WORKING PAPER NO. 148

EXPORT PROCESSING ZONES IN INDIA: ANALYSIS OF THE EXPORT PERFORMANCE

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NOVEMBER 2004

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Foreword

Malaysia and other ASEAN countries were among the first to successfully use Export Processing Zones (EPZs) to increase exports and thus reduce the foreign exchange constraints arising from import substituting industrial risk. More importantly, these zones were used as a 'test base' for liberalisation of trade, tax and other policies that were then gradually applied to the rest of the economy. More recently, China has been the most successful practitioner of this instrument, and has taken it to new height what might be called the "FDI-Expert model" of economic development and growth. Experience suggests that the geographically defined and restricted zones are suitable for "Export Processing" as their name (EPZ) implies. That is carrying out those stages of production that have high import content and perhaps require relatively greater unskilled labour. The fact that electronics exports have been the most successful exports from Indian EPZs supports this conclusion. The collapse of engineering exports from Indian EPZs since mid-nineties similarly suggests that products where economics of scale are important are not suitable for EPZs.

Though Export Processing Zones (EPZs) have been a feature of Indian policy since 1960, they have been much less successful than in ASEAN & China, both in themselves as well as an experimental platform for more general policy change. It's likely that the two are related and that lack of success in pushing EPZ exports is linked to the insufficient appreciation or application of the policy linkage. This has, however begun to change since the EXIM Policy 2000 launched the new scheme of Special Economic Zones (SEZs). ICRIER occasional paper "Foreign Direct Investment Reform" (April 2004) recommended that SEZs should be viewed as a vehicle for introducing policy and institutional reform that are difficult to introduce more generally but could be feasible in these limited areas. In this context, the Government is planning to Table a Bill on SEZs in Parliament shortly.

The current study therefore, comes at an appropriate time. It surveys and analyses the export performance of Indian EPZs since their inception. The growth rates of aggregate exports, foreign exchange earnings and employment saw a step jump when new EPZs were created in the early eighties. The share of EPZ exports to total exports has shown a very gradually rising trend during the last 20 years. This is due solely to the rising trend in electronics exports.

The study shows that the zones have been successful in streamlining the custom procedures and keeping corruption levels low. However, lack of single window clearance facilities, the attitude of the officials, centralised governance, stringent labour laws and poor physical and financial infrastructure result in relatively poor investment climate in the zones. The author outlines a set of policies to ensure the success of the Special Economic Zones.

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November 2004

I. Introduction*

The prevailing development strategy places emphasis upon the 'outward orientation' of countries, with particular emphasis on exports. Export promotion is now seen as an important policy for economic growth in developing countries. Various measures are being adopted to promote export competitiveness by governments in these countries. In this scenario, export processing zones (EPZs) have become rather popular trade policy instruments due to their catalytic role in imparting outward orientation to the economies. There were 176 zones across 47 countries in 1986. In 2003 the number of zones increased to over 3000 across 116 countries (Table 1). A large number of them are operating in developing countries.

TABLE 1 : ESTIMATES OF EPZS

	1975	1986	1995	1997	2003
No. of countries having EPZs	25	47	73	93	116
No. of EPZs	79	176	500	845	>3000
Employment in EPZs (million)				22.5	42

Source: WEPZA

In India, the first zone was set up in Kandla as early as 1965. It was followed by the Santacruz export processing zone which came into operation in 1973. The government set up five more zones during the late 1980s. These were at Noida (Uttar Pradesh), Falta (West Bengal) Cochin (Kerala), Chennai (Tamil Nadu) and Visakhapatnam (Andhra Pradesh). Surat EPZ became operational in 1998. The EXIM Policy, 2000 launched a new scheme of Special Economic Zones (SEZs). Under this scheme, EPZs at Kandla, Santa Cruz, Cochin and Surat were converted into SEZs. In 2003, other existing EPZs namely, Noida, Falta, Chennai, Vizag were also converted into SEZs. In addition, approval has been given for the setting up of 26 SEZs in various parts of the country[1]. Apparently, India is now promoting the EPZ programme much more vigorously than in the initial phases of their evolution. Huge amounts of public resources are being invested in the zones. This warrants an in-depth analysis of the performance of EPZs and their contribution to the country's export performance. Though there have been

* I would like to thank Arvind Virmani for long discussions at an early stage of the study and several helpful comments and suggestions on an earlier draft of the paper. The paper was presented at an ICRIER seminar. I thank all seminar participants for useful comments. I gratefully acknowledge the research assistance provided by Mr. Karan Singh in the preparation of this study.

[1] They include, SEZs at Nanguneri (Tamil Nadu), Positra (Gujarat), Kulpi (West Bengal), Paradeep (Orissa), Bhadohi and Kanpur (Uttar Pradesh), Kakinada (Andhra Pradesh), Dronagiri (Maharashtra) and Indore (Madhya Pradesh).

studies on Indian EPZs (see for instance, Kumar 1989, Kundra 2000) any comprehensive and over time analysis with a focus on the export performance of Indian EPZs is virtually non existent. The present paper attempts to fill this gap. It provides a detailed analysis of the export performance of Indian EPZs since their inception.

The basic objective of setting up EPZs in India is to promote exports and foreign exchange earnings. Though the objectives of EPZs were not clearly spelt out in India until the late 1980s , in actual practice the predominant condition in selecting EPZ units had been the expected value addition component of exports (Kumar 1989). This indicator was also used to assess the performance of the units. In 1989, a report of the 'Comptroller and Auditor General of India' clarified that EPZs were meant for earning foreign exchange, develop export oriented industries, stimulate investment and generate employment opportunities beside creating an internationally competitive environment for export production at low cost. Subsequent policy documents have however, reiterated that EPZs are meant to provide an internationally competitive environment for export production at low cost. The 'Draft SEZ Bill 2004' also considers 'promotion of foreign trade in goods and services' the most important objective of SEZs. The present study therefore focuses on the export and foreign exchange performance of EPZs/SEZs in India. First, it discusses the economic rationale of better export performance by EPZs/SEZs. Then, it reviews the evolution of the EPZ policy through different phases of growth and examines trends and patterns of EPZ exports. Analysis of the EPZ/SEZ performance revealed that growth rates of aggregate exports, foreign exchange earnings and employment have been falling over the years since the late 1980s. Furthermore, it is also found that the share of EPZ/SEZ exports in total exports has been almost stagnant since 1990. The study therefore undertakes to examine some of the factors responsible for the unimpressive performance of the zones in India. While doing so, it analyses the data generated through a primary survey of zone units and zone offices across all the 8 operational zones. Finally, it outlines a set of policies that the country needs to pursue for making the EPZ/SEZ scheme a success.

Plan of the study is as follows. Section II lays out the theoretical argument for a better export performance of EPZs. Section III briefly reviews evolution of the EPZ policy through different phases of growth. Section IV examines the trends and patterns of EPZ/SEZ exports from an aggregate perspective. While doing so, it uses various indicators of EPZs'?SEZs' export performance including, gross exports, exports per unit of employment, value addition and so on.

It also documents the trends and patterns of EPZs/SEZs exports by sector. Finally, Section V analyses the performance of the zones within the theoretical framework provided in Section II. For this, it analyses the survey data of firms located in 8 zones. Section VI discusses policy implications. Finally, Section VII concludes the study.

II. Economic Rationale for a better export performance of the zones

EPZs are special enclaves, separated from the Domestic Tariff Area (DTA) by fiscal barriers and are intended to provide an internationally competitive duty free environment for export production at low cost. EPZs are benefited usually from the following :

- Modern and efficient infrastructure
- General fiscal and non fiscal concessions to firms
- Better governance due to single window facilities to ensure corruption and red tape free business environment

These cost reducing factors are likely to impinge on the export performance of zone units. Exporting entails costs and risks above those incurred in supplying the domestic market. For example, exporting involves additional transport, distribution and marketing costs and additional financial and legal risks. While some of these additional costs vary with the volume exported (eg production and transport costs), others are 'fixed' costs. Some fixed costs can be recovered if the firm does not succeed internationally (eg by selling fixed assets). However, others are 'sunk costs' in the sense that, once incurred, they cannot be recovered if exporting turns out to be unsuccessful (eg the time and money spent on international market research and advertising). The theoretical literature argues that many of these costs are likely to be significant (eg Baldwin 1989, Baldwin and Krugman 1989, Dixit 1989, Krugman 1989). To export successfully, therefore, firms need to possess a competitive advantage to overcome the advantages typically enjoyed by rival firms located in the country into which they export (eg greater familiarity with local laws and customs and lower transport costs, greater familiarity with local tastes). The source of competitive advantage is primarily the result of firm's own efforts and vision. But the source of this advantage can arise outside the firm also. These could be a result of the overall institutional and policy environment that constitutes 'investment climate'. The term 'investment climate' includes factors such as better infrastructure facilities, better geo-strategic location,

hassle free production operations and government policy incentives. These factors help in reducing the costs of producing and exporting and enhance competitive advantages of firms. EPZs that make up for infrastructural deficiencies and procedural complexities offer a more conducive investment climate and are therefore expected to be instruments for boosting export performance in general, in developing countries in particular. Trade related infrastructure and institutional framework are generally deficient in these countries. Besides, too many windows in the administrative set up, barriers raised by monetary, trade, fiscal, taxation, tariff and labour policies further increase production and transaction costs of exports. Since country-wide development of infrastructure is expensive and implementation of structural reforms require time due to socio-economic and political realities, export processing zones (EPZs) are considered an strategic tool for the promotion of exports in these countries (See Mondal 2001 also).

III. Brief history of the EPZ Policy in India

Attempts to promote the EPZ as an export platform on the basis of economic incentives, such as the free provision of infrastructural services and tax holidays, has been a feature of Indian development thinking since the 1960s. The country has had four phases in the evolution of the EPZ policy. Following is an overview of the evolution of the EPZ policy in India through these four phases.

III.1 Initial Phase: 1964-1985

The first zone was set up in Kandla as early as 1965. It was followed by the Santacruz export processing zone which came into operation in 1973. There was however no clarity of objectives that the government wanted to achieve. Kandla and Santacruz EPZs were set up with multiple objectives (Tondon Committee, 1980). Operationally, an overall inward looking trade policy with umpteen controls and regulations influenced the EPZ policy also (Kundra 2000). The policies were rigid and the package of incentives and facilities was not attractive. Zone authorities had limited powers. There was no single window facility within the zone. Entrepreneurs had to acquire individual clearances from various state government and central government departments. Day-to-day operations were subjected to rigorous controls. Custom procedures for bonding, bank guarantees and movement of goods were rigid. FDI policy was also highly restrictive. According to the business environment rating index which rated

investment climate in 43 countries on the basis of 18 independent factors, Indian, zones were placed at the bottom for FDI (TCS 1976).

Three committees were appointed by the government of India during this period to review the working of the zones. Kandla and Santacruz were the only zones which were operational during the period. Kandla was reviewed by the Kaul Committee in 1978 while Santacruz was reviewed by the Review Committee on Electronics in 1979. Tondon Committee (1981) reviewed both these zones. These committees pointed out that the growth of EPZs in this phase was hampered by several handicaps including

- the absence of a policy,
- absence of implementation authority to centrally coordinate and control,
- procedural constraints,
- infrastructural deficiencies,
- limited concessions and limited powers of the zone authorities to take actions on the spot resulting in inordinate delays.

The committees made several concrete recommendations to improve the performance of these zones. The policy regime however remained virtually static.

III.2 The Expansionary phase : 1985-1991

In its report, the Tondon Committee strongly recommended to locate 4 to 5 more zones in the country to provide a fillip to the country's export promotion efforts. It argued that the excessive protectionism had imparted a significant bias against exports. At the same time, the high cost of production structure created by heavy protection reduced the competitiveness of Indian exports. It suggested that free trade zones, which insulated the export sector from various controls and regulations could be a useful instrument of export promotion.

Following the report, the government decided to establish four more zones in 1984. These were at Noida (Uttar Pradesh), Falta (West Bengal) Cochin (Kerala) and Chennai (Tamil Nadu). Visakhapatnam EPZ in Andhra Pradesh was established in 1989. Thus, this phase

witnessed the establishment of 5 zones. There were however no significant changes in other laws and procedures pertaining to the EPZs.

III.3 The Consolidating Phase : 1991-2000

In 1991, a massive dose of liberalization was administered in the Indian economy. In this phase of new policy initiatives, wide-ranging measures were initiated by the government for revamping and restructuring EPZs (See Kundra 2000 for details). This phase was thus marked by progressive liberalisation of policy provisions and relaxation in the severity of controls and simplification of procedures. Arora (2003) shows that there were in all 146 circulars on EPZs/EOUs issued by the Central Board of Excise and Custom, DGFT and RBI during this period of 10 years. These constituted over 62% of total circulars issued on EPZs/EOUs till 2003. The focus had been on

- delegating powers to zone authorities,
- providing additional fiscal incentives,
- simplifying policy provisions and
- providing greater facilities.

The scope and coverage of the EPZ/EOU scheme was also enlarged in 1992 by permitting the agriculture, horticulture and aqua culture sector unit also. In 1994, trading, re-engineering and re-conditioning units were also permitted to be set up.

II1.4 The emergence phase : 2000 onwards

This period has witnessed a major shift in direction, thrust and approach. The EXIM Policy (1997-2002) has introduced a new scheme from April 1, 2000 for establishment of the Special Economic Zones (SEZs) in different parts of the country. SEZs will be permitted to be set up in the public, private, joint sector or by the State Governments with a minimum size of not less than 1000 hectares. SEZ is an almost self contained area with high class infrastructure for commercial as well as residential inhabitation. The units operating in these zones are to be deemed as outside the country's customs territory and will have full flexibility of operations.

Several measures have been adopted to improve the quality of governance of the zones. In what follows we list some of these measures.

- Conditions for automatic approvals are relaxed considerably. All proposals which do not meet any or all of the parameters for automatic approval will be considered and approved by the Board of Approval of EOU/EPZ/SEZ set up in the Department of Commerce. The earlier system of an inter-ministerial committee for approving SEZs is dispensed with and a combined board of approval has been set up for both the EOU and SEZ units. All proposals for FDI/NRI/OCB investments in EOU/SEZ units qualify for approval through automatic route subject to sectoral norms. Proposals not covered under the automatic route would be considered and approved by FIPB.
- Furthermore, custom procedures are considerably simplified. There would be no routine examination of export and import cargo by Customs and all imports would be on *self certification* basis and no separate documentation is required for customs and EXIM Policy.
- More recently, Development Commissioners are given the labour commissioner's powers.

The number of incentives has also been extended to the units operating in SEZs. These include fiscal and non fiscal incentives.

Non fiscal incentives

- Exemption from industrial licensing for manufacture of items reserved for SSIs
- 100 per cent FDI investment through automatic route to manufacturing SEZ units (barring a handful of sensitive industries[2] .
- FDI upto 100% is allowed for: the ISPs not providing gateways (both for satellite and submarine cables), Infrastructure Providers providing dark fibre (IP Category I), electronic Mail and Voice Mail in the telecom sector[3].
- Facility to retain 100% foreign exchange receipts in EEFC Account.

[2] These include, **a**rms and ammunition, explosives and allied items of defence equipment, defence aircraft and warships; Atomic substances; Narcotics and psychotropic substances and hazardous chemicals; distillation and brewing of alcoholic drinks; and cigarettes, cigars and manufactured tobacco substitutes)

[3] However, FDI upto 100% is allowed in these services subject to the condition that such companies would divest 26% of their equity in favour of Indian public in 5 years, if these companies are listed in other parts of world. Besides, proposals for FDI beyond 49% shall be considered by FIPB on case to case basis.

- Facility to realize and repatriate export proceeds within 12 months.
- No cap on foreign investment for SSI reserved items.
- Re-export of imported goods found defective, goods imported from foreign suppliers on loan basis etc. without G.R. Waiver under intimation to the Development Commissioner.
- "Write-off" of unrealised export bills upto 5%.
- Commodity hedging by SEZ units permitted
- Capitilization of import payables
- Profits allowed to be repatriated freely without any dividend balancing requirement.
- No fixed wastage norms.
- Full freedom for subcontracting including subcontracting abroad.
- Subcontracting facility available to jewellery units.
- Duty free goods to be utilized in 5 years.

Fiscal incentives

- 100% income tax exemption for a block of five years,50% tax exemptions for two years and upto 50% of the Profits ploughed back for next 3 years under section 10-A of Income tax Act.
- Supplies from DTA to SEZ to be treated as exports under 80HHC of the IT Act.
- Carry forward of losses
- 100% Income-tax exemption for 3 years & 50% for 2 years under section 80-LA of the Income-tax Act for off-shore banking units.
- Exemption from Central Excise duty on procurement of capital goods, raw materials, consumable spares etc. from the domestic market.
- Reimbursement of Central Sales Tax paid on domestic purchases.

Reforms in each phase were directed to provide better facilities, greater incentives and better governance to improve investment climate and hence the performance of the zones. One therefore believes that the performance of the zones improved continuously across the four phases. In what follows we carry out an in-depth analysis of the performance of the zones to test this hypothesis.

IV. Export performance of EPZs/ SEZs: An aggregate perspective

The study focuses on the export performance of seven zones in India. These are, namely – Kandla, Santacruz , Falta , Noida, Chennai (Madras) , Cochin and Vizag. *The terms SEZ and EPZ are used interchangeably in the text*. Data on Surat SEZ became available from 2000. It was therefore considered appropriate to exclude it from the analysis.

While analysing the export performance the study uses the following indicators

- Gross exports
- Gross exports per unit of employment
- Net exports (net foreign exchange earnings) and,
- Value addition (net foreign exchange earnings as a proportion of gross exports)

The study analyses employment trends also in these zones. One must however note that the level of employment is used here as an indicator of the size of EPZs and employment growth rate is used as a proxy for the expansion in the size of these zones. Though employment creation is considered one of the primary goals of any EPZ in an economy, in a large country like India, unemployment issue cannot be resolved by the EPZs. EPZs do absorb labour but the size of labour force dwarfs any effort of unemployment alleviation through EPZs. Therefore, our objective while analysing employment trends is to examine the expansion in the size of the zones.

IV.1 Overall growth rates : Exports, employment, imports and value addition

EPZ exports increased in India from less than Rs.1 million in 1966 to over Rs. 97727 million in 2002. Over the same period, total employment increased from 70 to around 89,000, net foreign exchange earnings increased from Rs. 0.16 million to Rs. 43195 million and value addition increased from 21% to 44%. Table 2 presents a comprehensive picture of the growth in exports, employment, imports and value addition. Three things may be observed. One, gross EPZ exports registered an impressive growth rate over the period 1966 to 2002 . Two, gross exports rose much faster than employment in these zones. As a result, exports per employee increased at the annual growth rate of 24% and a trend growth rate of 14.6%.

Table 2 : Growth rates in Exports, Imports and Employment (1966-2002)

	Average annual growth rate	Trend growth rates
Export	42.4	39.2*
Import	39.9	38.8*
Value addition	2.9	1.5
Employment	21.2	21.6*
Exports/employment	24.3	14.6*

* significant at 1%.
Source : Ministry of commerce

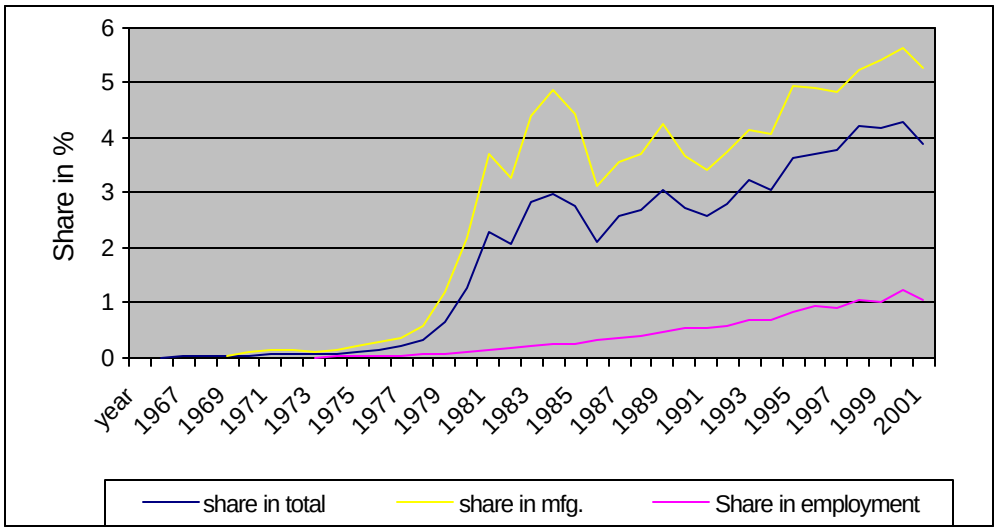
Three, growth of value addition had not been promising over this period. Average annual growth rate of value addition was as low as 2.9%. The trend growth rate in value addition was 1.5%, which was not significantly different from zero. Apparently, imports also grew approximately at the same rate as exports. The above analysis suggests that exports and foreign exchange earnings of Export Processing Zones (EPZs) , in absolute terms, increased substantially but the value addition remained stagnated. There were thus no significant trends towards strengthening backward linkages with the domestic markets.

IV.2 Share in total and manufactured exports

The increase in exports, employment and net foreign exchange earnings in absolute terms seems impressive. Was it impressive in relative terms also? To address this question we analysed the share of EPZs in total and manufactured exports. Our analysis indicated that the share of EPZs in total exports and manufactured exports increased from mere .07% and .14% respectively in 1973 to 4.3 % and 5.6% respectively in 2001. In 2002, their share in total exports and manufactured exports was slightly lower at 3.8% and 5.2% respectively. Apparently, EPZs' exports have increased at a faster rate than overall/manufactured exports. Figure 1 however presents a more disaggregated picture. It shows that the share of EPZs in total exports remained insignificnat until 1975. In 1975, exports from Kandla started picking up. By this time Santacruz had also become operational. As a result, the share of the zones in total exports increased rapidly. By 1985 , it had already touched the figure of 3% and 4.4 percent respectively. But the increase in the share of EPZs in total/manufacturing exports considerably slowed down after the mid 1980s. This was despite the fact that four more zones became operational in that year. Apparently, EPZ and total export growth rates started converging in the late 1980s. To obtain a

clearer picture, we plotted the time trends in EPZ, total and manufacturing sector export growth rates (figure 2).

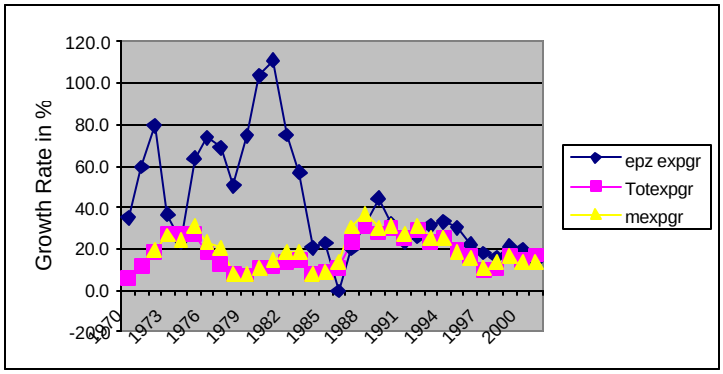
Figure 1 : Share of EPZs in total exports, manufactured exports and employment



Sources: Ministry of Commerce, Economic Survey, ASI

These are based on the three years' moving averages. The analysis supports the above conclusion that there was convergence in the export growth rates of EPZs and the overall economy. What is more important to note here is that the convergence has not been due to increase in the growth rates of overall exports but due to dip in the EPZ export growth rate. Thus, the growth in EPZ exports slowed down considerably.

Figure 2: Trends in EPZ, Total and Manufactured export growth rates : 1970-2002



Source : Ministry of Commerce, Economic Survey, various issues

Existing studies have shown that EPZs have helped promote an export-oriented industrialisation strategy in many developing countries in Asia (OTA 2003) and Latin America (Ferrerosa T 2003). According to an estimate EPZs contribute 64% of the total exports in Mauritius while in Mexico, Maquiladora's contribution in total exports has been around 40% (EXIM, 2000). Bangladesh and Sri Lanka started their EPZ programme in 1981 and 1978 respectively. By 2000 the share of EPZ exports in total exports increased to over 20% in both these countries. In contrast, the contribution of EPZs in overall exports remained minuscule in India due to convergence of the EPZ export growth rate with the export growth rates of the overall economy at an early stage of evolution of the EPZ programme. One may therefore suggest that EPZs failed to induce dynamism in the overall export performance of the economy.

IV.3 Analysis of EPZs' export performance : by phase

Table 3 provides summary information on EPZ exports across all the four phases of the evolution of the EPZ policy, identified above. It shows that while EPZ exports in absolute terms increased phenomenally across the four phases, their average annual growth rates declined continuously. While in the first phase it was over 77%, in the fourth phase of the post 2000 period, it came down to 7%.

Table 3 : Export performance of EPZs in India over the period 1966-2002

(Rs. Million)

	Average annual total exports	Average annual export growth rate
1966-1970	03.261	94.6502
1971-1975	17.358	58.3438
1976-1980	186.766	79.2688
First phase (average)	**69.1**	**77.42**
1981-1985	2317.24	57.5374
1986-1990	5829.1	27.113
Second Phase	**4073.17**	**42.3**
1991-1995	20848.74	27.1862
1996-2000	59184.79	21.68
Third phase	**40017**	**24.4**
2001-2003	93251.75	7.32
Fourth Phase	**93251.75**	**7.32**

Source: Ministry of Commerce

A part of this slowdown in export growth rate could be due to slow expansion in the EPZ size. We therefore examined employment trends. Table 4 summarises this information. It shows that there was a several fold increase in the level of employment in EPZs. Total employment increased continuously from mere 70 workers in 1966 to around 89,000 workers in 2002. Employment per zone on an average also increased from 70 to over 12,000. However, the average annual growth rate in employment declined continuously. This was despite the fact that 4 new EPZs became operational in the late 1980s and another EPZ at Vizag came up in 1994. Since employment growth rate reflects the rate of EPZ expansion, one may suggest that, EPZs could not maintain the rate of growth after an initial phase of rapid expansion.

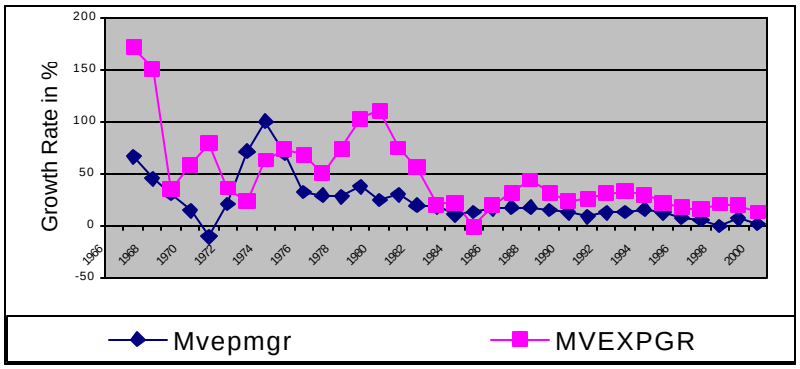
Table 4 : Employment growth in the Indian export processing zones

	Total employment as on (number)	Average zone employment (number)	Average Annual employment GR between the two years (%)
1966	70	70	
1970	450	450	50.2
1975	1450	725	41.9
1980	6000	3000	34.2
1985	16200	4050	22.6
1990	35205	5868	16.9
1995	61431	10239	11.9
2000	81371	11624	6.2
2002	88977	12711	5.2

Source : Ministry of commerce

Fig 3 shows the employment growth trends. Since the level of employment is characterised by

Fig. 3 : Employment and export growth rates across seven zones in India



Source : Ministry of Commerce

fluctuations we plotted, 3—yearly moving averages. It clearly brings out a declining trend in employment growth rates. One possible reason for a slowdown down in the EPZ export growth rates could therefore be a slowdown in the rate of expansion in EPZs. Could this be due to size limitations ? Table 5 shows that this was not the case. Santacruz which has the area of 93 acres had 197 units in 2002. Number of units in all other zones which were much larger than Santacruz was much smaller. One may also observe that the number of units has actually declined in many zones in recent years. Finally, the number of potential units that can be set up is much larger than the number of operational units in all the three zones for which information is available. The SEZ Policy has proposed to set up special economic zones of not less than 1000 acres. Current zones are much smaller than the proposed size. But even these zones do not seem to be decently occupied.

Table 5 : Zone-wise employment and number of units : 1980-2002

Year	Kandla	SEEPZ	Cochin	Falta	Chennai	Noida	Vizag
1980	3500 (54)	2500 (37)					
1985	8510 (114)	7500 (59)	56 (2)	40 (1)	150 (1)	1000 (6)	
1990	10000 (136)	12500 (101)	2279 (23)	280 (7)	6146 (39)	4000 (50)	
1995	10147 (91)	22000 (156)	5800 (36)	1650 (24)	12334 (82)	9500 (111)	406*
2000	12518 (109)	32105 (212)	4356 (48)	2308 (72)	10563 (94)	10181 (146)	3340 (16)
2002	9821 (96)	38525 (197)	5107 (49)	2579 (80)	13171 (85)	16284 (109)	3340 (18)
Size of the zone (acres)	700	93	103	280	261	310	360
No. of units that can be set up	250	n.a.	100	>200	n.a.	n.a.	n.a.

* 1997; Parentheses provide information on number of units
Source : Ministry of Commerce

The obvious question now is: Was the slow down in the export growth rate only due to slow expansion or the productive efficiency of the EPZ sector also declined? For addressing this question, we used exports per unit of employment (or labour productivity) as a proxy for the productive efficiency[4]. Table 6 provides summary statistics on exports per unit of employment and growth therein. It shows that exports per unit of employment increased continuously from Rs. .013 million during 1966-70 to 1.01 million during 2001-2003. However, the rate at which it increased showed downward trends. It increased in the early 1990s and remained somewhat stable during the 1990s but again declined thereafter. During the last phase of 2001-2003, it increased at the rate of mere 3.5%.

Table 6 : Export /Employment ratio –1966-2003

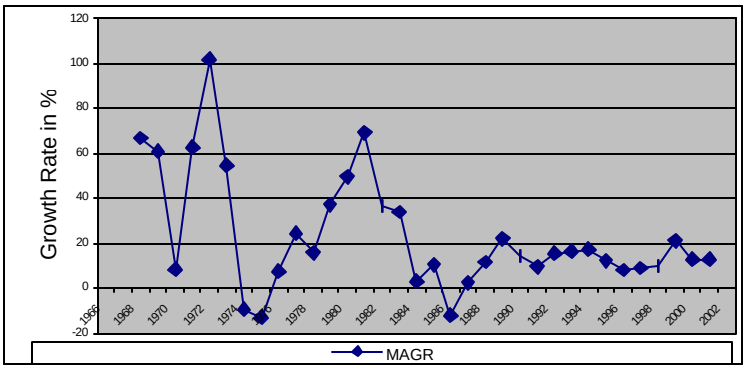
Period	Average Export/employment ratio	GR (%)
1966-1970	0.013	34.7
1971-1975	0.032	44.2
1976-1980	0.042	33.4
1981-1985	0.181	28.9
1986-1990	0.216	8.7
1991-1995	0.411	13.7
1996-2000	0.741	15.2
2001-2003	1.018	3.5

Source: based on Ministry of Commerce statistics

Fig 4 provides a more comprehensive view of the growth rates of exports per unit of employment. It shows that after the early 1980s, there was a sharp decline in the growth rate of exports per unit of employment. Though it recovered thereafter, there had not been any substantial movement upwards in this despite the fact that new EPZs came up during the late 1980s. One can therefore argue that the slow growth rates in exports cannot entirely be attributed to slow expansion rates in employment. Growth rates of exports per employee also declined over time.

[4] Change in exports per employment unit may also result from a change in labour intensity. In the absence of any conclusive evidence in this regard, it is used here as a proxy for productive efficiency.

Figure 4: Growth rates of Exports per employee : 1966-2002



Source : Ministry of Commerce

One obvious explanation for the decline in the growth rates of employment / exports per unit could be the low base effect. Initial growth rates had been higher due to very low base. However, a continuous decline/ stagnation in the growth rates may not be explained entirely by the low base hypothesis especially when new EPZs were being set up. The possible explanation could therefore be a lack of competitiveness of our EPZs. Prior to 1990, USSR and other East European countries were the major destination of EPZ exports (Table 7). Kandla was almost completely dependent on the USSR markets for exports. Exports to these countries were possible because of the protected export markets offered to the Indian firms under the umbrella of bilateral trade arrangements (Kumar 1989). Market

Table 7 : Direction of EPZ export (%)

	1981-82	1985-86	1991-92	1995-96	1997-98
USA	.93	1.53	25.26	35.18	47.88
UK	1.28	.65	9.76	5.97	9.34
Germany			.86	3.60	3.87
UAE	9.8	3.09	2.48	4.18	3.47
Singapore			2.74	7.69	2.85
Others:	87.99	94.53	58.89	43.41	32.60
USSR	86.74	92.84	-	-	-
Total	100.00	100.00	100.00	100.00	100.00

Source : Kumar (1989), Kundra (2000)

competitiveness was not a major consideration. Until the early 1980s, such exports increased rapidly. By the late 1980s, the growth rate in exports to these countries started slowing down. And after the collapse of the USSR, EPZ units had to compete in highly competitive markets of the USA and Europe where they could not sustain their performance due to lack of

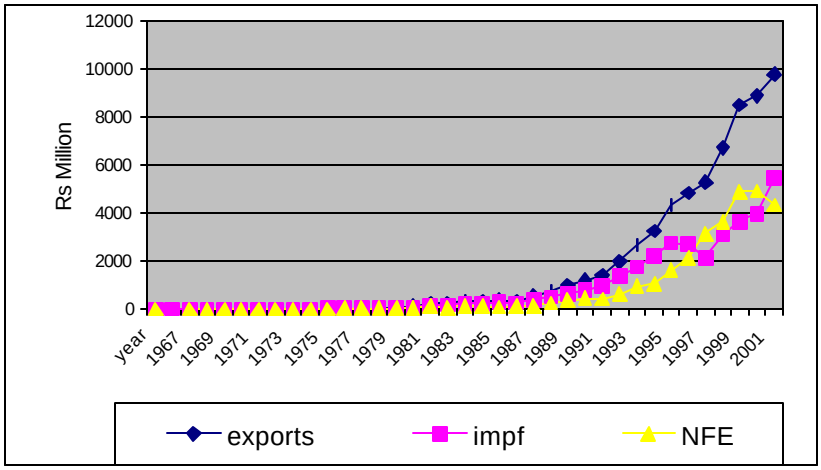
competitiveness. Several policy measures were introduced during the 1990s to enhance the attractiveness of the zones. They pushed up the growth rate of exports per employment unit during the 1990s but it was neither significant nor sustained. Declining rates of expansion with almost constant growth rate in exports per unit led to decline in the export growth rates during the 1990s. By 2000, growth rates in exports per employment unit also declined sharply. Apparently, inducements and benefits offered to EPZ units could not offset the high costs of operating in the zones due to poor investment climate. This could partly be due to poor infrastructure and partly due to the poor quality of governance of the zones (Van 1977)[5]. With economic liberalisation introduced in the rest of the economy, the attractiveness of the zones might have declined further. We shall examine some of these factors in Section 5.

IV. 4 Net foreign exchange earnings and value addition

Foreign exchange earnings are one of the most important benefits expected from EPZs in India. The argument is that EPZs provide foreign exchange earnings that allow the economy to slacken the foreign exchange constraints regarding their import needs for the rest of the economy. In figure 5, we have plotted exports, imports and net foreign exchange earnings for the period from 1966 to 2002. It shows that foreign exchange earnings started increasing in absolute terms in the mid 1980s. This could be due to the cumulative effect of increasing exports and employment in the zones. One may note here that four more zones were set up during this period. The value of net foreign exchange earnings (NFE) increased from Rs. 3439 million in 1990 to Rs. 49020

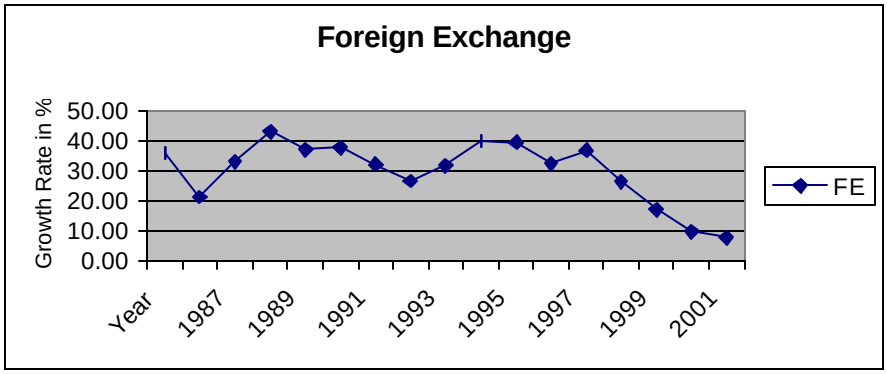
[5] While highlighting the role of the zone administration as a key factor for success, Van 1977 argues that the extent to which occupant firms can actually derive benefits largely depends on the degree of efficiency of zone administration.

Figure 5 : Trends in Exports, imports and net foreign exchange earnings



million in 2001 but then declined slightly to Rs. 43194 million in 2002. One must however observe that while the value of net foreign exchange in absolute terms increased phenomenally after the mid 1980s, the rate at which it grew remained stagnated and in fact started declining after 1998 (Figure 6).

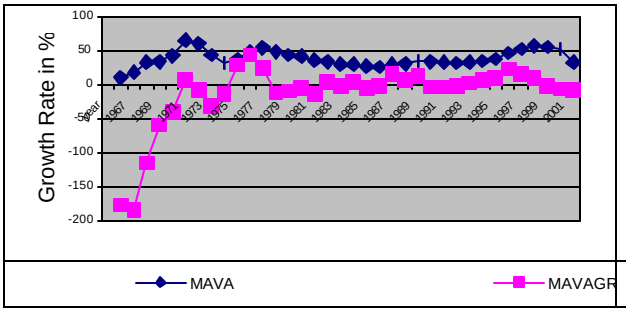
Figure 6 : Trends in the growth rate of net foreign exchange earnings : 1986-2002



Source : Ministry of Commerce

One must also observe that the value addition which is defined as a ratio of the net foreign exchange to exports did not show any perceptible increase either over the four phases of the evolution of the EPZ policy.

Figure 7 : Trends and value addition and its growth rate : 1974-2002



In an earlier study, Amirahmadi and Wu (1995) found that many of the Asian countries generated large amounts of gross exports but their net export earnings had neither been consistent nor impressive. Some countries however managed impressive rates of value addition. These include Indonesia, South Korea and Taiwan. These countries managed a ratio of 49 % to 63% (Madani 1999). In Philipines also, the ratio was 42% in 1994. In India, value addition on an average had been 38% for the entire period. During the late 1990s, it had been over 50%. Though it declined to 44% in 2002, this compared favourably with many Asian countries. This suggests that EPZs in India do exhibit the potential of earning foreign exchange but due to poor export performance, their contribution to the economy has been insignificant.

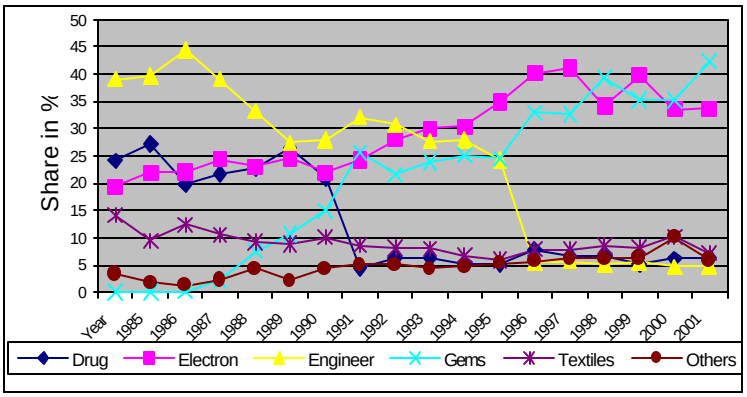
IV. 5 Export performance of EPZs : by Sector

Figure 8 provides a view of the sectoral patterns of EPZ exports. In the mid 1980s, engineering sector accounted for the largest share of exports followed by drugs, electronics and textiles in that order. By the late 1980s, the share of engineering goods started declining. It has been around 5% since the late 1990s. The share of drugs also started declining in 1989 and fell from over 25% in the mid 1980s to around 5% by 1991. Decline in textile had been slow but steady. It declined from 15% in 1984 steadily to about 7% in 2002. In contrast, exports of gems and jewellery rose rapidly. In 2002, they accounted for 42% of the total EPZ exports. Electronics exports also grew faster than the overall zone exports. As a consequence, their share almost doubled from 20% in 1984 to 40% in 1997. Thereafter , it fluctuated and in 2002 stood at 33%. Exports of other products, including leather products did not show any perceptible rise. Currently, only two sectors, electronics and gems and jewellery account for three fourths of the total zone exports. In the electronics sector, over 50% of total exports are currently accounted for by software.

One of the objectives of EPZs has been to promote non traditional exports in general, in developing countries in particular (Madani 1998). EPZs make up for infrastructural deficiencies and procedural complexities, offer a more conducive investment climate and are therefore are expected to offset the disadvantages of higher costs of producing in these countries. They are also expected to attract technology transfers which overcome some of the technological limitations of the firms in high tech sectors (Madani, 1998). Indian zones do not seem to have succeeded in this direction. Evidence suggests that the share of two high-tech sectors namely, pharmaceuticals and engineering products declined continuously.. Though the export basket of India is still dominated by relatively low-technology products which comprise about 80 percent of India's manufactured exports, the share of low technology industries in total manufactured exports is continually declining and that of high technology industries is slowly increasing. Such trends are not visible in the zones.

One explanation for the changing sectoral patterns of the EPZ exports lies in the fact that the direction of exports changed from the socialist bloc to more competitive markets. As discussed above, USSR and other East European countries were the major export destinations till the late 1980s. In the absence of competition, quality considerations were not important in these markets. Moreover, many of the products imported by the USSR were supplied to other allies which led to further lax in quality control (Kumar 1989). High technology products namely, drug and engineering products were directed mainly to these markets. In fact, the share of USSR in total drug exports from India was as high as 44% in the late 1980s (EXIM 1991). A large proportion of engineering products was also directed to the USSR. The USSR accounted for 39% of total machine tool exports (Suresh, 2004). The total share of the USSR and the East European countries in Machine tools exports from India was over 75%. EPZs were no exception.

Figure 8: Performance of EPZs by sector : 1966-2003



In the late 1980s, after the collapse of the USSR, zone exports of drugs and machine tools declined sharply. Even though zones offer an attractive package of incentives and a pro-business climate they failed in sustaining the tempo in these sectors. This is despite the fact that drug exports from the rest of the economy increased tremendously after the late 1980s (Aggarwal 2004). One may thus conclude that the contribution of EPZs in diversifying the export basket of India also remained insignificant.

V. Performance of the EPZs : An Analysis

What explains slow expansion, falling productive efficiency and slow growth in foreign exchange earnings in India's zones? In what follows, we address this question within the framework provided in Section II. As discussed there, zones ensure better investment climate by offering three major advantages over the rest of the economy : provision of fiscal incentives, infrastructure facilities and hassle free governance. These advantages reduce production and transaction costs for exporting and hence provide an edge to EPZ units over the others. For exploring the factors responsible for the poor performance of the zones in India, we need to evaluate various micro aspects of the investment climate offered by the zones, especially the incentive package, quality of governance and the state of physical and financial infrastructure. This sets the stage for analysing the primary survey data. We interviewed 253 companies operating across 8 zones (including the Surat zone). The survey was conducted in May-June 2004. The survey solicited views of managers and /or entrepreneurs on various aspects of the investment climate across all the eight zones. We procured some quantitative information also from them to supplement the subjective information. Furthermore, we interviewed Development

Commissioners' (DC) offices in all the zones to gather information on what facilities they are providing to zone units. In what follows, we analyse the data generated by these surveys to evaluate the investment climate in the zones.

V.1 Fiscal Incentives

Sometimes it is argued that companies are not attracted by incentives per se and that good infrastructure and cheap labour availability are important (ICIR, 1992). To revisit the issue, we asked the sampled firms : 'how important it is to offer fiscal incentives for attracting investment in the zones?'. Table 8 summarises the findings of the survey. Results of our surveys, contrary to the expectations, show that fiscal incentives are considered very important in determining the attractiveness of the zones. Over 85 percent of the respondents regarded them very important. Over 63% of the respondents found subsidies also very important in attracting investment in the zones.

Table 8 : Evaluation of the importance of fiscal incentives (% respondents)

	Less important	**Important**	**Very Important**
Tax incentive	5.45	9.41	85.15
Subsidies	23.16	13.68	63.16

Source : calculated from the primary survey

There has been considerable research on the impact of incentives on *FDI decisions.* The extent to which foreign investors respond to any aspect of investment climate may be used as a crude measure of its importance in determining investment climate. Therefore, it is not inappropriate to review this literature here. Earlier literature on the impact of tax incentives on FDI was inconclusive and did not rank them high among the main FDI determinants (UNCTAD 1998). Recent literature however indicates that the importance of corporate tax incentives has been increasing in attracting FDI. The renewed debate on the effectiveness of tax incentives on FDI suggests that changes in the way multinational firms structure their operations abroad have made low tax rates increasingly important to a country's ability to attract foreign capital. Desai et al. (2002) assert that earlier US firms were using the host country tax assessment as a credit to reduce what would be a U.S. tax liability. Therefore, tax incentives offered in the host countries were not important for them. But now, multinational firms of the US and other countries with

similar tax laws have been structuring complex business relationships in which foreign affiliates are "owned indirectly through other affiliates rather than directly" by the U.S. parent company. Through these arrangements American firms defer paying "repatriation taxes" on their earnings abroad and, consequently, the foreign or "host" country's tax assessment becomes a more important factor in attracting investment. Lower tax rates now encourage American firms (and others) to accelerate their use of indirect ownership structures for their foreign investments. Since multinational firms from countries other than the United States face tax environments similar to those faced by indirectly owned affiliates of American companies, these results suggest a greater sensitivity of FDI to taxes for non-American firms as well. Recent studies (OECD 2001 Bénassy-Quéré and Lahrèche-Révil 2005) support this hypothesis. UNCTAD(1998) also concludes that the impact of incentives on FDI can be perceptible, especially for projects that are export oriented.

An attractive incentive package may therefore confer a comparative advantage on EPZs over the wider economy. It is argued that EPZs eliminate the distortions created by high tariff and non tariff barriers and high tax rates prevalent outside the zones. However, as the protective walls fall EPZ units tend to lose these advantages that they enjoy over the others. Since 1991 tax system in India has under gone a radical change, in line with liberal economic policy and WTO commitments of the country. For instance, in 1990-91, the highest tariff rate stood at 355 percent, simple average of all tariff rates at 113 percent and the import-weighted average of tariff rates at 87 percent. By 2001-02, these rates were lowered substantially to 35, 30.8 and 27.1 percent respectively (see Table 9). The general project import duty (for new projects and substantial expansion of existing projects) has been reduced from 85% to 25%.

Table 9 : Average Applied (MFN) rates of the Indian Industry 1993-94 to 2001-02

	Simple Average	Import-Weighted		Peak Tariff rate
1993-94		83.72		85
200001	34.08	29.36		38.5
2001-02	30.82	27.09		35
2004-05	n.a.	n.a.		20

Source : Mehta (2003)

There has been a considerable simplification and rationalization of union excise duties as well. Beside reduction in the number of rates, the tax has been progressively converted from a specific into *ad valorem* levy in respect of a majority of commodities. Furthermore, the multi-point excise duties were converted into a modified value-added (MODVAT) tax, which enabled manufacturers to deduct excise paid on domestically produced inputs and countervailing duties paid on imported inputs from their excise obligations on output. This change significantly reduced the taxation of inputs. In the case of corporate income taxes, the rates were progressively reduced on both domestic and foreign companies to 35 per cent and 40 per cent respectively. The said rates are also subject to exemptions and deductions thereon as may be notified from time to time.

Furthermore, several tax and non tax incentives in the form of capital subsidies (permissible) and concessional credits are offered by the central and state governments to domestic firms outside the zone similar to those within it. Export incentives take the form of duty drawback, i.e., a refund of central excise and customs duties levied on raw materials and components used in the manufacture of exports, import replenishment to replace imported raw materials and components used in the manufacture of exports, duty entitlement pass book scheme, advance licence scheme, airfreight subsidy on the export of certain products and credit facilities from approved financial institutions at pre-shipment and post-shipment stages, export promotion of capital goods (EPCG scheme) which allowed import duty of 5% on capital goods. Two other tax exemptions are : tax exemption of 100% on export profits for ten years (upto 2009-10) for new industries located in Electronic Hardware and Software Technology Parks and 100% Export Oriented Units and deduction of 50% of export profits from the gross total income[6].

One may also observe that tax incentives are offered to zone units on central taxes only. Zones are not exempted from state level taxes. Table 10 shows that in almost all the zones units are subject to stamp duties, Octroi, cess and contract tax . In China where the SEZ have been highly successful in attracting FDI , units are offered exemptions not only from the national taxes but also from the local taxes.

[6] The deduction would be restricted to 30% for financial year 2003-04 and no deduction is allowable subsequently

Table 10 : Exemptions from the state level taxes by zone

	Falta	Cochin	Chennai	Noida	Vizag	Kandla
Sales tax	Yes	Yes	Yes	yes	yes	yes
Contract tax	No	n.a.	n.a.	No	n.a.	yes
Purchase tax	Yes	n.a.	n.a.	Yes	Yes	yes
VAT	Yes	n.a.	n.a.	n.a.	n.a.	
State entry tax	Yes	Yes	n.a.	Yes	No	yes
Octroi tax	No	n.a.	n.a.	Yes	No	yes
CESS	No	No	n.a.	Yes	No	yes
Luxury tax	No	n.a.	No	No	Yes	yes
Entertainment tax	No	n.a.	No	No	Yes	yes
Stamp duty and registration charges on land transfers	No	Yes	No	No	Yes	yes
Stamp duty and registration charges on loan agreements/credit deeds	No	No	no	no	Yes	yes

Finally, managers of many firms revealed that the incentives are not managed efficiently. Many respondents find that there are delays in receiving incentives, rules of exemptions are complex, information is not available, staff is not co-operative and corruption is widely prevalent. To get duty drawback sometimes units have to offer irregular payments.

In some countries, land and built up factories are provided at lower rentals than general commercial rates. Utility services such as electricity, water and telecommunication may also be subsidised. Table 11 shows that the zone units in India are offered no other subsidies than subsidies on land and rent. Besides, utilities such as water, electicity, telecomminication and transportation are not provided to them at subsidised rates.

Table 11 : Provision of subsidies by zone

	Falta	Cochin	Chennai	Noida	Vizag	Kandla
On land rent	Yes	Yes	Yes	Yes	Yes	Yes
Factory rent	yes	yes	yes	yes	yes	yes
On purchase on capital goods	Yes	No	No	No	Yes	No
On Capital investment	yes	No	No	No	yes	No
Interest rate subsidies	Yes	No	No	No	No	No
Concessional finance	Yes	No	No	No	No	No
Any other	no	no	no	no	no	no

Clearly, relative advantages of SEZ units vis-à-vis other domestic firms in terms of incentives have been declining. We shall now evaluate the availability of infrastructure facilities and the quality of governance.

V.2. Infrastructure facilities

V.21 Availability of infrastructure

Infrastructure within EPZs is generally superior to that available in the wider economy. Table 12 however shows that no exclusive arrangements have been made for water, electricity or telecommunications by the zone authorities in India. Only two of the zones namely Cochin and Chennai have water purifiers and effluent treatment plant. Captive power plant scheme is applicable but is not operational in any zone except Falta and Vizag. Only two zones reported providing storage facilities. Respondents complained about poor roads leading to the zones, inadequate transport facilities for the zones and within the zones, poor street lights and poor security. Some respondents have also complained that there are no clear guidelines for waste disposal and that they are accumulating it. Surat appears to be facing severe scarcity of water supply, electricity , poor street lighting, poor banking and poor road facilities. Falta is another zone where infrastructure needs tremendous improvement due to poor communication facilities (even ISD is not available), overflowing drains and poor transport facilities. Respondents from other zones have also voiced similar problems. Financial infrastructure is not convincing either. Surat does not have any bank. Falta and Chennai zones have only one bank. Some of the zones do not have even ATM facilities. Overseas banking units (OBUs) are either not existing or not operational. Falta and Surat do not even have post office facility. Social utilities seem have received the lowest priority. Vizag, Kandla and Surat are the only zones where 6-8% of the area is dedicated to such facilities. In all other zones, this area is negligible. Even basic facilities such as fire station, hospitals and guest houses are not available in most of the zones.

Table 12 : Provision of Basic infrastructure facilities by zone

	Falta	Cochin	Chennai	Noida	Vizag	Kandla	Surat
Water : Excusive arrangement	Yes	Yes		2 Tubewell, 4 underwater reservoir	4 borewell	Central storage facility	Bore well
Water purifier	No	Yes	Yes	No	No	No	Under construction
Effluent treatment	No	Yes	Yes	no	No	No	Not required
Electricity : exclusive arrangement	No	Yes	No	No	No	No	No exclusive arrangement
captive power plant scheme	Yes	No	No	no	Yes	-	Not operational
Storage	Yes	No		Yes	No	No	No
ICD	No (under process)	Yes	Yes	Same as above	No	Yes (In 2003)	yes
Telecommunication	Yes	yes	Yes	BSNL	Stpi. bsnl	BSNL	BSNL
Financial Infrastructure							
Banks	1	2	1	4	2	4	none
OBU	No	Yes (2004)	No	2 not operational	No	None	Not operational
ATM	None	2	2	1	1	None	none
Post Office	No	1	1	1	1	1	none
Social utilities							
School	No	No	No	NO	No	No	YES
Hospital	No	Yes*	No	NO	No	No	YES*
Fire	Yes	No	No	NO	No	Yes	NO
Hotel	Guest house	No	Guest house	NO	Guest house	Guest house	Guest house
recreation	Yes	No	Yes	NO	Yes	Yes	NO
Shopping Complex	No	no	No	NO	yes	Yes	YES
Area dedicated to social utilities and residential	1.05%	>0.5	Nil	Nil	8.2	7.0%	6%

- dispensary

V. 22 Quality of infrastructure

We asked respondents about the quality of the infrastructure. Their responses are summarised in Table 13 and 13a. Over 50% of the respondents rated water facilities less than satisfactory and water charges very high. Over 57% of the respondents have to make their own water arrangements to supplement the zone water supply (table 13a). Power availability is rated satisfactory or more than satisfactory by a majority of the respondents. This could be because

zones are exempted from power cuts which are very frequent outside the zones. Many respondents however complained that broad banded cables are not laid down which affected the quality of power supply. Over 42% of the respondents have installed their own power generators due to poor quality of power supply. Moreover, electricity charges are considered to be very high by 81% of them. India has the reputation of suffering from very high industrial energy costs. High energy costs take away a significant chunk of competitiveness of firms in India (Gosmai et al. 2000). Our survey substantiates these conclusions. Other facilities such as warehousing, container handling, banking, and port are also rated poor by the respondents. Over 40% of the respondents considered them less than satisfactory. Transport and logistics are also considered less than satisfactory or only satisfactory by two-thirds of the

Table 13 : Quality of infrsstructure in EPZs : Firms' perspective (% respondents)

Infrastructure	**Less Satisfactory**	**Average Satisfactory**	**Highly Satisfactory**
Water			
Adequacy of water supply	55.88	17.64	26.47
quality of water	54.92	16.5	28.69
water charges	55.04	23.53	21.43
Electricity			
power supply	22.92	42.11	52.96
Continuity of power supply	26.32	24.29	49.39
power charges	81	13	16
Other facilities			
Warehouse facilities	**39.28**	27.22	33.50
Container handling facilities	**43.54**	25.27	31.19
Efficiency of Banks	**42.98**	21.05	35.96
Banking laws	**44.03**	21.10	34.87
Quality of CHA agents	25.12	**34.79**	**40.09**
Rates of CHA agents	29.28	**40.00**	**30.73**
Transport facilities	35.13	26.13	38.74
Logistics	33.48	33.03	33.49
Port facilities	**40.41**	22.73	36.86
Internet facilities	34.90	16.60	**48.51**
Telephone facilities	17.91	22.50	**59.59**

Table 13a : Quality of infrastructure in EPZs : Quantitative information

	% of total respondents
Respondents having their own water Facilities	22.99
Respondents arranging water from out side the zone	24.14
Respondents with both the above facilities	9.96
Total Respondents supplementing zone water facilities	57.1
Respondents using power generators	42.15

respondents. Services of CHA agents, their charges, telephone and internet[7] however are considered more than satisfactory by around 50% of the respondents. *Broadly speaking the services provided by those private operators who are facing competitive markets are considered more satisfactory than the services provided by the public sector. Due to competition their rates are also reasonable.*

V.23 Improvement in facilities

We next asked the respondents : Have the infrastructure facilities improved? Majority of the respondents felt that electricity, water, warehousing and container handling facilities have in fact deteriorated. Over 85% of the respondents feel that most facilities remained either the same or deteriorated. Telephone and internet facilities are the only facilities which were found to have improved by over one-fourth to one-fifth of the respondents.

Table 14 : Changes in the quality of infrastructure : Firms' perspective (% respondents)

	Deteriorated	**No Change**	**Improved**
Water	**56.6**	36.9	6.6
Electricity	**53.7**	37.4	8.9
Warehousing	**64.7**	29.4	5.9
Container handling	**59.8**	37.2	2.9
Banking Services	41.5	40.0	18.5
Banking laws	42.5	41.0	16.5
Quality of CHA agents	41.5	44.9	13.6
Transort services	34.4	**55.2**	10.4
Logistics	39.4	**49.2**	11.5
Port facilities	42.7	42.7	14.5
Port handing charges	**49.1**	45.3	5.7
Internet facilities	39.3	40.0	**20.7**
Telephone services	29.9	43.8	**26.3**

[7] In some zones such as Falta respondents complained about the quality of internet facilities also.

Clearly, Indian EPZs failed to provide world class infrastructure to zone units. Inadequate facilities, poor quality of the facilities and deterioration in the quality of these facilities appear to have affected the competitiveness of the firms.

V.3 Governance

V.31 Firms' perspective

Another important feature of EPZs is that they minimise red tape and provide single window clearances. We asked units 'how effective have been the various aspects of governance?'. Their responses are summarised in Table 15 below. We differentiated between new entrants with the age of less than 6 years and old firms which have been operating for more than 6 years. Apparently younger firms find the quality of governance lesser satisfactory than the older firms. Over 40% of the respondents find that the accessibility to rules is difficult, there are long delays in bureaucratic decisions and pre-entry services are inadequate. Slightly less than 40% feel that government officials' attitude is not satisfactory, post establishment services are not good and effectiveness of the authorities in providing single window clearances is not satisfactory. Many older firms do not consider rules to be complex or non accessible. They did not even complained of long delays in bureaucratic decisions but they also did not seem to be happy with the attitude of the government officials, their effectiveness in dealing with labour related problems and providing single window clearances. Opinion seems to have divided even on the self delaration scheme. However over two-thirds of all the firms, young and old seem to be satisfied with the effectiveness of the authorities in providing custom related services. We shall explore the reason later.

Table 15 : Quality of governance : Firms' perspectives in the zones (% respondents)

	Less Satisfactory	Average Satisfactory	More than Satisfactory
Age less than 6 Year			
Complexities of the rules	**37**	26	37
Access to rules	**45**	25	30
Transparency in the implementation	33	31	36
Delay in bureaucratic decisions	**42**	25	33
Attitude of the govt officials	**38**	26	35
Effectiveness in providing custom related services	32	37	30
Effectiveness in dealing with L-problems	**37**	32	31
Effectiveness in providing single window clearances	**36**	32	33
Pre-entry services	**51**	25	24
Post establishment services	**38**	30	32
Self certification system introduced by the authority	**37**	27	35
Firms with age >6			
Complexities of the rules	34	24	42
Access to rules	35	20	45
Transparency in the implementation	**38**	24	38
Delay in bureaucratic decisions	26	24	50
Attitude of the govt officials	**43**	29	29
Effectiveness in providing custom related services	33	25	42
Effectiveness in dealing with L-problems	**45**	28	28
Effectiveness in providing single window clearances	**48**	20	32
Post establishment services	**37**	33	30
Self certification system introduced by the authority	32	22	46

V.32 Quantitative measures

We asked firms various questions to get additional quantitative clues on the quality of governance. These include, one, 'what is the amount of managerial time spent dealing with government officials?' Two, 'how many authorities do they deal with at the time of entry?' Three, 'how many authorities do they deal with in day-to-day operations?' Four. 'how many

inspectors visited them during the last year?' Our queries yielded information on the regulatory burden faced by entrepreneurs, attitude of the government officials and opportunities for providing irregular payments. Table 16 provides summary of the responses. Units have to deal with as many as 15 authorities at the time of entry. These include, DC, electricity, water, municipal body, ESI, PF, Income tax, sales tax, factory registration, labour, pollution, excise and custom. They have to deal with many of them in day-to-day operations as well. The median time that they spend with the government officials is 10% which is not much different from the average time spent by firms outside the zone. Goswami et al (2002) found that on the average managerial time spent by firms with government officials in India is 16%. Furthermore, in some cases, respondents informed that they have employed a full time person to deal with the government officials. The frequency of inspectors' visits on an average was 5, which compared favourably with those outside the zones. For the outside firms the average frequency of visits is over 11 (Goswami et al. 2002).

Table 16 : Quality of governance : Some quantitative information

How many authorities do you have to deal with at the time of entry	Upto 15
How many authorities do you deal with, in day-to-day operations (name them)	Upto 13
What is the average % of management time spent dealing with government officials of regulatory and administrative issues/ week	10 %
How many times did inspectors visit your plant in 2003 ?	Average : 5 times

The regulatory environment sets the ground for irregular payments. We asked respondents 'how frequently they have to pay irregular payments?' Over 60% of the respondents reported that they pay irregular payments frequently or highly frequently. The frequency of paying irregular payments appears to be the highest in custom clearance. The figures compare favourably with the world Bank study in which 85% of the respondents from domestic

companies outside the zone reported that they paid bribes. Apparently red tape is kept at comparatively low levels in the zones.

Table 17 : frequency of irregular payments in different processes : firms' perspective

(% respondents)

	Never	Frequent	Highly Frequent
Approval process	41	42	17
Acquiring licenses	44	36	19
Custom clearance	30	44	26
Labour inspections	36	41	23
Environment inspections	40	40	20
Judicial measures	40	40	19
Interaction with police	44	39	18
Interactions with tax authorities	37	39	24

Goswami et al (2002) found that the mean delay at customs is 15.5 days versus 7 days each in Thailand and South Korea. Zones provide the custom clearance facilities within the zones. We therefore asked 'what is the average time taken in custom clearance?. The responses varied widely. It was reported that it takes maximum 10 days. The mean delay is however 1.5 days which compares highly favourably with the rest of the economy. This is perhaps the reason why many respondents are satisfied with the custom clearance facilities provided by the zones. Apparently, zones have been able to streamline the custom procedures . Average time taken at the ports however is much longer. Some respondents reported that it was as long as 60 days also. Many respondents therefore considered port facilities less than satisfactory.

Table 18 : Custom Delays and time taken at the ports

Average time taken in custom clearances while importing/exporting (per consignment) ?	1.5 days
Average time taken at the port while importing/exporting?	3.8 days

V.4 Labour laws

Relaxation in labour laws is not a compulsory feature of EPZs. Many countries do not extend this priviledge to EPZ units. In India also , all labour laws apply to the zones. However, recently zones are declared as public utility service. We asked sampled respondents if labour laws constrained their business. Most respondents responded that they found labour laws

stringent. Over 62 % of the respondents indicate that labour laws are highly stringent. Around 90 percent of the respondents find it difficult to retrench labour and indicate that their performance would improve with the introduction of the flexible labour laws. Declaration of the zones as public utility service is considered very effective only by one third of the respondents. They have however welcomed the recent move by the government to delegate labour commissioner's power to DCs. Over 60% of the respondents considered this move very effective. Only 17% of the respondents feel that it was not effective.

Table 19: Labour laws : firms' perspective (% of responses)

	Highly	Average	Not stringent
How stringent are labour laws	62	27	11
How difficult it is to fire labour ?	11	43	46
Do you think that hire and fire policy will help your business?	10	30	59
How effective has been the declaration of the zones as public service utility	13	51	36
How effective has been the delegation of L-commissioners powers to the DC	66	17	17

We also asked ' which labour laws are more constraining for their business. Majority of them found all the labour laws constraining. However, the Factories' Act and the Industrial Dispute Act score over the others. Over 60% of the respondents feel that these two are major Acts constraining their business.

Table 20: How constraining are the various labour laws : firms' perspective (% respondents)

	Not	Average	Highly
Minimum wage Act	16.7	31.5	51.8
Factories Act (safety,health and welfare conditions,working hours, leave, holiday, overtime, female and children employment)	9.9	27.9	62.2
Equal remuneration Act (no discrimination between male and female workers)	23.2	35.5	41.2
Contract labour (Regulation & abolition) Act	16.1	30.2	53.7
Industrial dispute Act (L-retrenchment, reference of disputes to Boards, tribunals)	14.0	26.0	60.0
Workman Compensation Law	16.4	35.3	48.3
Industrial Employment Act (publication of working time, shifts, wage rate)	25.2	33.3	41.5
Trade unions act (formation of trade unions, right to strike etc.)	19.4	26.4	54.2
Social security Act (PF, Gratuity, Group insurance, Compensation)	19.4	28.0	52.6

In sum, the relative advantages of EPZ firms vis-à-vis domestic firms in terms of incentives have been declining due to economic liberalisation and WTO commitments but there has not been any significant improvement in either facilities or governance to compensate them. Thus, these units are not compensated for the lost benefits with increased facilities and better governance. Though the zones do ensure easy rules for custom clearance and low levels of red tape, single window facilities are still not made available. Policy changes have been of incremental nature. These policies did not involve any paradigm shift. The zones did not respond to them in a significant manner. As a result, they failed to outperform the rest of the economy.

VI. What do we learn?

One, fiscal incentives are important in determining the attractiveness of the zones. However, with economic reforms taking place in the economy since 1991, EPZ units have been losing the advantage that they were enjoying over the others in terms of incentive package. Furthermore, preferential policies and incentives of the type that may be inconsistent with the WTO Subsidies Agreement is not possible now. Some incentives are permissible under the WTO rules. The rules for example permit the use of border tax adjustments. Thus, EPZs can continue to exempt their

companies´ exports from indirect taxes (such as sales taxes), border taxes and import charges. Duty drawbacks and duty exemptions on inputs "consumed in the production process" (i.e., inputs that are physically incorporated into the exported product, and energy fuel and catalysts used in the production process) are also permissible. However, special care would be needed to ensure that these measures are applied in a manner consistent with the WTO rules, by maintaining proper bookkeeping and accounting practices. There is still the risk that some of these subsidies may nevertheless be actionable, and hence subject to possible countervailing measures. Thus the system of incentives that is contingent upon export performance in either law or fact may not be sustainable. It is therefore important to strengthen and streamline the system of permissible incentives. Some of the measures suggested by sampled EPZ firms to achieve this are as follows

- simplify rules and processes of incentives,
- implement and govern them effectively,
- streamline the processes of availing them
- avoid delays and corruption in the system.

Two, government must now focus on creating an efficient environment capable of improving the performance of EPZs. Rapid development of modern and world class infrastructure can significantly contribute to the competitiveness of the zones. But the cost of development of the quality infrastructure may be substantial. We have three suggestions to make. One, adopt a target based approach. It is important to examine what are the major infrastructural deficiencies in each zone. In Santacruz SEZ, for example lack of space is a major problem while in Falta and Surat financial infrastructure, connectivity of the zones with ports, airports and the cities, water, power and solid waste disposal facilities need immediate attention. The nearest airport for Kandla units is at the distance of 65 km.. They are demanding airport at Gandhidham. Canteen facilities and water supply are stated to be poor in Chennai. Respondents reveal that infrastructure facilities have improved in Cochin SEZ but the problems of inadequate water supply and lack of warehousing facilities persist. These deficiencies need to be addressed on a priority basis. Two, privatise the provision and maintenance of these services and allow competition among the service providers. This would ensure better facilities at reasonable charges. Though the private sector has been allowed to provide infrastructure facilities in the zones since 1994, zones do not report any major involvement of the private sector in providing these facilities. Finally, develop residential facilities and social utilities. Since the size of the existing zones is small in India, it

may not be possible to provide such facilities within the zones. The government must in this state of affair undertake plans to encourage the development of these facilities in the vicinity of the zones. This would also contribute to the regional development.

Three, customs services are streamlined and red tape is kept low in the zones compared to the outside units. However zones are not found to be effective in providing single window facilities. We asked the sampled firms 'what they think is important to improve the quality of governance ?' Majority of them suggested that more powers should be delegated to Development Commissioners. Delegation of powers of the local bodies, labour commissioners and pollution control board etc to the DC will simplify the procedures. The office of the DC needs to be a one-stop-shop for all such clearances. There is much we need to learn from the Sri Lanka experience in this regard. In Sri Lanka, each zone is administered by a General Manager and a director under whose purview seven departments are placed. These are as follows.

- Zone management : It manages the general administration .
- Investor services: It co-ordinates with EPZ units and helps in processing import/export documents, custom clearance, helps in issuance of visas.
- Engineering services : It looks after infrastructure matters
- Security : It provides all security related matters
- Industrial relations : It looks after labour related problems.
- Finance : It receives payments towards, ground rent, water bills, import, export and other charges, taxes including stamp duty.
- Internal audit : The unit ensures monitoring of financial areas.

These departments ensure that all the services are provided to the units under one roof.

The Draft SEZ Bill 2004 proposes to create 'Approval committees' for approval of investment projects and 'SEZ Authorities' for managing the zones with central government and state government nominees as their members. We propose that instead of creating different authorities and committees it would be more desirable to strengthen the existing institution of the development commissioner's office.

Four, relaxation in labour laws may go a long way to make the zones attractive investment locations. Our study indicates that the 'Industrial Dispute act' and 'the Factory Act' should be reviewed for the zones. Delegation of the labour commissioner's power to the DCs may be a welcome step in this direction. Over 66% of respondents indicated that this would be a very effective measure. But declaring zones the public service utility is not considered very effective. Entrepreneurs recommend that the policy of hire and fire should be introduced in the zones. Politically, this policy may face stern opposition. We may perhaps look at the Chinese experience for possible lessons for India. In China, labour contracts are signed between the employer and employees, which regulate the labour relationships. The nature of the contract is subject to approval by the local authorities. In the case of recession, SEZ units may lay off work force after explaining the situation to the workers and consultations with the labour Department 30 days in advance. If they recruits people within 6 months then the laid off workers get priority in re-employment. This system has provided a considerable flexibility to SEZ units in labour retrenchment during a business downturn.

Finally, we recommend that considerable powers should be delegated to the state government and development commissioner. The EPZ scheme in India has been conceived and promoted as the central government scheme. Even the SEZ Act 2004 has reinforced the authority of the central government. Monitoring of the zones from the centre is time consuming, costly and ineffective. Besides, it adversely affects the involvement of the states in the scheme. This strategy needs to be reconsidered. Many respondents in our sample survey suggested that the interference by the Ministry of Commerce and Ministry of Finance should be minimised while more powers even in decision taking should be delegated to the DC office. This would also promote competition among the officials to do better. The government should now seriously consider the option of decentralising the administrative powers to states and DCs.

The Draft SEZ Bill 2004 introduces several changes to promote the SEZ scheme. However, in our view these changes do not involve any paradigm shift. Actual powers of approvals and law making will remain centralised with the central government. The problem of co-ordination between the centre, states and zones will remain and may perhaps aggravate with the creation of different authorities looking after approval and management. This scheme will not go far. It needs a complete re-orientation for achieving success.

VII Conclusion

The EPZ policy in India underwent gradual relaxation of procedural and operational rigidities. The changes effected in this policy since 1991 have been far reaching and significant. It is believed that the overall and EPZ investment climate has an overwhelming bearing on the EPZ performance. In India, however, a conducive policy framework has had only a limited impact on the zone performance. Though the gross exports, foreign exchange earning and employment increased phenomenally in absolute terms, their growth rates declined substantially. Growth in exports per unit of employment also slowed down indicating deterioration in the export performance. Net value addition performance compares favourably with other Asian countries but it has not been consistent and the trend growth rate in value addition had not been statistically different from zero. Furthermore, zones also failed to promote non traditional exports. Traditional sectors namely electronics and gems and jewellery dominate the zones. This could be due to the piecemeal nature of the policy changes. Various committees were set up to examine the performance of the zones. These committee made far reaching recommendations regarding incentive package, development of infrastructure and improvement in governance. However, policy changes remained slow and extremely cautious. Even the introduction of the SEZ policy did not impact on the SEZ performance. Their performance continued to slide.

SEZs are expected to induce dynamism in the export performance of a country by eliminating distortions resulting from tariffs and other trade barriers, the corporate tax system, excessive bureaucracy, and missing infrastructure. Fall in the protective walls and reforms in the tax system reduced the gap between EPZ and other units in the wider economy in respect of tax incentives. There should have been significant improvement in the quality of infrastructure and governance to compensate them for the lost benefits. But this did not happen. Dysfunctional policies, regulations, lack of single window clearance facilities, poor attitude of the officials, centralised governance, stringent labour laws and poor physical and financial infrastructure, all accounted for an undesirable investment climate. The Draft Bill 2004 may not lead us far. The study argues that the SEZ scheme requires a complete re-orientation if the hype created over SEZs is to be justified.

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