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**Working Paper**

## Towards a Strategy for Manufactured Exports to Japan

PIDS Discussion Paper Series, No. 2004-13

**Provided in Cooperation with:**

Philippine Institute for Development Studies (PIDS), Philippines

*Suggested Citation:* U, Peter Lee; Maquito, Ferdinand (2004) : Towards a Strategy for Manufactured Exports to Japan, PIDS Discussion Paper Series, No. 2004-13, Philippine Institute for Development Studies (PIDS), Makati City

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Philippine Institute for Development Studies  
*Surian sa mga Pag-aaral Pangkaunlaran ng Pilipinas*

## Towards a Strategy for Manufactured Exports to Japan

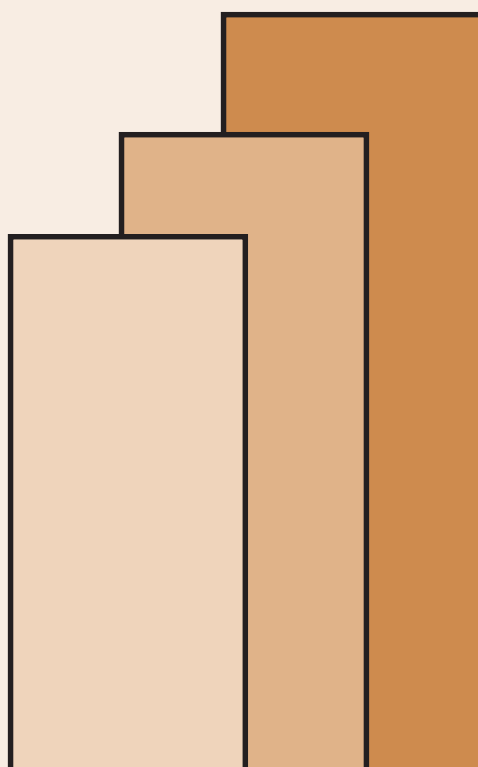
*Ferdinand Maquito and Peter Lee U*

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May 2004

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# **Towards a Strategy for Manufactured Exports to Japan**

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Paper prepared for the Japan-Philippines Economic Partnership  
Research Project

December 2003

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# **Towards a Strategy for Manufactured Exports to Japan**

Ferdinand Maquito and Peter Lee U

## **Abstract**

The Philippines has become an export-oriented economy, with exports increasing in significance. The electronics industry, in particular, is a showcase of this newfound export prowess. Traditionally, comparative advantage is the takeoff point for understanding trade patterns in economic theory. This paper tries to augment the static nature of the theory of comparative advantage with the dynamics of the flying geese model of economic growth. Applied to the context of Japanese manufacturing networks in recent years, it provides an understanding of the flow of Japanese investments overseas. Export processing zones or special economic zones seem to have played an important role in the electronic industry's export success by attracting sizable investments. This paper estimates an export output production function for special economic zones in the Philippines and finds that most exhibit constant if not increasing returns to scale. It also finds that export output tends to be elastic with respect to labor input in most cases. This lends support to interview findings that cite the quality of labor as an attraction of the Philippines. The paper also points out that rates of domestic procurement by Japanese manufacturing firms remain low, suggesting poor backward integration with the rest of the economy. Lastly, the paper ends with some comments and suggestions on the existing draft of the Japanese Philippine Economic Partnership Agreement available at the time of writing.

**Keywords:** export strategy, comparative advantage, flying geese model, export processing zones, Japan-Philippines economic partnership

## **Executive Summary**

The Philippines has become an export-oriented economy. Exports now easily account for close to half of gross domestic product in (real) peso terms. The export structure has also changed. From exporting primary commodities, the Philippines has now graduated to where its top exports are manufactures. And in manufactures, clearly the major export “winner” in the past decade is electronics.

Ironically, the success of electronics exports has masked a hollowing out of Philippine industry. In recent years, the services sector has overtook industry as the economy's largest producer by value added and is also now the biggest employer. This trend is expected to continue as the country attracts new investments in call centers, business process outsourcing, and the information communications technology sector. While this may not necessarily be a cause for concern, it is nevertheless a development puzzle. The pattern of growth for most countries has been for agriculture to first develop, followed by industry, and then services. The Philippines seems to have leapfrogged into the services sector, skipping the industrialization phase.

The irony is greater, when placed in the perspective of history. Philippine economic policy had certainly not overlooked the industrial sector. In fact, its early adoption of an import substitution strategy coupled with high tariff protection was intended to provide a conducive environment to nurture 'infant' Philippine industries. The Philippines was not alone in pursuing such a strategy as its neighbors did the same. However, it is generally acknowledged that a import substitution strategy is naturally constrained by the size of the domestic market. Thus an economy must eventually turn to the export markets.

In the Philippines, one of the policy strategies adopted to promote exports is the establishment of export processing zones. The first one was established in Bataan in 1976. It has been noted that the advantages of export processing zones is that they provide a location free of the infrastructure bottlenecks prevailing in the general economy. This allows locators in the zones to attain the competitive advantage to export. Of course, the ideal would be to improve the infrastructure of the entire economy, but in the case of developing countries, this is not usually possible because of resource constraints.

Special industrial zones, by attracting foreign investments into the country in their respective industries, may also contribute to the improvement of productivity and technology transfer. These investments serve to augment the scarce capital in the economy, and improve productivity with better machinery and technology that the domestic economy would have otherwise been hard put to supply. It has been noted by many studies for example, that the country's total factor productivity lags behind that of its neighbors'.



It is almost certain that the success of electronics exports can be explained in part, if not wholly, by the tremendous amounts of investment, especially foreign, into the sector. The Philippine Economic Zone Authority estimates that electronics accounted for 51% of total PEZA investments in 1995-99. In the same period, exports from these zones increased from 22% to 50% of total Philippine exports.

In traditional (Western) economic thought, trade is explained through the theory of comparative advantage that originated with David Ricardo. This is primarily a static theory however. A dynamic perspective is provided by the 'flying geese' model of Akamatsu. The flying geese model consists of three patterns each based on empirical observations regarding the ebb and wane of Japanese industries.

The first (original) pattern describes the evolution of a particular industry, in terms of its imports, production, exports, and reverse imports. An industry's pre-birth stage starts with the importation of the industry's products. This eventually ushers in the birth of domestic industry which is essentially an import-substitution phase as local production competes with imports. In time, the domestic industry becomes competitive enough to substantially if not completely displace the imports, and proceeds to compete in the international market through exporting some of its production. With the emergence of international competitors that could produce more cheaply, the domestic industry wanes and eventually goes through reverse importation, as the new competitors are able to penetrate the domestic market and displace local production.

The second pattern of the FG model describes the waves of evolution through various industries within one country. Industrial development starts from primary industries, then moves on to light industries, to heavy industries, and then to high-technology industries. Movement to the next industry is initiated as the predecessor industry wanes and resources are allocated to the successor industry. Such allocation normally entails a steady increase in capital endowments, so that succeeding industries become more and more capital-intensive and less and less labor-intensive.

In its third formulation, the FG model has been used to describe the waves of industrial transplantation across countries, with Japan playing the role of lead goose. Industries are seen to relocate from Japan to the Newly Industrialized Economies, and then to the ASEAN 4. More recently Japanese industries have moved in to Mainland China and the new members of ASEAN 10.

Kojima further identifies two other features of the FG model which could be considered as strategies to fully exploit the merits of the FG model. One feature is what he refers to as "Pro-Trade FDI", which pertains more to the third pattern of the FG model. Japanese industries are transplanted abroad through foreign direct investments (FDI) which flow from potentially comparative disadvantaged industries in Japan to potentially comparative advantaged industries in the host country. Such investments would contribute to export as the host country's industry actualizes its comparative advantage due to technological upgrading that comes with the FDI. Kojima argues that

the Japanese FDI to its East Asian neighbors can be largely characterized as pro-trade FDI.

Another feature of the FG model is what Kojima refers to as “agreed specialization.” This is a strategy for the situation where Japanese FDI is confronted with a set of host countries with similar potential comparative advantage (e.g., ASEAN 4). The problem is that if transplantation of all industries is made to all of these host countries, then there is the failure to exploit economies of scale. To avoid this problem, the set of similar host countries will receive FDI in different specializations. Each host country could then fully develop its potential comparative advantage in the industry to which it is hosting the FDI.

The special economic zones may be the channel through which these waves of investments arrive at our shores. While the flying geese model does not specifically require the existence of these zones conceptually, in practice it is difficult to measure whether these investments would have gone to other countries without them.

The paper proceeds to investigate the export production functions for the different special economic zones. It was found that except for one, most SEZs display constant if not increasing returns to scale with respect to inputs of employment and imports. In particular, many displayed significant coefficients for employment; i.e. elastic export output response to labor inputs. This corroborates interview findings where several respondents cited the quality of Philippine labor as a strength. More importantly, it suggests that for the most part, special economic zones can be effective in promoting increased manufactured exports.

One problem that seems to dog the concept of special economic zones in the Philippines is the relatively poor rate of domestic procurement by firms in the zones. A JETRO survey of Japanese manufacturing firms in Asia reinforces this finding. In the survey, Japanese manufacturers in the Philippines tend to have the lowest rate of locally procured materials and parts. This would then seem to be one obvious strategy to increase Philippine manufactured exports; to improve the backward linkage of Philippine manufacturing by raising the capability of local firms to supply to multinationals’ affiliates here.

The paper ends with some comments and suggestions on the existing draft of the Japanese Philippine Economic Partnership Agreement available at the time of writing.

## **Towards a Strategy for Manufactured Exports to Japan**

By Ferdinand Maquito, PhD<sup>1</sup>

Peter Lee U, PhD<sup>2</sup>

### Overview of Export Performance and Policy

The Philippines today can be characterized as an export-oriented economy. Exports now easily account for close to half of gross domestic product in (real) peso terms. Data for the last two years also suggest that the top Philippine exports are manufactures. However, there are still some natural resource based exports like bananas, crustaceans, and iron ore agglomerates. Meanwhile, Japan's top ten exports to the Philippines consist entirely of manufactures with the top four categories being mostly electronics in nature. Motor vehicles and parts and motorcycles round out the top ten. (See tables 2 and 3)

Clearly, the success story in Philippine exports has been our electronics exports, accounting for half of total exports as provided in Table 1.

**Table 1. Share of Manufactured Exports to Total Exports, Philippines, 1985-2000**

	1985	1990	1995	1996	1997	1998	1999	2000
Total Exports (M\$)	4,629	7,821	17,447	20,543	25,228	29,496	35,037	38,079
Manufactures (%)	59.7	76.6	81.5	84.7	86.1	88.4	90.1	89.9
Manufactured Exports (M\$)	2,765	5,995	14,224	17,409	21,712	26,090	31,562	34,242
of which								
Electronics (%)	38.2	32.8	52.1	57.3	60	65.8	57.1	64.8
Machinery (%)	1.1	2.5	5.2	7.4	12.4	12.7	15.7	17.3
Garments (%)	22.5	26.3	18.1	13.9	10.8	9	7.2	7.5
Textiles (%)	1.4	1.5	1.5	1.4	1.4	0.9	0.7	0.7

Source: Balisacan and Hill (2003) p. 232

The electronic product categories figure prominently both as top exports of the Philippines to Japan and vice versa. A possible explanation could be if Japan ships substantial quantities of components to the Philippines for assembly and further processing. The finished or semi-finished products may then be shipped back to Japan.

The relative success of the country's electronics exports masks however, a hollowing out of Philippine industry. In recent years, the services sector has overtook industry as the largest producer by value added and also the biggest employer. And it looks like services will continue to gain in ascendancy as the leading sector of the economy with the growth of call centers, business process outsourcing, and other information and communication technology enabled services that is beginning to find their home in the country.

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**Table 2. Values and Shares of Japan's Exports to the Philippines and Philippine Exports to Japan, 1998-2000**

Selected Industry	1998		1999		2000	
	US \$ Mn	% share	US \$ Mn	% share	US \$ Mn	% share
<i>Japan's Exports to the Phils.</i>						
Food and Live Animals	15.9	0.2	6.5	0.1	5.6	0.1
Beverages and Tobacco	0.1	0.0	2.2	0.0	4.7	0.1
Inedible Crude Materials	55.3	0.9	50.6	0.8	68.5	1.1
Fuels, Lubricants	20.3	0.3	21.8	0.3	32.9	0.5
Animal and Vegetable Oils, Fats, Wax	0.2	0.0	0.7	0.0	0.3	0.0
Chemicals and Related Products	347.3	5.5	409	6.3	430.4	6.7
Manufactured goods	471.2	7.4	585.3	9.0	632	9.8
Machines and Transport Eqpt	5,123.7	80.4	5,106.2	78.3	4,994.8	77.4
Misc. Manufactures	325.4	5.1	335.6	5.1	285.3	4.4
Good not classified by kind	11	0.2	6.1	0.1	2.4	0.0
All commodities	6,370.4	100.0	6,524	100.0	6,456.9	100.0
<i>Phil Exports to Japan</i>						
Food and Live Animals	619.9	14.0	725.2	13.7	716.3	10.0
Beverages and Tobacco	4.8	0.1	5	0.1	4.3	0.1
Inedible Crude Materials	309.2	7.0	300	5.7	370	5.1
Fuels, Lubricants	71.5	1.6	35.8	0.7	107.3	1.5
Animal and Vegetable Oils, Fats, Wax	23.6	0.5	23.8	0.4	18.3	0.3
Chemicals and Related Products	41.6	0.9	35.5	0.7	42.3	0.6
Manufactured goods	204.1	4.6	245.7	4.6	274.9	3.8
Machines and Transport Eqpt	2,646.1	59.7	3,280.5	61.8	4,874.9	67.7
Misc. Manufactures	383.2	8.6	466.1	8.8	470.7	6.5
Good not classified by kind	127.7	2.9	186.5	3.5	319.9	4.4
All commodities	4,431.7	100	5,304.1	100	7,198.9	100

**Table 3. Top 10 products in Phil- Japan trade, 1999 and 2000 (in million US\$)**

<b>Phil Exports to Japan</b>		<b>1999</b>	<b>Phil Exports to Japan</b>		<b>2000</b>
7599	Parts, data proc. etc mch	775.8	7764	Electronic microcircuits	1477.8
7527	Storage units, data proc.	643.8	7527	Storage units, data proc.	916.2
7764	Electronic microcircuits	621.9	7599	Parts, data proc. etc mch	634.8
0573	Bananas, fresh or dried	382.2	0573	Bananas, fresh or dried	388.4
7731	Insultd wire, etc. condctr	273.8	9310	Special trans not classd	319.9
9310	Special trans not classd	186.2	7526	Input or output units	271.5
2816	Iron ore agglomerates	145.6	7731	Insultd wire, etc. condctr	268.9
7763	diodes, transistors etc	97.6	2816	Iron ore agglomerates	160.5
0361	Crustaceans, frozen	90.5	7763	diodes, transistors etc	139.5
7649	Parts, telecommun, equipt	90.4	7649	Parts, telecommun, equipt	139
Subtotal		3307.8	Subtotal		4716.5
TOTAL		5304	TOTAL		7198.9
As % to total exports to Japan		62.4	As % to total exports to Japan		65.5
<b>Japan's Exports to the Phils</b>			<b>Japan's Exports to the Phils</b>		
7599	Parts, data proc. etc mch	1231.1	7599	Parts, data proc. etc mch	1155.7
7768	Elctrn comp pts, crystals	1025	7768	Elctrn comp pts, crystals	658
7764	Electronic microcircuits	329.2	7649	Parts, telecommun, eqpt	393.8
7649	Parts, telecommun, eqpt	261.8	7764	Electronic microcircuits	275.6
7284	Mach. appl. spcl indus nes	198.7	7284	Mach. appl. spcl indus nes	214.1
7843	Other parts, motor vehicl	161.7	7843	Other parts, motor vehicl	163.3
7285	Parts public wrk mach etc	138.4	7831	Pub-transport pass vehcl	141.9
7812	Pass. transport vehicles	111.9	7285	Parts public wrk mach etc	132.4
8811	Cameras, flash equipt., etc	111	7851	Motorcycles etc.	112.7
7851	Motorcycles etc.	96.7	7812	Pass. transport vehicles	103.7
Subtotal		3665.5	Subtotal		3351.2
TOTAL		6525	TOTAL		6456.8
As % to total exports to Phil.		56.2	As % to total exports to Phil.		51.9

Source: Table 4.4 of Argamosa 2003

This of course is not necessarily a cause for concern. It seems that the migration of such services to the Philippines is driven by economic reasons of comparative advantage. The relative abundance of educated and skilled (English speaking to boot) Filipino workers seems to be the main magnet attracting multinational firms to outsource various services here. However, it is precisely the rise of services that differentiates the Philippine development story from the typical development pattern of other countries as observed by Kuznets. Typically, industry takes over from agriculture first as the engine of growth and only later do the service sectors take over from industry. In the case of the Philippines, we seem to have skipped the industrialization stage and leap-frogged right into the service sector phase. For this reason, many economists have judged Philippine industrialization a disappointment.

Nevertheless, neither are we suggesting that the country must pursue industrial policy that purposely favors manufacturing. Otherwise we could be handicapping the services sector precisely at its moment of opportunity just as we did to our manufacturing sector in the 60s and 70s. One could take the view that services, and in particular IT-enabled services, is the opportunity of the moment that we must seize and not let slip by. Some would argue that the world is in the midst of an information (or digital) revolution paralleling the industrial revolution, and that the knowledge economy will now be ascendant. By all means, if that is the natural flow of the economy, and we do seem to have a comparative advantage in labor here at the moment, then the sector should be allowed to respond to those market signals.

However, the success of our electronics exports suggests that we may still have a niche in some manufactured exports. It would thus be foolish to ignore manufactured exports altogether. This paper precisely seeks to look at what strategies might be pursued to maintain, and perhaps nourish whatever remaining competitiveness the country might have in manufactured exports; without distorting market signals to the detriment of other sectors. This is the lesson we hopefully should have learned by now from our history of industrial policy.

This survey intends to investigate further the elements of a good export strategy. We intend to analyze the relationship between performance (as embodied in export as result of a production process) and incentives (including, but not limited to, that which the government creates through its policies).

### A Brief Historical Background of Industrial and Export Policy

The Philippines had followed a highly state interventionist approach (including import substitution) to developing industry: e.g. automobile, steel, oil etc. (e.g. seven major industrial projects [MIP] of the 60s and the 70s). Arguably these efforts failed. After all these years we still have industrial infants that never grew up. The Philippines had one of the highest shares of manufacturing to GDP in the 1960s. But this share stagnated thru the decade of the 70s and 80s. It has deteriorated some more in recent years. Ironically, it seems where the country was successful (i.e. electronics) may not have had the same level of government intervention.

This is a pity, considering that the Philippines posted impressive growth rates in the three decades after the second world war, averaging around 3% growth in per capita GNP. In contrast, per capita GNP growth may have averaged only 0.2% in the period 1902 - 1948.<sup>3</sup> Bautista et al 1979 characterized postwar policy to promote industrialization as benefiting mainly import substituting consumer goods manufacturing sector. In their opinion, these policies were biased against export-oriented industries, as well as capital and intermediate goods industries.<sup>4</sup>

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<sup>3</sup> (Hooley 1968) as cited in (Bautista et al 1979).

<sup>4</sup> This historical review draws extensively from Bautista et al 1979, as well as Hill and Balisacan 2003.

It is commonly agreed that import substitution began in the Philippines as an industrialization strategy began in 1949 with imports and foreign exchange controls in response to a balance of payments crisis. While import substitution as a strategy initially had some benefits, it would eventually be constrained by the relatively small domestic market. Meanwhile, policy reforms in the early sixties by and large continued this policy bias against export industries in favor of import substituting industries producing finished consumer goods.

A consequence of this bias towards import substitution in consumer goods was that most of production activities were in assembly and packing operations that were heavily dependent on imported materials and capital equipment. Ironically, this bias against backward integration and exports prevented the Philippines from capitalizing on what should have been its comparative advantage - its labor surplus. As a result, the share of labor-intensive manufactured goods to total exports remained small throughout the decades of the 50s and 60s.

The decade of the 70s saw export industries begin to receive some attention. The Export Incentives Act (RA 6135) was enacted in 1970 to stimulate nontraditional manufactured exports. It provided for exemption from export taxes on industrial exports and granted tax credits on export sales and excise taxes on intermediate inputs. Presidential Decree 92 of January 1973 allowed the deduction from taxable income of the total cost of direct labor and local raw materials used in export production. This was intended to promote backward integration and labor employment.

Foreign exchange controls were also a bias handicapping export producers. The government's efforts to maintain a relatively strong peso worked against exporters. The peso was "floated" in February 1970 in response to a balance of payments crisis. And while the peso depreciated (or more properly, 'devalued', since the Central Bank very much still 'fixed' the exchange rates), it would remain for the Aquino crisis to trigger significant depreciation of the peso in 1983 to 1985.

Perhaps one of the most significant export promotion measures of this decade may have been the establishment of export processing zones, with the first at Bataan in 1976. As Balisacan and Hill noted, these export zones provided a location for investors that offered better infrastructure than prevailing in the rest of the country. Exports grew quickly in these zones.

These measures seem to have paid off in the impressive growth of non traditional manufactured exports from 1970 to 1977, growing from US\$41.6 million to US\$421.4 million in 1977.<sup>5</sup>

Many studies suggest that export growth – and in particular, manufactured export growth – is positively related to economic growth and technological progress.

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<sup>5</sup> Table 7 pp. 25-26 in Bautista et al 1979.

Unfortunately, productivity has traditionally been the Philippines' Achilles' heel. And since our labor is no longer cheap- China, Vietnam, and other countries have cheaper unskilled labor- we need to improve our productivity, especially labor productivity, if we are to hope to remain competitive.

One measure of productivity is the so-called Total Factor Productivity. There have been much empirical work done estimating the TFP growth rates for the Philippines and its neighboring countries. It is particularly worrisome that the Philippines in recent decades has lagged behind its ASEAN neighbors in this area. (see table 4)

**Table 4. Productivity Estimates**

Author	Period	Annual Rate TFP (%)				
		Philippines	Thailand	Singapore	Malaysia	Indonesia
Kawai (1994)	1970-80	0.8	1.2	0.7	2.5	3.1
	1980-90	-2.2	2.6	1.6	0.7	-0.1
Lindauer and Roemer (1994)	1965-90	0	3.3	3.6	1.1	2.7
Bosworth et al. (1995)	1980-86	-4.6	0.3	-0.8	-1.9	-1.1
	1986-92	0	4.0	4.0	2.8	0.8
Marti (1996)	1970-85	-1.1	1.3	1.5	0.5	0.8
	1970-90	-0.4	1.6	1.4	0.4	-0.5

Source: Felipe (1997)

One way to improve labor productivity is to provide workers with more capital; i.e. more investments. The Philippines is usually characterized as capital scarce and thus in need of foreign capital and investments. But foreign investments are important also for another reason. It is typically through foreign investments that a country is able to pick up technology. Superior technology in turn, can enhance productivity. The Philippines does not invest enough in research and development.

Radelet (1999) presents evidence that manufactured exports growth can enhance economic growth and technological progress by fostering ties between domestic firms and multinational firms who have leading-edge technologies. This seems to have been true in the case of the electronics exports. Some studies like the World Bank (2000)<sup>6</sup> have characterized the Philippine export structure as the most high-tech in the region, and perhaps the world. Hill (2003)<sup>7</sup> cautions however against such a label for Philippine exports, noting that electronics products can span from relatively low to high tech and the country's exports actually specialize in low tech electronics activities.

It is almost certain that the success of electronics exports can be explained in part, if not wholly, by the tremendous amounts of investment, especially foreign, into the sector. The Philippine Economic Zone Authority estimates that electronics accounted for 51% of total PEZA investments in 1995-99. In the same period, exports from these zones

<sup>6</sup> World Bank (2000), "Philippines Growth with Equity: the Remaining Agenda", p. 19.

<sup>7</sup> In Balisacan and Hill (2003) p. 225.



increased from 22% to 50% of total Philippine exports. Multinational corporations accounted for 85% of these exports, with Japanese firms alone accounting for 46%.<sup>8</sup>

The entry of multinational firms can be beneficial in many ways. First, they may provide domestic firms access to leading edge technologies they may not otherwise have. Second and very important, they also bring access to export markets. Not to be ignored are also the demonstration effects that can spillover to other sectors of the economy. Multinational companies' methods of operations may be emulated by domestic companies. Multinationals may also demand higher standards of service from domestic companies.

Unfortunately, the country tends to be unattractive to investments at present. Perceived political instability seems to be a real deterrent to foreign investors, though this is mostly outside the realm of pure economics. But other common complaints of investors have been about poor infrastructure also. There seems to be a vicious cycle at work here, a chicken and egg problem – some of these infrastructure need or could benefit from foreign investments in the first place.

### Conceptual Framework

As the term implies, a Free Trade Agreement would engage two countries into a trade arrangement whereby market forces will be made to work freely. Classical trade theory advances comparative advantage as the principle behind trade. The basic policy recommendation is for countries to specialize (completely or partially) in the production of goods wherein they have comparative advantage. The basic policy recommendation would be to concentrate on where you have comparative advantage and import the rest. The countries can then engage in the export of the goods where they have comparative advantage, and in the import of goods where they do not have comparative advantage. The implication here is that each country has different comparative-advantaged goods, which naturally occurs because of the use of the concept of “comparative”. A country may have absolute advantage in all goods vis-à-vis another country, but there is always the possibility that the absolutely disadvantaged country (the latter country) can have a comparative advantage in one of the goods vis-à-vis the absolutely advantaged country. Hence, when countries trade freely on the basis of comparative advantage, there is maximization of total output of goods resulting from the full utilization of the economic resources of both countries. Under a free market system, such an efficient condition will be naturally attained, as both countries will receive the appropriate price signals from the market.

The comparative advantage principle of classical trade theory was first derived from David Ricardo's formulation, where he cites production technological differences as being the primary source of each country's comparative advantage within a two-country and two-good, two-technology framework. A second source of comparative advantage was proposed by Eli Hecksher and Bertil Ohlin, using a two-country, two-good, two-

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<sup>8</sup> See Hill and Balisacan (2003) p. 231.

input framework. They proposed that countries will have their comparative advantage in a product that uses more intensively the resource which is more relatively abundant in that country. In either case, the exploitation of the resulting comparative advantage will lead countries to specialize and trade in such a way as to maximize output based on the full utilization of economic resources. This principle forms the basis as well as economic rationalization, albeit theoretical, of free bilateral trade.

For a balanced and more realistic perspective, however, it would be prudent to touch on the demerits or weaknesses of free trade based on comparative advantage. Perhaps the most glaring weakness is that the comparative advantage analysis lacks a dynamic perspective. In its most basic formulation, the comparative advantage analysis is a static one, and can only provide a static strategy, which is based on the given status quo. It does not consider, for example, the case where free trade could evolve in such a way where a country can export a good in which comparative advantage does not currently exist but has the potential to be so. In this paper, we refer to the potential of having comparative advantage as dynamic comparative advantage. We view this concept to be the more relevant in that it stresses the need for a developing country to view trade as a means in its economic development—a concept which inherently is dynamic.

Exploiting dynamic comparative advantages appears to have been a major feature of East Asian postwar development. One major analysis of this development is the “East Asian Miracle” Report by the World Bank. The report can be considered as a monumental step for the World Bank which is well known to be a vocal proponent of neoclassical economics that is heavily based on free markets. In this report, the World Bank naturally stressed the need for free markets, but at the same time it also conceded the possibility of “selective intervention”, which utilized government-organized contests as its basic principle for competitive discipline. This is actually a significant deviation from neoclassical economic theory. To be fair, neoclassical theory admits to cases of legitimate government intervention when the market mechanism fails. These cases fall under externalities, monopolies, and public goods. The contest mechanism of selective intervention, however, could be considered as a novel case whereby the government intervenes in setting the rules, referees, and rewards.

One paradigm which is less popular, at least in Western economic thinking, and has been used to describe and analyze the development of highly performing East Asian economies is the flying geese model. The Flying Geese (FG) model was first proposed by Kaname Akamatsu in the 1930s, to describe the various wavelike patterns of industrial development that he observed first within the local Japanese economy. The model’s popularity was given somewhat of a boost when it was cited by Saburo Okita<sup>9</sup> in a 1985 presentation to describe structural transformation in East Asia.<sup>10</sup>

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<sup>9</sup> Recipient of 1971 Magasaysay Award for International Understanding; Minister of Foreign Affairs 1979-1980.

<sup>10</sup> Saburo Okita, "Special presentation: prospect of Pacific economies," Korea Development Institute. *Pacific cooperation: issues and opportunities* (pp.18-29). Report of the Fourth Pacific Economic Cooperation Conference, Seoul, Korea, April 29 -May 1, 1985

As documented by Kiyoshi Kojima (2003),<sup>11</sup> the flying geese model consists of three patterns each based on empirical observations regarding the ebb and wane of Japanese industries.<sup>12</sup> The name of the model derives from the inverted V-shape formations of various statistics collected in Akamatsu's empirical investigations. The shapes suggested to Akamatsu the flight of wild geese through the autumn skies of Japan.

The first (original) pattern describes the evolution of a particular industry, in terms of its imports, production, exports, and reverse imports. An industry's pre-birth stage starts with the importation of the industry's products. This eventually ushers in the birth of domestic industry which is essentially an import-substitution phase as local production competes with imports. In time, the domestic industry becomes competitive enough to substantially if not completely displace the imports, and proceeds to compete in the international market through exporting some of its production. With the emergence of international competitors that could produce more cheaply, the domestic industry wanes and eventually goes through reverse importation as the new competitors are able to penetrate the domestic market and displace local production.

The second pattern of the FG model describes the waves of evolution through various industries within one country. Industrial development starts from primary industries, then moves on to light industries, to heavy industries, and then to high-technology industries. Movement to the next industry is initiated as the predecessor industry wanes and resources are allocated to the successor industry. Such allocation normally entails a steady increase in capital endowments, so that succeeding industries become more and more capital-intensive and less and less labor-intensive.

In its third formulation, the FG model has been used to describe the waves of industrial transplantation across countries, with Japan playing the role of lead goose. Industries are seen to relocate from Japan to the Newly Industrialized Economies, and then to the ASEAN 4. More recently Japanese industries have moved in to Mainland China and the new members of ASEAN 10.

Kojima further identifies two other features of the FG model which could be considered as strategies to fully exploit the merits of the FG model. One feature is what he refers to as "Pro-Trade FDI", which pertains more to the third pattern of the FG model. Japanese industries are transplanted abroad through foreign direct investments (FDI) which flow from potentially comparative disadvantaged industries in Japan to potentially comparative advantaged industries in the host country. Such investments would contribute to export as the host country's industry actualizes its comparative advantage due to technological upgrading that comes with the FDI. Kojima argues that the Japanese FDI to its East Asian neighbors can be largely characterized as pro-trade FDI.

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<sup>11</sup> Our discussion of the FG model draws heavily from "A Critical Survey of Flying Geese Dynamics" by Hitoshi Hirakawa and Ferdinand Maquito, Economic Research Center, School of Economics, Nagoya University, Discussion Paper (forthcoming)

<sup>12</sup> A first-generation student of Kaname Akamatsu

Another feature of the FG model is what Kojima refers to as “agreed specialization.” This is a strategy for the situation where Japanese FDI is confronted with a set of host countries with similar potential comparative advantage (e.g., ASEAN 4). The problem is that if transplantation of all industries is made to all of these host countries, then there is the failure to exploit economies of scale. To avoid this problem, the set of similar host countries will receive FDI in different countries. Each host country could then fully develop its potential comparative advantage in the industry to which it is hosting the FDI.

### The Japanese Government’s View

In January 2002, the Koizumi administration proposed the Japan-ASEAN Comprehensive Economic Partnership (JACEP). In the ASEAN summit talks in September 2002, it was decided that a framework for JACEP be proposed by this year.

A clear vision has yet to be ironed out, but Japanese government-related staff and documents reveal a strong commitment for Japan to continue forming, what the METI White Paper refers to as an East Asian Business Zone. There are basically three reasons for such a favorable attitude of the Japanese government. Firstly, systematization of the JACEP would lead to enhanced competitiveness of the Japanese manufacturing network in operation across ASEAN. Even with the steady progress of CEPT arrangements, there is still much room in removing barriers to trade and investments that could result in gains in competitiveness for Japanese foreign direct investments in ASEAN. Secondly, the Japanese government is in favor of a strategic diversification of Japanese investments which recently have tended to concentrate on China. While China’s participation in the international economy is much welcomed, prudence dictates against putting all of the Japanese eggs into the Chinese basket. Lastly, the initiatives of China and the US to form bilateral agreements with ASEAN are considered as a threat. The Japanese government is warning against complacency. It is to its best interest not to waste the manufacturing network it has been building up all these years, when interests in ASEAN by the two large economies have not been as keen.

One more thing to note about the Japanese government’s posture is that while it considers the WTO rules as a basis for systematizing JACEP, it also recognizes the need to be flexible and even go beyond such rules. Underlying this is the need to integrate East Asia as countervailing force to EU and NAFTA. Ex post, Japanese foreign direct investments have been very instrumental towards working toward this goal of integration, and could very well be the core towards further integration of the area.

While the Japanese government sees ASEAN + 3 as the ultimate form of East Asian integration, ASEAN-Japan partnership has the potential to move ahead more quickly than Northeast Asian arrangements. Despite the close cultural and historical similarities of Northeast Asian countries, progress towards integration may be more difficult.

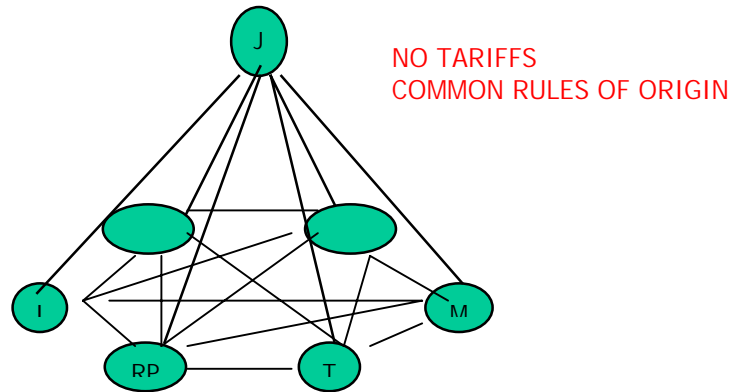


Figure1: METI's Regional Approach Framework  
Note: Not all East Asian Countries are shown

The Japanese Ministry of Economy, Trade, and Industry (METI)<sup>13</sup> has drawn up a regional approach framework (see Figure 1). Bilateral agreements between Japan and with each of the ASEAN 4 countries are scheduled to be completed by 2004, and with the whole ASEAN 10 by 2005. The regional approach envisions a completely barrier-free setup among Japan and the ASEAN 10 countries by 2012.

One notable feature of the above regional approach framework is that it is very much similar to the existing production network of Japanese companies in ASEAN (see figure 2). The Japanese government's vision of the systematization of an East Asian Business Zone is, therefore, intimately linked to and very much driven by the existing Japanese manufacturing networks in East Asia. The Japanese government's role is basically one of supporting such networks so that Japanese companies become more competitive in the international market.

In order to provide analytical inputs to the JACEP framework, IDE-JETRO has prepared an analysis of international competitiveness of ASEAN countries.<sup>14</sup> In this analysis, the International Competitive Coefficient (ICC)<sup>15</sup> index is used instead of Balassa's Revealed Comparative Advantage (RCA) to measure the competitiveness of East Asian products. The results are summarized in the table below. As can be seen from the table, the Philippines has actual or promising competitiveness in manufactured goods.

<sup>13</sup> Based on interview with METI official and METI's 2003 White Paper

<sup>14</sup> Hiratsuka, Daisuke "Competitiveness of ASEAN, China and Japan" in Ippei Yamazawa and Daisuke Hiratsuka eds., *ASEAN-Japan Competitive Strategy, the Institute of Developing Economies* (forthcoming)

<sup>15</sup> The ICC index is defined per commodity or industry  $i$  to be equal to  $\frac{X_i - M_i}{X_i + M_i}$

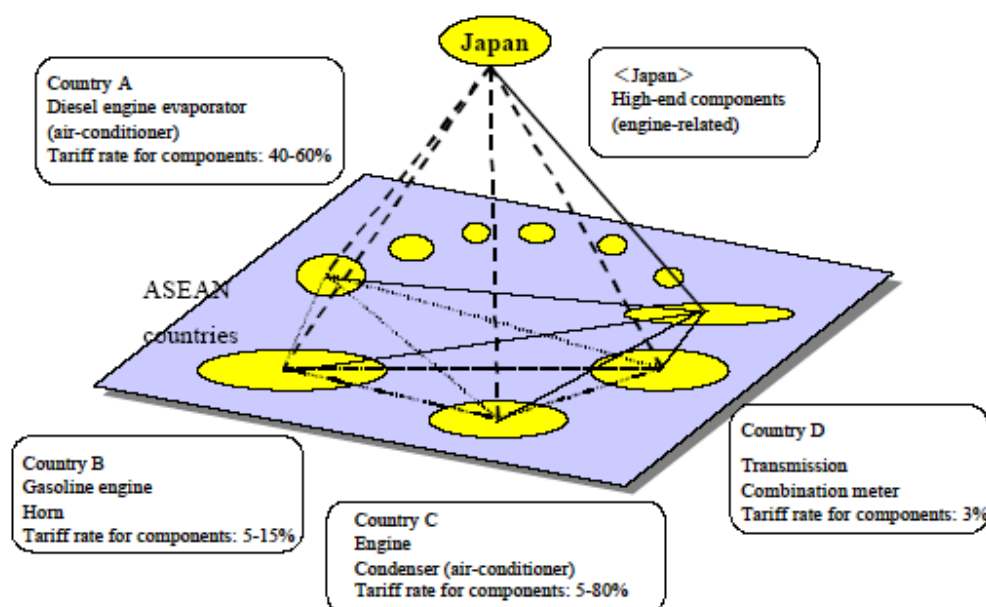


Figure 2: Optimum Supply Network of the Automobile Industry in ASEAN  
Source: METI White Paper 2003, p. 303

**Table 5. Grade of Competitiveness by Commodity**

	Competitive Industry	Promising Industry	Uncompetitive Industry
<b>Singapore</b>	(6), (7) (8),(9),(10),(12) (13) (14),(15), (28),(29)	(16),(18),(20),(24),(25), (26)(30)	(1), (2), (3), (4),(5),(11) (17),(19),(21),(22),(23), (27),(31)
<b>Malaysia</b>	(2),(3),(4),(5),(6),(7) (8),(9),(15),(21),(26), (31)	(10),(11),(12),(13),(14), (16),(18),(20),(28),(29)	(1),(17),(19),(22),(23), (24), (25),(27),(30)
<b>Thailand</b>	(1),(2),(3),(4),(5),(6) (7),(8),(9),(10),(13),(14) (15),(16),(17),(21),(22), (26), (27),(31)	(11),(18),(20),(23),(29)	(12),(19),(24),(25),(28) (30)
<b>The Philippines</b>	(3),(5),(6),(7),(8),(9) (15),(17),(18),(31)	(10),(12),(19)	(1),(2),(4),(11),(13),(14) (16),(20),(21),(22),(23), (24),(25),(26),(27),(28), (29),(30)
<b>Indonesia</b>	(2),(3),(4),(5),(6),(7),(8), (9),(13),(14),(15),(21) (26),(31)	(10),(11),(16),(28),(29), (30)	(1),(12),(17),(18),(19), (20),(22),(23),(24),(25), (27)
<b>Vietnam</b>	(1),(2),(3),(4),(5),(6) (14)	(7),(8),(10),(11),(13), (15),(20),(21),(27),(18)	(9),(22),(23),(24),(25), (26),(28),(29),(30)
<b>China</b>	(1),(2),(3),(4),(5),(6) (7),(8),(9),(10),(11),(17) (21),(22),(31)	(13),(14),(15),(16),(18), (19),(20),(26),(28),(29), (30)	(12),(23),(24),(25),(27)
<b>Japan</b>	(7),(8),(10),(11),(12), (13)(14),(15),(16),(17),		(1),(2),(3),(4),(5),(6) (9)

	(18)(19),(20),(21),(22),(23),(24),(25),(26),(27),(28),(29),(30),(31)		
<b>South Korea</b>	(3),(4),(6),(7),(9),(11)(12),(13),(14),(15),(17),(18),(21),(22),(26),(27),(29)	(20),(24),(28),(30),(31)	(1),(2),(5),(8),(10),(16)(19),(25)
<b>Taiwan</b>	(3),(4),(5),(6),(7),(8)(9),(11),(12),(13),(14),(15),(17),(18),(21),(26),(27)	(20),(28),(29),(30)	(1),(2),(10),(16),(19),(22),(23),(24),(25),(31)

Notes: a) agricultural related industries: (1) agricultural products, (2) processed agricultural products  
b) light industry: (3) apparel, (4) footwear & leather articles, (5) furniture, (6) miscellaneous manufactured goods ;  
c) light machinery: (7) home electrical appliances, (8) office & communication apparatus, (9) personal computers & peripheral equipment, (10) precision apparatus  
d) supporting industries: (11) metal processing, (12) molds, (13) parts of home electrical appliances, (14) parts of office & communication apparatus, (15) electronic parts, (16) parts of precision apparatus, (17) motorcycle parts, (18) automobile parts, (19) machine tool parts, (20) industrial machinery parts  
e) heavy machinery: (21) motorcycles, (22) commercial vehicles, (23) passenger cars, (24) machine tools, (25) industrial machinery  
f) material industries: (26) yarn & fabrics, (27) synthetic fiber textiles, (28) petrochemical products, (29) basic petrochemicals, (30) iron & steel, (31) glass & cement.

Sources: Hiratsuka, Daisuke " Competitiveness of ASEAN, China and Japan" in Ippei Yamazawa and Daisuke Hiratsuka eds., *ASEAN-Japan Competitive Strategy, the Institute of Developing Economies* (forthcoming)

### Perspective: Japanese Companies in the Philippines

#### A. Companies in the Export Processing Zones

This section presents a perspective obtained from interviews with Japanese companies operating in the Philippines, especially in the Special Economic Zones (SEZs). Because of the relatively small sample size, not much can be said of the general applicability of the findings.

We also had the common problem of short data series. This made difficult both achieving and assessing the reliability of findings. Fortunately, we have been able to get access to longer data series from the Philippine Economic Zone Authority (PEZA). We have used this data as an organizing point for our analysis in this section. The interviews with the Japanese manufacturing companies (including the statistical data obtained there from) are used to supplement the analysis of the PEZA data, where possible.

The PEZA data consisted of monthly data from January 1997 to December 2002 for direct employment, imports (in US dollars), and exports (in US dollars) in the different SEZ in the country. This data was used for the estimation of an export production function for each SEZ, with direct employment and imports taken as inputs to production. Export and import values were deflated using monthly export price indices and import price indices (base year = 1995), respectively. The price indices were

obtained from various issues of the Selected Philippine Indicators by the National Census and Statistics Office. OLS was used to estimate the technological coefficients of a Cobb-Douglas export production function:

$$LOG(EX) = \hat{\alpha} * LOG(EMP) + \hat{\beta} * LOG(RIM)$$

where  $LOG(EX)$  = logarithm of real exports  
 $LOG(EMP)$  = logarithm of direct employment  
 $LOG(RIM)$  = logarithm of real imports  
 $\hat{\alpha}, \hat{\beta}$  = estimated technological coefficients.

Because of the shorter length of the price indices, estimation was done for a consistent data period between January 1998 and December 2002. Moreover, SEZs without 1998 data were not estimated. The best estimation results are given in Table 6, sorted according to increasing Economies of Scale (EOS) factor.

**Table 6: Export Production Function Estimation Results**

	EMPLOYMENT	REAL IMPORT	EOS FACTOR
West Cebu Indl Park		0.9278874	0.9278874
First Philippine Indl Park		1.0361566	1.0361566
Baguio City Economic Zone	0.2403555	0.8620287	1.1023842
Leyte Indl Devt Estate	0.328715	0.7827399	1.1114549
Bataan Economic Zone	0.6389222	0.4876453	1.1265675
Cavite Economic Zone	1.2662194		1.2662194
Mactan Ecoeconomic Zone	1.1354897	0.14444	1.2799297
Laguna Techno Park	0.9679828	0.3132673	1.2812501
Light Industry Sci Park Phil 1	1.0437114	0.2391181	1.2828295
Victoria Wave	1.2831927		1.2831927
First Cavite Indl Estate	1.3108485		1.3108485
Mactan Economic Zone II	1.3486368		1.3486368
Luisita Indl Park	1.3593132		1.3593132
Daiichi Indl Park	1.2870485	0.1319954	1.4190439
Light Industry Sci Park Phil 2	1.4337332		1.4337332
Subic Shipyard Sp Eco Zone	1.3227522	0.1202609	1.4430131
Lima Technology Center	1.4573385		1.4573385
Gateway Business Park	1.4622038		1.4622038
Laguna Intl Indl Park	1.4628399		1.4628399
New Cebu Township	1.5207115		1.5207115
Toyota Indl Complex	1.3973197	0.1783027	1.5756224
Angeles	1.5938713		1.5938713

As the term implies, the EOS factor is indicative of the economies of scale of each SEZ, and is derived from the sum of the technological coefficient estimates. The export



production function exhibits increasing returns to scale if the EOS factor is greater than unity, constant returns to scale if equal to unity, and decreasing returns to scale if less than unity.

From Table 6, it can be observed that, with the exception of West Cebu Industrial Park, all of the SEZs displayed increasing, if not constant, returns to scale. This is a positive sign indicating that the majority of SEZs are operating in a production region where increasing production would be accompanied by decreasing average costs.

Sources at the Yutaka Manufacturing Philippines, Inc. (YMPI), a second-tier subcontractor for the Honda keiretsu did identify higher production as a possible source of enhanced competitiveness. Related to this is the domestic demand factor, which was cited by other companies (Toyota, Asahi, and Honda) as a crucial factor for their local operations. It is interesting to note that the IT-related firms that were interviewed were not as emphatic about domestic demand. One possible reason for this is the higher value added of IT-related industries vis-à-vis machinery-related industries. Fujitsu, SSPI, and Enomoto mentioned that the produced parts are sometimes delivered by air.

The SEZs in Table 6 can be classified depending on the significant explanatory variables. Nine of the SEZs have significant technological coefficients for both of the explanatory variables (CATEGORY 1). Eleven SEZs have a significant technological coefficient only for direct employment (CATEGORY 2). A minority formed by two SEZs have a significant technological coefficient only for real imports (CATEGORY 3). This suggests that Philippine labor is a significant input to export production in the majority of SEZs. In fact, in most of the CATEGORY 1 and 2 firms have employment technological estimates greater than that for real imports. This would suggest that the cost-minimizing share of employment will be higher than that of real imports. Hence, export production in the SEZ appears to be labor-intensive.

Behind our three categories of SEZ is a definition regarding the optimality of the SEZ export production. CATEGORY 1 is taken to be the most optimal of the three categories in the sense that both inputs are statistically significant in explaining the movements in real export. This implies that the CATEGORY 1 SEZs are able to efficiently combine the two inputs. This follows from the definition of a production function as being, ex post, the combination of inputs that will produce a given output at the minimum cost. For a Cobb-Douglas production function, zero use of one input cannot be optimal unless perhaps the price of one input factor is infinitely high. CATEGORY 2 and CATEGORY 3 SEZs, therefore, are considered as less optimal than CATEGORY 1 SEZs in the sense that the insignificance of the one input implies an inability of these SEZs to combine the two inputs efficiently. No particular ordering is attached to CATEGORIES 2 and 3.

CATEGORY 1's optimality may be further understood by looking more closely at the behavior of real imports. It was observed that of the two inputs, real import is generally the more volatile one, for all of the SEZs. It appears to be that the SEZs do not adjust employment to accommodate short-term (monthly) changes in export production,

and that real import bears the brunt of short-term adjustments. This is assuming that export production is largely determined by the market-side—a plausible assumption given that exports are supplied to the competitive international market.

This adjustment role of real import led us to investigate the correlation between real imports and real exports, and its relationship to the categories we have arbitrarily created. We have estimated the following relationship using OLS across SEZs:

$$ADJR2 = 0.272 * EOS + 0.322 * DUM1$$

where ADJR2 is the adjusted coefficient of correlation for an OLS estimation of real export on real import, EOS is the EOS factor, and DUM1 is a dummy variable which is equal to one when the SEZ is CATEGORY 1 and equal to zero otherwise. Both estimates were significant at the 95% level. The adjusted coefficient of correlation for this regression is 66.8. This estimation result suggests that the correlation between real imports and real exports increases as the EOS factor increases, all other things constant. This implies that higher EOS factors are accompanied by higher correlation between real export and real import. Moreover, the relationship indicates an increase in the real import-real export correlation when the SEZ is CATEGORY 1. This supports our view that CATEGORY 1 SEZ is optimal in terms of being able to adjust imported inputs so as to meet production of exports.

Table 6 may suggest that CATEGORY 2 may be more optimal than CATEGORY 3 since the EOS factor for CATEGORY 3 is the lowest of all the SEZs listed in the table.

This reminds us of our interview with PIMES officials where it was suggested to us that the SEZ (in this case, the Cavite Economic Zone) can be made more efficient. To be sure, PIMES and each of the locators in the said SEZ can individually contribute to overall SEZ efficiency. Our sources, however, suggested that there are possible improvements that go beyond the control of each locator. Unfortunately, our sources declined to elaborate. This reminded us of a possible coordination failure in the said SEZ.

Looking back at Table 6 indeed we see that the Cavite Economic Zone is a CATEGORY 2 SEZ, with only direct labor as a significant explanatory variable of export production. In fact, of the 4 public economic zones, the Cavite Economic Zone has the lowest correlation between real import and real export. This would imply some kind of bottleneck both on the level of each locator and on the level of the SEZ, which hinders a high responsiveness of imports to exports.

One last observation we would like to make on Table 6, which would be of relevance to the ultimate purpose of this survey, is the excellent performance of the Toyota Industrial Complex, which is dominated by Japanese investments. It exhibits the second to the highest EOS factor, and is a CATEGORY 1 SEZ. It is surpassed only by the Angeles Economic Zone which apparently does not have any Japanese locators and is a CATEGORY 3 SEZ. On closer inspection, however, we found that export production in the Angeles Economic Zone is actually significantly explained by the last month value of

real imports, although current real imports do not. Even with this new estimation, the EOS factor did not change substantially. However, it does indicate some loss of optimality in that imports have to be stored for one month prior to production. This could constitute higher costs due to inventory. Hence, the Toyota Industrial Complex can be considered as a CATEGORY 1 SEZ with the highest EOS factor, and worthy of emulation by the other SEZs.

One integral component of SEZ operations is the incentive structure provided by the Philippine government to SEZ locators. In this connection, our sources mentioned the need for fairness in the incentives being meted out by the government. In the case of Toyota, they feel the proper strategy is to develop exports of parts suppliers. Not that they disagree with incentives for CBU exports, but would like to see any incentives given to apply also to parts suppliers. Honda appears more ambivalent, revealing that they have a model up their sleeves that they plan to locate production in the Philippines for export as CBU to other ASEAN countries. The incentives may have an effect on development of local parts suppliers. In the case of Asahi Glass stressed how excessive liberalization vis-à-vis our ASEAN neighbors have opened up the country to cheap imports from China. After massive layoffs and restructuring in response to intense imported competition, Asahi Glass is now competitive enough to export. Market share, however, has not recovered and there is the issue of whether government incentives can be given so as to enhance competitiveness while minimizing the adjustment costs. Given a fair and efficient incentive mechanism, the firms interviewed showed a strong eagerness in continuing to establish a manufacturing network in the country

The Japanese External Trade Organization (JETRO) conducted a questionnaire survey of Japanese affiliated manufacturers based in eleven Asian countries and regions.<sup>16</sup> The questions ranged over a wide range of topics and issues: future plans, subcontracting and cost structure, problems and even views on a free trade agreement between the Philippines and Japan.

Among the countries surveyed, the Philippines had the highest proportion of firms exporting 100% of their sales (41.7%, way above the total average of 19.8% and the ASEAN average of 21.4%). It is likely that majority of the respondents in the Philippines were located in an export zone.

Of particular relevance to the paper perhaps are some responses on the procurement patterns of Japanese firms in the Philippines compared with similar firms in neighboring countries. Japanese manufacturers in the Philippines tend to have the lowest rate of locally procured materials and parts. (see table 7) The Jetro survey reports that 60.5% of Japanese firms in the Philippines indicated “difficulty in procurement of local parts and raw materials” as one of their production problems. This is significantly higher than the average of 44% for ASEAN. In the survey, only Vietnam had a higher proportion of firms (61.8%) expressing this problem.

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<sup>16</sup> The countries or regions included: Indonesia, Malaysia, Philippines, Singapore, Thailand, Vietnam, China, Hong Kong, India, South Korea, and Taiwan.

**Table 7: Percent of Respondents Procuring Locally by Share of Materials and Parts**

	<i>% of materials and parts locally procured in your location</i>										
	0	1 to 20	21 to 30	31 to 40	41 to 50	51 to 60	61 to 70	71 to 80	81 to 90	91 to 100	Unknown
Total	5.1	27.7	11.7	7.1	6.9	6.5	8.3	7.9	9	9.8	3
ASEAN											
Subtotal	5.7	31.9	11.5	7.2	6.9	7.2	7.3	6.5	7.9	7.9	2.1
Thailand	3.5	25.2	9.7	8.8	9.7	8.4	8.4	8.4	8.4	9.3	3
Malaysia	2.9	28.2	13.2	7.5	3.4	9.2	9.2	6.9	9.2	10.3	0.6
Singapore	8.8	20.2	11.4	7.9	6.1	7	7	11.4	12.3	7.9	4.2
Indonesia	2.5	31	8.9	8.2	10.8	8.9	8.2	4.4	8.2	8.9	1.3
Philippines	10.1	45.6	17.4	4.7	4.7	3.4	5.4	2	4.7	2	0.7
Vietnam	13.4	55.2	6	3	3	3	1.5	6	1.5	7.5	4.3
ROK	13.3	20	3.3	6.7	----	3.3	16.7	6.7	10	10	9.1
Taiwan	5.7	17.1	0.5	8.6	7.6	1	13.3	15.2	9.5	11.4	2.8
China											
(excl HK)	3.3	24	12	6.6	7.1	6.8	6.8	8.5	10.7	14.2	4.7
Hongkong	2.9	29.4	7.6	5.9	8.8	5.9	5.9	5.9	8.8	8.8	----
India	2	5.9	9.8	7.8	7.8	5.9	23.5	13.7	13.7	9.8	3.8

Some of our interviewees also confirmed this when they remarked that they had difficulty finding local subcontractors to outsource parts of their production activities. This is consistent with observations that Philippine industry suffers from poor backward linkages. The semiconductor industry for instance, has often been cited as an example of an export with low domestic value-added.

This finding of poor linkage with domestic suppliers is consistent with the findings of Radelet (1999). There he noted that many countries pursued the strategy of establishing an “export platform” or enclave where exporters could operate in an environment free from problems of poor trade policies, weak infrastructure, bureaucracy and inconsistent rule of law prevalent in the general environment. In many of these countries, he found similar poor backward linkages with domestic suppliers. It is possible that in an export-processing zone, the incentive of relatively free importation of raw materials and capital equipment (duty free in the Philippine case) may precisely reduce the incentive for locators to go outside for suppliers. Domestic suppliers outside export processing zones also generally do not enjoy duty exemptions for their own inputs, which may render them uncompetitive.

This would then seem to be an obvious strategy to increase Philippine manufactured exports; to improve the backward linkage of Philippine manufacturing by raising the capability of local firms to supply to multinationals’ affiliates here. Here we recall that when General Motors decided to locate in Thailand over the Philippines a few years back, they had cited the well-developed supplier network that was available there. Further study would be needed to establish the reason for the poor domestic supply capability.

In connection with a free trade arrangement with Japan, only 6.1% of Japanese firms in the Philippines indicated “High customs duties on imported capital and

intermediary goods“ as a production problem. This is about half the overall average proportion of firms reporting this as a problem. Only Korea and Taiwan had less proportions of firms reporting this problem. This may be because most of the respondent firms for the Philippines are located in export processing zones. In fact, this is likely the case as the Philippines had the largest proportion of firms participating in the surveying reporting 100% of their sales as exports.

### Strategic Implications

In this section, we comment on some provisions of the Japan and Singapore Free Trade Agreement with a view to drawing out strategic implications for an RP-Japan Free Trade Agreement.

#### *Provisions (from Summary of Chapter)*

- Specifically, the Chapter commits both countries to grant preferential tariff free market access to an extensive range of products. It also provides for possible acceleration of tariff elimination or inclusion of additional products for tariff elimination in the future. In addition, each country must ensure that its excise taxes and other charges are not levied in an unjust manner that would result in discrimination against imported products.
- ...Furthermore, Japan and Singapore are prohibited from maintaining any export duties that may distort bilateral trade and are obliged to ensure that their non-tariff measures are similarly non-distortive and transparent.

#### *Comments/Suggestions*

Provision should be made to allow for temporary protection (in other forms) of locally produced import-competing products, so as to allow such products to be able to compete in the international market later on, and to exploit dynamic comparative advantages inherent in the flying-geese dynamics that has driven successful industrial development in the highly performing economies of East Asia. Such a provision will require the following: (for an illustration of the principles below, please see attachment)

1. A credible or binding commitment by the Philippine government to set and enforce the deadline for withdrawal of protection on such import-competing products. (With the possibility of a new president, with a different agenda, coming into power, such credibility becomes even more imperative)
2. Such deadlines are set on a clear understanding of the dynamic comparative advantage of import-competing firms
3. A preference for applying temporary protection on products where foreign direct investments from Japan are present or are potential entrants, particularly in products with high export potential (pro-trade FDI)

4. A preference for applying temporary protection on products which fits into the international division of labor within ASEAN, allowing, therefore, for the possibility of agreed specialization so as to maximize benefits from economies of scale
5. A preference for applying temporary protection for FDI which is open to generating backward linkages with indigenous manufacturing firms

Provision should be made for allowing non-tariff but structural features, which are inherent to exploiting the dynamic competitive sources of firms. For example: close linkages between contracting and subcontracting firms; close linkages between financiers and firms; close relationships between laborer and firm. (In the past, these have been criticized as non-tariff, structural impediments)

*Provisions (from Summary of Chapter)*

- The individual tariff schedules of Japan and Singapore, which are annexed to this Chapter, consist of each country's commitments in the area of tariff concessions. These schedules stipulate the products that are subject to zero tariff concessions and the corresponding time frames within which tariffs are eliminated.

*Comments/Suggestions*

Tariff schedules should be made based on information related to locally based producers obtained through one of the following:<sup>17</sup>

1. Direct consultations with producers
2. Historical analysis of production

Where such a scheme is too costly to implement (because of immense difficulty in getting data) performance-contingent tariff schemes could be designed that are based on readily observable performance indicators. For example, a tariff schedule based on exports can be set in contest-like fashion. Tariffs will be reduced by a certain percentage once locally produced exports (including those of locally located Japanese firms) have reached a certain level. Given the possible disincentive of such a scheme, however, a credible deadline should be set for the complete removal of tariffs, or clearly set rewards in terms of subsidies could be provided later based on export performance.

*Note:*

Most, if not all, of the suggestions made above are based on an understanding of the effective features of Japan's development in the past. These are still considered to be valid in the case of the Philippines given that it is at a later stage of development vis-à-vis Japan. The Japanese side should be able to understand most of these suggestions. Recent trends, however, have caused some sectors within Japan to yield to the free-market view, being espoused by other advanced neoliberal countries like the US. This has resulted, to

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<sup>17</sup> We are still in the process of getting the following inputs.

some extent, in a blind embrace of free trade principles, bereft of any strategic vision in some sectors within Japan, and has inadvertently inflicted a lingering slump to the Japanese economy. While free trade can benefit trading countries, it should be approached strategically, so as to minimize the adjustment costs. It is crucial for our negotiating party to be aware of this pitfall, to maintain a strategic vision throughout the negotiation process, and to work for mutually beneficial arrangements. The breakdown of the Japan-Mexico FTA talks has made the NAFTA an even more formidable competitive regional block, making the importance of Japan- ASEAN partnership even more important.

### Illustration of the Exploitation of Flying-Geese Dynamics

Crucial to the proper exploitation of the flying-geese dynamics is the identification of competitive stages of products in both the catching up economy (in this case, the Philippines) and the lead goose economy (Japan). For this we refer to the International Competitiveness Coefficient (ICC) indices calculated by Hiratsuka (2003) and presented in Section III above. The ICC is helpful in identifying the stage at which a product (or industry) is in the catching up product cycle of the flying-geese dynamics. Based on ICC calculations, Hiratsuka came up with the following table comparing the international competitiveness of different product categories for ASEAN and Northeast Asian countries.

Based on this table the following strategy set could be arrived at:

1. Temporary protection and appropriate incentives be given to precision apparatus, molds, and machine tool parts. These are industries which are deemed to be promising Philippine industries and at the same time competitive industries in Japan. These are the industries where there is a lot of potential for pro-trade FDI from Japan.
2. Promote exportation to Japan of apparels, furnitures, miscellaneous manufactured goods, and personal computers & peripheral equipments. These are industries which are deemed currently competitive in the Philippines and at the same time uncompetitive in Japan
3. Promote gradual and selective exportation of home electrical appliances, office and communication apparatus, electronic parts, motorcycle parts, automobile parts, glass and cement. These are industries where both the Philippines and Japan are currently competitive. Gradual and selective exportation can do a lot to avoid resistance from Japanese industries.
4. Promote importation from Japan of metal processing, parts of home electrical appliances, parts of office and communication apparatus, parts of precision apparatus, industrial machinery parts, motorcycles, commercial vehicles, passenger cars, machine tools, industrial machinery, yarn & fabrics, synthetic fiber textiles, petrochemical products, basic petrochemicals, iron and steel. These are industries

where the Philippines is currently uncompetitive while Japan is competitive. The possibility of local production of these items should be borne in mind.

5. Agreed specialization should be considered in precision apparatus (with Indonesia and Malaysia), molds (with Malaysia). These are promising industries in the Philippines, which are also promising in the mentioned ASEAN 4 countries. Within the ASEAN 4, the Philippines alone has a promising status in machine tools part. It does not have overlapping promising status with Thailand. There is, therefore, potential for continued agreed specialization with the other ASEAN 4 countries.

In general, the above would suggest the following tentative elements of an export strategy to Japan. Firstly, the strategy could focus on the possibility of exporting manufactured goods. The Japan-ASEAN Comprehensive Economic Partnership obviously is virtually driven by existing Japanese manufacturing networks. Secondly, the strategy should maximize the leverage that the country could get from linking with such existing manufacturing networks. Our sterling export performance so far has done this. Moreover, such manufacturing networks could supplement our institutional weaknesses or tendencies to be self-defeating that were inherent in our failure with past industrializing policies. Thirdly, the strategy could be realized over the medium- to long-term due to the time it would need for such manufacturing networks to develop indigenous SME subcontractors, and other supporting institutional structures.

Lastly, the strategy is going to be firm-led, with the government and other socio-economic institutions playing an active supporting role. The point is to be market-friendly but not leaving everything to the invisible hand of the market, which would most likely be disabled in a developing country context. Clearly, this precludes an MIP-type of strategy.



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## Appendix

List of interviewees in survey/personal interview.

1. Mr. Shigeo Tsubotani  
Chairman and CEO  
Fujitsu Philippines, Inc.
2. Mr. Mitsunari Takano,  
President  
Honda Cars Philippines  
  
Mr. Alfredo Magpayo,  
AVP  
Honda Cars Philippines
3. Mr. Nobuhiro Tabata  
President  
Toyota Motor Philippines
4. Mr. Nagamine  
President  
Fujitsu Computer Products Corporation of the Philippines
5. Mr. Hironari Kotoda  
Executive Vice President  
Asahi Glass Philippines, Inc.
- (Subcontracting Firms)
6. Mr. Akira Ishii  
President  
Sanyo Plastic Philippines, Inc.
7. Mr. Joji Miyake  
President  
Toyota Auto Parts Philippines, Inc.
8. Mr. Hitoshi Sakamoto  
Senior Vice President  
Enomoto Philippine Manufacturing, Inc.
9. Mr. Tadashi Yamaji  
President  
Philippine International Manufacturing and Engineering Services