components are managed. The lower the value of this ratio, the greater is the efficiency with which inventories are managed by the firm. The annual median values of all these three ratios for the exporting firms are higher than those for the non-exporting firms. This indicates that the efficiency of assets utilization, on the whole, is higher for the exporting firms than the non-exporting firms. A higher value of inventories to sales ratio for the exporting firms points to their lower efficiency in the management of inventories. This anomaly could, however, also be explained in terms of the necessity for the exporting firms to maintain higher inventory levels by avoiding delays in meeting their time schedules.

Table 2 shows that for sales to total net assets ratio (NSTNA) as well as sales to gross fixed assets ratio (NSGFA), there is a significant negative basic trend observed for exporting companies and a significant positive basic trend for non-exporting companies. This is consistent with our finding that the capital intensity of the exporting firms is increasing over time in India. Policy reforms have, however, led to a statistically significant deceleration in NSTNA only for non-exporting companies implying a sharp decrease in their asset utilization efficiency. For the inventories to net sales ratio (INVNS), *Table 2* shows a significant positive basic trend, and a significant positive acceleration for both the exporting and non-exporting companies after 1991-92. *Prima facie*, we can say that the firms are becoming increasingly inefficient in their inventory management and the policy reforms have further pushed them in the same direction. We may explain the rising inventory to sales ratio in terms of the rising transaction costs for

both categories of firms. This is quite possible due to the poor state of country's infrastructure so that the firms are increasingly required to maintain higher inventory levels to reduce uncertainties particularly when the economy has opened up.

Turning to the asset management ratios, viz. sundry debtors to net sales (SDBNS), gross value added to net assets (GVANA), and raw materials consumed to value of production (RMCVP), the annual median values of all the 3 ratios are higher for the exporting companies than the non-exporting companies. The sundry debtors are the short-term assets arising for a firm due to sale of goods on credit. Table 2 reports the basic time-trend rates and the acceleration/deceleration after 1991-92 in them along with other ratios. Sundry debtors to net sales ratio (SDBNS) shows a significant positive basic trend for the exporting companies. This indicates greater tendency of exporting companies to sell goods on credit to their customers. Perhaps, this measure would enable exporting firms to increase their sales revenues. The economic policy reforms in India do not seem to have any significant effect on the behavior of this ratio. For the ratio of gross value added to gross fixed assets (GVGFA), there is a significant negative basic trend observed for the exporting companies with a statistically non-significant acceleration in the post-1991-92 period. For the non-exporting companies, on the other hand, a significant deceleration after 1991 is observed. The policy reforms seem to have adversely affected the value addition in the non-exporting companies. This could be because they are now confined to lower segments in the domestic markets perhaps due to lower quality in comparison to more liberalized imports and/or more competition from the multinationals. This is further corroborated through the behavior of the ratio of raw material consumed to the value of production (RMCVP). It is found that there is a positive basic trend and a deceleration after 1991 for both exporting and non-exporting companies. However, both the basic trend and the deceleration are significant only for non-exporting companies. Higher median values of this ratio for the exporting companies, perhaps, indicate that these companies consume better and costlier raw material to make better quality products so as to compete in the international market. The policy reforms have pushed the non-exporting companies to concentrate on the lower end of the domestic market.

*4. **Profitability Ratios***

Profitability ratios reflect the final result of a business. Typically, there are two types of profitability ratios - those that show the relationship of profitability to sales, and those relating the profitability to the investment. Moreover, the government's tax policy and the firm's dividend policy may also be relevant for considering different aspects of the profitability of a firm.

The annual median values of the three profitability ratios viz. gross profits to net assets (GPTNA), gross profits to net sales (GPRNS) and profit after tax to net worth (PATNW) are found to be higher for the exporting companies than the non-exporting companies for almost the entire period.. The gross profits to net assets ratio indicates the earning power of a firm on the investment made in the firm. It indicates how efficiently the firm has employed its capital. The second ratio, viz. the ratio of gross profits to net sales indicates the margins left for the firm after meeting its manufacturing costs. It is an indicator of the efficiency of the firm's manufacturing systems as also of its pricing policy. The third ratio i.e. the ratio of profit after tax to net worth indicates the profitability of equity funds invested in the firm. It is an indicator of the productivity of the owner's capital. Thus, the exporting companies are more efficient than the non-exporting companies on all these counts. It can be seen from *Table 2* that in all the three ratios, there is a statistically significant negative basic trend for the non-exporting companies. For the exporting companies, neither the basic trend nor the acceleration is statistically significant. The policy reforms have, thus, not affected the profitability of the exporting companies. The acceleration after 1991 is significant in the ratio of gross profits to net sales for non-exporting companies. The policy reforms have, thus, helped the non-exporting companies to improve their margins eventhough they were pushed to the lower end of the domestic market.

Turning to the tax provision as a ratio of profits before tax (TPPBT) and profits retained as a ratio of profits after tax (PRPAT) for both the exporting and non-exporting firms the median value for the former (i.e. TPBPT) is higher for exporting firms than for non-exporting firms. On the other hand, the ratio of profits retained to profits after tax (PRPAT), is higher for non-exporting firms than for exporting firms throughout the

period. *Table 2* reports a significant positive basic time trend rate for the non-exporting companies in TPPBT. The policy reforms seem to have provided substantial incentives to the non-exporting companies reducing their effective tax liabilities. The deceleration is significant for only non-exporting companies as can be seen from *Table 2*. Policy reforms have been almost neutral to the exporting firms in this regard. As far as the ratio of profits retained to profits after tax (PRPAT) is concerned, the basic trend rate is positive and significant for both exporting and non-exporting companies with no significant acceleration/ deceleration after 1991-92. Thus, the policy reforms have not affected the basic increasing tendency to depend on the own surpluses for the investment in the business.

Finally, we consider the annual median values of the dividend paid as a percentage of the paid-up ordinary capital (DIVOC) for the exporting and non-exporting companies over the period. It was found that the exporting companies gave substantially higher returns to their shareholders than the non-exporting companies every year without exception. Moreover, there is a significant positive trend in the pre-reform period for both exporting and non-exporting companies. The acceleration after 1991 is seen to be significantly positive for the exporting companies and significantly negative for non-exporting companies. Thus, the policy reforms have resulted in increasing the returns to the shareholders of the exporting companies on their paid-up capital, but for the non-exporting companies the increasing trend was reversed and the returns started declining sharply after the beginning of the reforms in 1991-92.

An examination of various financial ratios covering different aspects shows that in terms of overall performance, the exporting companies have done much better than non-exporting companies in India over the years. The 1991-92 policy reforms seem to have further strengthened the performance of the exporting companies as compared to the non-exporting companies. The difference in their basic characteristics, policies and behavior has become sharper with the reforms.

Table 2: *Results of the Spline Trend Function for Different Variables based on the Panel of 557 firms over the period-1980-81 to 1995-96*

S.No.	*Variable Name*	*Exporting Firms*			*Non-Exporting Firms*			*Level*
		Intercept	*Basic Trend*	*Acceler-ation*	*Intercept*	*Basic Trend*	*Accelera-tion*	
1.	IMINT	4.4277*	-0.0269	0.7027*	0.5027*	-0.0434$	0.0497	H
1a#	IMINT	0.0756*	-8.9E-04	0.0115*	0.0504*	-0.0013$	0.0049	H
2.	RMINT	6.0746*	-0.0038	0.7376$	0.2989*	-0.0314$	0.0577	H
2a#	RMINT	0.1207*	-6.8E-04	0.0118$	0.0848*	-0.0013	-0.0013	H
3.#	R&DNS	0.0184	0.0192*	9.8E-04	0.0097	0.0109$	-0.0080	H
4.#	ADVNS	0.4690*	0.0131*	0.0227	0.2936*	0.0086@	0.0052	H
5.	OEFNS	0.4882*	-0.0059	0.0824*	0.0024	-5.4E-05	-2.6E-04	H
5a#	OEFNS	0.0121*	-1.4E-4@	0.0013*	0.0116*	-6.1Ee-4$	0.0011	H
6	CPINT	83.4703*	2.6361*	0.3878	104.8200*	-2.1539*	1.1937	L/H
7.	TXPNS	1.7311*	-0.0586	0.0794	0.2783$	0.0217	-0.1597$	H
8.	NFANA	31.7315*	0.1538	-0.4227	44.3343*	-0.8494*	1.8744*	L
9.	NWTNA	33.0857*	0.0218	1.6814*	33.2788*	-0.0563	0.7971$	H
10.	DBTEQ	87.9745*	1.2273$	-6.5778*	92.2894*	-1.5673*	-0.1325	H
11.	CATNA	67.5717*	-0.3703$	0.0872	55.3424*	0.5529*	-1.8408*	H
12.	SCRCA	27.2527*	-0.0116	-0.4190	26.7128*	0.4278*	0.0683	L
13.	NSTNA	123.3452*	-0.9941$	-0.5940	102.3040*	1.2713*	-6.4567*	H
14.	NSGFA	218.9475*	-3.3796$	2.8229	146.3265*	1.9106$	-4.0285	H
15.	INVNS	0.1071$	0.0737*	0.1567*	0.1313*	0.0249*	0.0302@	H
16.	SDBNS	13.2442*	0.3065*	-0.2097	10.4273*	0.0627	0.2488	H
17.	GVGFA	63.2109*	-1.4392*	0.9332	44.7401*	-0.0065	-1.4374@	H
18.	RMCVP	47.7669*	0.1374	-0.4876	45.3782*	0.1965$	-1.1551*	H
19.	GPTNA	12.0887*	-0.0762	0.1170	11.5538*	-0.2163$	0.2061	H
20.	GPRNS	10.1323*	-0.0491	0.4785	10.3407*	-0.2622*	0.7292$	H
21.	PATNW	14.4212*	-0.1902	0.7755	13.2819*	-0.2806$	0.3754	H
22.	TPPBT	30.4735*	-0.6574	-0.0028	4.5799	0.9564$	-5.1815*	H
23.	PRPAT	64.9183*	0.7312*	-0.5573	77.3442*	0.7222*	-0.4452	L
24.	DIVOC	12.9721*	0.5626*	0.8914@	10.4624*	0.3336*	-0.8917$	H

*Significant at 1%; $ Significant at 10%; @ Significant at 5%.
Average Value of the Variable
H Higher Level for Exporting Companies
L Lower Level for Exporting Companies
H/L Higher in the initial years but Lower in later years and vice-versa

VII. Summary and Conclusion

The present fact-finding study is based on the balance-sheet data from a sample of 557 non-government, non-financial private limited companies in India covering a 16 years period from 1980-81 to 1995-96. Since the number of companies remains the same every year, the paper examines the impact of policy reforms initiated from 1991-92 on the existing and long sustaining private sector companies. The focus is on the trade related behavior and performance of the companies. The methodology used in the paper

consists of considering annual median (or, if necessary, mean) values of different ratios or indicators to reflect trade behavior or performance of the companies after dividing them into two groups viz. exporting and non-exporting companies. The linear spline trend function with a kink at 1991-92 is used to measure the impact of the policy reforms on the trend rates of these ratios. The analysis carried out in this study shows that there are substantial differences in the level and trends between the exporting and non-exporting companies. These differences have become more prominent with the policy reforms. Some important findings are summarized as under:

1) The trade liberalization, globalization and policy reforms carried out in India seem to have increased the importance of export activity for the private non-financial corporate sector. This is indicated by an increase in the number of exporting companies over the years. The median export intensity for the exporting companies as measured by the ratio of their export revenue to net sales has also increased substantially from 1993/94. This indicates that the reforms have created environment for existing companies to concentrate more on export activity.

2) The overall import intensity and the raw material import intensity are found to be higher for the exporting companies than that for non-exporting companies throughout the study period from 1980/81 to 1995/96. This indicates greater importance and dependence of exporting companies on imports. Moreover, the import intensity is higher than the export intensity at the median level for the exporting companies. Thus, import liberalization *per se* is an important export promotion measure and depreciation of Rupee may not provide any incentive to the private corporate sector for exports.

3) The R&D expenditure as a percentage of net sales is found to be higher for exporting companies than non-exporting companies for each of the years from 1980/81 to 1995/96. There is a shift to higher level after 1991-92 in R&D expenditure for both exporting and non-exporting companies. This indicates increasing importance being given to R&D by the Indian private corporate sector.

4) Total advertisement expenditure as a ratio of net sales, on an average, has been found to be higher for exporting companies vis-à-vis non-exporting companies. This indicates greater efforts towards brand building and promotion by the exporting firms.

5) It has been observed that the exporting companies are more particular than non-exporting companies to obtain foreign technology and for importing know-how. In the post-1991 period, exporting companies seem to be giving greater importance to technology tie-ups as indicated by increasing values of royalty payments. The non-exporting companies seem to spending more on technology purchase in the post-1991 period as indicated by a significant positive increase in the technical fee payments.

6) There is a continuous and significant increase in the capital intensity of exporting companies over the sixteen-year period. The capital intensity for the non-exporting companies has, however, declined over the period from 1980/81 to 1995/96. The policy reforms with increased globalization and liberalization have not exerted any significant incremental influence on the capital intensity of the private sector companies in India.

7) The median value of the debt to equity ratio has been found to be higher for exporting companies than non-exporting companies. This indicates higher risk taking ability or greater access to debt capital for exporting companies.

8) The cash solvency of exporting firms is found to be higher than non-exporting firms. However, there is an observed decline in cash solvency over the years.

9) Exporting firms seem to be more efficient in the utilization of their assets as indicated by the higher values of their assets utilization and turnover ratios.

10) The exporting companies are seen to be more profitable, having greater efficiency of their manufacturing systems and pricing policy, and greater productivity of their owners' capital than non-exporting companies. The policy reforms have not affected the profitability of the exporting companies, but have helped the non-exporting companies to improve their margins.

11) Exporting companies seem to be paying more taxes than non-exporting companies. Moreover, there is a significant deceleration in the tax provision to net sales ratio for the non-exporting companies after 1991-92. These findings do not support the hypothesis of a categorical shift in the development strategy from the import substitution to the export promotion by the government after 1991-92.

12) The policy reforms have increased the net worth of the companies irrespective of their exporting status. However, the shareholders of exporting companies are getting higher returns than the non-exporting companies. The policy reforms seem to have adversely affected the value addition in the non-exporting companies perhaps because they have been pushed to the lower end of the domestic market.

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