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## The Textile - Garments Industry: A Call for Restructuring

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The textile - garments industry cluster is a classic example of the challenge for agroindustrial restructuring in the Philippines. The cluster is one of the most important in the manufacturing sector in terms of employment and value added. The garments industry, for one, is among the major export industries in the country. In contrast, the textile industry has historically been an import substituting, less competitive and protected industry. A rising share of its output, however, is exported indirectly through the garment exports. Hence, a successful restructuring program for the cluster will have a substantial impact on the economy.

### Industry situationaire

The garments industry is definitely one of the growing industries in the country. Based on the manufacturing census, its share to total employment rose from 4.3 percent in 1972 to 16.6 percent in 1988. This figure, however, may even be considered as underestimated since it does not include the household-based subcontractors of the garment exporters. Similarly, based on the manufacturing census, the share of the industry to the total value added in manufacturing rose from 1.0 percent in 1972 to 5.8 percent in 1988 (Austria 1994). Using national income accounts data, the share of the garments and, to a much lesser extent, footwear industries to the total value added in manufacturing rose from 3.4 percent in 1972 to 6.4 percent in 1994. Garments exports accounted for 3.3 percent of total merchandise exports (at constant prices) in 1972, with such share rising to 20.6 percent in 1994.

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The author is President of the Institute. The views expressed are those of the author and do not necessarily reflect those of PIDS or any of the study's sponsors.

The Philippine textile industry, on the other hand, grew during the 1970s but underwent retrenchment during the 1980s. The share of the textile industry to total manufacturing employment, using the manufacturing census data, declined from 13.9 percent in 1972 and 14.6 percent in 1978 to 10.4 percent in 1988 (Austria 1994). Indeed, the total employment of all establishments with employment of 10 workers or more in the textile industry declined from 101,012 workers in 1988 to 79,390 workers in 1992 (Cororaton 1995). Similarly, the share of the textile industry to total manufacturing value added, using the manufacturing census data, declined from 7.3 percent in 1972 and 9.7 percent in 1978 to 4.5 percent in 1988 (Austria 1994). Using national income accounts data, the share of the textile industry to total value added in manufacturing declined from 5.6 percent in 1972 to 5.2 percent in 1978 and 2.9 percent in 1994. Direct exports of the industry are considered as minuscule.

A comparison between the shares of the textile and garment industries to total manufacturing value added among the ASEAN-4 countries (Indonesia, Malaysia, the Philippines, and Thailand) is instructive. Whereas in the Philippines, the share of garment to manufacturing value added is higher than the share of textile to manufacturing value added, it is

the opposite in the other ASEAN-4 countries. The average shares of the garment and textile industries to total manufacturing value added during 1985-1990 in Indonesia were 1.5 percent and 9.5 percent, respectively. For the same period in Thailand, the average shares of the garment and textile industries were 6.5 percent and 10.6 percent, respectively (Austria 1994). Both Indonesia and Thailand are now major textile and garment exporters.

Textile exports form a major part of the total exports of the textile and garments industry cluster in these two countries. Which means that both countries have succeeded in having revealed comparative advantage in textiles. Indeed, to a large extent, both countries initially entered the export market primarily through textile exports. In sharp contrast, the Philippines has relied primarily on imported fabrics for its expanding garment exports since its textile industry is internationally uncompetitive especially in fine wovens. As a result, the value added of local garment exports is less than those in Indonesia and Thailand.

The Philippine garments industry can not remain internationally competitive nor maintain a robust export growth if the country's textile industry does not become internationally competitive. The rising wage rates in the

country in recent years have particularly made the garments industry increasingly vulnerable to increased international competition from lower wage countries. The industry has increasingly moved up-market but with greater reliance on fabrics under consignment. As the industry further moves up-market, it needs to be more attuned to fast changes in fashion. As such, the turnaround time would have to be reduced. To best address this, there should exist side by side, an internationally competitive local textile industry.

Clearly, then, a restructuring in the cluster is called for. And the challenge of restructuring in this cluster is how to develop an internationally competitive textile industry. **The rewards of a successful restructuring are substantial.** Local substitution of the imported fabrics used in the export garment industry is a large potential market for the textile industry. Moreover, considering that the per capita consumption of clothing is still low in the country, the domestic market is large and growing especially when the per capita income growth becomes more robust. In addition, there is a significant portion of the domestic market which is currently being served by smuggled goods sources rather than by the domestic textile industry.

The fundamental question then is: given the large potential

demand that can be attained from replacing the import needs of the garment export sector and the unmet needs of a portion of the domestic market which is currently being served by smuggled fabrics, how come the Philippine textile industry has not been rushing headlong to meet these unmet needs/demand? The answer lies in the cost structure of the industry vis-a-vis competing countries and the inadequate skills for an internationally competitive textile finishing subsector. ***In this regard, it must be pointed out that, after the tariff reductions and rationalization that have been undertaken recently in the textile-garment cluster, the most promising restructuring initiative that the government can undertake for this cluster is an aggressive investment and training program in the textile finishing subsector, especially for wovens.***

***Production Cost.*** Of special interest are the spinning and weaving costs of wovens (especially fine fabrics) because it is in fine wovens that the industry fails to produce competitively the requirements of the garment export sector as well as the unmet domestic demand (the industry has export capability in coarse fabrics like denims). Table 1 compares the cost of producing all-cotton yarn in 1995 in the Philippines with those in Brazil, India, Italy, Japan, South Korea, Thailand and the United States. Table 2, on the

other hand, presents the weaving cost of a yard of fabric in the Philippines, South Korea, India, Japan and the United States.

Table 1 shows that the absolute cost of producing a kilogram of cotton yarn in the country is higher than in Thailand, South Korea and India. The Textile Manufacturers Association of the Philippines estimates that the cost in China is even lower than in India while the cost in Indonesia is higher than India but lower than Thailand. Thus, the spinning cost of producing a cotton yarn in the Philippines is higher than that of most of its competitor developing Asian countries. Hence, it is unlikely that the Philippine textile industry can be export competitive in yarns at the current cost structure and efficiency.

Similarly, Table 2 indicates that the cost of producing a yard of cotton fabric in the Philippines is higher than in South Korea, India and the United States. Although the data are not available, it is likely that the cost of producing a yard of cotton fabric in the Philippines is also higher than in Indonesia and China since the labor cost in spinning and weaving in these two countries are only about one-third (Indonesia) to one-half (China) of the Philippines' labor cost (Table 3). Thus, again, given the current cost configuration, the Philippines cannot be export-competitive in fabrics.

A closer look at Tables 1 and 2 indicate that Thailand, South Korea, Japan and the Philippines, which import most of the raw materials, have comparatively high raw materials cost compared to the United States, India and Brazil. At the same time, the Philippines has a comparatively much higher power cost compared to Thailand and South Korea (and likely, Indonesia). The importance of the power cost lies in the fact that the spinning sector is energy intensive. Moreover, the finer the yarn, the greater spinning is needed and therefore the greater is the cost of power. At the same time, the increased automation and newer spinning and weaving technologies demand greater energy consumption. It appears therefore that the Philippines cannot hope to be export-competitive in yarns given its comparatively high power cost vis-a-vis competitor countries like Thailand and Indonesia. Similarly, with its higher power cost and comparatively higher wage rates than countries like Indonesia, the Philippines does not appear to be export-competitive in fine fabrics.

### Restructuring framework

***Finishing subsector as a key solution.*** The discussion above suggests that the Philippine textile industry cannot hope to be export-competitive in fine wovens (it is gaining competitiveness in heavyweight fabrics like denims) given the current configuration of its costs. That is, the industry is likely to survive only in the domes-

**Table 1**  
**Total Ring-Yarn Costs, 1995**

<i>Cost Element</i>	<i>Brazil</i>	<i>India</i>	<i>Italy</i>	<i>Japan</i>	<i>Korea</i>	<i>Thailand</i>	<i>USA</i>	<i>Philippines</i>
US \$ per kg. of yarn								
Waste	0.38 8%	0.38 9%	0.46 9%	0.47 8%	0.47 10%	0.47 10%	0.42 8%	0.47 10%
Labour	0.21 4%	0.05 1%	0.89 17%	1.00 18%	0.18 4%	0.10 2%	0.53 11%	0.10 2%
Power	0.21 5%	0.33 8%	0.23 4%	0.59 10%	0.20 4%	0.23 5%	0.18 4%	0.38 8%
Auxilliary Material	0.13 3%	0.12 3%	0.13 2%	0.17 3%	0.14 3%	0.17 4%	0.14 3%	0.17 4%
Capital (depreciation & interest)	1.82 38%	1.37 32%	1.29 25%	1.17 20%	1.26 28%	1.23 27%	1.54 31%	1.23 26%
Raw Material	2.01 42%	2.04 47%	2.27 43%	2.32 41%	2.30 51%	2.31 51%	2.15 43%	2.31 50%
Total Yarn Costs	4.76 100%	4.29 100%	5.27 100%	5.72 100%	4.55 100%	4.51 100%	4.96 100%	4.65 100%
(Index: Italy = 100)	(90)	(81)	(100)	(109)	(86)	(86)	(94)	(88)

**Definition of Total Yarn Cost Elements:**

**Waste**

In spinning, revenue from the sales of waste (waste from slivers, filters, flats and grid droppings, etc.) is considered when calculating the waste costs.

**Labour**

The wage costs are calculated on the basis of the wages paid to operatives and to skilled and unskilled labour for maintenance work. All social charges and shift-work premiums are included. For reserve personnel a percentage figure is added.

**Power**

The energy costs include the costs relating to the actual power consumption of the machines, the illumination and the air conditioning. It is assumed that the mill is lit for the entire production time.

**Auxiliary Material**

The costs for spare parts, lubricants, cleaning materials, and maintenance work on the buildings represent the costs for auxiliary material.

**Depreciation**

This element includes depreciation of machines, accessories and buildings. The machinery costs are inclusive of free delivery to the mill, erection and—where applicable—of customs duty and taxes.

**Interest**

Costs of capital interests.

**Raw material**

Cotton.

**Total Yarn Costs**

The sum of the above group of costs gives the total yarn costs.

Source: Textile Manufactures Association of the Philippines.

**Table 2**  
**Comparison of Cost Components in the Cotton Fabric Production**

Cost Element	Production Costs by Country									
	Philippines		Korea		Japan		India		USA	
	Costs (US \$/kg)	Percent of Total	Costs (US \$/kg)	Percent of Total	Costs (US \$/kg)	Percent of Total	Costs (US \$/kg)	Percent of Total	Costs (US \$/kg)	Percent of Total
Materials 3/	0.590	48.5	0.558	57	0.536	40	0.411	41	0.477	43
Labor	0.040	3.5	0.058	6	0.261	20	0.042	4	0.237	22
Energy	0.115	10	0.061	6	0.115	9	0.063	6	0.055	5
Financial costs (interest rate + depreciation)	0.450	38	0.302	31	0.409	31	0.494	49	0.334	30
<b>Total</b>	<b>1.195</b>	<b>100</b>	<b>0.979</b>	<b>100</b>	<b>1.321</b>	<b>100</b>	<b>1.010</b>	<b>100</b>	<b>1.103</b>	<b>100</b>

Source: DBP, 1994.

**Table 3**  
**Labor Costs in Spinning and Weaving**

US\$ per hour	1980	1984	1988	1990	1991
United States	6.4	8.6	9.4	10.0	10.3
Germany	10.2	7.5	14.7	16.5	17.3
Japan	4.4	6.3	14.9	14.0	16.4
Taiwan	1.3	1.6	2.9	4.6	5.0
South Korea	0.8	1.9	2.3	3.2	3.6
Hong Kong	1.9	1.7	2.2	3.1	3.4
Thailand	0.3	0.6	0.7	0.9	0.9
Malaysia			0.8	0.9	1.0
Philippines			0.6	0.7	0.7
India	0.6	0.7	0.8	0.7	0.6
Pakistan	0.3	0.5	0.4	0.4	0.4
Indonesia			0.2	0.3	0.3
China		0.3	0.3	0.3	0.3

Source: Werner International (Textile Outlook).  
Finnerty (1991).

tic market with some tariff protection. The possible courses of action to address the problem are improvement in efficiency, development of an internationally competitive textile finishing subsector (es-

pecially important in the interim), and addressing of the cost issues especially power rates.

Table 1 shows the importance of an internationally competi-

tive textile finishing subsector. It notes that Italy is **not** internationally competitive in yarn production since it has a comparatively high spinning cost. Nevertheless, Italy is one of the world's major exporters of fabrics and garments. What appears to account for the success of Italy is its internationally competitive textile finishing subsector that provides premium to Italian fabrics and great flexibility to garments manufacturers in meeting the fast changing tastes of its customers. In Italy, textile finishing is a labor intensive industry dominated by small firms working very closely with the garment manufacturers (Zayco, interview).

An internationally competitive textile finishing subsector can provide the needed flexibility to the Philippine garment export sector. The reason why the Philippine gar-

ment export industry has had to rely on imported fabrics under consignment is because the fabrics are very expensive to produce domestically for the limited runs for each fabric style needed by the garment export industry. Multinationals have a cost advantage in bulk purchases for their garments plants spread across many countries (including the Philippines) which they supply on consignment basis. Other garment exporters that need to rely on imported fabrics cannot be aggressive in export contracts in fashion-sensitive garments because of the high turn-around time.

An internationally competitive textile finishing subsector will contribute to greater competitiveness of the Philippine garment industry because of greater flexibility and a much reduced turn-around time. The domestic textile industry can produce greige cloth, thereby increasing production runs and reducing costs, or the greige cloth can be imported. Textile finishing can then be done at any time that the garment manufacturer needs it. When a particular fabric runs out because of strong customer demand, the garment manufacturer can readily tap the local textile finisher to replenish the fabric by using the greige cloth in inventory and then do the needed finishing according to the stipulations of the garment manufacturer (Zayco, interview).

With an internationally competitive textile finishing subsector, the Philippine garment export industry can move aggressively upmarket, including the cultivation of the local design industry. (It is very difficult to develop the local design industry if everything needs to be imported. In a full-pledged internationally competitive textile and garment cluster, the textile manufacturers, textile finishers, designers and garment manufacturers all work together.) The potential for moving upmarket given an internationally competitive textile finishing subsector is present because the Philippines is acknowledged to have one of the best skilled garment laborers alongside South Korea, Taiwan and Hong Kong. The country has earned the distinction of supplying intricately embroidered and precisely hand smocked textile products (Export Development Council 1995).

#### Action agenda

**Developing an internationally competitive textile finishing subsector.** In contrast to the textile spinning and weaving subsectors, textile finishing of wovens is much labor-intensive and demanding of high skills. There is little economies of scale, hence, the subsector can be undertaken primarily by small and medium scale firms, as is the case in Italy. The investment cost appears to be small also. (Available estimates indicate that a finishing

plant producing 10 million meters of cloth per year costs between US\$5 million to US\$10 million. With about 1.5 billion meters of cloth used by the garment export industry, then about 150 finishing plants are needed.)

**The key to developing internationally competitive textile finishing in wovens is the development of skills in the art of textile finishing together with an aggressive investment promotion program in textile finishing.** The constraint however is that the skills appear to require on-the-job training with practitioners. Considering that it is primarily in Italy and, to a lesser extent, France that the skills in textile finishing have been honed, then **developing an internationally competitive textile finishing industry in the Philippines would need a well designed program of apprenticeship and training in Italy and France, together with an aggressive technology transfer and training program in the Philippines involving experts from Italy and France, among others, and Filipino trainees sent to the two countries.** It can be expected that with the acknowledged skill of the Filipinos in drawing, design and other artistic pursuits, the Philippines can develop its own textile finishing “personality.” Perhaps, **the bilateral official development assistance programs of the two countries**

*with the Philippines can be reoriented to support the skills development program for the establishment of an internationally competitive textile finishing subsector.*

**Productivity improvement.** In addition to the development of the textile finishing subsector, there is a need for a continued pursuit of productivity improvements in the textile and garments industry cluster. Table 4 shows that the **Philippines ranked lowest among the ASEAN countries in terms of labor productivity in both the textile and garments industries during the latter 1980s.** Specifically, the average labor productivity in the Philippine textile industry during 1985-1990 was only about one third those of Thailand and Malaysia and about four fifths that of Indonesia during the same period. Similarly, the average labor productivity in the Philippine garments industry during 1985-1990 was only 28 percent of Thailand's, 47 percent of Malaysia's and 94 percent of Indonesia's during the same period. **Estimates of domestic resource costs suggest that nearly 30 percent of all garment firms and about 45 percent of all textile firms were very inefficient as of 1988 (Austria 1994).**

One of the reasons for the low productivity and inefficiency

**Table 4**  
**Labor Productivity in Textile and Garments Industries in the ASEAN Countries**  
**(In US\$1,000 at 1985 prices)**

Period	Philippines	Indonesia	Malaysia	Singapore	Thailand
<b>A. Textile Industry</b>					
1970-74	3.82	1.41	3.31	4.96	4.10
1975-79	3.64	1.99	5.67	7.27	4.26
1980-84	3.20	2.27	5.41	9.71	5.97
1985-90	2.03	2.45	6.44	14.21	6.54
<b>B. Garments Industry</b>					
1970-74	1.64	0.91	2.27	2.94	2.71
1975-79	1.59	1.28	2.94	4.77	3.07
1980-84	2.05	1.74	3.33	6.30	5.20
1985-90	1.60	1.71	3.38	7.51	5.74

Note: Labor productivity is based on value added per worker. Figures refer to average for the period.

Source: Austria, 1994, pp. 49, 52.

of the textile industry during the 1980s was technological backwardness: a substantial portion of the textile machineries were very old. **Clearly, one of the major means of improving productivity is to invest in new machines.** Indeed, there has been a marked increase in investments in the textile industry during the past 7 years compared with the previous decade. For example, based on the supplementary accounts of the national income accounts data, the total value of imports of textile machinery during 1989-1995 amounted to more than US\$1.2 billion as against US \$543.6 million during 1980-1988. Thus, there are indications that the tex-

tile industry has been in the process of modernizing during the past few years: buying new spindles and looms and, for a few, complete shutdown. With respect to the garment industry, the leading firms have acquired state-of-the-art equipment and adopted CAD/CAM techniques (Export Development Council 1995).

**Trade liberalization.** A key policy initiative to improve productivity in the textile and garment cluster is the reduction of tariffs in the cluster. Recent tariff decisions resulted in the lowering of tariffs of staple fibers all the way to garments. The most significant tariff reductions are in staple fi-

bers as well as in chemicals and dyestuffs—from 3-15 percent to 3-5 percent for the former and from 10-20 percent to 3 percent for the latter. The effect is a reduction in the materials cost of producing fabrics in the country. In addition, tariffs in yarns, fabrics and garments have also been reduced, thereby increasing the competitive pressure in the domestic textile and garment markets. The planned further reduction to a two-tiered tariff rate system by the year 2003 and finally a uniform tariff of 5 percent would further heighten the competitive pressure in the domestic environment for the textile and garment industries.

***Two other important means of improving productivity are streamlining procedures to reduce the turnaround time and the training of workers.*** The turnaround time in the Philippines until 1993 was 90 to 120 days, as against a turnaround time of 40 days in Hong Kong (Dee in Export Development Council). The Philippine garment sector is aiming for a reduction of the turnaround time to 60 days in the intermediate period until the Hong Kong standard is reached. Linked to this is the use of “quick response” and “just in time” concepts in the garment industry for greater flexibility in manufacturing.

In 1987, textile firms were asked to identify problems that

faced the industry. The highest percentage of response involved problems with labor relations. The latter 1980s was the period of significant labor unrest in the country which affected the industry considering the large share of employment of the industry to total manufacturing employment. Labor problems may have been one of the more important reasons for the deterioration in the labor productivity during the period.

In recent years, industrial relations problems have been minimized by the revival of the Garments/Textile Industry Tripartite Council Board which serves as a forum for issues, disputes and unwarranted harassments. Nevertheless, the challenge remains in ensuring a strong linkage between productivity improvements and wage adjustments. The latter is feasible if there are no major macroeconomic shocks that result in an unwanted upsurge in the inflation rate which tend to encourage labor action for increased wages. In addition, the institution of a mechanism for stronger linkage between labor productivity improvements and wage adjustments along the lines of Singapore is worth exploring.

Being power-intensive, the textile industry, especially the spinning and weaving subsectors, were also hard hit by the power/energy problems that the Philippines faced during the latter 1980s. This

may also explain in part the deterioration in the labor productivity in the sector during the period. This problem has been adequately addressed by the expansion in energy-generating capacity and the elimination of brownouts in Metro Manila and Luzon, the area where most of the textile firms are located.

Apart from more investments, improved industrial relations and infrastructure, and more streamlined procedures, improvement in labor productivity would call for a more intensive human resource development program for workers. The reduction in the employment of the textile industry in recent years as part of its restructuring to a more open economy would in principle enable the remaining and new firms to be more aggressive in workers’ training especially in the light of the growing mechanization of the industry and the need for better skills in the finishing subsector.

In the garment sector, the training can be in improving design capabilities as well as in merchandising and other aspects of the operations in the garment field. Thus, the creation of the Asian Fashion Institute in Manila with strong technical linkup with the Fashion Institute of America is in the right direction of strengthening the human resource component of the cluster. Similarly, strengthening current programs in




related technical fields like textile engineering would also help in solidifying the country's potential strengths in the textile and garment area.

**Addressing cost pressures.** The most important is power cost because the textile industry is power-intensive. In the short run, the two possible options are the elimination of cross subsidies in the power sector which hit the industrial sector in Luzon the hardest and reduction in the distribution losses (i.e., improvement in the technical efficiency of distribution lines). For the textile industry which is largely based in the MERALCO distribution area, this means further improvement in reducing distribution losses (Meralco appears to have one of the higher distribution losses in the region). The higher power cost in the country is likely to be also caused by the burden of repayment of previous bad debts of the National Power Corporation (NAPOCOR), resulting in higher transmission charges to the distributors. Given this, it is useful to study carefully the benefits and costs of fully transferring the burden of repayment of past bad debts of NAPOCOR to the national government in order to reduce the country's power costs which are adversely affecting the country's intermediate goods industries.

In conclusion, the market potentials for an improved and

more efficient textile industry are present. At present, the domestic textile industry accounts for less than one fifth of all the fabric requirements of the garment export subsector. With a more efficient domestic textile industry, the share of local sourcing can increase to at least 50 percent (the ratio for Thailand in 1986). In addition, it is possible that the garment export sector would expand faster by developing new competitiveness in garment areas other than children's wear, ladies dresses, and gloves as well as in other textile products like home furnishings. The domestic textile industry appears to account for less than 50 percent of the domestic market (Zayco, interview). The domestic market is likely to increase further because of the growth in

population and the rise in per capita consumption of textile and garments products as the economy improves and per capita incomes increase over time. Thus, with improved efficiency, the current sluggishness of the industry would eventually be replaced by a more robust growth over time. 

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