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Working Paper

Trade and Industrial Policy Beyond 2000: An Assessment of the Philippine Economy

PIDS Discussion Paper Series, No. 1998-05

Provided in Cooperation with:
Philippine Institute for Development Studies (PIDS), Philippines

Suggested Citation: Medalla, Erlinda M. (1998) : Trade and Industrial Policy Beyond 2000: An Assessment of the Philippine Economy, PIDS Discussion Paper Series, No. 1998-05, Philippine Institute for Development Studies (PIDS), Makati City

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Philippine Institute for Development Studies

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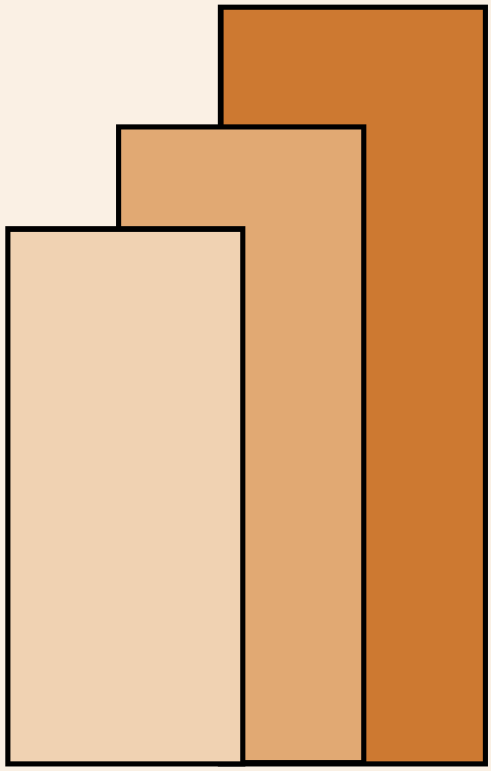

May 1998

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Trade and Industrial Policy
Beyond 2000: An Assessment of the Philippine Economy

1. Introduction

More than a decade has passed since substantial trade and industrial reforms started to be implemented. The reforms appeared to have begun to pay off, with the economy growing at more than 6 percent. However, some recent developments have cast a shadow over the optimism in recent years. In particular, indicators from the Survey of Key Establishments in Manufacturing (SKEM) exhibited downward trends in production for certain sectors during the first two quarters of the year. Then came the regional currency adjustments, which saw the peso falling by as much as 25 percent in the last three months.

In the light of these recent developments, it has become more imperative to know the real impact of these reforms on the manufacturing sector. In particular the important questions are:

- How has the manufacturing sector performed since the reforms?
- What is the real state of the manufacturing sector?
- Have changes in the manufacturing sector arising from trade reforms taken root, enabling it to perform better in the future?
- How can the trends indicated by the SKEM be explained?
- What has the government failed to do and what more should be done to finally push the sector to its full potential?
- What is the role of the exchange rate and how will the manufacturing sector be affected by the recent peso devaluation?

To shed light on these questions, this paper starts out first with a brief review of what the reforms have been. This is followed by a discussion of the impact of these reforms on the economy as a whole and the manufacturing sector in particular using the results of the more recent PIDS studies on trade and industrial policy. The analysis on the economy-wide impact of trade reforms is a simulation of results isolating the effects of trade reforms. The study on the manufacturing sector is empirical in nature but it focuses on the competitiveness of firms and industries. These are taken as indicators of the potential of the manufacturing sector, how it is likely to perform in the new, more open trade regime. Although still early to tell, there is a need to now look more closely at actual export and industrial performance, in terms of growth and shifts, if any, on the production and export structure. The paper thus examines the past industrial performance, first during the past years and then, more recently, in the first two quarters of 1997. What do the trends indicate? Then, recognizing the crucial role of the exchange rate, an analysis with respect to the role of the exchange rate is presented.

The continuing trade reforms have started to shift the economy towards becoming more outward oriented, just in time for the changes created by the GATT-WTO. Section 6 then adds a brief discussion of what the more open global setting implies. A discussion of other important and relevant issues and concerns, e. g., the pace of liberalization and

the continued protection on agriculture, follows in Section 7. Finally, some policy recommendations are suggested in the conclusion of the paper.

2. Brief Review of Past Policy Reforms

Trade and investment policies have been the major policy tools for industrialization in the Philippines. In the area of trade policy, especially before major reforms started in the 1980s, this meant liberal use of tariffs and import licensing requirements to protect local industries. With respect to investment policy, this is largely embodied in the investment incentive system, the Omnibus Investment Code (OIC), basically through the promotion of selected activities in its Investment Priorities Plan (IPP) through the granting of fiscal incentives.

From the post-war period to the present, the Philippines has undergone major changes in its trade policy regime. In general, five stages/periods could be traced in its trade policy reform experience. The first is the pre-reform era of highly trade-restrictive and protectionist policy regime covering the post-war period up to the 1970s, supporting the inward-looking import-substitution strategy at that time. This is followed by the first major trade reforms during the first half of the 1980s -- the 1981-85 Tariff Reform Program, which brought down all tariff range to within 50 percent from highs of 100 percent tariff rates. The third period saw the major import liberalization episodes in 1986-88, soon after the EDSA revolution and under the Aquino Administration. During this period, imports for more than 1400 items were liberalized, bringing down the percentage of import restricted items to less than 10 percent. The fourth period is the second phase of the Tariff Reform Program narrowing down the tariff range to mostly within 30 percent. This was implemented by the Aquino Administration under Executive Order 470 (EO 470) over a five-year period from 1991 to 1995. Finally, the fifth major period is the thirds phase of the Tariff Reform Program under EO 264 which is being implemented by the Ramos Administration over five years from 1996 to 2000. This would further narrow down the range to within 3 and 10 percent (excluding some agricultural products) by year 2000.

On the other hand, investment incentives have been available even as early as 1946. The earliest version offered exemption from all internal revenue taxes for a period of four years to "new and necessary" industries, the same set of industries the ensuing trade and exchange controls would protect. In the fifties, incentives in the form of liberal importation of raw materials and intermediate inputs were added. In the sixties, exemption from duties on imported equipment was made available to "basic" industries.

The system of investment incentives was formalized in 1967 with the enactment of the Investment Incentives Act of 1967. Priority areas were selected and "measured capacity" established for these areas. Incentives were geared mainly towards the production for the domestic market. They were additionally given further incentives in the form of tariff and/or import control protection (import licensing requirement or outright import ban). Since then, several amendments have been introduced, most notably with the passing of the Export Incentives Act in 1970, followed by Batas Pambansa 301 (BP 391) in 1983, and finally, Executive Order 226 (EO 226) in 1987.

Trade Reforms Since the 1980s

Before trade reforms started to be implemented in the 1980s, the Philippines has had more than three decades of highly protectionist and restrictive trade regime, characterized by escalating tariffs and import restrictions generally on finished products. Such a regime created biases and unintended results which became embedded in the system. To summarize, the past-protracted protectionist trade policy resulted in three major biases.

a. The protection structure (of high tariffs and tariff escalation) resulted in an import-dependent import-substituting policy. The low tariffs on imported inputs made them artificially cheaper discouraging backward linkages, inherently penalizing downstream industries and encouraging the use of imported inputs. The high tariff on imported finished products, on the other hand, promoted finishing stage, assembly type of industries. Thus, industries like textile, paper, cosmetic production, which was heavily dependent on imported inputs, grew, until they were constrained by the limited domestic market.

b. Exports, on the whole, were penalized by the highly protectionist trade policy. The protectionist trade regime inevitably defends a lower exchange rate, which acts as a general penalty to exports.

c. The protection structure artificially cheapened capital, encouraging greater capital intensity.

Recognizing more fully the adverse effects of past policies, the government started to undertake the first major trade reforms in 1981 with the passing of the 1981-85 Tariff Reform Program. Such reforms, followed through in the succeeding periods, are among the most basic reforms aimed at attaining global competitiveness, improved resource allocation and sustained economic growth. By ridding the market of distortions, trade liberalization would espouse greater reliance on the market, foster competition, and provide an even playing field which would induce to reveal and encourage to develop industries with real comparative advantage. The 1981-85 TRP brought down all the tariff rates to within the zero-to-50 percent range, reducing substantially both the average tariff and the variation in tariff protection across industries.

The Aquino administration implemented more trade reforms reducing import restrictions (mainly in the form of import licensing requirements or outright import ban) from 1986 to 1989, and narrowing the tariff range with the implementation of EO 470. From 1986 to 1989, import restrictions on some 1,471 PSCC lines were lifted. This reduced the number of regulated items as a percentage of total number of PSCC lines from around 32 percent in 1985 to only 8.0 percent by the end of 1989. From 1989 to 1990, there was practically a lull in trade reforms when the country experienced severe difficulties caused by the December 1989 coup attempt, the oil price hike resulting from the Gulf war and a series of natural disasters. A few more items have been liberalized since then, bringing down the percentage of regulated items to less than 5 percent. (See Table 1)

Table 1
ANNUAL REMAINING REGULATED COMMODITIES

Year	No. of PSCC Lines Subject to Restrictions	% Regulated Items (as to Total PSCC Lines)
Total PSCC Lines	**5,632**	**100.00**
1970	1,307	23.21
1980	1,820	32.32
1985	1,802	32.00
1986	827	14.68
1987	653	11.59
1988	598	10.62
1989	470	8.35
1990	463	8.22
1991	439	7.79
1992	160	2.84
1993	253	4.49
1994	246	4.37
1995	222	3.94
1996	161	2.86

Source: de Dios (1997

There were some tariff adjustments to cushion the effects somewhat of the removal of these import restrictions. The tariff changes, however, were generally temporary and minimal, resulting only in a slight increase in the average tariff.

Then, the second phase of the tariff reform program started to be implemented with the passing of EO 470 in 1991. This further narrowed down the tariff range, with the majority of the tariff lines falling within the 3 to 30 percent range by the year 1995. (See Table 2) Outside this range there were 43 number of lines coming in at zero rate and 208 lines with 50 percent tariff. The duty-free items were mainly capital goods and included cement. Those with 50 percent tariff were mainly agricultural products and industrial products covered by the BOI local content programs.

The Ramos Administration kept the trade liberalization program in its policy agenda, deeming it in line with its policy thrust towards global competitiveness. This is consistently enunciated in the Medium-Term Development Plan. Some of the earlier EOs and Central Bank Memos passed by the Ramos administration have been meant to liberalize trade further. This included EO 1, EO 2, EO 5, EO 8, and EO 61 among the executive orders and CB Circulars 1347, 1356 and 1365 among the Central Bank Circulars. There has been some wavering in the implementation of these further trade reforms, with the suspension then revisions in executive orders and CB Circulars issued. Nonetheless, the intent to continue with the trade reforms remained. As early as a year before the completion of EO 470, the Tariff Task Force created at the time has started discussions about implementing reforms toward a lower and more uniform tariff structure by the year 2003. Indeed, the first major step toward this intent has been undertaken with the passing of EO 264. EO 264 constitutes the third phase of the Tariff Reform Program, which would further narrow down the tariff range to within 3 and 10 percent by the year 2000 for industrial products. The EO also virtually removed all zero duties, raising the floor tariff rate to 3 percent. For agricultural products, tariffication of QRs and the setting of minimum access volume of imports were implemented with the passing of EO 288, EO 313 and EO 328. Out-quota tariff rates for some of the affected products were raised to as high as 100 percent. By the year 2000, the ceiling tariff rate will still be as high as 65 percent. The majority of tariff lines cluster around 3 and 10 percent (See Table 2).

Table 2
FREQUENCY DISTRIBUTION OF TARIFF RATES

Rate Level (%)	Pre-Reform*	Pre 81-85 TRP**	Post 81-85 TRP**	Pre E.O. 470	Post E.O. 470	Pre E.O. 264	Post E.O. 264
		1981	1985	1990	1995	1995	2000
		Number of H.S. lines					
Specific	2	2	2	0	0	0	0
0	1	3	3	33	43	0	0
3	0	0	0	0	285	1,938	2,933
5	2	14	14	42	16	14	0
10	319	380	334	1,635	1,957	892	1789
15	0	0	0	0	26	0	0
20	204	282	335	1,273	1,036	996	787
25	0	0	0	0	19	0	1
30	218	194	284	1,226	1,971	1,561	73
35	0	0	0	7	0	8	7
40	5	87	100	544	0	37	13
45	0	0	0	2	0	2	43
50	203	151	331	1,431	208	90	18
55	0	0	0	0	0	0	1
60	0	59	0	0	0	0	50
65	0	0	0	0	0	0	7
70	119	139	0	0	0	0	0
75	0	2	0	0	0	0	0
80	0	58	0	0	0	0	0
90	0	29	0	0	0	0	0
100	228	2	0	0	0	0	0
Total	1,301	1,402	1,403	6,193	5,561	5,538	5,722

Source: Tariff Commission

Other Developments

The above discussion shows substantial unilateral trade reforms beginning in the 1980s. This is especially true for industrial products in the 1990s. On top of these unilateral trends are multilateral movements toward greater global and regional liberalization especially in the 1990s. These include, most importantly, the ratification of the GATT-WTO (World Trade Organization), new initiatives under the AFTA (ASEAN Free Trade Area), and wider regional efforts to accelerate liberalization further under the APEC (Asia Pacific Economies).

In view of the unilateral trade reforms, not much further liberalization is effected by the new WTO. Instead, above anything else, the new WTO represents, for the Philippines, efforts to strengthening discipline and rules in the global trade and restores global trading order. It thus reinforces the current trend in trade policy. AFTA and APEC, on the other hand, within their narrower regional context, intend to achieve more in terms of reduction of trade barriers and lowering of tariffs.

More than anything, the commitment to APEC's goals set forth in the *Declaration of Common Resolve* signed in Bogor, Indonesia serves as a confirmation and reaffirmation by member economies to stay faithful to GATT-WTO principles and objectives of global liberalization. The APEC *open regionalism*, as conceived, is probably one of the best ways to ensure that countries uphold their WTO commitments. This intent is further enhanced and strengthened by efforts by the APEC to accelerate and deepen

liberalization committed under WTO and achieve a free and open trade and investment regime by year 2020.

These development complements well the current policy thrust. GATT-WTO, especially, would ensure that trading nations, especially the major industrialized ones do not become more protective. This, together with the impact of AFTA and APEC, could open market access, which would benefit greatly the export push strategy. In any case, these developments ensure that the trends toward greater trade liberalization would continue, at least until the start of the next century.

With respect to investment policy, in general, the investment incentive system reinforced trade policy, especially before export incentives started to be granted in the 1970s. The attention on exports mitigated somewhat the bias of trade policy but because of its limited coverage; such an offset approach was very inadequate. Export concentration on a few products (garments in the 1970s, and electronics starting in the late 1980s) resulted.

There was some improvement in the incentive system with the enactment of BP 391 during the period 1983-1987, manifested in the higher share of exports in terms of both project costs and number of firms approved, lower capital-labor ratio, and smaller average size of firms during that period. However, these trends were reversed with the termination of BP 391 and the passing of EO 226. The capital-intensity and size biases were restored. Furthermore, less incentives to exports was effected.

Thus, except for its export promotion aspect, the investment incentive system and trade policy has been generally mutually reinforcing. (This is indicated by the results of the PIDS - Development Incentives Assessment study, which show that the activities within the Investment Priorities Plan have, on average, higher Effective Protection Rate.)

Foreign investment policy runs parallel to the overall investment incentive system. This was especially true before the passing of the 1992 Foreign Investment Act. BOI, at the time, had an implicit positive list for foreign investment, which closely coincided with its IPP. There were some areas closed or restricted to foreign investments, generally those exploiting natural resources, but the IPP areas were usually open to DFIs.

The new FIA liberalized entry of foreign equity. The Negative List where DFI is restricted has been limited to those exploiting natural resources, those dealing with the production of firearms and other national-security related activities, and small enterprises catering to the domestic market with less than US$100,000 paid-in capital.

Regional dispersal of industries and promotion of regional investment have been among the stated goals of the Philippine government. The first concrete program involved the creation of the Export Processing Zones, starting in the 1970s and the establishment of the first industrial estate, Phividec in 1976. The incentives for locating outside Metro Manila have been a long-time provision in the OIC. Indeed, by the 1980s, investment incentives were no longer available for firms locating within Metro Manila. Then starting in 1991/92, the BOI, in its implementation of the OIC, has explicitly included various programs towards a more active promotion of regional investments. For example, it provides pioneer status to firms locating in the identified Less Developed Areas (LDAs). The promotion of industrial estates became accelerated. Indeed, a central agency, the Philippine Special Economic Zone Authority (PEZA) was established in 1992 to coordinate efforts in this are. Also, it has started the promotion of Regional Agri-Industrial

Growth Centers (RAIGC). With respect of the latter, which is implemented by the Department of Trade and Industry, it has identified at least one RAIGC in each of the 13 regions.

On the whole, the reforms starting in the 1980s brought about substantial changes, greatly altering the price and incentive structure across industries.

3. Impact of Policy Reforms

Studies under the PIDS Development Incentives Assessment (DIA) noted improvements in the tariff and protection structure brought about by the series of trade policy reforms. The average level of Effective Protection (EPR)[1] and the variation across industries has gone down significantly since the pre-reform period. Table 3 presents the average EPR across major sectors for the years 1983, 1985, 1990 and 1995 to illustrate more clearly the changes in the protection structure arising from the major trade reforms.

Table 3
EFFECTIVE PROTECTION RATE (EPR)
(Using book rates assuming with duty drawback)

Description	1983	1985	1989/90	1995
03-96 All sectors	44.2	38.0	29.4	24.1
Importables	87.4	76.0	57.0	47.0
Exportables	-4.0	-4.5	-1.4	-1.4
03-21 Agriculture, Fishing & Forestry	11.3	9.2	3.2	2.4
Importables	90.9	76.5	35.3	31.2
Exportables	-8.7	-7.8	-4.9	-4.9
03-13 Agriculture	24.2	19.5	9.8	9.4
Importables	88.4	76.4	31.7	30.4
Exportables	-4.4	-5.9	0.0	0.0
28-96 Manufacturing	64.7	55.9	45.5	37.3
Importables	88.1	77.0	61.2	50.0
Exportables	3.1	0.1	3.8	3.8

Source: IDE Paper

As Table 3 indicates, the average EPR declined from 44.2 in 1983 to 29.4 in 1990, to 24.1 in 1995. The gap in EPRs specially between agriculture and industry and between the exporting sector and the import-substituting sector has been significantly reduced. Furthermore, although exports remain penalized by the protection structure, the degree of penalty has declined.

A more recent study by Tan (1997), shows further decline up to year 2000 in the average EPR, for the economy as a whole and for almost all sectors, with full implementation of EO 264. (Refer to Table 4) By year 2000, the average EPR for the whole economy will be down to 14.6 percent. However, although showing continuing

[1]The EPR is a measure of net protection considering the tariffs on both output and inputs. It is the percentage difference between "protected" domestic value added (value added given the tariff on both output and inputs) and free-trade value added (value added without tariffs).

trends, there occurs a switch in the relative protection between agriculture and manufacturing starting in 1996. That is, the average EPR for agriculture has become higher than that for manufacturing – 21.8 percent for agriculture and 18.2 percent for manufacturing in 1996. Thus, agriculture has become the relatively more protected sector. This is primarily due to the tariffication of QRs in agricultural products under EO 313.

Table 4
WEIGHTED EFFECTIVE PROTECTION RATE (EPR)

Description	1988	1992	PRE95	POST95	2000
0-169 All sectors	21.9	25.1	17.7	17.4	14.6
Importables	36.2	41.0	29.1	28.5	23.4
Exportables	-4.7	-4.5	-3.5	-3.2	-1.6
1-27 Agriculture, Fishing & Forestry	19.4	19.6	18.7	18.4	14.7
Importables	31.1	31.8	29.6	29.1	23.1
Exportables	-1.9	-2.6	-1.3	-1.2	-0.8
1-23 Agriculture	22.3	22.4	22.1	21.8	20.4
Importables	35.9	36.1	35.5	35.0	32.7
Exportables	-0.9	-0.7	-0.6	-0.5	-0.4
38-169 Manufacturing	24.3	28.9	18.5	18.2	15.7
Importables	38.4	44.9	29.2	28.6	23.9
Exportables	-6.3	-5.7	-4.7	-4.3	-2.1

Notes: Sectors 71-81 (garments) and 146 (semi-conductors) enjoy duty drawbacks
PRE95 before effectivity of E.O. 264
POST95 after effectivity of E.O. 264

Source: Tan (1997)

More importantly, the studies under the PIDS DIA project also provide empirical evidence on the positive impact of these trade reforms on competitiveness. The results of the DIA Project show that for the whole manufacturing sector, the DRC/SER (domestic resource cost as a ratio to the shadow exchange rate)[2] went down from around 1.7 in 1983 to around 1.5 in 1988. This is clearly an indication of an increase in the overall level of competitiveness of the manufacturing sector. To illustrate further, the share of establishments whose DRC/SER ratio fall within the range of zero and one (i. e., those with allocative efficiency) rose substantially between 1983 and 1988, in terms of both value of output and number of firms. In terms of value of output, the share of efficient firms increased significantly from 18.8 percent in 1983 to 39.5 percent in 1988. (Refer to Table 5)

Table 5
RESOURCE ALLOCATION AND EFFICIENCY

DRC/SER Range	Efficiency Classification	Share in Production Value (%)			Share in Number of Establishment (%)		
		1983	1988	1992	1983	1988	1992
0<DRC/SER<1	Highly efficient	18.84	39.51	43.95	19.60	30.25	33.22

[2]The measure of efficiency used in this project is the ratio of the domestic resource cost (DRC) to the shadow exchange rate (SER). The former indicates the value of domestic resources used to produce a unit of net foreign exchange while the latter indicates how society truly values foreign exchange. Thus, a ratio of one, or less than one, indicates efficiency since the activity is using domestic resources, whose cost is lower than value of the net foreign exchange it earned or saved. The lower the DRC/SER ratio, the higher the allocative efficiency.

1.0<DRC/SER<1.5	Efficient-Mildly Inefficient	28.75	22.76	29.48	17.16	27.73	31.17
1.5<DRC/SER<2.0	Inefficient	12.30	14.68	8.36	14.20	13.00	12.69
DRC/SER>2.0	Highly Inefficient	39.58	21.77	18.07	46.01	26.61	21.87
Average DRC/SER		**1.72**	**1.54**	**1.21**			

Sources:

Medalla, Erlinda et. al. "Cathing Up With Asia's Tigers", Vol. II. 1996

Pineda, Virginia. "Effects of the Uniform Five Percent Tariff on Manufacturing". Final Draft Report PIDS-TC Project, June 1997

Another important finding of the DIA Project is that there was a significant correlation between DRC and EPR in 1983 but none in 1988. (See Table 6) This implies that the protection structure, which has been entrenched prior to the trade reforms, encouraged resource allocation towards the more inefficient (higher-cost) sectors (in terms of allocative efficiency measured by DRC). The absence of correlation in 1988 indicates some restructuring, with the economy responding to the new set of

Table 6
REGRESSION RESULTS

(Dependent Variable - DRC) Independent Variables	Coefficients 1983	1988	1992		t-values 1983	1988	1992
EPR	1.2*	-0.32	124*		8.85	-0.84	2.63
Capital Intensity	0.073*	0.0065*	0.0074*		3.24	3.45	2.11
Labor Productivity	-0.52*	-0.51**	-0.0003**		-2.89	-1.91	-2.11
Level of significance	1983 &1988		1992	R^2	0.43	0.09	0.31
	* : 0.01 % to 0.90 %		* : 1%				
	** : 5.1 % to 10%		** : 5%	F	31.68	4.15	4.13

Changes in DRC/SER vs. Changes in 1+EPR	EPR Coefficient	t-value	Level of significance
1983-1988	1.36	5.8	0.1 %
1988-1992	0.68	2.4	2.5%

Sources:

Medalla, E. et al. "Catching Up With Asia's Tigers". Vol. I. 1995

Pineda, V. "Effects of the Uniform Five Percent Tariff on Manufacturing". Final Draft Report PIDS-TC Project, June 1997

incentives brought about by trade reforms. For both years, however, DRC was positively correlated with capital intensity and negatively correlated with labor productivity. The former implies that the more capital-intensive sectors were also usually associated with higher DRCs. while the latter indicates that labor productivity is an important determinant of comparative advantage. These results, especially the latter, are not really surprising. It merely confirms that labor is where the country's comparative advantage lies. The more interesting result is that, in addition, there was also a very significant correlation between the change in EPR and the change in DRC/SER between the two years. (Refer to the lower part of Table 6) While this regression result should not be taken as an absolute indicator of the impact of trade reforms, it strongly suggests that indeed, trade reforms have been a major factor in the improvement of competitiveness of manufacturing industries.

The findings from the DIA Project also reveal evidence which points to a significant deconcentration of manufacturing industries taking place between 1983 and 1988. (See Table 7) This is reflected in the sharp decline in the four-plant value added concentration

Table 7
4-PLANT CONCENTRATION RATIOS OF MANUFACTURING INDUSTRIES:

PSIC Code	Industry Description	(In Percent) 1983	1988
311	Food Processing	82	59
312	Food Manufacturing	48	53
313	Beverages	64	72
314	Tobacco	96	96
321	Textiles	37	29
322	Wearing apparel except footwear	26	18
323	Leather and leather products	73	52
324	Leather Footwear	66	34
331	Wood and cork products	35	38
332	Furniture except metal	30	18
341	Paper and paper products	74	57
342	Printing and publishing	52	43
351	Industrial chemicals	65	72
352	Other chemicals	61	55
353	Petroleum refineries	100	100
354	Petroleum and coal products	96	76
355	Rubber products	82	69
356	Plastic products	32	24
361	Pottery, china, and earthenware	97	75
362	Glass and glass products	73	80
363	Cement	43	39
369	Other non-metallic products	65	56
371	Iron and steel	75	65
372	Nonferrous metal products	84	100
381	Fabricated metal products	59	58
382	Machinery except electrical	50	66
383	Electrical machinery	65	57
384	Transport equipment	79	80
385	Professional and scientific equipment	98	100
386	Metal furniture	58	57
390	Miscellaneous manufactures	72	54
	Average	**70**	**63**

Note: Concentration ratios for 3-digit PSIC sectors are weighted (by total receipts) averages of ratio of total receipts by four largest firms to total receipts in each4 digit PSIC sector.
Source: Tecson (1996)

ratio at the 3-digit PSIC level. Also there were no significant signs of shut downs of plants or massive unemployment. On the contrary, there was a substantial increase in the number of firms. Furthermore, the large majority of new entrants into industries were relatively small-scale plants. While the number of manufacturing plants increased by 63 percent from 1983 to 1988, employment grew by only 21 percent. This led to a significant decline in the average employment size of manufacturing plants from 122 to 75 workers per plant during the period. (Refer to Table 8) The compositional shift toward smaller plants served to reduce the large-scale bias of Philippine manufacturing industries, which presumably would have had positive employment and income distribution effects.

Table 8
MANUFACTURING SECTOR INDICATORS

Manufacturing Indicators	1983	1988	1992	1994	Change 1988/ 1983	1992/ 1988	1994/ 1992

Average DRC/SER	1.72	1.54	1.21	-	0.90	0.79	0.00
Number of Manufacturing Plants a/	5,733	11,488	11,764	10,726	2.00	1.02	0.91
Total Employment a/	700,895	856,951	968,628	895,252	1.22	1.13	0.92
Workers per Plant	122	75	82	83	0.61	1.10	1.01
Total Fixed Assets (Million Pesos) a/							
Current prices	7,604	16,104	37,698	66,442	2.12	2.34	1.76
Constant (1985) prices c/	13,301	13,380	20,163	29,488	1.01	1.51	1.46
Fixed Assets per Plant (Million Pesos)							
Current prices	1.326	1.402	3.205	6.194	1.06	2.29	1.93
Constant (1985) prices c/	2.320	1.165	1.714	2.749	0.50	1.47	1.60
Fixed Assets per Worker (Million Pesos)							
Current prices	0.011	0.019	0.039	0.074	1.73	2.07	1.91
Constant (1985) prices c/	0.019	0.016	0.021	0.033	0.82	1.33	1.58
Census Value Added per Plant (Million Pesos)							
Current prices	9.677	11.649	22.875	30.308	1.20	1.96	1.32
Constant (1985) prices b/	18.794	9.631	12.594	14.651	0.51	1.31	1.16
Census Value Added per Worker (Million Pesos)							
Current prices	0.079	0.156	0.278	0.363	1.97	1.78	1.31
Constant (1985) prices b/	0.154	0.129	0.153	0.176	0.84	1.18	1.15

* SITC 5-8 (Chemicals, Basic Manufactures, Machines & Transport Equipment, and Misc. Manufactured Goods)

a/ only includes large manufacturing establishments (with 10 or more workers)

b/ IPI for Manufacturing at 1985=100 was used as deflator

c/ IPI for Capital Formation at 1985=100 was used as deflator

Sources:

Medalla, Erlinda et. al. "Cathing Up With Asia's Tigers", Vol. II. 1996
Pineda, Virginia. "Effects of the Uniform Five Percent Tariff on Manufacturing". Final Draft Report PIDS-TC Project, June 1997
1996 Philippine Statistical Yearbook

A more recent study has been undertaken by Pineda (1997) using the 1992 Annual Survey of Manufacturing (ASM). Except for some aspects, especially with respect to small and medium enterprises (SMEs), the trends continued. (Refer back to 5) Overall, competitiveness improved, indicated by a further lowering of the estimated DRC for manufacturing to just slightly more than 1.2. Furthermore the share in value added of industries with estimated DRC lower than one increased. Finally, there was also a significant correlation between the change in DRC (this time between 1992 and 1988) and the change in EPR. Hence, further trade reforms continued to bring about increased competitiveness in manufacturing industries.

There were, however, some disturbing signs with respect to SMEs. (See Table 9) They appear to have lost some comparative advantage. It should be noted, however, that

Table 9
SIZE STRUCTURE AND EFFICIENCY OF MANUFACTURING INDUSTRIES
AT 3-DIGIT PSIC CLASSIFICATION

PSIC Code	Industry Description	1983 DRC/SER				1988 DRC/SER				1992 DRC/SER			
		ALL	SMALL	MEDIUM	LARGE	ALL	SMALL	MEDIUM	LARGE	ALL	SMALL	MEDIUM	LARGE
311	Food Processing	1.60	2.36	2.14	1.40	1.07	1.25	0.98	1.03	1.20	1.43	1.04	1.25

312	Food Manufacturing	1.28	1.79	2.19	1.20	1.02	1.25	1.20	0.96	1.26	0.85	1.06	1.39
313	Beverages	1.89	1.73	1.73	1.90	1.21	0.79	0.98	1.24	1.14	2.06	2.97	1.12
314	Tobacco	1.73	1.01	1.09	1.74	1.22	1.20	1.04	1.23	1.32	1.64	0.96	1.33
321	Textiles	4.86	3.31	3.72	5.23	3.55	2.00	7.40	3.53	1.64	1.31	1.44	1.76
322	Wearing apparel excp ftwr.	0.92	0.95	0.96	0.90	1.04	0.91	0.92	1.18	0.99	0.91	0.85	1.02
323	Leather and leather products	1.26	1.11	1.85	1.24	1.58	2.53	2.61	0.93	1.44	1.52	1.77	1.38
324	Leather Footwear	0.91	1.12	1.17	0.82	1.13	1.08	1.31	0.87	1.02	1.11	0.78	1.03
331	Wood and cork products	1.12	1.02	0.89	1.20	1.35	1.15	1.18	1.49	1.41	1.48	1.64	1.27
332	Furniture except metal	0.92	1.14	0.71	0.87	0.94	1.11	0.81	0.89	1.24	1.12	1.41	1.25
341	Paper and paper products	2.75	3.80	2.72	2.60	1.86	1.90	2.87	1.76	1.34	2.20	1.52	1.18
342	Printing and publishing	2.68	3.09	1.86	3.20	1.91	1.81	1.37	2.45	1.04	1.87	1.13	0.76
351	Industrial chemicals	2.16	1.98	3.14	1.93	3.08	1.36	1.14	4.10	1.14	1.40	1.55	0.93
352	Other chemicals	1.66	2.25	1.60	1.60	1.16	1.07	1.13	1.20	0.95	1.42	0.98	0.91
353	Petroleum refineries	1.51	-	-	1.51	1.76	-	-	1.76	1.22	-	-	1.22
354	Petroleum and coal products	2.00	2.31	1.50	-	0.59	0.57	-	-	0.57	0.52	1.01	-
355	Rubber products	2.10	2.56	2.03	2.06	0.91	0.78	1.43	0.89	0.94	2.01	1.19	0.85
356	Plastic products	2.61	2.84	3.14	2.36	1.23	0.99	2.61	0.89	1.62	1.78	1.68	1.52
361	P ottery, china, & earthenware	6.56	4.35	2.10	7.18	1.29	1.40	1.39	1.28	1.59	2.53	2.31	1.50
362	Glass and glass products	2.63	4.90	1.78	2.51	1.61	2.16	4.28	1.55	1.78	1.77	0.73	1.84
363	Cement	3.38	21.54	-	3.31	3.09	-7.28	-	2.96	1.68	-	-	1.68
369	Other non-metallic products	6.61	4.66	5.45	10.79	1.77	2.08	1.09	1.81	1.55	1.87	1.63	1.42
371	Iron and steel	1.75	2.36	2.06	1.69	2.27	1.45	1.96	3.08	1.19	1.65	1.48	1.00
372	Nonferrous metal products	1.28	1.11	1.42	1.29	1.75	1.08	1.00	1.76	1.09	1.69	0.56	1.10
381	Fabricated metal products	2.57	1.93	3.17	2.88	1.78	1.67	1.81	1.83	1.79	2.36	1.56	1.66
382	Machinery except electrical	2.76	2.30	4.07	2.79	1.40	1.37	2.25	1.30	1.23	1.74	2.12	1.00
383	Electrical machinery	2.88	2.29	1.45	3.03	3.94	1.16	1.97	4.40	1.16	1.04	1.41	1.16
384	Transport equipment	2.40	2.15	2.27	2.43	1.40	1.24	1.25	1.44	1.55	1.33	1.73	1.55
385	Professional & scientific eqp't	1.06	1.05	1.04	1.08	2.72	1.12	-8.37	1.11	1.48	1.26	0.97	1.54
386	Metal furniture	4.10	3.34	1.28	7.16	2.68	4.14	1.25	-	3.91	1.68	5.10	-
390	Miscellaneous manufactures	1.32	1.33	-	1.34	1.17	1.53	1.17	1.02	1.34	1.65	1.24	127.0
	ALL MANUFACTURING	**1.72**	**2.02**	**1.86**	**1.68**	**1.54**	**1.29**	**1.29**	**1.64**	**1.21**	**1.38**	**1.24**	**1.18**

Note: Employment size of plants defined as follows:

Small : 10-99 workers Medium : 100-199 workers Large : 200 or more workers

Source: Tecson (1996) and Pineda (1997)

the 1992 estimates are based on ASM while the earlier estimates are based on a Census of Establishments. While this could, on part, possibly explain the trend, the more likely explanation is the power crisis experienced during the period. The larger establishments dealt better with the power crisis, in general because they can better afford the cost of alternative sources of energy (e. g. generator sets). This is in sharp contrast with what happened in the earlier period examined, 1983 to 1988, for this period of economic crisis, SMEs seemed to have in general coped better than the larger establishments, as indicated by the large increase in the number of SMEs and the decline in their estimated average DRC.

More insights could be gleaned by looking at the results for the three-digit PSIC sectors. (refer to Table 10) In 1983, before substantial trade reforms were implemented,

Table 10
DRC/SER RATIOS AND EPRs OF MANUFACTURING INDUSTRIES
BY END-USE CLASSIFICATION

PSIC CLASSIFICATION	D R C / S E R 1983	1988	1992	E R P 1983	1988	1992
TOTAL MANUFACTURING	**1.72**	**1.54**	**1.21**	**42.80**	**28.30**	**20.66**
CONSUMER GOODS	**1.43**	**1.06**	**1.18**	**28.97**	**26.52**	**30.46**
311 Food	1.60	1.06	1.20	32.95	22.30	14.20
312 Other food	1.28	1.04	1.26	10.98	21.30	62.81
313 Beverages	1.89	1.21	1.14	83.74	52.00	48.84

314 Tobacco	1.73	1.22	1.32	147.03	60.60	54.33
322 Apparel	0.92	0.95	0.99	3.10	3.90	3.40
324 Footwear	0.91	1.13	1.02	-6.50	-5.30	-3.64
332 Furn. & fixt., exc. metal	0.92	0.94	1.24	-2.57	1.90	7.47
386 Furniture & fixtures, metal	4.10	2.68	3.91	182.68	75.90	52.74
INTERMEDIATE GOODS	**1.81**	**1.87**	**1.23**	**54.68**	**31.67**	**17.53**
321 Textiles	4.86	3.55	1.64	92.77	30.60	15.48
323 Leather products	1.26	1.58	1.44	-13.90	1.70	32.40
331 Wood products	1.12	1.35	1.41	2.11	4.50	8.29
341 Paper products	2.75	1.86	1.34	64.99	29.20	27.97
342 Printing, publishing	2.68	1.91	1.04	68.27	72.40	10.41
351 Industrial chemicals	2.16	3.08	1.14	53.21	8.50	9.95
352 Other chemicals	1.66	1.16	0.95	37.70	44.80	25.11
353 Petroleum refining	1.51	1.76	1.22	56.64	59.60	17.76
354 Coal products	2.00	0.59	0.57	74.47	-5.50	1.35
355 Rubber products	2.10	0.91	0.94	129.32	18.90	21.73
356 Plastic products	2.61	1.23	1.62	119.68	20.90	30.46
361 Pottery & china	6.56	1.29	1.59	224.14	4.70	20.38
362 Glass products	2.63	1.61	1.78	67.14	37.40	35.66
363 Cement	3.38	3.09	1.68	79.16	42.40	-7.02
369 Other nonmetal mineral products	6.61	1.77	1.55	280.34	17.40	27.26
CAPITAL GOODS	**2.24**	**1.48**	**1.23**	**38.73**	**12.31**	**12.83**
371 Iron & steel	1.75	2.27	1.19	38.25	80.50	7.97
372 Nonferrous metal basic products	1.28	1.75	1.09	-9.74	-11.30	3.28
381 Fabricated metal products	2.57	1.78	1.79	82.32	66.30	50.75
382 Machinery except electrical	2.76	1.40	1.23	28.12	11.70	5.17
383 Electrical machinery	2.88	1.10	1.16	42.51	30.90	9.18
384 Transport equipment	2.40	1.40	1.55	50.60	48.80	37.85
385 Professional equipment	1.06	2.72	1.48	-13.19	21.00	23.78
390 Other manufacturing	1.32	1.17	1.34	8.09	4.65	8.10

Sources : Tecson (1996) Pineda (1997)

there was a very wide variation in DRCs across sectors, which already hides wide variations between subsectors and between firms within sectors. The consumer goods production had the lowest average DRC, but still quite high at around 1.43. This would have been surprising if it were not for the fact that the garments sector, footwear and furnitures belong to this group. These sectors were among the strongest exporters during the period.

Such a wide variation clearly indicates an inefficient allocation of resources, since resources would have been put into better use if more of the resources were used in activities with low DRC/SER ratio and less resources for those with high DRC/SER ratio. The more widely divergent are the ratios, the more inefficient would be the allocation of resources. This is more or less the picture of the kind of resource allocation bred by the overall protectionist trade policies in the past three decades before the reforms.

Table 10a
CHANGE IN VALUE ADDED SHARE AND CHANGE IN DRC/SER RATIO

PSIC DESCRIPTION	1983-1988		1988-1992	
	Value Added	DRC/SER	Value Added	DRC/SER
CONSUMER GOODS	**27.09**	**-25.82**	**-9.64**	**11.32**
311 Food	31.29	-33.59	-27.12	12.93
312 Other food	15.33	-18.64	-46.86	20.98
313 Beverages	-30.58	-35.89	152.45	-5.91
314 Tobacco	60.51	-29.64	-19.88	8.44

322 Apparel	119.96	3.23	-2.34	4.24
324 Footwear	-66.79	23.84	105.71	-9.49
332 Furn. & fixt., exc. Metal	72.3	2.23	-56.52	31.85
386 Furniture & fixtures, metal	-23.26	-34.61	51.52	45.84
INTERMEDIATE GOODS	**-3.38**	**3.09**	**-7.61**	**-34.22**
321 Textiles	7.02	-27.01	-35.13	-53.77
323 Leather products	4.23	25.46	75.68	-8.91
331 Wood products	-37.59	20.70	-49.08	4.30
341 Paper products	31.22	-32.44	-22.3	-27.87
342 Printing, publishing	5.99	-28.87	81.82	-45.45
351 Industrial chemicals	63.13	42.74	-6.40	-63.03
352 Other chemicals	33.62	-29.92	26.61	-18.34
353 Petroleum refining	-49.73	16.32	-37.88	-30.54
354 Coal products	237.12	-70.70	-26.05	-2.72
355 Rubber products	36.15	-56.84	19.08	3.70
356 Plastic products	11.33	-52.78	-17.11	31.44
361 Pottery & china	42.71	-80.30	-27.01	23.04
362 Glass products	140.47	-38.60	-65.97	10.22
363 Cement	25.15	-8.55	61.62	-45.65
369 Other nonmetal mineral products	1.74	-73.20	57.89	-12.49
CAPITAL GOODS	**-36.42**	**-33.93**	**53.88**	**-16.89**
371 Iron & steel	-82.65	29.87	163.63	-47.64
372 Nonferrous metal basic products	173.23	36.50	30.86	-37.61
381 Fabricated metal products	-17.35	-30.92	39.64	0.82
382 Machinery except electrical	10.41	-49.20	4.13	-12.27
383 Electrical machinery	6.19	-61.92	48.85	5.77
384 Transport equipment	-51.55	-41.54	47.59	10.48
385 Professional equipment	419.23	156.29	-48.15	-45.52
390 Other manufacturing	66.84	-11.47	2.69	14.66

Sources : Tecson (1996) Pineda (1997)

We see a leveling of DRCs across sectors indicating a better allocation of resources. But what is more telling is the trend in the percentage share in value added. In almost all cases, the share of the sectors whose DRCs went down increased while the share of the sectors which exhibited a rise in DRCs declined. (This is indicated by the mostly opposite signs between the change in DRC/SER and the change in the share in value-added of corresponding sectors. See Table 10a). This is an even more robust indicator that indeed resource allocation was improving.

Clearly, it will benefit the economy if we transfer resources from inefficient activities to the efficient ones. The first step to do this is to level the EPR. While trade liberalization may increase imports and restrict the market for locally produced goods, it also increases competition and induces greater efficiency among domestic producers. Wide variation in DRC across firms within an industry was also found. Trade liberalization could induce the inefficient firms to become more efficient or shut down. Either way, the effect is for the DRC for the industry to go down. At the same time, trade liberalization would lead to export expansion or the expansion of the more efficient industries. The overall effect in the long run is the levelling of DRCs across and within the industries, and thus a more efficient allocation of resources, and a higher level of efficiency.

This is, indeed what appeared to have happened. Not only has there been a reduction in the average DRS/SER ratio for manufacturing, there was also a clear levelling off in the ratio across sectors. Large reduction in the ratio could be noted for the capital goods from 2.24 in 1983, down to 1.48 in 1988 and even further down to 1.23 in 1992. The most improved sectors were industrial chemicals, coal, and rubber products, completely transforming from highly inefficient to efficient sectors. There was a slight increase in DRC for intermediate goods from 1.81 in 1983 to 1.87 in 1988, but this improved substantially to

1.23 in 1992. There was also a decline in the average DRC/SER ratio for consumer goods in 1988. However, the ratio increased in 1992, due largely to the deterioration in food sectors which were probably most affected by the power crisis during that time. More important to note is the more uniform DRC, which indicates a better allocation of resources. Hence, not only was there an improvement in the competitiveness of industries, there was improved allocation of resources as well.

Since the study by Pineda(1997), the ("partial"[3]) 1994 Census of Establishments has become available. This project has accordingly updated some of the estimates to see if the trends still continue using a more recent and larger database. The results remain very encouraging. (See Table 11a) The overall DRC/SER ratio declined further to around 1.18 (down from around 1.2 in 1992). Furthermore, the share in value added of inefficient and highly inefficient activities (i. e,. activities with DRC/SER ratio between 1.5 and 2, and those with DRC/SER greater than 2 respectively) decreased from around 26.4 percent in 1992 to around 20.5 percent in 1994. There was a slight decline in the share of efficient firms from 1992 to 1994 but the share is still higher than that in 1988 which is probably the better basis for comparison as 1992 estimates are based on the smaller data base of the survey. In any case, decline in the share of inefficient and highly inefficient activities is unambiguous.

Using the 1994 set of estimates, at 3-digit PSIC level, DRC/SER as the dependent variables was again regressed against EPR, capital-labor ratio and labor productivity. (See Table 11b) As in the case of 1988, the correlation between EPR and DRC has become insignificant. The capital-labor ratio and labor productivity coefficients are again very significant, showing the
same expected signs. Regressing the change in DRC with the change in EPR still show positive correlation, again showing trade reforms to be having some positive impact on the competitiveness of manufacturing industries.

Table 11a
1994 RESOURCE ALLOCATION AND EFFICIENCY

DRC/SER Range	Efficiency Classification	Share in Production Value (%)	Share in Number of Establishment (%)
0<DRC/SER<1	Highly efficient	41.63	22.38
1.0<DRC/SER<1.5	Efficient-Mildly Inefficient	37.86	40.45
1.5<DRC/SER<2.0	Inefficient	7.56	16.30
DRC/SER>2.0	Highly Inefficient	12.94	20.76
Average DRC/SER		1.18	

Source of basic data: NSO

Table 11b
REGRESSION RESULTS

[3] Although it was supposed to be a Census of Establishments, the NSO was unable to cover all establishments with 10 or more employment.

(Dependent Variable - DRC) Independent Variables	Coefficients	t-values
EPR	0.7784**	1.47
Capital Intensity	0.0151*	6.75
Labor Productivity	-0.001*	-6.80
Level of significance	* 0.01%	R^2 0.6492
	** 15%	F 12.029

Changes in DRC/SER vs. Changes in 1+EPR	EPR Coefficient	t-value	Level of significance
1988-1994	1.11	1.92	6.47%
1992-1994	0.75	1.09	28.48%

The new estimates for 1994 confirmed the loss in comparative advantage for SMEs. (See Table 11c) Possibly, similar qualifications could be made for 1994 as in the case of 1992 (i. e., SMEs are still not adequately covered and the effects of the power shortage are still being felt). However, it is now more likely that the formerly efficient SMEs have grown, leaving behind less efficient (still small) SMEs. This could also explain the increased efficiency of medium-scale industries.

Looking now at the 1994 estimates of DRC/SER by end-use classification, an improvement was found for consumer products at 1.08, a slight increase for intermediate products at 1.29, and further improvement for capital goods at 1.2. Furthermore, better resource reallocation is also evident with the share in value-added increasing for those sectors with declining DRC and vice versa for the majority of cases between 1988 and 1994.[4] (See Table 11d)

Table 11c
SIZE STRUCTURE AND EFFICIENCY OF MANUFACTURING INDUSTRIES AT 3-DIGIT PSIC CLASSIFICATION

PSIC Code	Industry Description	1994 DRC/SER ALL	SMALL	MEDIUM	LARGE
311	Food Processing	1.18	1.32	0.90	1.31
312	Food Manufacturing	1.23	1.40	0.81	1.32
313	Beverages	1.00	1.88	1.26	0.93
314	Tobacco	0.47	1.55	1.03	0.45
321	Textiles	1.51	1.41	1.16	1.62
322	Wearing apparel excp ftwr.	1.04	0.83	1.02	1.10
323	Leather and leather products	1.41	2.36	1.07	1.27
324	Leather Footwear	0.98	1.68	1.66	0.86
331	Wood and cork products	1.27	1.14	1.40	1.29
332	Furniture except metal	1.02	1.05	1.05	1.01
341	Paper and paper products	1.40	2.13	1.94	1.20
342	Printing and publishing	1.18	1.86	1.43	0.96
351	Industrial chemicals	0.96	1.24	0.88	0.95
352	Other chemicals	1.00	1.75	1.23	0.91
353	Petroleum refineries	1.23			1.23
354	Petroleum and coal products	1.48	1.67	1.39	
355	Rubber products	1.07	1.88	1.63	0.87

[4] The earlier year of 1988 was chosen as the basis of comparison instead of 1992 to allow more time for changes to occur. Also, 1992 has a smaller data set, being a survey year. Nonetheless, similar results were noted using 1992 as the basis of comparison albeit with more (although still a minority) number of sectors exhibiting the opposite (unfavorable) trends.

356	Plastic products	1.24	1.50	1.09	1.17
361	P ottery, china, & earthenware	1.40	2.21	2.38	1.27
362	Glass and glass products	3.25	1.12	0.98	4.98
363	Cement	2.35			2.35
369	Other non-metallic products	1.94	3.22	1.55	1.27
371	Iron and steel	1.15	1.21	1.46	1.05
372	Nonferrous metal products	0.90	1.86	1.29	0.89
381	Fabricated metal products	1.59	1.54	1.93	1.56
382	Machinery except electrical	2.19	2.04	1.56	2.29
383	Electrical machinery	1.01	1.49	1.10	0.98
384	Transport equipment	1.88	4.71	0.73	1.96
385	Professional & scientific eqp't	1.46	1.41	0.79	1.69
386	Metal furniture	1.17	2.16	0.94	1.00
390	Miscellaneous manufactures	1.21	1.44	1.09	1.18
	ALL MANUFACTURING	1.18	1.47	1.05	1.17

Note: Employment size of plants defined as follows:
Small : 10-99 workers Medium : 100-199 workers Large : 200 or more workers

Source of basic data: NSO

Turning now to the economy-wide impact of trade reforms, Tan (1997) analyzed the effects of the reforms (particularly EO 264) on the economy using an I/O-based trade model (patterned after Chung Lee). Her results show positive output effects with or without exchange rate adjustment. (Refer to Tables 12a and 12b) Growth in output would increase by around 0.4 to 0.75 percent (for low and high elasticity assumptions respectively) due to trade reforms under EO 264. Most benefited is the exportable sector, which could grow by

Table 11d
1994 DRC/SER RATIOS, EPRs AND SHARE OF VALUE ADDED
OF MANUFACTURING INDUSTRIES BY END-USE CLASSIFICATION

PSIC CLASSIFICATION	DRC/SER	EPR	Share of Value Added	Change (1988-1994)	
				DRC/SER	Share of Value Added
TOTAL MANUFACTURING	**1.18**	**19.17**	**100.00**		
CONSUMER GOODS	**1.08**	**29.00**	**38.81**	**1.79**	**-7.56**
311 Food	1.18	14.45	9.06	11.05	-15.34
312 Other food	1.23	50.26	8.42	18.10	-24.29
313 Beverages	1.00	43.96	9.11	-17.47	117.37
314 Tobacco	0.47	53.39	5.61	-61.39	-26.08
322 Apparel	1.04	4.69	5.59	9.51	-16.02
324 Footwear	0.98	0.22	0.28	-13.04	60.00
332 Furn. & fixt., exc. metal	1.02	-0.07	0.68	8.46	-55.20
386 Furniture & fixtures, metal	1.17	-4.51	0.06	-56.36	81.82
INTERMEDIATE GOODS	**1.29**	**17.15**	**37.25**	**-30.92**	**-14.07**
321 Textiles	1.51	1.93	3.14	-57.43	-41.64
323 Leather products	1.41	7.95	0.15	-10.81	1.35
331 Wood products	1.27	7.53	0.82	-6.05	-71.00
341 Paper products	1.40	19.86	2.06	-24.64	-33.31
342 Printing, publishing	1.18	13.64	1.43	-38.10	75.68
351 Industrial chemicals	0.96	3.04	2.83	-68.86	-37.53
352 Other chemicals	1.00	29.14	10.48	-14.04	-0.53
353 Petroleum refining	1.23	20.07	8.75	-29.97	13.71
354 Coal products	1.48	-10.06	0.04	152.59	-67.13
355 Rubber products	1.07	17.31	1.22	18.05	-41.65
356 Plastic products	1.24	17.88	1.94	0.61	15.68
361 Pottery & china	1.40	3.56	0.47	8.33	14.36
362 Glass products	3.25	20.21	1.08	101.25	-35.52

363 Cement	2.35	19.49	2.12	-23.97	28.33
369 Other nonmetal mineral products	1.94	18.40	0.72	9.52	2.42
CAPITAL GOODS	**1.20**	**10.66**	**22.96**	**-18.64**	**67.92**
371 Iron & steel	1.15	9.12	4.62	-49.40	196.34
372 Nonferrous metal basic products	0.90	-1.15	1.25	-48.49	-12.53
381 Fabricated metal products	1.59	28.74	1.81	-10.44	56.98
382 Machinery except electrical	2.19	0.36	1.07	56.20	5.11
383 Electrical machinery	1.01	4.72	10.43	-7.91	58.41
384 Transport equipment	1.88	57.32	3.48	34.00	109.64
385 Professional equipment	1.46	1.09	0.30	-46.26	11.11
390 Other manufacturing	1.21	-0.83	1.00	3.54	3.52

around 4 to 8 percent. This is brought about mainly by the improved relative prices facing the sector with trade reforms. However, under fixed real exchange rate. there is a very slight (around 0.03 to .06 percent) decline in income growth, attributed mainly to a decline in the growth in manufacturing value-added. This implies a reallocation of resources to sectors with relatively lower value-added ratio. The effects on the growth in both output and value-added for agriculture are positive. This is mainly because EO 264 maintains protection in agriculture while lowering industrial tariffs substantially to 10 percent and below. With exchange rate adjustment, and constraining the trade deficit to within 2 percent of GDP, growth in both output and income rises with trade reforms under EO 264, and for both sectors. This highlights the complementary role of the exchange rate in trade reforms.

Tan (1997) also simulated the effects of moving towards a uniform five percent tariff (Scenarios B and D of Table 12a, and Scenarios F and H of Table 12b). Output growth for the economy increases by around 0.6 to 1.04 under fixed exchange rate and around 1 to 1.5 percent under flexible exchange rate. This points to the benefits of having a uniform tariff structure vis-a-vis maintaining protection in agriculture. Or put in another way, this indicates one of the costs of maintaining protection in agriculture amidst trade reforms. However, the growth in agriculture is reduced (for all cases) with reforms towards uniform five percent. Clearly, there are trade-offs which must be recognized.

Table 12a
EFFECTS OF TRADE REFORM ASSUMING FIXED REAL EXCHANGE RATE
(in percent)

	A	B	C	D
OUTPUT	0.40	0.60	0.75	1.04
Importables	-1.16	-2.99	-2.09	-5.55
Exportables	4.27	8.71	7.85	15.80
AGRICULTURE	0.51	-0.75	0.82	-1.20
Importables	0.46	-5.03	0.74	-8.05
Exportables	1.27	4.94	2.03	7.91
MANUFACTURING	1.03	0.78	1.92	1.47
Importables	-1.11	-3.64	-2.08	-6.83
Exportables	5.51	10.06	10.33	18.87
INCOME	-0.30	1.36	-0.06	2.44
Importables	-2.21	-0.76	-4.02	-1.34
Exportables	3.40	8.22	6.20	14.78
AGRICULTURE	0.58	-0.67	0.92	-1.08
Importables	0.48	-5.06	0.77	-8.10
Exportables	1.26	4.94	2.01	7.90

MANUFACTURING	-0.06	3.06	-0.12	5.75
Importables	-2.65	-0.68	-4.97	-1.28
Exportables	4.53	9.74	8.49	18.26
TOTAL CHANGE IN IMPORTS *in Billion Pesos*	7.18	17.35	13.11	32.63
TOTAL CHANGE IN EXPORTS *in Billion Pesos*	10.10	17.48	18.67	31.90
CHANGE IN TRADE BALANCE *in Billion Pesos (dX-Dm)*	2.92	0.13	5.6	-0.73
TD/GDP	2.1	2.5	1.8	2.6

A : Effects of E.O. 264 using low supply elasticities.
B : Effects of the 5% uniform tariff using low supply elasticities.
C : Effects of E.O. 264 using high supply elasticities.
D : Effects of the 5% uniform tariff using high supply elasticities.
The level of trade deficit in 1988 is estimated to be P18.4 B
in border prices while the GDP is estimated at P 740 B.

Source: Tan (1997)

Note also that in the case of a uniform five percent reform, income growth increases by even more than the increase in output growth at around 1.36 to 2.44 percent. This implies a reallocation of resources, on average, towards sectors with higher value-added ratios. In all cases, growth in both output and income increases.

Table 12b
Effects of Trade Reform Assuming Flexible Real Exchange Rate
(in percent)

	E	F	G	H
Change in Real Exchange Rate *(r1/ro) 1/*	0.2	1.0	0.0	0.6
dTD (Billion pesos)	3.80	3.80	5.56	3.80
OUTPUT	0.49	0.98	0.75	1.50
Importables	-0.99	-2.30	-2.09	-4.73
Exportables	4.44	9.48	7.85	16.72
AGRICULTURE	0.58	-0.45	0.82	-0.89
Importables	0.58	-4.59	0.74	-7.58
Exportables	1.37	5.42	2.03	8.41
MANUFACTURING	1.21	1.57	1.92	2.44
Importables	-0.92	-2.89	-2.08	-5.91
Exportables	5.71	10.95	10.33	19.96
INCOME	0.05	1.71	-0.06	2.87
Importables	-2.05	-0.08	-4.02	-0.53
Exportables	3.57	8.97	6.20	15.66
AGRICULTURE	0.66	-0.35	0.92	-0.73
Importables	0.60	-4.62	0.77	-7.64
Exportables	1.36	5.41	2.01	8.40
MANUFACTURING	0.13	3.88	-0.12	6.75
Importables	-2.47	0.10	-4.97	-0.31
Exportables	4.73	10.62	8.49	19.35
CHANGE IN TRADE BALANCE	3.8	3.8	5.6	3.8
TD/GDP	2	2	2	2

E : Effects of E.O. 264 using low supply elasticities.
F : Effects of the 5% uniform tariff using low supply elasticities.
G : Effects of E.O. 264 using high supply elasticities.

H : Effects of the 5% uniform tariff using high supply elasticities.

1/ (r1/ro)-1 : If r1>ro, the peso depreciates

:if r1<ro, the peso appreciates.

Source: Tan (1997)

Positive effects of the trade reforms were also noted at the more micro level in the industry studies undertaken by PIDS under the PTTAF project. Tecson (1997) cited that almost all the responding firms claim to "**adopt or intensify cost-cutting measures and productivity improvements"** as a result of the on-going trade reforms. "**Continuous quality upgrading**" was also the answer to many, in terms of, for example, more new products and line extensions for existing products. Another response was "**improvement in production technology.**" This meant, for most respondents, increased investments in fixed assets, as in the case of a paper company (Tipco) which increased capacity, and Concepcion Industries which diversified to two-way radios. Other responses included: "**greater investment in training, intensification of and fine-tuning of marketing strategy, and exportation**." On the whole, the firms were optimistic that they could cope in the new more open trading environment.

There were, of course, also some negative adjustment costs noted. Among the more visible and often cited negative effect of the trade reforms is the closing down of two major tire companies - Sime Darby and Philtread - which claim to have knuckled down under the pressure of trade liberalization. However, the two firms were later bought by the remaining two companies, which could very well be an indication that, indeed, industrial restructuring is happening. The less efficient firms are giving way to the more efficient ones.

4. Export and Industrial Performance

While studies show positive effects of trade reforms, especially with respect to the increasing competitiveness of industries, the performance of the industrial sector in terms of growth during the recovery period starting in 1993 has been very modest. This is not entirely surprising, considering the adjustment period required for any kind of reform. It has even been encouraging to note that the adjustment period exhibited little of the anticipated adjustment costs in terms of massive plant shut downs. Nonetheless, the question that remains in one's mind is when the industrial sector is finally going to reap the full benefits of the reforms.

The continuing trade reforms are expected to eventually impact positively on industrial growth. This section thus examines next the trends in the production structure and economic growth to see if indeed such effects could already be discerned. There are two major limitations in looking at such trends. First is the timing of observation. Gains from trade reforms are more long-run in nature and may not already be apparent. Second, one cannot solely attribute actual changes in industrial activities and economic growth to adopt industrial policies arising from a host of other factors (monetary, fiscal, agriculture, political, etc) which are equally important. However, the resulting production structure and growth of the economy should still provide some indication of the impact of trade reforms on industrial performance.

Tables 13a and 13b show the changes in production structure of the Philippine economy over the past 20 years. The tables indicate a very stagnant industrial sector

Table 13a
PRODUCTION STRUCTURE OF THE ECONOMY
Average Growth Rates, In Real Terms

INDUSTRY	75-80	80-85	85-90	90-95	90-96
AGRI.FISHERY,FORESTRY	4.50	0.38	1.96	1.30	1.55
INDUSTRY SECTOR	7.45	-2.27	1.54	2.29	2.86
Manufacturing	5.07	-1.77	2.91	2.17	2.65
SERVICE SECTOR	5.48	1.97	4.40	2.96	3.40
GROSS DOMESTIC PRODUCT	**5.99**	**-0.09**	**2.74**	**2.34**	**2.79**
GROSS NATIONAL PRODUCT	**5.88**	**-0.61**	**3.36**	**3.07**	**3.61**

Source: National Income Accounts, NSCB

reflected by manufacturing growth rates consistently lower than the overall economic growth. This is also reflected by the almost constant share of manufacturing. Hence, past industrial policies did not seem to have induced rapid industrial growth, but neither has the reforms appear to have made much of an impression as yet.

Table 13b
PRODUCTION STRUCTURE OF THE ECOMOMY
Percent Distribution, In Real Terms

INDUSTRY	1975	1980	1983	1985	1988	1990	1993	1996
AGRI.FISHERY,FORESTRY	24.74	23.55	22.04	25.28	23.80	22.19	22.37	20.21
INDUSTRY SECTOR	38.48	40.59	41.01	36.06	35.56	35.28	33.67	34.30
Manufacturing	28.39	27.65	26.49	25.87	25.95	25.39	24.27	24.34
SERVICE SECTOR	37.04	36.05	38.44	41.50	41.56	42.02	42.26	41.56
GROSS DOMESTIC PRODUCT	**100.26**	**100.19**	**101.49**	**102.84**	**100.92**	**99.49**	**98.29**	**96.06**
GROSS NATIONAL PRODUCT	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Source: National Income Accounts, NSCB

The share of manufacturing even went down during reforms. This could be due to a number of factors. Possibly the main reason is that the industrial sector is still in the process of adjustment and restructuring. Much of new investments happened only in the last three to four years. Another reason for the delayed response was the failure of government to implement readily the necessary complementary measures, particularly with respect to the exchange rate. This is further discussed in the succeeding section of the paper.

Some concerns were raised by certain sectors about the negative trends in the

production index indicated by the Survey of Key Establishments in Manufacturing (SKEM) during the first half of 1997. (Refer to Table 14) The figures seem to indicate some slowdown in industrial growth on a year-on-year basis between the first quarter of 1996 to the first quarter of 1997. The economy earlier appeared to be picking up, the industrial sector along with it. How disturbing are these recent trends indicated by the SKEM?

The Department of Trade and Industry, for one, questions the accuracy of the trends as an indicator for the whole manufacturing sector. The SKEM data set has limitations in that they capture only trends in key establishments in Metro Manila. As would be shown in the latter part of the paper, a lot of industrial activity is moving out of Metro Manila, towards growth areas such as the industrial zones in Cavite, Laguna, Batangas and even some parts of Mindanao. Hence, the SKEM data is most possibly not representative of the whole manufacturing sector. An expected outcome of reforms is some restructuring which entails contraction in some and expansion in other sectors/industries/firms. Hence, the SKEM data could be capturing more of the contraction, which is likely since the SKEM covers only old established sample of firms. It is thus important to look at other indicators.

Table 14
INDEX OF VALUE OF PRODUCTION OF MANUFACTURING ENTERPRISES BY INDUSTRY
1985=100

	1995				1996				1997	
MANUFACTURING	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
TOTAL	**380.4**	**397.5**	**411.4**	**414.4**	**455.1**	**428.6**	**445.3**	**433.1**	**445.1**	**303.2**
Food	251.5	214.1	213.3	264.1	298.6	255.3	243.4	278.5	319.0	269.8
Beverage	259.5	291.8	255.7	279.9	304.5	347.5	315.0	351.5	326.8	386.3
Tobacco	157.4	149.2	148.5	170.5	163.1	163.8	165.9	190.0	155.2	200.1
Textile	170.0	178.4	204.6	203.1	193.3	169.8	192.5	160.5	127.4	140.8
Wearing Apparel	266.3	302.4	342.6	330.0	208.2	209.4	210.9	218.4	158.2	196.7
Wood & Wood Prods.	127.0	129.0	142.8	129.8	113.0	127.9	139.6	122.0	126.7	129.2
Furniture and Fixtures	215.8	223.1	227.4	223.6	440.3	424.0	486.8	509.2	489.4	477.8
Paper & Paper Prods.	257.1	259.5	266.4	240.4	275.8	230.5	261.7	271.3	219.3	198.0
Chemicals and Chemical Products	263.4	288.5	299.3	281.8	287.9	286.1	303.4	301.2	301.9	294.2
Rubber Products	145.3	147.6	165.1	147.6	126.8	116.1	114.0	117.1	109.5	110.5
Petroleum Products	192.1	212.7	198.5	214.1	253.0	228.6	240.4	231.8	240.4	233.1
Non-mettalic Mineral Products	334.6	340.3	371.7	343.7	343.0	400.2	396.7	391.2	417.4	504.1
Basic Metals	396.8	431.5	441.6	432.4	513.3	360.2	450.0	492.4	394.2	387.6
Transport Equipment	2,679.6	2,782.0	2,934.9	2,674.8	2,966.0	2,875.2	3,094.2	2,586.2	2,513.7	2,371.6
Electrical Machinery	536.7	603.4	633.9	690.4	828.9	827.0	796.5	818.4	993.8	1,031.8
Miscellaneous	239.4	253.1	260.0	257.3	265.4	281.8	285.1	263.7	310.0	341.4

Sources: 1996 Philippine Statistical Yearbook
Economic Indicators, NSCB

A principal objective of the Philippine trade reforms is to reduce, if not eliminate, the bias against exports inherently arising from the past protectionist policy. While studies show that the manufacturing sector has been responding well to trade reforms, a logical question is how this has been translated in terms of actual export performance.

As Table 15 indicates, the export sector on the whole has performed well, with a growth rate averaging at more than 20 percent during the period 1993-96. The performance of manufactured export sector is even better, with manufactured exports growing by an average of almost 24 percent during the same period. The machinery and transport equipment exhibited the highest growth rate at around 47 percent during the same period, followed by electrical equipment/semi-conductors which grew on average by around 38 percent. The garments sector has slowed down in the 1990s, but another good performer is the textile sector, with exports growing on average by around 21 percent during the period.

These trends resulted in a dramatic shift in the composition of exports during the past decade. (See Table 16) The share of agriculture and primary products declined. On the other hand, the share of manufactured exports (starting out in 1970 at less than 7 percent) grew from around 55 percent in 1985 to around 70 percent in 1990 to more than 83 percent in 1996.

Table 15
AVERAGE ANNUAL GROWTH RATE OF EXPORTS

Commodity	In Percent		
	1986-1988	1989-1992	1993-1996
Coconut Prods.	8.0	4.7	7.9
Sugar and Prods.	-23.7	13.4	15.2
Fruits and Vegetables	6.2	5.3	7.2
Other Agro-based Prods.	21.8	-2.0	4.5
Forest Prods.	9.8	-30.3	-1.6
Mineral Prods.	15.2	-4.0	5.8
Petroleum Prods.	22.2	5.1	19.2
Manufactures	20.0	13.9	23.8
Electrical Equipment.	13.6	16.9	38.2
Garments	28.9	13.0	3.3
Textiles	23.9	14.5	21.5
Footwear	17.3	17.4	5.7
Travel goods & handbags	30.3	28.4	24.3
Wood Manufactures	22.6	10.2	8.1
Furnitures & fixtures	31.2	-0.1	12.9
Chemicals	22.4	1.8	7.4
Non-metallic mineral mftr.	15.7	25.2	4.9
Machinery & transport eqpt.	30.9	55.8	47.0
Processed foods & beverages	21.4	4.9	11.4
Misc. Mfrd. articles, nes	17.7	12.6	7.9
Others	23.9	12.8	17.1
Special Transactions	80.0	38.0	45.3
Re-Exports	55.6	6.5	38.5
TOTAL	**15.5**	**8.6**	**20.3**

Source : Selected Philippine Economic Indicators, CB-DER

Table 16
EXPORTS BY MAJOR COMMODITY GROUP

Commodity	Percent Distribution		
	1986-1988	1989-1992	1993-1996
Coconut Prods.	9.30	6.16	4.66
Sugar and Prods.	1.47	1.43	0.70
Fruits and Vegetables	4.98	4.07	3.01
Other Agro-based Prods.	6.96	5.29	3.47
Forest Prods.	4.03	1.27	0.25
Mineral Prods.	10.00	8.19	5.17

Petroleum Prods.	2.19	1.65	1.12
Manufactures	58.82	70.69	79.56
Electrical Equipment.	19.80	25.08	39.83
Garments	17.77	21.16	16.03
Textiles	1.03	1.15	1.19
Footwear	1.03	1.40	1.26
Travel goods & handbags	0.28	0.52	0.56
Wood Manufactures	1.07	1.26	0.85
Furnitures & fixtures	2.24	2.19	1.64
Chemicals	4.31	3.23	2.06
Non-metallic mineral mftr.	0.41	0.73	0.64
Machinery & transport eqpt.	1.02	2.07	4.31
Processed foods & beverages	2.40	2.51	1.98
Misc. Mfrd. articles, nes	1.42	1.63	1.33
Others	6.05	7.75	7.88
Special Transactions	0.22	0.24	0.57
Re-Exports	2.02	0.99	1.49
TOTAL	**100.00**	**100.00**	**100.00**

Source : Selected Philippine Economic Indicators, CB-DER

Thus, on the whole, the trade reforms have been accompanied by a creditable export performance.

Next, we look more closely at the more recent data on quarterly GNP. Data from NSCB on quarterly GNP still exhibit an upward trend. (See Table 17). Indeed, during the third quarter, when the effects of the regional currency turmoil should already be felt, the economy grew more than expected by around 6 percent. All around, the Philippines appears to be faring better than most of its Asian neighbors. Thus, recovery should not be far at hand, especially considering the basic changes in the manufacturing sector that has already happened. This, of course, is premised on continued political stability.

Table 17
GROSS NATIONAL PRODUCT AND GROSS DOMESTIC PRODUCT BY INDUSTRIAL ORIGIN
Growth Rates (%)

	1995				**1996**				**1997**		
INDUSTRY	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
AGRI.FISHERY,FORESTRY	1.79	-0.68	1.22	0.85	1.85	5.93	3.56	1.55	3.73	2.93	1.12
INDUSTRY SECTOR	6.91	7.94	7.24	5.92	6.07	6.41	6.81	5.99	4.02	6.91	5.76
Manufacturing	6.63	8.26	6.36	6.04	4.90	6.23	6.34	4.90	2.33	5.33	4.47
SERVICE SECTOR	4.62	4.96	5.19	5.11	6.07	5.87	6.65	7.14	6.39	6.23	5.69
GDP	**4.72**	**4.75**	**5.17**	**4.35**	**5.10**	**6.07**	**6.14**	**5.44**	**4.96**	**5.79**	**4.88**
GNP	**4.99**	**4.03**	**5.96**	**4.80**	**6.87**	**8.10**	**6.85**	**6.07**	**5.75**	**6.42**	**5.69**

Source: Economic and Social Statistics Office, National Statistical Coordination Board

Indicators, in general, were good, showing that the manufacturing sector was responding well to trade reforms. These results were reinforced by a satisfactory industrial performance until 1995, after which some slowdown was noted. However, there remains some cause for concern:

- There is some slowdown in industrial growth.
- The declining sectors included: garments, tires, iron and steel, which, except for subsectors in iron and steel, exhibited relatively lower DRC.

What changed, what happened in the last two years, which seems to have put some brake on the manufacturing performance? On the other hand, taking a more optimistic view, what factors helped the economy manage the recent regional currency onslaught.

Some explanation could be directly related to the next critical issue – the role of the exchange rate. Table 18 shows the real effective exchange rate index (REER, 1990=100). Since 1990, the REER index has been falling. Indeed by 1996, the index was down to 70.36, lower than the previous peak of 105.11 in 1988.

The role of exchange rate could be further analyzed by examining more closely the impact of an exchange rate appreciation across sectors.

Table 18
NOMINAL AND REAL EFFECTIVE EXCHANGE RATE, 1990=100

Year	Nominal Effective Exchange Rate	Real Effective Exchange Rate
1975	29.81	91.83
1976	30.61	91.01
1977	30.45	90.68
1978	30.30	93.31
1979	30.35	89.07
1980	30.90	86.96
1981	32.50	84.08
1982	35.13	80.17
1983	45.71	97.24
1984	68.69	97.87
1985	76.54	88.25
1986	83.86	100.13
1987	84.60	104.75
1988	86.77	105.11
1989	89.41	98.19
1990	100.00	100.00
1991	113.03	97.86
1992	104.94	85.98
1993	111.56	86.04
1994	108.67	79.51
1995	105.77	76.23
1996	107.84	70.36

Source: Bangko Sentral ng Pilipinas
Intal (1997)

5. **The Role of the Exchange Rate**

The most basic and general impact of a real appreciation of the peso (the domestic currency) is to raise the price of Nontradables (NT) relative to that of Tradables (T), exportables (X) and importables (M) alike. This makes the NT sectors, in general, more attractive relative to the T sectors, inducing a corresponding flow of resources. This results from a strong domestic currency whether arising from an implicit BOP disequilibrium supported by overborrowing, or an overwhelming comparative advantage in a particular sector (e. g. export of labor).[5]

[5] In other words, the overabundant foreign borrowing (or other capital inflow such as portfolio investments) or earnings from labor exports make other foreign exchange earning and saving activities unattractive.

The impact within these two general sectors are, of course, non-uniform, varying with respect to several factors, mainly profitability and value-added coefficient. With respect to the first factor, for example, a real appreciation of the peso would tend to wipe out industries with marginal competitive advantage (measured by "market" DRC).[6] This induces greater reliance, with respect to export earnings, on industries with considerable competitive advantage.[7] This is better illustrated by looking at the distribution of industries by its "market" DRC in Table 19. Only 13.4 percent have a ratio less than one. If the exchange rate goes down by 10 percent, the percentage of industries able to compete will be reduced to only 12 percent, with only those with very low "market" DRCs remaining. (See Table 20 for examples of industries)

Table 19
PERCENT VALUE ADDED WITH DRCM/OER WITHIN SPECIFIC RANGES AND CORRESPONDING EPR

DRCM range (DM/O)	% Value Added to Total Mfg. VA	EPR %
0.0 <= DM/O <= 0.8	0.3	0.6
0.8 < DM/O <= 0.9	1.1	19.9
0.9 < DM/O <= 1.0	12.0	0.2
0.0 <= DM/O <= 1.0	13.4	1.4
1.0 < DM/O <= 1.2	14.5	6.5
1.2 < DM/O <= 1.5	16.9	27.5
DM/O > 1.5	55.0	40.5
Average DRCM/OER (All Manufacturing) :		**1.8**

Source of Basic Data: Census of Manufacturing Establishments, 1988 (NSO)

With respect to the second factor, although a real appreciation of the peso lowers the relative price of the export or the import substitute, the cheaper price of foreign exchange lowers, at the same time, the cost of imported inputs,[8] mitigating somewhat the loss in profitability. Hence, in general, with everything else being equal, the lower the value-added ratio of the activity, the less negatively affected it is by the peso appreciation and the more able it could adjust.

As a corollary to the above, a nontradable sector (whether a "true" nontradable with natural protection or a virtual nontradable due to prohibitive tariff or import control protection) with low value added benefits most from a real peso appreciation.

In sum, arranging sectors from most favorably affected to most adversely affected, the nontradable sectors (including "virtual" nontradables) with low domestic value added

[6]Competitive advantage is estimated as comparative advantage in market prices, exclusive of tariffs on outputs and intermediate inputs.

[7]Or with respect to foreign exchange saving, on import substituting industries with considerable competitive advantage and/or high protection.

[8]The same conclusion is arrived at for any traded input, whether actually imported, a domestic import substitute, or an exportable.

would rank highest (benefiting most from the peso appreciation), while exporting sectors with high domestic value added would rank lowest (hurt most by a real peso appreciation). In between would be the nontradables with high domestic value added nonetheless still positively affected, and exporting and import-competing sectors with low domestic value added -- which are less adversely affected by the peso appreciation. This explains to some extent why semi-conductors have been consistently doing well despite the real appreciation of the peso. In contrast, the garments sector has not done very well.

Table 20
5-DIGIT SECTORS WITH 0.0 <= DRCM/OER <= 0.9

PSIC	Description	DRCM/OER	EPR
38324	Radio & TV transmitting, signalling etc. eqpt.	0.345	36.32
32133	Canvass products	0.417	33.35
37190	Iron & steel basic industries, n.e.c.	0.706	34.96
38256	Computing & accounting machine	0.710	-0.38
38294	Small arms & accessories	0.745	-2.55
35400	Miscellaneous products of petroleum & coal	0.746	-5.47
35602	Plastic footwear	0.762	21.42
38249	Special industrial machinery & equipment, nec	0.815	2.65
38461	Mfr. and assembly of motorcycles	0.819	84.41
33290	Repair of furniture & fixtures, expt. Metal	0.820	22.15
38311	Electrical motors & generators	0.832	14.81
33130	Hardboard & particleboard	0.839	13.11
35293	Matches	0.852	6.85
38339	Electrical appliances & housewares	0.873	25.01

5-DIGIT SECTORS WITH 0.9 < DRCM/OER <= 1.0

PSIC	Description	DRCM/OER	EPR
32222	Women's and girls' garments	0.948	-4.91
31141	Canning & preserved of fruits & juices	0.953	-0.78
38340	Primary cells & batteries	0.991	30.05
35115	Organic acids & acid compounds	0.991	4.42
38223	Animal husbandry mach'y & eqpt.	0.999	-1.26
31231	Milled sugarcane	1.000	2.36

Source of Basic Data: Census of Manufacturing Establishments, 1988 (NSO)

The key factor appears to be the value-added ratio of the sector. A real appreciation of the peso favors sectors with low value-added. And vice versa, a real peso appreciation biases against sectors with relatively higher value-added. Looking back at the sectors with declining index of production, except for iron and steel, these sectors generally have relatively higher value added. Indeed, the garments sector has low DRC. However, for an exporting sector (with low EPR), its DRC is at the borderline (with the more recent estimate for 1994 becoming even slightly higher than 1.) Furthermore, its local content is relatively higher at around fifty percent than other exports (semiconductors). The past exchange rate policy has thus contributed substantially to

its disappointing performance.

To some extent, the same could be said about the tire industry. Its estimated DRC for 1988 and 1992 were relatively low. And this was backed up by an outstanding performance until 1995. However, the continued peso appreciation eroded much of its competitive advantage. Furthermore, as earlier noted, this could very well be the result of industrial restructuring, which becomes more imperative with the squeeze applied by the prolonged peso appreciation at that time.

Finally, the results of the Tan (1997) study show that under fixed exchange rate, the reforms under EO 264 (and EO 313) could have some negative impact on the growth in the value-added of the manufacturing sector, in contrast with the positive (although slightly) impact of the trade reform when accompanied by some devaluation. This reinforces our conclusion about the impact of a peso appreciation. The negative impact is also due to the switch in the relative protection between manufacturing and agriculture brought about by EOs 264 and 313. Hence, it may not be entirely surprising to find some slowdown in the manufacturing growth.

In the discussion above, two main factors stand out as most likely contributing to the less than stellar performance of the manufacturing sector. One, the trade reforms effected a switch in the relative protection between agriculture and manufacturing, making the latter sector relatively less protected. And two, there was a prolonged real peso appreciation which inhibited much of the potential growth from a more outward-oriented economy.

6. The GATT-WTO: Challenges and Opportunities[9]

The continuing trade reforms appear to have removed much of the distortions of past protectionist policies. It has started to gear up the economy towards becoming more outward oriented and globally competitive, just in time for the changes created by the GATT-WTO.

While the past trade liberalization was undertaken on a unilateral basis, the trade liberalization under the GATT-WTO would be on a multilateral basis. This means that the opening of the domestic market would be rewarded by the opening up of all other member countries' markets to the country's exports which may be expected to lead to trade expansion and hence, to stimulate economic growth. The openness of the international economy which is brought about by the new GATT, would ease the possible constraints to export orientation. Equally important, the WTO provisions on global trading rules and discipline (e.g. the agreement on technical barriers to trade, safeguard measures, etc) brings about greater transparency and trade facilitation, important in the increasingly global market.

Therefore, the GATT-WTO must not be perceived as a threat, but rather as a source of economic opportunities as well as challenges which in the long term will be beneficial to all countries. The challenge for the Philippines is to take full advantage of the opportunities the new GATT-WTO opens.

In gearing up to new opportunities created by the GATT-WTO, the country has to enhance its productivity and hone further its comparative advantage-- labor. This implies, in general, investing more in Human Resource Development (HRD), improving the provision of

[9] The discussion applies as well with respect to the developments in APEC.

support services, including better infrastructure, and increasing technological absorption and adaptation.

Investment in human resources is perhaps the key element in being able to compete and take advantage of new opportunities. This is probably one area where increased focus could not go wrong. Nonetheless, perhaps more specific studies could be undertaken, whether in a general level of assessing the needs and lacks in human resource development, or in an industry level, e. g., for important export sectors like semi-conductors and garments. These industry studies should, of course, also include market widening and prospects.

The different government agencies involved have lined up a series of proposals for GATT-related programs and projects. The merits of these programs are as yet difficult to assess. Still, at the very least, the benefit from these attempts is that attention is being focused on supporting the greater outward-orientedness of Philippine industrial policy.

The DTI, for example, plans measures generally geared towards productivity enhancement and market penetration. This is an appropriate emphasis to take. There is the question, however, about the effects of focusing on specified export winners. Further studies should be made about the advantages of such targeting approach as opposed to more generic measures for productivity enhancement and export market widening and penetration. Further efforts, for example, towards streamlining export procedures and acquiring the necessary technology, both process and equipment could be given priority. Improving the provision of information, both on technology and markets could also be considered.

The DOST has a set of plans for technology transfer and research and development for the export sector. Prior questions about the best way to do this should first be answered. Also the role of public and private sector in this area should further be clarified.

Substantial progress seems to have been made in the policy area: policies, in general, have been set in the right direction (export-orientation, global competitiveness). What needs further attention are the supportive measures which would spur further the export drive which the economy is very much in need of. A serious need seems to be in the area of institution and capability building. The GATT-WTO provisions on strengthening the global trading rules and discipline, by its very nature, would necessarily have greater implication on institutional reforms.

The study suggests some important recommendations in this regard. The more important ones identified include:

a. Capability- building in BOC to cope with the new demands of the GATT Customs Valuation System. This is a very important aspect of trade facilitation. Failure to make the necessary preparations for the transition could be costly.
b. Coping with International Standards. If rapid export growth is to be achieved and sustained, it is necessary to eliminate the bottlenecks in this area.
c. Coping with SPS. This is equally important as the technical standard. It has special relevance to the agricultural sector which has as much untapped potential for exports.
d. Improving the administration of the IPR. Research and Development activities need to be encouraged to stimulate further productivity enhancement vital to realizing the potential from the improved global trading regime.
e. Implementing a rational anti-dumping system. The potential use of the AD duty as a protectionist measure should be curbed. This could only be ensured with both a rational legislation and an enlightened and capable administration.

f. Dealing with the new demands of the environment. This would become even more important in the future. Of particular importance is the ISO 14000 which is an even more complicated issue than the ISO 9000 series. The ISO 14000 is the international standard on environmental management which would potentially cover most export products in the long run. It could thus be expected to have greater impact in the future.

Finally, the new, tighter, and generally more transparent rules under the GATT-WTO, would tend to curb the use of measures such as anti-dumping, countervailing and safeguard mechanisms, as alternative instruments of protection, which would in general be beneficial to exporters. This more favorable climate could be further enhanced by a more effective Dispute Settlement (DS) the procedures for which has been strengthened by the UR. At the same time, however, this means that the GATT-UR DS has become more legalistic. This implies a need for more trained personnel and resources to successfully litigate cases put forward to the DS panel, which is scarce for a developing country like the Philippines. Capability building in this area is clearly called for. Possibly, this is one worthwhile area where an institution like the UNDP could provide technical assistance.

7. Other Issues

Role of Investment

As earlier noted, the trade reforms have not been accompanied by very significant adjustment costs with the economy seeming to pick up beginning 1993. A lot of this could be attributed to growing investments, especially direct foreign investments (DFIs) during the period. BOI-approved investments boomed, as well as investments in the PEZA. (See Table 21a and 21b) The level of investment is more a function of the overall macroeconomic

Table 21a
PROJECT COST OF BOI-APPROVED PROJECTS BY SECTOR
New & expansion projects, with incentives
(In Million Pesos)

	1985	1986	1988	1990	1991	1992	1993	1994	1995	1996
DOMESTIC	693	622	12,346	73,963	63,292	31,088	52,308	387,730	279,335	368,156
Manufacturing	25	184	8,381	18,828	35,661	13,547	21,348	148,879	131,580	24,521
Agriculture, Forestry & Fishery	487	423	1,647	768	537	988	1,496	2,353	1,255	4,591
Mining	44	0	200	7,193	1,843	411	93	1,936	805	5,895
Energy-related projects	137	16	1,192	23,420	20,140	14,341	27,011	118,037	13,164	13,855
Tourism-oriented projects	0	0	86	12,852	3,004	481	492	8,580	3,428	13,707
Public utilities	0	0	840	3,477	966	685	1,319	85,811	122,522	36,163
Others	0	0	0	7,425	1,141	635	549	22,134	6,580	269,424
EXPORT	2,049	1,569	16,366	25,932	10,887	8,537	17,462	63,625	19,945	14,308
Manufacturing	2,023	1,483	13,520	22,939	9,694	5,885	14,866	58,837	17,941	11,175
Agriculture, Forestry & Fishery	16	20	1,555	386	924	2,536	681	1,206	1,078	292
Mining	0	0	347	2,607	269	100	1,915	3,582	926	2,842
Energy-related projects	10	67	871	0	0	0	0	0	0	0
Tourism-oriented projects	0	0	67	0	0	0	0	0	0	0
Public utilities	0	0	0	0	0	0	0	0	0	0
Others	0	0	6	0	0	16	0	0	0	0
TOTAL	2,742	2,192	28,712	99,895	74,179	39,625	69,769	451,355	299,280	382,464

Note : Others include service, Agricultural farm services, Infrastructure/ind'l service facilities, Export traders, Commerce & Research and development activities
Source: Board of Investments

Table 21 b
STATUS OF ECONOMIC ZONES
1995-1997*

	1995	1996	1997*
INVESTMENTS (In Million Pesos)	**52,242.980**	**65,342.266**	**104,121.079**
Approved Projects During the Year			
New Export Enterprises/ Expansions/additional projects of existing export enterprises/ Service Enterprises	49,337.680	20,512.688	44,294.918
Development Costs of new ecozones	2,462.100	42,631.365	59,492.781
Facilities/Utilities	443.200	2,198.213	333.380
NUMBER OF FIRMS			
Approved	**577**	**692**	**745**
Bataan EPZ	83	89	92
Baguio EPZ	15	15	15
Mactan EPZ	106	111	118
Cavite EPZ	224	256	268
o Regular Zones	428	471	493
o Special Zones	149	221	252
Operating	**424**	**553**	**643**
Bataan EPZ	71	69	66
Baguio EPZ	14	12	13
Mactan EPZ	84	100	97
Cavite EPZ	162	206	299
o Regular Zones	331	387	475
o Special Zones	93	166	168
EMPLOYMENT	**121,823**	**152,250**	**170,797**
Bataan EPZ	20,405	22,118	24,075
Baguio EPZ	3,498	3,718	3,839
Mactan EPZ	28,259	32,111	33,458
Cavite EPZ	40,442	47,148	48,421
o Regular Zones	92,604	105,095	109,793
o Special Zones	29,219	47,155	61,004

* Jan-Aug.18, 1997 except for employment Jan.-Jun, 1997

Source: Philippine Economic Zone Authority

environment and the political stability of the country. And the increase in the level of investments appear to have helped mitigate the adjustment costs.

However, it is not only the level, but also the composition of investments which would have a significant impact on future growth. It is thus also important to know the composition as well as the level of investments.

Where these investments go would depend a lot on the overall incentive structure, of which the trade regime is a major factor. Trade reforms improve relative prices for the exports. Accordingly, resource allocation should become more favorable to the exportable sector. Another important factor is the exchange rate.

Before the devaluation starting in July of this year, the peso has had a prolonged period of appreciation. As such, the real appreciation of the domestic currency could translate into a corresponding resource flow which would bring about relatively more investments going into nontradable sectors vis-a-vis exportable sectors.

This, indeed, seems to be the case looking at the data on BOI-approved projects (new and expansion). The first major observation is the declining share of export-oriented firms in BOI-approved projects. Between 1983 to 1986 (the BP 391 era), export producers accounted for more than 70 percent of project cost. This went down to 25 percent in 1993 and further down to only 15 percent in 1994. (See Tables 21c and 21d). The figures are not as bad in terms of number of firms, where exporters still account for more than fifty percent, since exporting firms are much smaller in terms of project cost. These figures could, for the large part, be a result of the removal of the preference for exports, brought about by the change in the incentives system from BP 391 to EO 226. Still, the trend in the exchange rate does not help.

Table 21c
Percentage Distribution of Project Cost
of BOI-Approved Projects by Sector
New & expansion projects, with incentives

	1985	1986	1988	1990	1991	1992	1993	1994	1995	1996
DOMESTIC	25.3	28.4	43.0	74.0	85.3	78.5	75.0	85.9	93.3	96.3
Manufacturing	0.9	8.4	29.2	18.8	48.1	34.2	30.6	33.0	44.0	6.4
Agriculture, Forestry & Fishery	17.8	19.3	5.7	0.8	0.7	2.5	2.1	0.5	0.4	1.2
Mining	1.6	0.0	0.7	7.2	2.5	1.0	0.1	0.4	0.3	1.5
Energy-related projects	5.0	0.7	4.2	23.4	27.2	36.2	38.7	26.2	4.4	3.6
Tourism-oriented projects	0.0	0.0	0.3	12.9	4.1	1.2	0.7	1.9	1.1	3.6
Public utilities	0.0	0.0	2.9	3.5	1.3	1.7	1.9	19.0	40.9	9.5
Others	0.0	0.0	0.0	7.4	1.5	1.6	0.8	4.9	2.2	70.4
EXPORT	74.7	71.6	57.0	26.0	14.7	21.5	25.0	14.1	6.7	3.7
Manufacturing	73.8	67.6	47.1	23.0	13.1	14.9	21.3	13.0	6.0	2.9
Agriculture, Forestry & Fishery	0.6	0.9	5.4	0.4	1.2	6.4	1.0	0.3	0.4	0.1
Mining	0.0	0.0	1.2	2.6	0.4	0.3	2.7	0.8	0.3	0.7
Energy-related projects	0.4	3.1	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tourism-oriented projects	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Public utilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Others	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note : Others include service, Agricultural farm services, Infrastructure/ind'l service facilities, Export traders, Commerce and Research and development activities.

Source : Board of Investments

A relevant question is has the same bias resulted in the case of direct foreign investment. This again appears to be the case. The trend in the distribution of foreign equity of BOI-approved projects replicates that of the distribution of project cost of BOI-approved new and expansion projects over the period considered. In 1985, around 97 percent of foreign equity investments of BOI-approved projects are export-oriented. The share declined to around 40 percent in 1993 and further down to 21 percent by 1994. (See Table 21e).

Table 21d
NUMBER OF BOI-APPROVED PROJECTS UNDER E.O. 226
New & expansion projects

	1990	1991	1992	1993	1994	1995	1996
DOMESTIC	231	136	93	116	302	157	191
Manufacturing	73	51	24	43	76	39	36
Agriculture, Forestry & Fishery	14	17	17	14	26	14	20
Mining	14	10	10	3	7	5	8
Energy-related projects	5	8	9	14	24	8	8
Tourism-oriented projects	44	11	6	9	31	25	79
Public utilities	66	26	16	21	119	55	24
Others	15	13	11	12	19	11	16
EXPORT	524	354	296	270	426	226	187
Manufacturing	488	328	273	249	403	210	173
Agriculture, Forestry & Fishery	31	21	21	15	19	11	8
Mining	5	5	1	6	4	5	6
Energy-related projects	0	0	0	0	0	0	0
Tourism-oriented projects	0	0	0	0	0	0	0
Public utilities	0	0	0	0	0	0	0
Others	0	0	1	0	0	0	0
TOTAL	755	490	389	386	728	383	378

Note : Others include service, Agricultural farm services, Infrastructure/ind'l service facilities, Export traders, Commerce and Research and development activities.

Source : Board of Investments

Table 21e
Percentage Distribution of Foreign Equity Investments
Of BOI-Approved Projects by Sector
New & expansion projects, with incentives

	1985	1986	1988	1990	1991	1992	1993	1994	1995	1996
DOMESTIC	2.9	19.0	43.0	52.8	84.1	64.4	60.4	78.7	91.9	84.7
Manufacturing	1.2	1.0	31.8	10.3	50.3	25.9	23.5	32.2	76.3	14.8
Agriculture, Forestry & Fishery	1.7	15.5	7.8	0.0	0.0	0.1	0.2	0.0	0.0	0.3
Mining	0.0	0.0	0.2	4.5	2.0	1.2	0.2	0.7	1.4	0.5
Energy-related projects	0.0	2.5	3.1	23.4	24.5	35.8	34.0	35.1	2.3	3.2
Tourism-oriented projects	0.0	0.0	0.0	10.8	3.8	0.0	0.9	3.6	0.7	7.6
Public utilities	0.0	0.0	0.0	0.2	0.2	1.0	0.4	5.6	9.0	21.3
Others	0.0	0.0	0.0	3.5	3.3	0.4	1.3	1.4	2.3	36.9
EXPORT	97.1	81.0	57.0	47.2	15.9	35.6	39.6	21.3	8.1	15.3
Manufacturing	96.2	74.8	54.6	46.2	12.2	31.5	38.2	21.2	8.1	13.4
Agriculture, Forestry & Fishery	0.0	5.8	1.4	0.9	3.5	2.3	0.0	0.1	0.0	0.0
Mining	0.0	0.0	0.3	0.0	0.1	1.8	1.3	0.0	0.0	1.8
Energy-related projects	0.9	0.4	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tourism-oriented projects	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Public utilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Others	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note : Others include service, Agricultural farm services, Infrastructure/ind'l service facilities, Export traders, Commerce and Research and development activities.

Source : Board of Investments

This trend could pose serious problem in the long run, especially considering the growing trade deficit. Low investment in foreign exchange earning activities would make it even more difficult to close this gap in the future. This would not be the case if these investments in domestic activities were in the area of infrastructure and other such

activities which would ultimately serve the export sector. The data on approved BOI new and expansion projects indicate that less than half of such investments for the domestic market could be considered to be in these areas (energy-related and public utilities) in 1994. While not entirely disappointing, neither is it a very encouraging sign. Whether the share is substantial enough or beneficial enough for the export sector remains to be seen.

The picture, however, is not as bleak as indicated by BOI figures since more and more investments in exports are now going directly to PEZA industrial zones. To a large extent, the reduced BOI-preference for exports has been replaced by the growing attractiveness of PEZA. As Table 22 shows, investments in PEZA has grown substantially, form 9.6 Billion Pesos in 1994 to 65 Billion Pesos in 1996.

Table 22
BOI AND PEZA INVESTMENTS a/
In Million Pesos

	1985	1986	1988	1990	1991	1992	1993	1994	1995	1996
Total BOI Investments	**2,742**	**2,192**	**28,712**	**99,895**	**74,179**	**39,625**	**69,769**	**451,355**	**299,280**	**382,464**
Export Producers	2,049	1,569	16,366	25,932	10,887	8,537	17,462	63,625	19,945	14,308
(% Share to Total)	*74.72*	*71.60*	*57.00*	*25.96*	*14.68*	*21.55*	*25.03*	*14.10*	*6.66*	*3.74*
Manufacturing	2,023	1,483	13,520	22,939	9,694	5,885	14,866	58,837	17,941	11,175
(% Share to Total)	*73.78*	*67.64*	*47.09*	*22.96*	*13.07*	*14.85*	*21.31*	*13.04*	*5.99*	*2.92*
(% Share to Export)	*98.74*	*94.47*	*82.61*	*88.46*	*89.04*	*68.93*	*85.13*	*92.48*	*89.95*	*78.10*
No. of Approved Projects				755	490	389	386	728	383	378
Employment				113,290	63,068	46,512	55,166	145,513	79,776	76,619
Total PEZA Investments	**2,155**	**70**	**321**	**2,900**	**2,303**	**2,365**	**2,686**	**9,559**	**52,243**	**65,342**
Export Producers	2,155	70	321	2,900	2,303	2,365	2,686	9,559	52,243	65,342
(% Share to Total)	*100.00*	*100.00*	*100.00*	*100.00*	*100.00*	*100.00*	*100.00*	*100.00*	*100.00*	*100.00*
Manufacturing	2,155	70	321	2,900	2,303	2,365	2,686	9,559	44,990	20,457
(% Share to Export)	*100.00*	*100.00*	*100.00*	*100.00*	*100.00*	*100.00*	*100.00*	*100.00*	*86.12*	*31.31*
No. of Approved Firms	56	57	77	151	188	243	298	388	577	692
Employment	24,540	23,750	24,342	35,258	43,233	54,787	69,383	91,860	121,823	152,250

a/ New and Expansion projects
Source: Board on Investments and Philippine Economic Zone Authority

Faster pace of our trade reforms vis-a-vis other ASEAN countries

There is also some concern about the faster pace of Philippine trade reforms vis-a-vis other ASEAN countries on the other, especially within the context of AFTA-CEPT. This has two aspects. First, the Philippine unilateral trade reforms appear to be faster compared to those of the other ASEAN countries. Second, the Philippine AFTA-CEPT tariff reduction is also earlier than those scheduled by the other ASEAN countries which

opted to postpone tariff reduction towards the end.

First of all, it should be borne in mind that AFTA-CEPT should not be the long-run goal in itself. The overall policy thrust is towards a more open trade regime. AFTA-CEPT should be considered more as a stepping stone, or a training ground for the eventual more liberal trade regime. In a way, it could help mitigate some of the adjustment costs of unilateral trade reforms.

It is usually the countries with low tariffs (as in the case of Singapore) with most to gain from an arrangement like the AFTA. The more open trade regime encourages export orientation on the whole, and the AFTA-CEPT would provide greater market access. The problem and adjustment costs arising from unilateral trade reforms will be there whether or not there is AFTA. But with AFTA, some of these costs could be reduced, with the more open market it would provide.

The more controversial issue is the earlier AFTA-CEPT reductions in the case of the Philippines. The debates are basically the same as those surrounding trade liberalization in general. While it would probably be better if all the ASEAN countries scheduled their reduction at similar pace, the Philippines should not base its schedule solely on what the others are doing. There are merits to a gradual reduction even if this means an earlier schedule as in the case of the Philippines. One, this smoothens the adjustments. Two, it could make us better prepared later on. The Philippines has undertaken unilateral trade reforms in the past, without expected reciprocity from other countries. It is now liberalizing ahead of other ASEAN countries whose liberalization is scheduled to follow accordingly.

Distortions in the Tariff Structure for Some Sectors, with AFTA-CEPT

The more serious problem with AFTA-CEPT in combination with the unilateral trade reforms being implemented is the tariff distortions which results. This is most notably the case for the food manufacturing sector, particularly meat processing. Livestock imports, a major input to the meat processing sector, comes from outside ASEAN. Tariffication of QRs result in higher tariffs for affected inputs. These inputs are imposed (out-quota) tariffs of as high as 60 percent. On the other hand, there is effectively tariff reduction on the output of the food processing sector, especially with its inclusion in the AFT-CEPT. Tariffs on meat processing sector are not as high as that for inputs and are even very low considering its inclusion in the AFTA. These are clearly problems which need to be addressed.

Perhaps, other non-trade measures could be sought, like technical assistance in various forms. For example, phyto-sanitary regulations of other countries to which the Philippines export to pose some constraints to exporters. Technical assistance, information, etc, for exporters to be able to cope more easily with these regulations would help.

Employment and Wage Policies

Labor is another key factor in economic growth as a whole and industrial development in particular. Some of the issues include:

- low employment absorption in manufacturing
- increasing Philippine labor costs (eroding Philippine comparative advantage)

- declining labor productivity. (vestiges of past protectionist policy which discouraged reinvestment in new technology –e. g. textile -- resulting in outdate technology for many industries and hence, low productivity)

These issues are very important and require more in-depth analysis. These issues are discussed in the other parts of the Assessment Project.

Continued Agricultural Protection

An issue, which came out in the previous section of the paper, is the continued agricultural protection. The simulation by Tan highlights the trade-offs in maintaining agricultural protection vis-a-vis a hypothetical uniform tariff structure. In particular, Tan's simulation show higher overall output growth but net negative impact on the agricultural sector under uniform tariffs compared to a lower overall growth but a positive impact on the agriculture sector. Clearly, this may well become more of a political decision. Policy makers, in any case, should be aware of the trade-off in the choice to be made.

8. Summary, Conclusion and Recommendations

The studies show that basic changes have occurred in the manufacturing sector after the reforms. The manufacturing sector has become more competitive and on the whole there is better resource allocation as indicated by the DRC estimates over the years. The economic performance on the whole, especially before 1997 has been encouraging, exhibiting little of the anticipated adjustment costs. The industrial performance in particular, although not stellar, has also been well within comfortable levels. What proved worrisome are the more recent trends in industrial production. The above analysis points to the crucial role of the exchange rate policy. It appears that the lack of early exchange rate adjustment early on to accompany reforms has been a limiting factor. The next logical question is will the recent peso devaluation have a positive impact on industrial performance?

The problem with the recent peso devaluation is that it was not a deliberate policy action but rather more of a forced response to external factors prevailing in the region. It more or less only put the peso partially back at the initial competitive level with our major competitors in the region. Nonetheless, so long as wages do not rise by as much as the devaluation, there is some real peso depreciation against currencies of our major trading partners which would benefit the tradable sectors. However, this will not be by as much as the magnitude of the devaluation implies.

This, of course, is an oversimplification of the problem facing the industrial sector. The new, more open trading environment, especially beyond 2000, requires dynamic export sector in particular and tradable sectors in general. This implies a need for continuous productivity enhancement measures. Human resource development will be very crucial. The more global orientation and investments in newer technology would require a highly trained/skilled manpower. In other words, having put in place trade policy reforms, the government cannot then just sit back and "do nothing else besides." For example, there are further areas of reforms to examine in the wider arena of "competition" policies, especially in the key areas of shipping and telecommunications, which have very strong linkages with the industrial sector.

Government policy and programs should be increasingly geared towards encouraging HRD, including investments in technical institutions. Technology upgrading

and innovations will also be key factors. In this regard, the government should seek measures, which would induce private R&D activities. The new challenges would also require institution building in keeping with WTO and APEC. This pertains most especially to coping with the Technical Barriers to Trade Provision, SPS, IPR, HCV and Anti-Dumping. The first two, for example, requires some institution building on certification and testing procedures.

There is also an implication on the investment incentive system. It should reduce its reliance on the use of trade measures. Furthermore, if resorted to, these trade measures should be time bound. The focus should still remain on export promotion. The foremost criteria for selection in its IPP should remain the potential to exports. Outside this priority area, the BOI should be very selective, focusing at a very few industries at a time. In particular, this could include those where interdependent investment decisions play a major role and for which selective promotion would result in external benefits, e. g., by acting as a catalyst in the development of the interrelated sectors.

Finally, the remaining question is, should the government continue its policy towards a uniform five percent by the year 2003? There are a number of things to consider. First, much would depend on how much the government would rely on external duties as a source of revenues. Yap (1997) argues that the negative revenue impact of moving towards a uniform five percent tariff rate could have a dampening effect on investments which could seriously affect the overall growth of the economy. This means implementing the necessary fiscal measures. An alternative is to aim for a more uniform tariff level at a higher rate. This leads to the second consideration-- what is politically feasible. A near uniform tariff, for all sectors would approximate the expected benefits from trade reforms. And would be more politically feasible to implement. What policy makers have to guard against is a groundswell for policy reversal. A uniform rate may be the very long-run goal. Which brings us to the third consideration -- timing and scheduling. Past studies have shown that given enough time and proper phasing and scheduling, a lot of short-run adjustment costs are evaded.