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**ANTI DUMPING DUTY AS A
MEASURE OF CONTINGENT
PROTECTION: AN ANALYSIS OF
INDIAN EXPERIENCE**

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PROTECTION: AN ANALYSIS OF INDIAN EXPERIENCE**

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ABSTRACT

The aim of this paper is to analyse India's anti dumping behaviour. India has become a major user of anti dumping measures, initiating more than 300 cases against many of its trading partners. After looking at the trends and patterns in the use of anti dumping measures by India, the paper tries to identify the various factors that influence the anti dumping procedure in India at different stages. The study finds that, many of the allegedly dumped products have experienced substantial increase in their imports into India. Again, many domestic producers seeking protection are performing unsatisfactorily. However, when it comes to the final decision by the authority to impose anti dumping duty, none of these factors appear to be significantly influencing that decision. Rather a less concentrated industry tends to get more anti dumping protection. The paper concludes with the observation that the anti dumping actions in India cannot be justified on predatory ground. However, the author feels that strategic actions on the part of the stake-holders should be explored to better understand the anti dumping behaviour of the nation.

Key Words: WTO, trade, imports, contingent protection, anti dumping, India

JEL Classification: F02, F13, F14, F23

1. Introduction

The unprecedented rise in the use of anti dumping measures is an important recent development in the arena of international trade policy. Though the use of anti dumping measures is not a new phenomenon in the history of trade policies¹, till 1980s, its use was confined to only a few traditional users such as the USA, the EU, Australia, Canada and New Zealand. Moreover they used the measure sparingly. For instance, during 1960s all the GATT members together filed only about ten anti dumping petitions per year (Prusa, 2001). Until the early 1970s, less than 5 percent of anti dumping cases resulted in duties (Blonigen and Prusa, 2003). But during the last decade there has been a phenomenal rise in the use of this measure. The traditional users were joined by a number of other countries, a majority of them being developing countries such as - Argentina, Mexico, India, Brazil, Turkey and South Africa². These developing countries accounted for more than 60 percentage of the total anti dumping initiations by the end of 2003³. Even though these developing countries have become major users, not many studies have come up examining the anti dumping behaviour of these countries. India is one of the new members in the club of anti dumping users, which has initiated large number of anti dumping cases against many of its trading partners. This paper is an attempt to critically analyse the Indian experience with anti dumping measures.

The paper has been structured in the following way. Section 2 traces some general features of the anti dumping cases initiated by India.

In section 3, our attempt is to identify the likely factors influencing different stages of the anti dumping procedure in India from filing of petitions by the domestic industry to the imposition of the anti dumping duty. This is followed by a statistical exercise in section 4, to delineate the factors that influence the final decision of the anti dumping authority. Section 5 briefly discusses the rationale behind the emerging anti dumping behaviour of India and Section 6 concludes the paper.

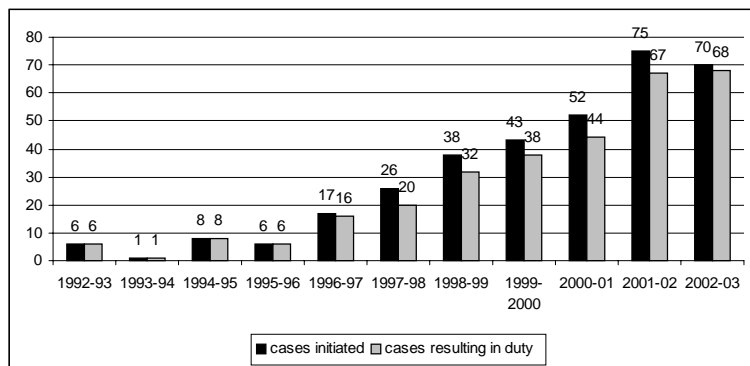
2. Anti dumping duty and India: General Trends

As Neils and Kate (2004) have noted, in developing countries, 'the rise of anti dumping has often gone hand in hand with a fundamental policy shift towards trade liberalization'. This holds true for India too. India perhaps did not have to resort to such contingent measures because of the inward oriented economic regime, which relied heavily on conventional measures of protection. Imports were highly restricted through a number of tariff and non-tariff measures till late 1980s. However, since 1990s there has been a gradual shift in the policy regime in India, which led to opening up of the economy for foreign competition. Apart from the various unilateral economic reforms undertaken since 1991, the economy also had to reorient itself to the changing multilateral trade disciplines within the GATT/WTO framework (Chadha et al., 1998). The Government progressively liberalized imports by removing quantitative restrictions maintained under the balance of payments cover. Tariff rates also came down significantly. The simple average basic duty rate has declined from 128 percent in 1991-92 to 22.4 percent in 2004-05 (Mathur and Sachdeva, 2005). However, as per the provisions made under the WTO agreement, India has maintained some 'trade defense measures', to protect the domestic consumers and producers from any adverse impact of the removal of the quantitative restrictions. These include, countervailing duty (CVD), anti dumping duty, protection under safeguard provisions etc. Like in the case of many other developing countries, the use of such measures has shown a rising trend in India.

Among them, the most frequently used one is the anti dumping measure. They accounted for more than 75 percent of all contingent measures adopted at the end of the year 2002⁴.

The first anti dumping case in India was initiated in 1992 against the USA, Japan and Brazil for the import of PVC Resin. Though India has an anti dumping legislation since 1985, no anti dumping case was initiated till then. But after that, there has been a continuous rise in the use of anti dumping measures and by the end of 2002-03, India has filed 342 anti dumping cases⁵ (fig.1). This is by all means a very high number compared to even the traditional users such as the EU and the USA. More interestingly, most of these cases resulted in imposition of duty.

Figure 1: Anti Dumping Cases (1992-2003)



Source: Annual Report, Directorate General of anti dumping and Allied Duties, 2002-03

All these cases involve 47 different countries⁶. More than 50 percent (177 cases) of the cases are targeted against developing countries. The developed countries and transition economies have encountered 37.13 percent (127 cases) and 11.11 percent (38 cases) of the cases respectively. Among these countries, China tops the list with 66 cases initiated against it. This is not unusual for China as it is facing large number of anti dumping

cases in other countries too. China is followed by Taiwan and the EU with 25 cases each. Korea comes next with 24 cases against it.

Another feature of the anti dumping cases initiated by India is their concentration in a narrow range of products groups. The Directorate General of Anti dumping and Allied activities, India, in their annual report on anti dumping measures has distributed the anti dumping cases into six broad product groups. For our study we have maintained the same classification.

Table 1: Distribution of Cases across the Product Groups

Industry Group	Frequency	Percentage
Chemical and Petrochemicals	160	46.78
Pharmaceuticals	43	12.57
Fibres / Yarn	34	9.94
Steel & other metals	49	14.33
Consumer Goods	21	6.14
Others	35	10.23
Total	342	100.00

Source: Annual Report, Directorate General of anti dumping and Allied Duties, 2002-03

The most prominent among the product groups is 'chemicals and petrochemicals'. Of the total of 342 cases, 160 cases (46.78 percent) involve products belonging to this group (table. 1). Steel and other metals accounting for 49 cases (14.33 percent) occupy the second place. This is followed by pharmaceuticals (12.57) and fibre/yarn (9.94). These four sectors together account for about 84 percent of the anti dumping investigations initiated by India. Besides these, there are some consumer goods, which are attracting anti dumping initiation in the recent years. This shows similarities with the worldwide pattern in the use of anti dumping measures as base metal and chemical sectors attract a large number of anti dumping cases in other countries too.

3. Factors Influencing the Anti dumping Procedure in India

The WTO agreement clearly states that dumping per se is not condemnable, as price discrimination in the form of dumping is a common international commercial practice. However, if such dumping causes 'material injury' to domestic firms producing 'likes products'⁷, then it calls for suitable action on the part of the authority. Therefore, injury to the domestic industry should be the guiding principle for seeking as well as providing anti dumping protection. But the sudden spurt in the use of anti dumping measures by many nations naturally raises several questions. Why this sudden rush to use anti dumping measure? Or what are the factors influencing such behaviour? A large number of empirical studies have been undertaken in this regard to identify the factors influencing the anti dumping procedure in different countries⁸. In one of the earliest studies, Takacs (1981) made the distinction between 'protectionism' and the 'pressure for protectionism'. While the pressure for protectionism comes from the domestic industry where dumping is experienced, protectionism gets reflected in the ultimate decision of the government. According to her, both may get subject to a number of pressures from various sources. One major study, which came up investigating the influence of such forces on anti dumping procedure, was by Finger, Hall and Nelson (1982). They analysed the decision making process of International Trade Commission (ITC)⁹ of the USA, in case of anti dumping, CVD cases and the safeguard cases. They considered both economic as well as possible domestic and international political influences. The study found that the technical economic factors such as industry's physical capital output ratio, industry average wage per worker, extent of economies of scale are more significant in case of anti dumping and CVD cases, rather than political factors. But Hansen (1990), investigating all anti dumping, CVD and Safeguard cases for the USA found various political factors reflecting the importance of industries petitioning the ITC, in the districts of members of the 'Ways and Means Committee' to be significant determinants of ITC decisions¹⁰. She also

found economic factors such as percentage change in industry employment, market share and the US trade deficit to be significant. Moore (1992) also found both economic and political factors matter in case of anti dumping cases.

However the methodologies adopted by these studies were criticized by Baldwin & Steagall (1993). They criticized Hansen (1990) for clubbing together anti dumping, CVD and safeguard cases, as the injury criteria for safeguard and anti dumping/CVD cases differ. According to them, even in case of anti dumping and CVD, though the statutory criteria are identical, the determinants may significantly differ. Therefore considering these together is also not appropriate, as was done by Finger et al (1982). Besides this, both these studies considered 4-digit SIC sector which cover the product in which petition has been made, as a proxy for the economic characteristics of that product. But a particular 4-digit sector includes lot more other products than the one under consideration; the economic characteristics of those may not be same as that of the product concerned. To overcome the first drawback Baldwin and Steagall (1993) run different regressions for anti dumping, CVD and safeguard measures to find the economic determinant for these cases. Secondly, they used industry performance data from the individual reports of the ITC to ensure that the various economic factors related to the decisions of the commissioners actually coincide with the particular tariff line item covered by the petitions¹¹. They found a number of economic as well as political variables to be influencing the anti dumping procedure. Among the economic variables, the ratio of total imports in the industry to the consumption of the product, (the higher the ratio more likely an affirmative decision), percentage change in the capacity utilization over the most recent years, (greater decline in capacity utilization leads to greater likelihood of affirmative decision) appear as significant variables. However, surprisingly, factors like ratio of unfair imports to consumption, decline in profits and changes in employment did not show significance in case of either CVD or anti dumping cases.

Studies examining anti dumping behaviour of the EU such as Tharakan et al. (1998) also bring out similar tendency. They found 'political economy' variables, such as industry concentration, value added, capital intensity and average daily wages to be significantly influencing the decision of the authority to impose anti dumping duty.

The influence of macro economic variables has also been highlighted by a number of studies. These studies concentrate more on government's inclination for providing protection rather than pressure for protection by domestic industries. This is due to the fact that, there is higher possibility for the government to consider these factors, rather than individual petitioners. A number of domestic as well as external macro economic determinants of anti dumping and also other forms of contingent protection have been pointed out by these studies. For example, Leidy (1997) found domestic pressure in the form of unemployment rate, over all capacity utilization to be having significant bearing on the number of newly initiated cases. However, she could not find a significant relation between external pressure and anti dumping initiations. On the other hand, Prusa and Knetter (2000) found external pressure, in the form of fluctuation in the exchange rate not only affect the dumping determination, but it affects the injury determination too. And these two effects move in opposite direction. An appreciation of the filing country's currency will lead to a significant increase in anti dumping filings. Again, a depreciation of US dollar decreases import penetration, thus making an injury determination less likely. In a very recent study Aggarwal (2004), who considered the role of macro economic factors for all the anti dumping user countries found trade related pressures in the form of trade balance, import growth to be a major concern for low and lower middle income countries in using anti-dumping measures. For developed countries however domestic macro economic pressure appeared to be more significant.

Thus all these studies have discussed a number of biases that may creep into the anti dumping investigation process at various stages. The

demand for protection may come from the domestic industries not only because they get injured due to dumping of foreign goods at low prices, but merely due to the fact that the industry is capable of lobbying for extra protection, i.e. due to the rent seeking behaviour of the industry. As the conventional means of protection are being drastically reduced, the domestic industries have to face more competition from abroad. This may prompt these industries to seek protection through other channels like anti dumping measures. On the other hand, government may acquiesce with such demands if it finds that there is real injury to the domestic firms or sometimes merely to conform to certain trade or commercial policies of the government. Besides these, certain 'regulatory process bias' may also creep into the final decision- making process of anti dumping. For example, the practice of commutation was found to increase the chance a dumping case getting an affirmative decision. (Hansen & Prusa, 1997 and Tharakan, et al., 1998). Similarly, many studies found cases facing repeat investigations have higher chance of getting a positive injury decision.

In the light of the studies discussed above, in this section, we first try to identify the likely factors, which may influence the anti dumping situation in India. We take up the possible factors one by one and try to assess their influence on the anti dumping procedure.

a. Import Scenario

Our first point of inquiry is imports to India, as imports give the initial indication of possible dumping. During 1990s, imports as a percentage to GDP showed a steady rise in India. It has increased from 7.4 percent in 1990-01 to 10.85 percent by 2001-02. However, in value terms, the rate of growth of imports tended to stagnate or even decline. Chandrasekhar and Ghosh (2002) interestingly found that behind this sluggishness of the value of imports there has been a trend of sharp increase in the quantity of imports and decline in the unit value of imports. Considering the quantum and unit value indices of India's imports from

April-June 1996 to April -June 1999, they found that ' unit value index or weighted average of unit price of India's imports rose during 1996-97, reached a peak of 513 in the first quarter of 1997-98 and declined thereafter by 33 percent. On the other hand, the quantum index for imports more than doubled over the same period, and rose by 57 percent over the two year period starting April-June 1997'. When we look at the yearly unit value index and the quantum index for imports, for all commodities from 1990-91 to 2000-01 it appears that, since 1990-91, there has been a significant rise in the quantum index. Though unit value index has also risen during this period, the increase in quantum index is much higher than the unit value index. Such higher growth of imports in terms of quantity may indicate possible dumping. In such a situation it will not be surprising if the government explores the available provisions for restricting imports, including anti dumping measures.

Anti dumping action however works at the level of individual countries, specific products and particular firms. As such it is important that we take the analysis of imports to a more disaggregated level. Prusa and Skeath (2001) has found that countries have a tendency to file anti dumping cases against those trading partners which have a larger share in the imports, or against the country whose share has increased significantly in the immediate past. The 1990s experienced some significant changes in the sources of India's imports.¹² Though the EU and North America are still the biggest sources of India's imports, their share have fallen over the years. Imports from Eastern Europe and OPEC have registered clear decline. However, during this decade, there has been continuous rise in the imports from the developing countries. This rise is more prominent in the case of Asian countries. The share of Asian countries in India's total imports has gone up from 14.8 percent in 1991-92 to more than 18 percent by 2001-02. Increasing imports from some of the South East Asian countries like China, South Korea, Hong Kong and Malaysia has contributed to this trend. Interestingly, some of these new and upcoming sources of imports figure prominently in the list of

countries facing anti dumping actions in India. Therefore, we decided to examine the trend in imports from 15 major countries, which account for more than 75 percent of the total anti dumping initiations in India. Table 2 reports imports from these countries in 1989-90 and 2001-02, the growth rate in the imports during this period and also the share of these countries in total imports at these two time points. Here we can see that imports from all the countries except Russia (1.90) and France (7.94 percent) are increasing at a rate higher than 10 percent and a few are showing growth rates of more than even 20 percent. China, which is facing the maximum number of anti dumping cases in India, experienced more than 50 percent growth in its exports to India during the period 1989-90 to 2001-02. Its share in the total imports to India has also increased from 0.15 percent to 3.96 percent during the same period. Besides China, Indonesia (39.66 percentage), Thailand (28.4 percentage), Hong Kong (24.6 percentage) and Korea (20.69 percentage) are some other countries which have been experiencing very high growth rates in their exports to India. These countries have also been increasing their shares in India's imports, though from rather low initial levels. On the other hand the EU, the USA and Japan which are much bigger trade partners of India are experiencing fall in their share in the total imports.

However, our analysis will have to move on to the level of individual products. Total imports to India from a particular country may not be very high, but if for an individual product, which is facing anti dumping case, import shows high growth then it may stand a higher chance of getting anti dumping duty imposed. Baldwin and Steagall (1993) found 'change in the quantity of dumped imports' to be a significant variable in getting an affirmative decision in anti dumping cases. Hence, it would be interesting to examine the growth rates in the value of imports from the 'named country' (i.e. the country, which is facing the anti dumping investigation) in the total imports of the dumped commodity. For this analysis we have taken two time points. The year 1990-91 has been taken as the initial point as all the cases were initiated in the following

Table 2: Imports from 15 Countries Facing Maximum Number of Anti dumping Cases India (1989-90 to 2001-02)

No	Country	Value of imports (in crores)		CGR in value 1989-90 to 2001-02	Share in total imports	
		1989-90	2001-02		1989-90	2001-02
1	China	66.53	9711.92	51.48	0.15	3.96
2	Taiwan	588.37	2667.29	13.42	1.8	1.08
3	EU	12154.32	49773.85	12.47	30.95	20.30
4	Korea	569.8	5443.41	20.69	1.52	2.48
5	Japan	2817.41	10236.8	11.35	7.51	2.99
6	USA	4264.25	15021.12	11.06	12.14	7.16
7	Singapore	898.95	6219.45	17.49	3.31	2.34
8	Russia	2036.85	2553.93	1.9	5.9	0.95
9	Thailand	100.5	2017.79	28.4	0.27	0.62
10	Indonesia	89.83	4944.76	39.66	0.34	2.25
11	Brazil	391.59	1469.74	11.65	1.01	0.52
12	Hong Kong	248.31	3476.09	24.6	0.69	1.58
13	France	1609.9	4026.4	7.94	3.02	1.78
14	Iran	389.24	1353.6	10.94	2.36	0.42
15	Canada	453.3	2524.97	15.39	1.27	0.92
	Total of 15	26679.16	121441.11	13.46	72.24	50.14
	Rest	8649.19	123758.6	24.82	27.76	49.86
	Total	35328.35	245199.72	17.52	100	100

Source: Directorate General of Commercial Intelligence and Statistics, (DGCI&S) India

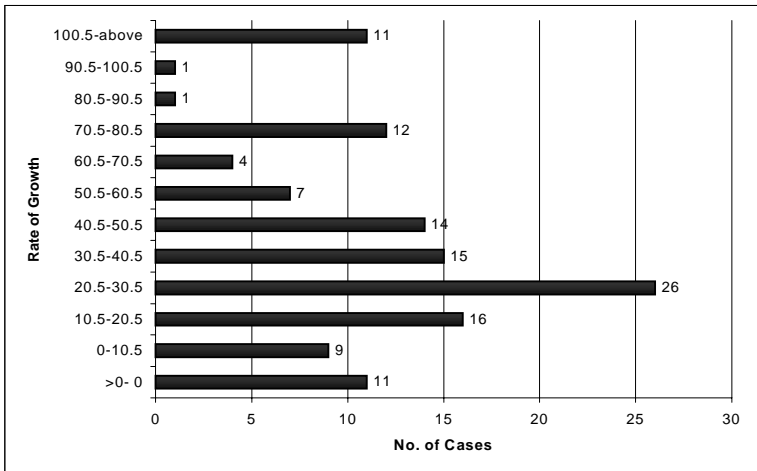
Note: a) CGR = Compound Growth rate

b) 'Rest' includes all the other exporting countries, not only the rest of the countries facing anti dumping case.

decade. The second time point considered is the particular years in which the anti dumping cases were initiated. The import figures are for the corresponding 6-digit HS codes and need not perfectly match the product in question. The results therefore, should be interpreted with caution. Moreover, this analysis of the product specific import trend could not include 38 cases due to non-availability of data¹³.

By the end of the year 2002-03, India initiated 342 cases involving 47 countries. However, as the import data pertaining to 1990-91 reveals, in that year products involving 182 cases were not imported at all from the 'named' countries. There are 11 cases (8.66 percent of cases) where the products involved have experienced either decline in growth or no growth in the total value of imports from the particular country (fig.2).

Fig . 2: Growth Rates in value of Imports of the Dumped Product (1990-91 to the case year)



Source: DGCI&S

Note: a) The figure shows rate of growth of imports a total of 127 cases.
 b) Case Year is the year in which the particular anti dumping case was initiated.

There are 25 cases (19.69 percent), where the import from the named countries are experiencing a positive but less than 20 percent growth rate in value during this period. For the rest 91 cases (71.65 percent), imports, from the respective countries have grown at rates higher than 20 percent. This shows considerably high growth rates for many of these products. There are in fact 36 cases (28.35 percent) where the product involved showed growth rate higher than 50 percent during this period. Therefore, imports appear to have contributed to the surge in demand as well as supply of anti dumping protection.

b. Performance of the Domestic Industry

Increasing import in itself will not call for anti dumping investigation unless it causes injury to the domestic industry. Therefore the performance of the industries is a very crucial factor, which influences the initiation and the final decision-making in an anti dumping case. We have already identified four major sectors where most of the anti dumping cases in India are concentrated. But, before going into individual cases, we tried to gather some broad idea about the performance of these sectors as a whole. For that purpose, we considered the trend in 'net profit margin' for each of these sectors from 1989-90 to 2001-02. Table.3 presents the net profit margin for the manufacturing sector as a whole as well as for the four sectors which are experiencing large number of anti dumping initiations. The net profit margin for the chemical sector has remained lower than the whole manufacturing sector for the entire period, barring one year i.e. 1992-93. The profit margin for the sector has shown a downward trend from 1989-90 to 1991-92. Though it improved in the next two years, it started declining again and reached even lower than 1 percent by 1999-00. However, since then there has been considerable recovery of the profit margin for the sector.

Table 3: Trends Net Profit Margin

Year	Manufacturing sector	Chemicals/ petrochemicals	Steel	Pharmaceuticals	Textiles
	Profit to sales ratio	Profit to sales ratio	Profit to sales ratio	Profit to sales ratio	Profit to sales ratio
1989-90	4.03	2.67	-0.38	3.35	3.04
1990-91	3.71	2.57	-0.96	3.30	0.86
1991-92	3.53	2.10	0.96	3.67	-0.05
1992-93	2.54	2.82	1.78	5.22	3.52
1993-94	3.90	3.70	4.72	7.91	4.44
1994-95	6.44	3.58	5.60	9.01	2.31
1995-96	5.99	2.57	1.61	6.96	-0.56
1996-97	4.82	2.34	-1.35	6.36	-3.91
1997-98	4.55	2.49	-6.83	5.04	-6.05
1998-99	3.39	1.62	-6.13	7.92	-7.21
1999-00	3.36	0.70	-3.95	9.32	-6.51
2000-01	3.28	1.26	-7.84	11.27	-5.48
2001-02	4.04	3.47	1.33	12.67	-0.47

Source: PROWESS database¹⁴

Note: Net Profit Margin = Net Profit/Net sales'100.

The net profit margin for the steel and iron sector was not at all impressive over the last decade as is evident from the table. It has remained negative for the year 1989-90 and 1990-91. Though there was some revival in performance in the next few years, it was followed by continuous fall in the profit margin thus incurring heavy losses by 2000-2001. The profit margin of the drugs and pharmaceutical sector was lower than the manufacturing sector for the years 1989-90 and 1990-91, which improved afterwards. In fact, since 1997-98 the sector has been showing increasing profits, which is much higher than the manufacturing sector as a whole. On the other hand, the profit margin of the textile sector presents a discouraging picture. The sector registered losses for most of the years during the last decade.

After looking at the broad product groups, we move on to analyse the performance of the particular industries, which have petitioned for anti dumping action¹⁵. First, we have calculated two 'profitability indicators' for these domestic industries- 'Net profit margin' and 'Percentage return to net worth'. Lower the margin, lower is the percentage of profit that the industry obtains from its sales. Out of 86 industries considered here, 56 (65.12 percent) are facing losses or no profit at all (Table 4). There are 19 (22.09 percent) industries where the profit margin is between 1 to 5 percentage. There are only six industries, which are experiencing a profit margin between 10 to 15 percent.

Table 4: Net Profit Margin of the domestic industry

Net profit margin (%)	Products	Percentage
Negative to 0	56	65.12
1 to 5	19	22.09
5 to 10	5	5.81
10 to 15	6	6.98
Total	86	100

Source: PROWESS

‘Percentage return to net worth’ is a comprehensive measure of profitability calculated by dividing returns to capital by net worth to express returns in relation to the net assets owned. There are 46, (more than 50 percent) industries, which are facing negative returns to its net worth (Table 5). There are 16 industries experiencing returns, which is positive but less than 10 percent. Another 21 (24.43 percent) industries are experiencing, returns between 10 to 40 percent.

Table 5: Returns to Net Worth of the Domestic Industry

Returns to net worth (%)	No of products	Percentage
Negative to 0	46	53.49
0 to 5	9	10.47
5 to 10	7	8.14
10 to 15	4	4.65
15 to 20	9	10.47
20 to 25	1	1.16
25 to 30	5	5.81
30 to 40	2	2.33
40 to 50	1	1.16
50 to 60	1	1.16
60 to 70	0	0
70 to 80	0	0
80 to 90	0	0
90 to 100	0	0
above 100	1	1.16
Total	86	100

Source: PROWESS

One more indicator that we have used to assess the probable material injury is 'Capacity Utilization'. The utilization of capacity reflects changes in the volume of production or a change in production capacity. A decline in the utilization of production capacity will lead to an increase in the unit cost of production and potentially a loss of profit. Excessive dumping of foreign products at lower price may be reason for that. Thus 'a lower percentage of capacity utilization may imply lower production on the part of the domestic industry due to the unfair competition from the dumped products' (Czako et. al., 2003).

Table 6: Extent of Capacity Utilization by the Domestic Industry

Capacity utilization (%)	Product	Percentage	Cumulative percentage
10 to 20	3	3.49	3.49
20 to 30	3	3.49	6.98
30 to 40	7	8.14	15.12
40 to 50	8	9.30	24.42
50 to 60	14	16.28	40.70
60 to 70	7	8.14	48.84
70 to 80	9	10.47	59.30
80 to 90	15	17.44	76.74
90 to 100	5	5.81	82.56
Above 100	15	17.44	100.00
Total	86	100	

Source: PROWESS

Table 6 reveals that in the case of 21 (24.42 percent) products, the concerned industry is utilizing less than 50 percent of its production plant. In case of another 45 (52.33 percent) products the rate of capacity utilization is between 50 to 90 percent. For 20 industries the percentage of capacity utilization was found to be more than 90 percent, of which 15 are actually over utilizing the capacity.

Thus the idea we can gather here is that, though poor performance is not uniformly true for all the domestic industries seeking anti dumping protection, many of them are experiencing decline in profitability and capacity utilization. However, we should remember here that such performance might not be always due to dumping. But, if there is poor performance on the part of the domestic industry, dumping by foreign firms may be a reason for that. Whether such performance can be attributed to dumping or not, is something the anti dumping authorities have to investigate and decide. But this will definitely act as a major incentive for the domestic industries to seek protection.

c. Market Concentration

So far we have considered the import scenario and the performance of the domestic industry as the plausible factors influencing anti dumping procedure. However, many empirical studies have also identified some other factors, which may influence the anti dumping procedure, an important one being market concentration. As an economy opens up, the level of protection that the domestic industries used to enjoy, in the form high tariffs as well as other restrictions on the entry of foreign firms comes down. This exposes them to fierce competition from foreign rivals. In such a situation it is obvious that these industries would try to get protection through other possible means. In the literature, it has been pointed out that such rent seeking behaviour on the part of the industry becomes more evident if the market is concentrated. In a concentrated market there is higher chance of a small number of firms functioning in a collusive manner to enjoy monopoly gains¹⁶. In such a situation these firms may put pressure on the authority to provide more protection (Feinburg and Hirsch, 1989)¹⁷. To check the possibility of such lobbying, we looked at the market concentration of the domestic industry. For that purpose we have considered two indicators- the number of firms in each industry and the share of the firm having the highest share in total sales of the industry¹⁸.

Table 7. Number of Firms in the Domestic Industry

No of firms	No of Products	Percentage
1 firm	31	36.05
2 firms	11	12.79
3 firms	13	15.12
4 firms	10	11.63
5 firms	7	8.14
6-10 firms	8	9.30
More than 10 firms	6	6.98
Total	86	100.00

Source: PROWESS

Out of the 86 products considered, single firm produces 31 products (36.05 percent). There are 11 (12.79 percent) and 13 (15.12percent) products, which are produced by industries having two and three firms respectively (Table 7). Another eight industries have more than six but less than 10 firms. There are only six (6.98 percent) products in the case of which the number of firms producing the product exceeds 10.

As the number of firms were found to be very less, the share of the biggest firm in the total sales of the product concerned was found to be quite high (Table 8). For 43 products (50 percent), the biggest firm

Table 8: Share of the Biggest Firm in the Total Sales

Percentage share of the biggest firm in total Sales	No. of Products	Percentage
0-25	5	5.81
26-50	17	19.77
51-75	21	24.42
76-100	43	50.00
Total	86	100.00

Source: PROWESS

accounts for more 75 percent of the total sales. For another 21 firms (25.42 percent) this share lays between 51 to 75 percent. In fact, there are only five products where the biggest firm accounts less than 25 percent of the total sales.

Thus it appears that the domestic industries of the like products of the allegedly dumped products are highly concentrated. In such cases it is expected to be easier for the firms to get organized and put pressure on the government to provide protection to them in the form of anti dumping duties. And in such a situation, material injury to these firms due to dumping may not be an 'essential condition' to seek protection.

4. Factors Influencing the Final Decision of the Anti dumping Authority

Till now, we have considered various sources of pressure, which may work on the anti dumping procedure at different stages, i.e. from the initiation of the case to the final decision-making. However, the decision to impose anti dumping duty rests with the investigating authority. Therefore it may be interesting to know which factors influence the decision of the authority. In order to examine that, we undertake a statistical exercise. We take the help of a 'logit regression model' to facilitate our analysis. Our dependent variable is the 'Final Decision' by the authority. It is categorical in nature which takes the value 1 if decision is 'Yes' and 0 if the decision is 'No'.

A number of explanatory variables have been taken mainly to represent the import pressure, performance of the domestic industry and the concentration of the domestic industry. The first variable taken is **IMP** i.e. the 'percentage share of the named country in the total import of the dumped product'. Large share of the defendant country in the total imports of the 'dumped' product may depress the domestic price level leading to injury of the domestic producers. Therefore, higher the IMP higher will be the expected probability of a favourable verdict. To

represent the performance of the domestic industry we have taken two variables. One is '**PSR**' i.e. 'Profit to sales ratio' or 'profit margin'. The second one is **CU** i.e. Percentage of capacity utilization. Reduction in profit margin and capacity utilisation of the domestic industry may indicate the possible injury from dumping. This will increase the chances of getting a positive decision from the authority. To approximate 'market concentration' of the domestic industry, we have taken two variables. One is **Firm** i.e. the number of firms in the domestic industry. The second one is **Bfirm** indicating the percentage share of that firm, which has the highest share in the total sales of the industry. Opinions differ regarding the influence of market concentration on the final decision making. On one hand it is argued that a highly concentrated industry is likely to have greater lobbying power for protection. Therefore, lesser the number of firms, higher is the chance of getting an 'yes' answer. Similarly, higher the share of the biggest firm in sales more is the concentration and greater is the chance of lobbying for imposition of an anti dumping duty. However according to the 'need for protection hypothesis' (Leidy, 1997) market concentration may have negative correlation with the final decision by the investigating authority. The hypothesis suggest that a less concentrated market with large number of firms having less market power, will be more prone to suffer injury due to unfair imports. Therefore, the probability of such firms getting protection is high.

Besides these, to represent 'regulatory process bias'¹⁹, which is evident from unintentional bias resulting from failure of the decision-maker to exercise administrative competence, we have included one more variable in our model. This is called **RCASE**, which indicates whether the case under consideration is a repeat case, i.e. the product had faced anti dumping case earlier. Studies found that a repeat case stands higher chances of getting anti dumping duty imposed.

Table 9 summarizes the various variables taken for the analysis. From table we can see that the coefficient of variation for all the

Table 9 : Summary Statistics

Variable	No. of Observation	Mean	Median	St. Deviation	Maximum Value	Minimum Value	Coefficient of variation	Relative Mid-Spread
Dec	173	.849	1	--	1	0	---	---
IMP	163	17.97	10.58	20.11	91.48	.02	111.91	2.19
PRS	172	20.98	2.92	248.16	2361	-605	1182.84	19.17
CU	172	77.03	73.49	31.74	166	17.01	41.20	0.55
Firm	173	5.65	3	12.58	92	1	222.65	1.33
Bfirm	173	68.69	68.59	27.27	100	15	39.70	0.75
Rcase	173	.196	0	--	1	0	--	---

Note: a) Relative Mid Spread = (Upper Quartile - Lower Quartile) / Median

explanatory variables are quite high, which indicate high variability of the variables. However, this is just a reflection of the presence of extreme values, because coefficient of variation gets influenced by extreme values. In fact, but for the extreme values, the variability is less. To make the point clear we calculated the 'relative mid-spread' for these variables. This shows much lower values than the coefficient of variation, which indicate the presence of extreme values in the data set.

From the table we can also see that, the mean for the decision variable is 0.85. This shows that if we select a case from the sample, the probability of the case getting a positive verdict is about 0.84. Such higher probability may be due to the fact that all the cases considered here are at the last stage of investigation. And the very fact that they have been initiated and qualified the preliminary round of injury finding, indicate that they more or less fulfill the minimum criteria for getting a positive verdict.

As we have noticed, the distributions of the explanatory variables are fraught with outliers (extreme values). Therefore, we decided to convert them into categorical variables to avoid the problem of influential points in estimation. We have divided all the observations of each variable into two groups

1 = High, representing those values which are greater than or equal to median.

0 = low; representing those which are values less than median.

Before we proceed for the regression we look at the correlation among the variables.

Table. 10: Correlation Matrix ²⁰

	Dec	IMP	PRS	CU	firm	Bfirm	Rcase
Dec	1.00	-	-	-	-	-	-
IMP	-0.13	1.00	-	-	-	-	-
PRS	-0.03	0.13	1.00	-	-	-	-
CU	0.16	-0.11	0.15	1.00	-	-	-
firm	-0.13	-0.06	0.01	-0.03	1.00	-	-
Bfirm	-0.26	0.25	-0.02	-0.17	-0.48	1.00	-
Rcase	-0.02	-0.01	0.00	0.15	-0.10	-0.06	1.00

Number of Observations = 163

The correlation matrix (Table 10) does not show very high correlation of the explanatory variables with the dependent variable. The few variables which show relatively high correlation with the dependent variable are 'Bfirm' (-.26), firms (-.13), CU (0.16) and IMP (-.13). Considering very low correlation of other variables with the dependent variable, we decided to run the 'logit regression' with the above mentioned variables. However as there is high correlation between the variables 'Bfirm' and 'firm', we decided to run two separate regressions using one of them at a time. The results of these two regressions are shown as 'model 1' and 'model 2' respectively, in Table 11. In the model 3, we introduce one more variable from the last category, i.e. 'Rcase'.

The results of the 'model 1' shows that, among the three variables considered, only 'Bfirm' is significant. The result shows that as this share

Table 11: Result of the Logit regression

Explanatory Variables	Expected Relation	Model 1		Model 2		Model 3	
		Odd Ratio	Std. Err	Odd Ratio	Std. Err	Odd Ratio	Std. Err
IMP	Positive	0.76	0.37	0.87	0.44	0.89	0.45
CU	Negative	2.87	1.49	2.82	1.49	2.87	1.53
firm	Positive/ negative			7.30 *	4.31	7.79*	4.68
Bfirm	Positive/ negative	0.22*	0.12				
Rcase	Positive					0.54	0.33
No of Observations		163		163		163	
Log Likelihood ratio		-57.3269		-54.5683		-54.0713	
LR chi2		14.35		19.87		20.86	

Note: * Significant at 5 percent level of significance

increases from low to high, the likelihood of getting a positive verdict decreases by 0.22 times. Though many argue that industry concentration should have a positive influence on the decision making through lobbying, getting a negative relation is not uncommon. According to Finger et al. (1982), this may reflect the fact that, though market concentration might have helped the firms of the industry to get together and make petition for initiation of an anti dumping case, once the case has been filed it depends on other factors, which are not affected by petitioners' lobbying. Moreover, this result seems to support the argument by Leidy (1997) that a less concentrated market indicates a large number of firms with less market power, for whom the possibility getting injured due to dumping is high. Thus the probability of these firms getting protection from the authority is also high.

In model 2 we introduce the variable 'firm' instead of 'Bfirm', while keeping the other two variables same. Here we find the variable 'firm' to be highly significant. The result shows that the likelihood of getting anti dumping duty imposed increases by more than 7 times as the number of firms in the domestic industry increases from low to high. Thus the results of the model1 and model 2 appears to be mutually consistent. In the third model we introduce the variable 'Rcase' as it represent a regulatory process bias that may influence the decision to impose duty. However, the variable turns out to be insignificant. Moreover, its presence does not make any difference to the results we got in the previous models. Those results still hold.

Thus the economic factors such as import from the named country, the profit ratio, capacity utilization of the domestic producers, etc. do not seem to influence the final decision of the anti dumping authority in the 'expected manner'. This, by no means rule out the importance of such variables in the anti dumping behaviour of the country, especially

with respect to the earlier phases of anti dumping process. However what comes out to be significant, for the final phase is the sympathy of the authority towards the domestic industry, which may be a cluster of small firms, which are more vulnerable to an injury from excessive imports at low prices.

5. Rationale Behind Anti dumping Initiations

Given such findings, can the anti dumping actions on the part of the Indian authority be justified on economic grounds? According to a recent study by Aggarwal (2001), the surge in the use of anti dumping measures by India cannot be justified on economic grounds. In the mainstream economic theory, prevention of predatory dumping still remains the most dominant argument in favour of using anti dumping measures. But predatory dumping requires fulfilment of a number of stringent conditions. For example the firm who has the predatory motive should have a dominant position in home as well as in the global market. Again, predator must be in a position to check entry of other firms to that market. Thus one possibility of the exporter using predatory power is when it has higher share in the total import of the product as well as in the total domestic consumption of the product. Only then it will be possible for the exporting firms to charge lower prices and drive the domestic producers out of the market in the initial period. In this context, we looked at the named countries' share in the total domestic consumption of the product as well as in the total import of the dumped product.

The share of the named countries in total domestic consumption of the product or the 'import penetration ratio' is reported in the semi annual reports on anti dumping measures, submitted by India to WTO. However, this information is not available for products involving all the cases. We could get data relating to 199 cases, which is presented in Table. 12.

Table 12: Dumped Imports as a Percentage of Domestic Consumption

Percentage Share of Dumped Imports	Cases	Percentage	Cumulative Percentage
0-20	114	57.3	57.3
21-40	60	30.2	87.4
41-60	9	4.5	92.0
61-80	12	6.0	98.0
81-100	4	2.0	100
Total	199	100	

Source: WTO Semi Annual Reports on Anti dumping measures, India

In 114 cases (more than 57 percent), dumped imports had less than 20 percent share in the total domestic consumption of India. For around 88 percent of the cases the share is less than 40 percent. Obviously, India's dependence on the defendant country in most cases is not very high. There are, however, 16 cases (8 percent) where the share of the dumped import in the total domestic consumption is more than 60 percent.

Coming to the share of the named country in the total imports during the case year, it presents an interesting picture. Our earlier discussion on growth of the value of imports revealed that for many cases, imports from the defendant country have shown considerable growth. However, for a majority of cases, in the case year, the share of the defendant country, in India's total import of the dumped product is quite low. Obviously, in most cases India has multiple sources of imports, signifying lower degree of dependence on the country alleged to be dumping. For nearly half of the cases (47 percent) considered here the country in question is having a share less than 10 percent (Table 13). For another 52 cases (17 percent), the share is between 10 to 20 percent. There are however, few cases, which show considerably higher share for the defendant country in India's import.

Table 13: Share of the Named Country in the Total Import of the Dumped Product

Percentage Share	No of Countries	Percentage
0- 10.50	148	47
10.51-20.5	52	17
20.51-30.5	35	11
30.51-40.50	23	7
40.51-50.50	11	4
50.51-60.50	9	3
60.51-70.50	10	3
70.51-80.50	8	3
80.51-90.50	10	3
90.51-100	8	3
Total	314	100

Source: DGCI&S

Thus the anti dumping behaviour of the country cannot be justified in terms of the predatory intentions of the foreign firms/ countries, which are alleged to be dumping in the Indian market. The defendant countries do not enjoy such market power in India, measured in terms of their share in total domestic consumption or imports that would imply predatory motives. We do not however, rule out the possibility of predatory dumping in exceptional cases.

6. Conclusion

This paper is an attempt to understand India's involvement with the anti dumping measures. As we have already seen, there has been a

sudden rise in the use of anti dumping measures in India. From being a non-user till the beginning of the 1990s, it has emerged as the most frequent user, initiating more than 300 cases by the end of 2002-03. Majority of the cases are initiated against developing countries, though there are considerable numbers of cases against developed countries too. Another important feature that was noticed is that most of these cases are concentrated in a few product groups like chemicals, pharmaceuticals and steel.

Our discussion on the possible factors working on the anti dumping procedure in India reveals that there is substantial pressure from increased imports as well as in the form of poor performance on the part of the domestic industry. Many countries facing anti dumping charges in India have experienced increase in their exports to India. In case of particular products facing anti dumping cases, for quite a few, substantial increase in imports was noticed. At the same time we also found that many domestic firms have been performing unsatisfactorily when measured in terms of profitability as well as capacity utilization. Now, the most crucial part of an anti dumping investigation is to determine whether such poor performance of the domestic industry is caused due to dumping by foreign firms, because co-existence need not always imply causation. In this paper we did not make any attempt to establish this causal link. However, we tried to identify some factors that actually influenced the final decision of the authority to impose anti dumping duty. Our analysis showed that, neither imports nor the performances of the domestic industry have any significant bearing on the final decision. Rather we saw that, a less concentrated domestic industry stands higher chances of getting a favourable verdict. This shows sympathy on the part of the authority towards the domestic industry, which may be a group of small producers and are more vulnerable to the possible injury.

Finally, discussing the rationale for anti dumping law, we agree with the prevailing view that anti dumping actions in India cannot be

justified on predatory ground. In this context, there is a growing consensus among the academicians that anti dumping has become a tool for back door protection for the domestic industries, and to prevent its misuse, the applicability of the law should be restricted only to predatory cases. However, we feel that before arriving at such a conclusion, the strategic argument for anti dumping measures deserves to be probed further. Dumping is a firm level activity and anti dumping measures are meant to provide relief to injured domestic firms. Therefore, firm level characteristics may have crucial bearing on what shape a particular case takes. In this context a number of studies have come out, mostly at the theoretical level, discussing how the exporting as well as domestic firms may behave strategically to get their desired outcome in an anti dumping case. Therefore, studies based on general information, as the present may need to be complimented with detailed case studies, which will bring out micro dynamics of dumping as well as anti dumping actions.

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Notes

1. It was first used by Canada as early as in 1904
2. For a detailed discussion on the world wide use of anti dumping measures, see Prusa, 2005.
3. Calculated by author from the WTO anti dumping database.
4. Source : [http:// www.wto.org](http://www.wto.org)
5. A case for our discussion refers to an anti dumping case involving a particular product and a particular country.
6. The list of countries facing the anti dumping cases in India along with the number of cases each country is facing is given in the appendix.
7. Like products are the products identical to or in the absence of such a product, one that has characteristics closely resembling those of the imported dumped products.
8. See Blonigen and Prusa (2003) for a survey of these studies.
9. ITC is responsible for making the injury determination.
10. She ran separate regressions for different commissioners. Moreover she used a 'two step nested logit model', where the industry first decides whether to petition and then the petition is either successful or not. The advantage of this econometric specification was that she could show that the second stage outcome decision affects the first stage petition decision in a statistically significant manner.
11. However, according to Blonigen and Prusa (2003), though this helps to get the data at a very disaggregated level, it reduces the number of observation; because, USITC while providing data in public reports does not release any confidential information. So those studies taking data from USITC reports could get data for only about 20 percent of the total cases during the sample period.
12. Source: 'Handbook of Statistics on Indian Economy', Reserve Bank of India and 'Economic Survey', GoI, various issues.
13. For some of those cases the corresponding HS codes were not specified.
14. It is an electronic database maintained by the Centre for Monitoring Indian Economy (CMIE).
15. Here we could include only 86 products for the analysis due to lack of data for the other products. CMIE's PROWESS database gives information only on the products registered with the stock exchange. Therefore firms outside the coverage of stock exchange could not be included for the analysis.
16. A more competitive industry may give rise to the problem of 'free rider'. Once the protection is granted it is applicable to all firms in the industry. In that case, some firms may try to free ride without bearing the cost of getting protection.

17. However according to the 'need for protection hypothesis' (Leidy, 1997) market concentration may have negative correlation with the final decision by the investigating authority. The hypothesis suggests that a less concentrated market with large number of firms having less market power is more likely to suffer injury due to unfair imports. Therefore, the probability of such firms getting protection is high.
18. As we have already mentioned, PROWESS gives information only on firms registered with the stock exchange. Therefore, when we consider the number of firms to approximate the market concentration, we do realise that, many of the small firms may be left out.
19. Wilson and Fever, 2004.
20. We also did Chi-square test with the categorical variables, which gave similar results. The two variables which came significant are 'firm' and 'bfirm'.

Appendix

Distribution of Anti dumping Cases Initiated by India across the Countries over the Years

Country	Financial Year											Total
	1992 -93	1993 -94	1994 -95	1995 -96	1996 -97	1997 -98	1998 -99	1999 2000	2000 -01	2001 -02	2002 -03	
China		1	3	3	1	10	3	5	16	10	14	66
Taiwan						1	3	4	4	6	7	25
EU							3	4	6	9	3	25
Korea	1		1		2	2	4	4	1	3	6	24
Japan	1		1			4	3	3	2	4	1	19
USA	1			1	3		2	3	3	3	2	18
Singapore							1		3	9	5	18
Russia			1	1	1	1	1	4	2		3	14
Thailand					2		3		1	3	3	12
Indonesia					1		2	3	1	1	3	11
Brazil	1		1							4		6
Hong Kong							1	1		3	1	6
France					1	1	2	1	1			6
Iran								1	3		2	6
Canada							1			2	2	5
Malaysia						1		1	1	2		5
Germany			1		1		1			1	2	6
Romania	1					1		1		1	1	5
S.Africa							1			3	2	6
Ukraine						1		1	1		1	4
Turkey							2			1	1	4
Saudi Arabia								1	2		1	4
Poland								1	1	1	1	4
UK							1	1		1	1	4
UAE									1	2	1	4
Spain					1	1		1				3
Italy					1	1				1		3
Kazakhstan				1		1					1	3

cont'd.....

Country	Financial Year											Total
	1992 -93	1993 -94	1994 -95	1995 -96	1996 -97	1997 -98	1998 -99	1999 2000	2000 -01	2001 -02	2002 -03	
Mexico	1						1					2
Austria					1			1				2
Czech republic						1	1				2	
Nepal									1	1		2
Macedonia							1				1	2
Netherlands									1		1	2
Belgium					1							1
Denmark					1							1
Hungary							1	1				2
Bangladesh									1			1
Oman										1		1
Bulgaria										1		1
Portugal						1						1
Qatar										1		1
Georgia										1		1
Venezuela											1	1
Philippines											1	1
Australia											1	1
New Zealand											1	1
Total	6	1	8	6	17	26	38	43	52	75	70	342

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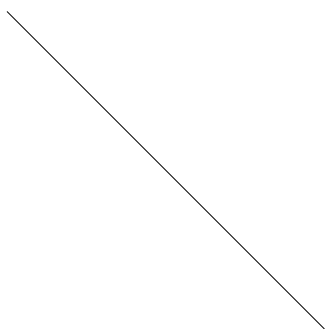
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