RESEARCH PAPER
SERIES No. 2007-01

The Impact of ASEAN-China FTA Early Harvest Program: The Case of the Philippines with Focus on Short-Run Effects on the Agriculture Sector

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PHILIPPINE INSTITUTE FOR DEVELOPMENT STUDIES
Surian sa mga Pag-aaral Pangkaunlaran ng Pilipinas

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This study is part of the Cross-Country Research Project on the *Economic and Social Impact of Market Liberalization--A Study on Agriculture Liberation Under the China-ASEAN FTA* funded by the East Asia Development Network (EADN).

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ISSN 1908-3297
RP 07-10-500

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Abstract

Agricultural liberalization remains to be the most sensitive issue in trade negotiations not only because it is tied to the food security policies of a country but also because the transformations it brings have social implications, mainly in terms of adjustment costs. Patterns of rural and urban poverty can largely be traced to the agricultural policies of a country.

This paper aims to provide some information on the implications for the Philippine agriculture sector of the ASEAN-China Free Trade Agreement. In particular, the paper explores the possible impact of the agreement, with emphasis on the Early Harvest Program (EHP). It also provides a brief background on the state of the Philippine agriculture system, the liberalization initiatives undertaken, as well as some policy gaps and interventions done to address these. The paper also revisits a simulation exercise conducted on the possible short-run impact of an EHP to identify the vulnerable sectors.

To meet the China challenge, as well as the other broader challenges of globalization, the Philippine agriculture system should hasten the pace of domestic reforms and restructuring to maintain international competitiveness, and provide the foundation for sustained growth. The paper further recommends for the country to build its own strength and competitiveness to create a mutually beneficial relationship with China.

I

Introduction

Agricultural liberalization remains to be the most sensitive issue in trade negotiations not only because it is tied to the food security policies of a country but also because the transformations it brings have social implications, mainly in terms of adjustment costs. Patterns of rural and urban poverty can largely be traced to the agricultural policies of a country.

As a result of policy mistakes in the past, the Philippines had been cautious with the liberalization of the agriculture sector. In fact, the country has even prominently figured in the Doha Round of the World Trade Organization (WTO) negotiations as one of the leading developing countries to insist on providing maximum flexibility to vulnerable sectors and securing maximum policy space for developing countries in multilateral negotiations[1]. When China offered a free trade agreement (FTA) with the Association of Southeast Asian Nations (ASEAN), the Philippines became a somewhat reluctant partner. In fact, it was the last of the ASEAN member states to seal an agreement for an Early Harvest Program (EHP) with China in 2005.

The ASEAN-China FTA is unique in such a way that while other FTAs tried to evade the agriculture issue, the agreement negotiated it in a straightforward manner through the EHP (Pasadilla 2005). The EHP covers chapters one to eight of the Harmonized System. Other tariff lines that may be sensitive to ASEAN countries can be exempted from the EHP as allowed by the agreement's provision for an exclusion list and sensitive track products. This element of the FTA makes it a potential south-south trading system and a win-win initiative (Bernardino 2004). Moreover, the ASEAN-China FTA aims at creating closer economic

[1]Statement made by Department of Agriculture Secretary Segfredo Serrano during the Roundtable Discussion on Economic and Social Impact of Agriculture Liberalization Under the China-ASEAN FTA. February 28, 2007, NEDA sa Makati Bldg., Makati City.

relations between China and the ASEAN by lowering trade and investment barriers and by carrying out technical and economic cooperation projects. Such an agreement and cooperation hopes to enhance the sense of community within the region, reduce tensions, and contribute to stability (Chia 2004). However, it goes without saying that the impetus for an ASEAN-China FTA is made with conscious considerations of political motivations.

The Philippines has its own share of offensive and defensive interests in this agreement. It cannot be denied that China poses serious competition to many local industries. But there is also no question that it offers a huge potential market for businesses across the globe that are also actively seeking to obtain a share of this market. Either way, it is essential for trading partners and industries to find their own strengths and to work on enhancing their comparative and competitive advantages. How to enable local industries, either to cope with the competition or to take advantage of the huge opportunities, is the challenge that the government needs to face.

This paper aims to contribute to the discourse by providing some background information that would help in understanding the circumstances facing the agreement and the possible implications for the Philippines. In particular, the paper explores the possible impact of the ASEAN-China FTA, with emphasis on the short-run impact of the EHP. It provides a brief background on the state of the Philippine agriculture system, the liberalization initiatives undertaken, as well as the policy gaps in the system and the interventions done to address these. The paper revisits the simulation exercise conducted by Prenio et al. (2005) on the possible short-run impact of an EHP to identify the vulnerable sectors. The last part provides the conclusion and policy recommendations on the necessary domestic support and reforms that the government should undertake to maximize the gains from this FTA.

II

Overview of the Agriculture Sector

Agriculture is an important sector in the Philippines. It employs 35 percent of the labor force and accounts for 20 percent of the gross domestic product (GDP). If linkage with other agriculture-based sectors is considered, it accounts for close to 40 percent of GDP and employs two-thirds of the labor force (David 1997; Cororaton 2005). However, despite its importance to the economy, agriculture has been characterized by low growth and productivity performance. The annual growth rate of the combined agriculture, fishery, and forestry sector is roughly at 2 percent, which is barely enough to sustain the food needs of a population growing at a rate of almost 3 percent.

Agriculture used to be a promising sector with so much potential. In the 1970s, largely as an offshoot of the Green Revolution program of the Marcos administration, the Philippines became a net exporter of agricultural products, representing two-thirds of the total exports. However, policy bias against the sector, coupled with the collapse in world commodity prices, stagnated agricultural growth in the country. The policy bias toward import substitution led to market distortions that promoted rent-seeking activities and distorted economic incentives against investments in agriculture (Cororaton 2004). Deterioration of the sector was further reinforced by inadequate policies and weak institutional framework governing agriculture (David 2003).

In the 1990s, patterns in Philippine agriculture took a spin as exports stagnated and imports increased, making the Philippines a net importer of agricultural products. David (2003) attributed this to the country's fading comparative advantage and low productivity levels in agriculture.

III

Policy Gaps and Intervention

The overall poor performance of the Philippine agriculture sector can be attributed to a number of factors. While weather disturbances such as El Niño and La Niña are partly responsible, the unsatisfactory performance of the sector is also largely due to inadequate policies and weak institutional framework governing agriculture. Most significant among these are price intervention policies in the form of export taxes in agriculture. While these policies had huge revenue potential, they only aggravated the bias against agriculture in favor of other sectors in the economy, particularly toward the import-substituting consumer goods (Intal et al. 1990). Explicit government intervention in pricing and marketing in agriculture, with the objective of protecting the domestic economy from instability in world commodity prices, led to the establishment of government marketing agencies that had monopoly power for imports and monopsony power for exports that diverted proceeds from agricultural producers and created rent-seeking activities (Bautista et al. 2003).

Another factor that strained the sector is inadequate investment in necessary infrastructure such as irrigation, public support programs, and research and development (R&D). Compounding this weakness are poorly designed or unimplemented programs in agriculture. Irrigation investments stagnated since the 1980s, while R&D spending declined since the 1990s. In particular, R&D expenditures accounted only for 0.4 percent of the gross value added (GVA) in agriculture compared to an average of 1 percent in developing countries (David 2003; Cororaton 2005; Habito et al. 2005).

Despite intensive reforms undertaken in 1994, targets were still insufficiently met. Only half of the total appropriation for irrigation was allocated, with most of these funds going to repairs of existing irrigation systems instead of building new ones. Only

381 kilometers of farm-to-market roads were built out of the projected 8,000 kilometers. Total expenditure for postharvest facilities bloated up to seven times of the proposed budget, mainly aimed at providing drying facilities and multipurpose pavements for farmers' cooperatives. Also, there had been severe implementation failures in two government legislations on modernizing Philippine agriculture (Habito 2005), namely, the Agricultural Competitiveness Enhancement Fund (ACEF) and the Agriculture Fisheries Modernization Act (AFMA).

IV

Philippine Trade Reform and Effect on the Agriculture Sector

The government introduced a comprehensive trade reform program in the 1980s to liberalize trade unilaterally (Balboa et al. 2007). The program spanned more than a decade and was implemented in three phases up to the 1990s. The first phase, which was implemented from 1981 to 1985, narrowed down the tariff structure from a range of 100-0 percent to 50-10 percent. This was accompanied by the import liberalization program (ILP) that sought to eliminate nontariff import measures. However, implementation of the program was stalled by the economic and political crises in the country in the mid-1980s.

The second phase of trade liberalization aimed at lowering tariff rates over a five-year period was implemented in 1991. The program clustered the commodities within a tariff range of 10-30 percent. The following year, in 1992, Executive Order No. 8 was issued, which provided tariff protection measures to replace quantitative restrictions (QRs) on the importation of 153 commodities. Said EO placed a scheme that raised the tariff rates applicable to affected commodities by 100 percent of their pre-EO levels.

The third and final phase of the unilateral trade reform took place in 1994. It created a four-tier tariff structure with the end goal of achieving a low, uniform tariff by 2002. Specifically, it targeted to achieve the following rates: 3 percent for raw materials and capital equipment that can be sourced locally; 20 percent for intermediate goods; and 30 percent for local goods. The third phase was implemented through the issuance of four Executive Orders:

a. EO 189 issued on January 1, 1994 to reduce tariff rates on capital equipment and machinery;

b. EO 204 issued on September 30, 1994 to lower tariff rates on imported textiles, garments, and chemical inputs;
c. EO 264 issued on July 22, 1995 to reduce tariffs on 4,142 lines of the harmonized system (HS) in the manufacturing sector. This is considered to be the biggest reform in the tariff code; and
d. EO 288 introduced on January 1, 1996 to complement the reform in 1995 through reduction of tariffs on nonsensitive agricultural products.

In 1994, the Philippines formally acceded to the General Agreement on Tariffs and Trade/World Trade Organization (GATT/WTO), binding the government to the various agreements in the Uruguay Round (UR), including the Agreement on Agriculture (AoA). Subsequently, the government amended and revised its existing laws and policy measures to attune these to the rules of the WTO. With the country's accession to the WTO, it committed to eliminate all its quantitative import restrictions on agricultural products, except rice where the government asked for special treatment.

To implement its commitments, Republic Act 8178 was passed in 1996. Known as "An Act Replacing Quantitative Import Restrictions on Agricultural Products, Except Rice, with Tariffs, Creating the Agricultural Competitiveness Enhancement Fund, and for Other Purposes," it repealed the Magna Carta for Small Farmers of 1991 and replaced all quantitative restrictions on agricultural imports with tariffs that would substantially be reduced over a period of 10 years. The government's commitment to the WTO-AoA allowed for an initial bound rate of 100 percent for sensitive products, to be reduced in the next 10 years to 40-50 percent, considered the final bound rates. The government also committed to provide minimum access for imported agricultural products with tariff rates ranging from 30 to 50 percent right after the ratification of the GATT-UR. These are called in-quota tariff rates as differentiated from the normal rates that are applied to quantities of import exceeding the minimum access volume (Development Forum 2002).

Imposition of high-bound tariff rates and the subsequent reversion to protectionist policies in agriculture did not help the sector. Exports remained low, imports and farm gate prices remained high, and the sector remained inward looking and inefficient (Cororaton 2005). Declining output of agriculture further pushed it downhill as it failed to supply the food needs of the population. The sector was also unable to generate employment and to compete in the world market.

Under this tariff restructuring regime, aggregate exports expanded dramatically, overtaking aggregate imports, but growth occurred in only a few sectors, particularly in manufacturing, machinery, and transportation equipment. Growth and productivity remained low in the agriculture sector, particularly in raw materials, and animal and vegetable oils. Notably, per capita income has not changed, and there were mixed evidences as to whether the reforms really helped to alleviate poverty and improve income distribution in the country (Clarete et al. 2005).

V

The ASEAN-China FTA

In 2001, China and ASEAN agreed to establish the China-ASEAN FTA (CAFTA) within the next 10 years. The end goal is to use the enhanced efficiency in third-country markets, as well as to provide members with preferential entry to each other's markets.

For ASEAN, the agreement will provide first-mover advantages in the Chinese market before it opens on a most favored nation (MFN) basis, as well as provide opportunities for an Early Harvest Program (EHP). The agreement also aims to address various nontariff barrier concerns of ASEAN members.

In 2002, China and ASEAN signed a Framework on Comprehensive Economic Cooperation. The agreement covers tariff elimination on goods and services, investments, trade facilitation, special and differential treatment, and expansion of cooperation in various areas. The CAFTA provides three tracks on liberalizing goods: Early Harvest, Normal Track, and Sensitive Track.

The Normal Track is composed of two tracks: Normal Track I and Normal Track II. In Normal Track I, the applied MFN tariff rates shall be gradually reduced or eliminated over a period from January 1, 2005 to 2010 for ASEAN-6 and China. For new ASEAN member states, the period shall be from January 1, 2005 to 2015. On the other hand, Normal Track II shall consist of products whose tariffs have been reduced but not eliminated under Normal Track I. Their respective tariffs shall be progressively eliminated within timeframes to be mutually agreed between parties.[2]

Meanwhile, the Sensitive Track is divided into two categories: Sensitive (SL) and Highly Sensitive (HSL) products. For the SL, the initial target is reduction of tariff by 20 percent in 2012. There is no pronounced commitment yet for products categorized

[2]Department of Trade and Industry presentation on China-ASEAN FTA.

under the HSL listing. The ending rates and dates for SL product are 0-5 percent in 2018 and 50 percent for HSL in 2015.

The EHP covers chapters 1-8 of the Harmonized System (Table 1). It entails lowering tariff rates to three tiers (0%, 5%, and 10%) by January 1, 2004, and eventually to zero tariff by January 1, 2006 (Table 2). The final form of EHP is negotiated bilaterally between China and each ASEAN member country.

Table 1. Harmonized system chapters with corresponding number of tariff lines under the Early Harvest Program of the ASEAN-China Free Trade Area

Chapter	Description	Number of tariff lines	Applicable ACFTA rate of duty*
01	Live animals	19	0
02	Meat and edible meat offal	29	0
03	Fish and crustaceans, mollusks and other aquatic invertebrates	73	0
04	Dairy produce; bird's eggs; natural honey; edible products of animal origin, not elsewhere specified or included	22	0
05	Products of animal origin, not elsewhere specified or included	15	0
06	Live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage	8	0
07	Edible vegetables and certain roots and tubers	20	0
	Potatoes, fresh or chilled	1	0
08	Edible fruits and nuts; peel of citrus fruits or melons	27	0
TOTAL		214	0

*Starting January 1, 2006

Table 2. Early Harvest Program tariff reduction and elimination modality

Product Category	Jan-04	Jan-05	Jan-06
>15%	10%	5%	0%
5%-15%	5%	0%	0%
<5%	0%	0%	0%

The EHP aims to liberalize tariffs in priority sectors of interest and to implement other trade and investment facilitation measures that are deemed to generate immediate benefits to the ASEAN and Chinese business communities. These measures include:

- Development and technical assistance to build capacity of countries, particularly new ASEAN members, to improve their competitiveness;
- Trade and investment facilitation measures;
- Trade policy dialogue;
- Facilitation of visa arrangement for business people;
- Standards and conformity assessment;
- Measures enhancing market access opportunities for specific products or services to ASEAN and China, such as agricultural and tropical products, textiles and clothing, machinery and electronic products, footwear, oils and fats, foodstuffs, forestry and aquaculture products, and energy; and
- Extension of MFN treatment of China's accession commitments to non-WTO members of ASEAN in compliance with WTO rules.

A study conducted by the ASEAN-China Expert Group in 2001 showed that the participating countries are expected to benefit from this agreement. In the case of the Philippines, it is expected to gain a 0.32-percent increase in GDP from this FTA (Table 3).

Table 3. Impact on real GDP of the ASEAN-China FTA

Country	Real GDP US$ Million	Increase US$ Million	% Increase
Indonesia	204031.4	2267.8	1.12
Malaysia	98032.3	1133.5	1.17
Philippines	71167.1	229.1	0.32
Singapore	72734.9	753.3	1.05
Thailand	165516.0	673.6	0.41
Vietnam	16110.9	339.1	2.15
China	815163.0	2214.9	0.27

Source: ASEAN-China Expert Group (2001)

VI

The China-Philippines Early Harvest Program

Signed on April 27, 2005, the Memorandum of Understanding (MOU) between the Philippines and China for an EHP took effect on January 1, 2006. The government approved the grant of zero tariffs on 214 tariff lines in compliance with the said MOU (see Tables 1 and 2). The Philippines hopes to gain larger and easier market access for its tropical fruits, coconut products, and aquatic and seafood products. China, on the other hand, can potentially provide supplementary supply of agricultural products that are in short supply in the Philippines. Considering that China is a top trading partner of the Philippines (China ranked 4th in 2005 as Philippines' trade partner), the government hopes that it can help boost the sluggish performance of the agriculture sector.

Under the China-Philippines EHP, the following products are covered to meet the mandatory product coverage of chapters 1-8: live breeding animals and other live animals, meat of sheep, goats, horses, meat of bovine animals, fish (live, chilled or frozen, dried), ornamental fish, crustaceans, mollusks, milk and cream, live plants, fruits and vegetables (including desiccated coconut, bananas, pineapples, mangoes), coconut oil (Chapter 15), and cocoa powder (Chapter 18). Products excluded from chapters 1-8 are placed either in the Normal Track or in the Sensitive Track.

The Philippines was the last ASEAN member country to conclude its negotiations with China. This was primarily because the country's sensitivity was concentrated on the target scope of the EHP that covered raw, unprocessed agricultural products in chapters 1-8 of the Tariff Code. Furthermore, negotiations slowed down as a result of intensive lobbying by affected sectors, particularly sugar, pork and poultry, rice and corn, and vegetable.

With pressure building up from both sides, the Philippine government was eventually able to come up with a package that

sufficiently represented the strategic interest of the agriculture sector, which was, at the same time, acceptable to China. The Philippine government was able to throw in lines outside of chapters 1-8, particularly coconut oil and cocoa powder, products in which the country has a comparative advantage.

For the EHP, total utilization value was at US$ 975,934, the bulk of which came from edible fruits and peel of citrus or melons, while the rest came from edible vegetables and certain roots and tubers, and cocoa and cocoa preparations.

Table 4. Philippine Form E utilization under the Early Harvest Program, January-May 2006

Tariff Code	Description	ACFTA Rate	Country of Origin	Value In US$
7	Edible vegetables and certain roots and tubers	0	CN	194,619.40
8	Edible fruits and nuts; peel of citrus fruits or melons	0	CN	770,369.84
18	Cocoa and cocoa preparations	0	CN	10,945.27
TOTAL				975,934.51

Source: DTI ASEAN-China FTA Presentation

VII

What to Expect from the EHP: Review of Some Potential Short-Run Impacts of the EHP

Various comprehensive models almost consistently showed positive benefits of the ASEAN-China FTA for individual countries as a whole. These results are expected, since the resulting openness in such a large grouping of countries can only lead to better resource allocation. However, these benefits have underlying short-run adjustment costs that are important to understand. This section attempts to focus on what the short-run impacts can be, and possibly, how productivity measures can affect said impacts.

In estimating the potential short-run ramifications of an EHP, the paper refers to a simulation exercise conducted by Prenio et al. (2005), which evaluated the impact of an EHP in effective protection rates (EPRs), output, employment and income, demand, and trade balance.

The simulation used the Chung Lee Model, a partial equilibrium-type mathematical model based on the input-output (IO) table and most often used in policymaking. Said model was developed for the Tariff Commission in the early 1980s and was further extended by incorporating factor productivity growth in agriculture.

Total factor productivity (TFP) addresses any effect in total output not caused by inputs or productivity. Technology growth and efficiency are regarded as two of the biggest subsections of TFP[3]. The simulation made downward adjustment of input requirements of every sector in agriculture by a factor of 2 and 4 percent.

The model is partial equilibrium in nature in that it assumes zero cross-price elasticity and it cannot incorporate other factors

[3]http://en.wikipedia.org/wiki/Total_factor_productivity

such as investment behavior and monetary variables. These shortcomings limit the analysis to comparative statics. The advantage of the model, however, is its multisectoral, input-output framework, which best highlights the variation in EPRs and the varying effects of trade reforms across sectors. It also incorporates, to some extent, linkages among the sectors.

The estimated figures are expected to help provide an initial assessment of the effect of tariff reforms that will allow policymakers to identify the sectors that will benefit and lose from the tariff rate changes in terms of the impact on output, employment, income, and the trade balance.

Following are the results of the simulation exercise conducted by Prenio et al.:

Effective Protection Rates

Out of the 11 sectors in agriculture and food manufacturing that receive double-digit EPRs, three ended up with lower levels of protection upon implementation of the EHP. These are vegetables, hog, meat, and meat product processing. There was a significant fall in the EPRs of these products. The rest either retained or slightly improved their EPRs. Citrus fruits and fruits and nuts also suffered reduction in EPR.

Output, Employment, and Income

The EHP is expected to have a minimal impact on major macrovariables. Overall output will decrease by 0.18 percent and the bulk of this will be accounted for by food manufacturing and partly by agriculture. The rest of the industries are not expected to alter their production as a result of the EHP. Even if only a few sectors had a significant decline in their EPRs, these are the ones that have a significant contribution to total domestic production. Based on output ranking of traded sectors, all three are within the top 50 contributors.

Wage bill in agriculture also registers contraction relative to food manufacturing's wage bill, which implies that sectors adversely affected by the EHP are those coming from the relatively labor-intensive sectors.

Table 5. Aggregate simulation results for EHP (in percent)

Output	No TFP	With TFP 2%	With TFP 4%
Agriculture	-0.80	-0.72	-0.64
Food mfg.	-0.18	-0.18	-0.18
Others	0.00	0.00	0.00
All industries	-0.18	-0.16	-0.15
GVA			
Agriculture	-1.99	-0.77	0.46
Food mfg.	-0.78	-0.78	-0.78
Others	0.00	0.00	0.00
All industries	-0.66	-0.31	0.05
Wage bill			
Agriculture	-0.89	-0.80	-0.72
Food mfg.	-0.14	-0.14	-0.14
Others	-0.01	-0.01	-0.01
Intermediate Demand			
Agriculture	-0.07	-0.37	-0.68
Food mfg.	-0.63	-1.14	-1.64
Others	-0.02	-0.25	-0.31
All industries	-0.07	-0.33	-0.46
Final Demand			
Agriculture	0.33	0.40	0.47
Food mfg.	0.74	0.91	1.09
Others	-0.83	-0.38	0.07
All industries	-0.33	-0.01	0.31
Imports			
Agriculture	30.99	26.89	22.80
Food mfg.	5.84	5.20	4.59
Others	-0.56	-0.54	-0.32
Exports			
Agriculture	-0.07	0.18	0.43
Food mfg.	1.22	1.27	1.31
Others	0.30	0.20	0.07
Trade balance			
Agriculture	-2,449,677.75	-2,086,941.63	-1,725,692.75
Food mfg.	-625,032.69	-479,273.44	-338,719.69
Others	3,478,142.50	3,099,735.00	1,683,282.13
All industries	403,432.06	533,520.00	-381,130.00

Gross value added or income, however, will fall by a fractionally larger amount (0.66%) since lower production is accompanied by a decline in domestic prices (as a result of lower tariff rates). Agriculture will take on a larger cut as its GVA declines by almost 2 percent compared to food manufacturing's 0.78 percent.

Demand

No radical change is expected in intermediate demand except for a relatively larger fall in food manufacturing because it has a relatively high level of intra-industry linkage. Many industries

within food manufacturing are adversely affected by the EHP and their outputs are expected to decline, which in turn, lower their demand for intermediate inputs. On the other hand, more changes are expected to occur in final demand. It picks up slightly for agriculture and food manufacturing because the lower import duty also lowers domestic prices. The rest suffer a decline in demand even if their prices remain unchanged because of an overall decline in income or GVA.

Trade

The overall trade balance is expected to have a positive net change as a result of the EHP. Imports for agriculture goods are expected to increase sharply (31%) while exports are expected to decline marginally (-0.07%) due to an increase in domestic consumption, largely in final demand, coupled with a decline in production. Food manufacturing will have a positive change in both imports (5.84%) and exports (1.22%) although the net increment in the trade balance is negative. Since input cost is lower for food manufacturing, exporting firms have a greater incentive to sell their produce in the world market. However, producers catering to the domestic market will be unable to meet domestic demand since their output is expected to decline when tariff protection goes down. For the other sectors, the decline in domestic demand will lead to an overall net decline in imports (0.56%) and a slight increase in exports (0.3%).

Select Sectors in Agriculture and Food Manufacturing

Among agriculture goods, the hog sector is the most adversely affected (Table 6). Its output and GVA are expected to contract by 3.5 percent and 10 percent, respectively, since its tariff rate was reduced from 26.2 to 15 percent under the EHP. Similarly, the import-competing component of the meat and meat product processing sector also suffers a considerable decline in its EPR, which leads to a decline in its output and income. The sector's export-competing component, on the other hand, actually has a slight increase in its output and income since raw materials (hog, in particular) become cheaper.

Table 6. EHP results for selected agriculture and food manufacturing sectors: Impact on major sectors -- percentage change

Output	No TFP	With TFP 2%	With TFP 4%
Agriculture			
Corn-MM	0	0.1	0.21
Corn-MX	0	0.06	0.12
Vegetable-MM	-1.68	-1.61	-1.55
Vegetable-MX	0.06	0.11	0.17
Banana-PX	0	0	0
Coconut-PX	0	0.04	0.08
Coffee-PX	0	0.07	0.14
Rice & Corn Milling-PM	0	0.05	0.09
Hog-PM	-3.54	-3.32	-3.09
Food mfg.			
Meat & meat processing-MM	-9.68	-9.68	-9.68
Meat & meat processing-MX	0.27	0.27	0.27
Sugar milling-MM	0	0	0
Sugar milling-MX	0	0	0
Coffee roasting & processing-MM	0	0	0
Coffee roasting & processing-MX	0.13	0.13	0.13
G VA			
Agriculture			
Corn-MM	0	0.83	1.67
Corn-MX	0	0.46	0.92
Vegetable-MM	-2.44	-2	-1.56
Vegetable-MX	0.25	0.63	0.17
Banana-PX	0.01	0.97	1.93
Coconut-PX	0	0.32	0.65
Coffee-PX	0	0.5	1
Rice & Corn milling-PM	0	2.16	4.33
Hog-PM	-10.25	-8.4	-6.55
Food mfg.			
Meat & meat processing-MM	-62.89	-62.89	-62.89
Meat & meat processing-MX	1.47	1.47	1.47
Sugar milling-MM	0.02	0.02	0.02
Sugar milling-MX	0.01	0.01	0.01
Coffee roasting & processing-MM	0.81	0.81	0.81
Coffee roasting & processing-MX	0.47	0.47	0.47
Imports			
Agriculture			
Corn-MM	0.28	-14.9	-30.08
Vegetable-MM	44.51	39.27	34.11
Rice & corn milling-PM	-8.96	-8.72	-8.44
Hog-PM	75.46	71.76	68.1
Food manufacturing			
Meat & meat processing-MM	64.08	64.6	65.12
Sugar milling-MM	-2.46	-1.46	-0.46
Coffee roasting & processing	-0.79	-0.36	0.06
Exports			
Agriculture			
Corn-MX	-0.02	2.73	5.52
Vegetable-MX	0.54	1.05	1.56
Banana-PX	0.05	0.11	0.16
Coconut-PX	-0.34	0.22	0.78
Coffee-PX	2.69	6.26	9.84
Food manufacturing			
Meat & meat processing-MX	1.31	1.02	0.74
Sugar milling-MX	0.48	0.29	0.09
Coffee roasting & processing-MX	1	0.66	0.35

Total Factor Productivity Improvement in Agriculture

Effective protection rates

Improving the efficiency of factor use in agriculture is going to improve EPRs of sectors within the industry. The EPRs of other sectors outside agriculture remain unaffected since none of the variables used for EPR computations (cost of inputs and output price) are affected by improving TFP in agriculture (Table 7). Compared to basic simulation figures, EPRs improve the most for exporting sectors.

Output, employment, and income

Factor productivity improvement in agriculture can be expected to soften the impact of the EHP on output and income, but unfortunately, it is limited only within the industry. Results show that output decline for agriculture is reduced from -0.8 percent in the basic simulation to -0.72 and -0.64 percent for the 2-percent and the 4-percent TFP scenarios, respectively. Outputs of the rest remain unchanged from the basic simulation. Like output, the fall in the wage bill (hence, employment) is softened by the introduction of TFP but only for the agriculture industry. Income is influenced more by factor productivity improvement but like output, it is limited only to agriculture. A 2-percent TFP improvement reduces income by more than half, from 1.99 percent in the basic simulation to only 0.77 percent. This loss is reduced further to 0.46 percent under the 4-percent TFP scenario.

Demand

Intermediate demand is estimated to decline further because the improving factor productivity in the agriculture industry lowers its input requirements and a large chunk of this also comes from within the sector.

Trade

The increase in agriculture production and the general decline in intermediate demand are expected to lower imports and provide an opportunity to increase exports. Overall trade balance is expected to improve by incorporating factor productivity.

Table 7. Impact of Early Harvest Program on total factor productivity (TFP)-improvement in agriculture and manufacturing sectors

	Tariff Rates		Effective Protection Rates			
	2003	EHP	2003	EHP	TFP 2%	TFP 4%
Agriculture						
MM002	27.00%	27.00%	30.29%	30.29%	30.74%	31.19%
MM003	10.78%	5.00%	11.41%	11.41%	5.43%	5.67%
MM008	7.00%	5.00%	7.89%	5.40%	5.90%	6.40%
MM009	5.97%	5.00%	6.41%	5.29%	5.62%	5.94%
MM013	3.00%	3.00%	3.02%	3.02%	3.58%	4.13%
MM018	3.08%	3.08%	3.09%	3.09%	3.24%	3.39%
MX002			-0.97%	-0.97%	-0.77%	-0.57%
MX003			-0.50%	-0.32%	-0.12%	0.07%
MX008			-0.52%	-0.52%	-0.2	0.13%
MX009			-0.33%	-0.32%	-0.11%	0.10%
MX013			-0.63%	-0.63%	-0.19%	0.26%
MX018			-0.18%	-0.18%	-0.05%	0.07%
PM016	3.00%	3.00%	3.00%	3.00%	3.33%	3.65%
PM017	3.00%	3.00%	3.02%	3.02%	3.29%	3.55%
PM019	26.20%	15.00%	34.48%	18.62%	19.62%	20.62%
PX005			0.00%	0.00%	0.00%	0.00%
PX006			0.00%	0.00%	0.00%	0.00%
PX007			0.00%	0.00%	0.00%	0.00%
PX010			-0.16%	-0.16%	-0.02%	0.11%
PX015			-0.22%	-0.22%	0.00%	0.23%
Food manufacturing						
MM039	37.64%	15.00%	45.36%	17.20%	17.20%	17.20%
MM044	8.40%	8.40%	18.66%	19.69%	19.69%	19.69%
MM048	5.08%	5.08%	3.83%	6.92%	6.92%	6.92%
MM051	6.00%	6.00%	11.93%	11.93%	11.93%	11.93%
MM052	16.67%	16.67%	27.59%	28.51%	28.51%	28.51%
MM053	10.00%	10.00%	12.93%	13.00%	13.00%	13.00%
MM054	28.65%	28.65%	31.99%	31.99%	31.99%	31.99%
MM055	6.55%	6.55%	2.22%	3.13%	3.13%	3.13%
MM058	44.17%	44.17%	0.00%	0.00%	0.00%	0.00%
MM059	5.58%	5.58%	-1.61%	-0.24%	-0.24%	-0.24%
MM060	7.73%	7.73%	6.59%	6.59%	6.59%	6.59%
MM061	5.29%	5.29%	4.47%	4.64%	4.64%	4.64%
MM062	6.48%	6.48%	10.31%	10.93%	10.93%	10.93%
MX039			-1.65%	-1.12%	-1.12%	-1.12%
MX044			-2.58%	-1.89%	-1.89%	-1.89%
MX048			-5.74%	-3.35%	-3.35%	-3.35%
MX051			-4.21%	-4.21%	-4.21%	-4.21%
MX052			-4.48%	-3.94%	-3.94%	-3.94%
MX053			-5.59%	-5.55%	-5.55%	-5.55%
MX054			-0.26%	-0.25%	-0.25%	-0.25%
MX055			-7.26%	-6.79%	-6.79%	-6.79%
MX058			-1.85%	-1.58%	-1.58%	-1.58%
MX059			-8.73%	-7.75%	-7.75%	-7.75%
MX060			-3.32%	-3.32%	-3.32%	-3.32%
MX061			-3.07%	-2.95%	-2.95%	-2.95%
MX062			-2.65%	-2.28%	-2.28%	-2.28%
PM040	4.60%	0.00%	2.30%	-7.27%	-7.27%	-7.27%
PM041	5.18%	5.00%	6.21%	9.21%	9.21%	9.21%
PM043	6.80%	5.00%	8.46%	5.41%	5.41%	5.41%
PM050	66.94%	66.94%	71.86%	71.86%	72.13%	72.40%
PX045			-7.52%	-6.38%	-6.38%	-6.38%
PX046			-5.19%	-4.32%	-4.32%	-4.32%
PX047			-0.57%	-0.53%	-0.53%	-0.53%
PX049			-2.24%	-1.76%	-1.76%	-1.76%
PX056			-0.45%	-0.45%	-0.45%	-0.45%

Select sectors in agriculture and food manufacturing

The impact of incorporating TFP assumption is most evident on incomes of sectors in agriculture. Rice and corn milling, in particular, will move from 0 percent in the basic simulation to 2.16 percent and 4.33 percent under the 2-percent and the 4-percent TFP assumptions. Moreover, income losses suffered by the hog and vegetable sectors are expected to be minimized by an average of 20 percent. There is some movement in import activity but changes in exports are much more significant. The increase in coffee exports in the basic scenario more than doubles with a 2-percent TFP, and increasing by another 50 percent when the TFP assumption is raised to 2 percent.

Remarks on Results of Simulation Exercise

Because of inter-industry linkage, the EHP's impact is spread to other sectors, such that even if tariffs are applied to only one sector, they eventually have an effect on other sectors as well.

The simulation exercise also showed that an EHP will affect output, income, employment, demand, and trade balance. These changes will have an impact on social welfare. An increase in the general price level and income implied a decline in the consumption basket of the average consumer, hence a lower consumer surplus. Movements in the price of food, which comprise the bulk of a consumer's expenditure, will have a greater impact on welfare. While this is not explicitly captured in the model, it is evident that changes in tariff that will take place with an EHP will have this kind of impact on social welfare. Notably, this shows the importance of improving factor productivity to mitigate the adverse impact of changes in the tariff regime as it reduces the dependence of firms on tariff protection.

Finally, it cannot be overemphasized that the simulation results are aimed to show only short-run impacts of the EHP, which are bound to be negative for sectors whose effective protection rates declined. In addition, the simulation exercise uses a partial equilibrium model, in contrast with the more full-blown GTAP modeling done by ASEAN experts. Moreover, the simulation exercise assumed full coverage of EHP for the Philippines that did not actually materialize (with a positive list of only around half of the total number of items). Hence, the negative impacts from the simulation are not only short-run but would tend to be overestimated.

VIII

Conclusion and Policy Recommendations

To meet the China challenge, as well as the broader challenge of globalization, the Philippine agriculture system should hasten the pace of domestic reforms and restructuring to maintain international competitiveness and provide the foundation for sustained growth.

The country should build its own strength and competitiveness in order to create a mutually beneficial relationship with China. Based on the simulation exercise, a number of sectors are vulnerable, foremost of which are the sectors of vegetables, hog, and meat and meat processing. Assistance to these sectors is needed through either technological support or product diversification to make them more efficient.

Short-run simulation of the effects of the EHP reveal vulnerable sectors, notably importable vegetables and hogs, and the negative impact on agriculture. Nonetheless, it should be recognized that the EHP has also opened a sizable window of opportunity to other sectors. During a forum conducted with stakeholders, there were some products identified where the Philippines has competitiveness and which can serve as an alternative livelihood for farmers who might be displaced by the EHP. The natural ingredients market was identified as a potentially big export market for the Philippines that does not really need huge capital to be developed. Other products that are also potentially very competitive are poultry, crops, and fisheries. Coconut has a lot of potential as well, most especially coconut oil and medicinal products derived from coconut. These products comprise the bulk of agriculture production in the country and can be further tapped to enhance industry growth. With proper domestic support, there is no reason the Philippines would not be able to take advantage of these opportunities. But perhaps more importantly, as shown by the simulation exercise where factor productivity enhancement was included, the needed support would soften the negative impact of the EHP.

By and large, it is the small farmers and producers that bear the brunt of trade agreements. This is because they lack access to fallback mechanisms such as credit and insurance. As such, the plight of the small farmers should be considered in this FTA and proper support and social safety nets should also be put in place.

Liberalization works best if complemented by socioeconomic policies that support the transition to a more market-responsive economy by addressing constraints in production, and creating a strong network of institutions that facilitate the implementation of these policies. Among the nontrade domestic factors that should be seriously looked into are:

- *Investment in rural infrastructure*. Of particular importance is investment in transportation and telecommunication infrastructure, and postharvest facilities (package, handling, and storage facilities).

- *Investment in productivity particularly research and extension activities*, e.g., improved skills and information for the farmers, integration of farmer participation and control, and collaboration with community organizations.

- *Land policies and institutions*. The assignment of well-defined and secure property rights to land can be expected to have direct benefits by increasing farmers' ability to produce for both subsistence and income generation, incentives to invest in and sustainably manage land, and the ability to obtain credit. Secured property rights in land also indirectly benefit the emergence of more efficient farm structures. Land reform still remains a major issue, not just for the Philippines, but for the entire region as well. In the case of the Philippines, it has encountered political difficulties in implementation. David (1999) states that the various provisions of the land reform programs, combined with slow implementation, have increased land market distortions with unintended negative effects.

- *Credit policies and institutions*. Lack of credit access is a perennial problem faced by small entrepreneurs. The government should be able to provide financial services that

are tailored to the needs of the farmers. This should be supported by strong and consistent institutions that will provide cost-effective enforcement of financial contracts.

- *Governance and institutional reform*. Meaningful and sustainable reforms require institutions that adhere to the principles of transparency, accountability, and participatory processes. This should also be accompanied by institutions that will provide adequate administrative support to the reforms. More importantly, the government should have the political will and the management capability to ensure implementation of the needed reforms.

References

Balboa, J., E. Medalla and J. Yap. 2007. Closer trade and financial cooperation in ASEAN: issues at the regional and national level with focus on the Philippines. In *Bridging the ASEAN developmental divide: challenges and prospects*, edited by L.C. Salazar and S.B. Das. Singapore: Institute of South East Asian Studies.

Bernardino, N. 2004. The ASEAN-China Free Trade Area: issues and prospects. Paper presented at the Asia Pacific Network on Food Sovereignty Regional Workshop, 6-9 November, Manila, Philippines.

Bureau of Agricultural Statistics (BAS). n.d. The Philippine agricultural economy [online]. http://www.bas.gov.ph/agri_dev.php [Accessed 2 February 2007].

Cabanilla, L., Editor. 2006. *Philippine agriculture, food security, and APEC*. Makati City: Philippine APEC Study Center Network-Philippine Institute for Development Studies.

Chia, S.Y. 2004. ASEAN-China Free Trade Area. Paper presented at the AEP Conference, 12-13 April, Hong Kong.

Clarete, R. 2005. Philippines: Ex-post effects of trade liberalization . Paper presented at the Conference on Adjusting to Trade Reforms: What are the Major Challenges for Developing Countries? Organized by the Trade Analysis Branch, UNCTAD. 18-19 January. Geneva, Switzerland.

Cororaton, C. 2004. Rice reforms and poverty in the Philippines: a CGE analysis . Research Paper No. 57. ADBI, Tokyo, Japan.

Cororaton, C. and J. Cockburn. 2005. Trade reform and poverty in the Philippines. A CGE microsimulation analysis. CIRPEE-Working Paper 05-13. Montreal: Centre Interuniversitaire sur le Risque, les Politiques Économiques et l'Emploi (CIRPÉE).

David, C. 1997. Agricultural policy and the WTO agreement: the Philippine case. PIDS Discussion Paper Series No. 1997-13. Makati City, Philippines: Philippine Institute for Development Studies.

David, C., S. Halos, E. Ponce and C. Lamug. 1999. Philippine national agricultural and natural resources research system: resource allocation issues and direction for reforms. PIDS Discussion Paper Series No. 1999-33. Makati City: Philippine Institute for Development Studies.

Freeman, F., J. Melanie, I. Roberts, D. Vanzetti, A. Tielu and B. Beutre. 2000. The impact of agricultural trade liberalization on developing countries. ABARE Research Report 2000.6. Canberra: Australian Bureau of Agricultural and Resource Economics.

Go, M. 2005. Vegetables not included in "early harvest" deal with China. *The Philippine Star* [online]. 2 May. http:www.bilaterals.org/article-print.php3?id_article=1809. [Accessed 22 December 2006].

Habito C. and R. Briones. 2005. Philippine agriculture over the years: performance, policies and pitfalls. Paper presented at the Workshop on Policies to Strengthen Productivity in the Philippines organized by the World Bank. AIM Conference Center, Makati City. 27 June.

Intal P. and J. Power. 1990. Trade, exchange rate and agricultural pricing policy in the Philippines, comparative studies on political economy of agricultural pricing policy. Washington DC: World Bank.

Jank, M.S., I. Fuchsloch and G. Kutas. 2003. Agricultural liberalization in multilateral and regional trade negotiations. Working Paper SITI-03. Washington, DC: Institute for the Integration of Latin America and the Caribbean and Inter-American Development Bank.

Menardo, A. 2004. Tariff reforms in the Philippines. Paper presented at the APEC High Level Conference on Structural Reform, 8-9 September, Tokyo, Japan.

Pasadilla, G. 2005. Effect of preferential trading agreements (PTA) and agricultural liberalization in East and Southeast Asia. PIDS Discussion Paper Series No. 2006-02. Makati City: Philippine Institute for Development Studies.

Prenio, A., M. Ravago and E. Medalla. 2005. The AFTA-CEPT and the ASEAN-China Early Harvest Program: an assessment of potential short run-impacts. STAG (Secretary's Technical Advisory Group) Project. Quezon City, Philippines: Department of Agriculture.

Sheng L. 2003. China-ASEAN FTA: Origin, development and strategic motivations. ISEAS Working Paper, International Politics and Security Issues Series No. 1. Singapore: Institute of South East Asian Studies.

Wattanapruttipaisan, T. 2006. Analysis of the ASEAN-China Partnership. *Bangkok Post* [online]. 5 October. http://www.aseansec.org/18856.htm. [Accessed 2 April 2007].