

China-Thailand EHP: Evaluating Economic and Social Effects

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EADN Regional Research Project on
Economic and Social Impact of Market Liberalization
A Study on Agriculture Liberalization under
China-ASEAN FTA

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1. Introduction

Following the decision made to establish an ASEAN-China Free Trade Area (ASEAN-China FTA) made at the ASEAN-China Summit on 6 November 2001 in Bandar Seri Begawan, Brunei Darussalam, the Leaders of ASEAN Member States and China adopted the Framework Agreement on Comprehensive Economic Co-operation between the Association of South East Asian Nations and the People's Republic of China at the ASEAN-China Summit on 4 November 2002 in Phnom Penh. The objectives of the Framework Agreement are, among others, to progressively liberalise and promote trade in goods and services and strengthen and enhance economic, trade and investment co-operation between the Parties of the Agreement. The Framework Agreement stipulates that the Parties agree to negotiate to : Establish an ASEAN-China FTA within 10 years; strengthen and enhance economic co-operation through various measures including progressive elimination of tariffs and non-tariff barriers in substantially all trade in goods; and carry out progressive liberalization of trade in services with substantial sectoral coverage. To accelerate the implementation of the Framework Agreement, the Parties agree to implement an Early Harvest Programme (EHP) covering agricultural products under HS 01-08 beginning January 1, 2004. Furthermore, Thailand and China then agreed on accelerated tariff elimination under the EHP on June 18, 2003 to eliminate tariffs on vegetable and fruit products under HS 07-08 (AEHP) no later than October 1, 2003.

Agriculture is often a sensitive and vulnerable sector. It is also not easy to restructure and takes a long time to adjust to changing market conditions. Although most ASEAN member countries are net exporters of agricultural products, they are reluctant to open up for agricultural trade. Therefore, the EHP could be considered a good example of ASEAN's and particularly Thailand's, strong commitment to agricultural liberalization and deserves following up on the results and effects on the Parties' economies.

This study intends to analyze Thailand's agriculture liberalisation under the EHP and AEHP and its economic and social effects in Thailand. Section 2 offers an overview of Thailand's agricultural sector. Section 3 provides a review of Thailand's agricultural liberalization under the AEHP and EHP. Section 4 reviews the relevance of the AEHP and EHP to Thailand's agricultural trade. Section 5 analyzes the trade effects of the AEHP and EHP in Thailand. Section 6 discusses the socio-economic

effects. Section 7 reviews Thai government's measures in response to agricultural trade liberalisation. The final section offers policy recommendations for relevant stakeholders of agricultural trade liberalisation.

2. Overview of Thailand's Agricultural Sector

2.1 Importance of Agriculture

Despite the fact that Thailand has transformed from an agrarian to an industrializing economy during the past half century, the agricultural sector remains a very important source of Thai households' income and livelihood. While the number of Thai households involved in agriculture has risen, its proportion to total Thai households has declined steadily. On the other hand, employment in agriculture has declined both in absolute number and in proportion to total employment. In 1996, 5.3 million households or 34.4% of total Thai households made their livelihoods from agriculture while 16.1 million people or 50% of total employment were employed in agriculture. This is in comparison to 5.8 million households (30.5% of total households) and 15.4 million employment (42.6% of total employment) in 2005.

In terms of production value, the role of agriculture in the Thai economy remains at 9% - 10% of GDP over the past decade.

Over the same period, Thailand's agricultural exports rose with some fluctuation from US\$ 14.1 billion in 1996 to US\$ 18 billion in 2005 but fell as a proportion of Thailand's total exports from 25.4% to 16.3%. Similarly, the agricultural imports increased with some fluctuations from US\$ 5.1 billion to US\$ 6.5 billion while its proportion to total imports decreased from 7.1% to 5.5%. Hence, Thailand's position as a net exporter of agricultural products varied in the range of US\$ 8.3 billion – US\$ 11.5 billion which contributed favorably to Thailand's current account balance over the past decade. (Table 1)

Table 1: Agriculture's Role in Thai Economy

	1996	2000	2005
1. Agricultural households (number in million) ¹	5.276	5.687	5.796
As proportion of total households (%)	34.394	34.430	30.480
2. Agricultural employment (number in million) ²	16.127	16.096	15.449
As proportion of total employment (%)	50.03	48.77	42.56
3. Agricultural product (billion baht) ³	438.12	444.19	721.68 p
As percent of GDP (%)	9.50	9.02	10.18 p
4. Agricultural exports (billion US dollars) ⁵	14.14	12.28	17.99
As percent of total exports (%)	25.40	17.85	16.34
5. Agricultural imports (billion US dollars) ⁵	5.14	3.94	6.48
As percent of total imports (%)	7.10	6.41	5.48
6. Agricultural trade balance (billion US dollars)	9.01	8.34	11.51
7. Current account balance (billion US dollars) ⁴	-14.35	9.33	-7.85 p

P = preliminary

Source: 1. Department of Provincial Administration, Ministry of Interior, Population Statistics of Thailand.

2. National Statistical Office, Ministry of Information and Communication Technology, the Labor Force Survey.

3. The Office of the National Economic and Social Development Board, National Income of Thailand.

4. Bank of Thailand, Economic and Financial Statistics.

5. The Personal Computer Trade Analysis System (PC-TAS) of the International Trade Center UNCTAD/WTO. For this table agricultural exports and imports include those covered by the Agreement on Agriculture under the WTO plus fish and fish products (HS 03, 05.07-05.09, 15.04, 16.03-16.05, 23.0120), rubber and articles thereof in primary forms (HS 40.01-40.05) and wood and articles of wood in raw material forms (HS 44.01-44.13)

2.2 Agricultural Production

Thailand's agricultural sector is quite diversified among crops, livestock and fisheries. The major crops are rice, para rubber, sugarcane, cassava, maize, palm oil, pineapples, longan and durian. Rice and para rubber are the top two products with annual production value of 201 billion baht and 159 billion baht respectively in 2005. These two commodities undergone spectacularly growth during 2000-2005; the production value was almost double in the case of rice and more than triple in the case of para rubber over the period. The production value growth of these two major commodities during this period were to a large extent attributable to price increases and to a lesser extent, also some yield improvement.

The next four major commodities are much smaller in terms of production value, with 2005 production value of 25.8 billion baht for sugarcane, 22.5 billion baht for cassava, 18.6 billion baht for maize and 13.8 billion baht for palm oil. Sugarcane and maize grew slowly over the last decade while palm oil grew at faster rate. Cassava production value, however, fluctuated. The production value growth of sugarcane was due to a favorable combination of factors. In certain years, the planted area expansion together with yield improvement more than offset falling prices. In other years the price rose to more than offset the fall in planted area and yield. As for maize, the price and yield combined to more than offset the fall in planted area to provide small increase in production value. In the case of cassava, the production value fluctuations were due to price fluctuations. The palm oil growth on the other hand, was due mainly to planted area expansion and, to some extent, net result of the offsetting price and yield fluctuations.

The other three major crops are tropical fruits, namely pineapples, longan, and durian, of which the production value in 2005 was about 8 billion baht each. It was observed that pineapple production value rose sharply after 2001. In deed, it fluctuated, reaching a low in 1995 and 2001 and the peaking in both 1998 and 2004. The production value fluctuations were closely correlated with pineapple price fluctuations and was slightly offset by the counter movements in the harvested area and yield. For longans, the planted area expanded steadily and rapidly over the period 1995-2005, but production value fluctuated widely from as low as 2.7 billion baht to as high as 11 billion baht during 1995-2005. The yield and production volume tended to fluctuate in offsetting direction against price fluctuations. The production value of longan therefore reflects the net effect of offsetting price and production fluctuations. Similarly, while the planted and harvested area of durian expanded almost steadily, output fluctuated widely with the yield. The production value declined from a peak of 21.8 billion baht in 1997 to as low as 7.7 billion baht in 2005 as the price fell sharply while the planted and harvested area expanded.

In livestock, the major products are swine, broilers, hen eggs, cattle and fresh milk. In 2005, the production value of swine and broilers rose to 53.3 billion baht and 37 billion baht respectively. Swine production dropped from its peak in 1997 and rose again steadily from 1999 to 2005 despite fluctuating price, and hence fluctuating production value. The number of swine farmers, on the other hand, fluctuated around a

declining trend, implying increasing farm size over time. Broilers production had a steadily increasing trend up to 2003 then dropped sharply in 2004 due to the avian flu epidemic. The production value, however, fluctuated with the broiler price. Noticeably, the number of broilers farmers has fallen after 2000 as the farm size increased.

The other three major products are less than one half or smaller the size of the top two products, with production values of 19.3 billion baht, 15.8 billion baht and 10.1 billion baht for hen eggs, beef cattle and fresh milk respectively. The number of egg laying hens has been more or less stable over the last decade, but then dropped substantially in 2005 following the avian flu epidemic. The production value of hen eggs also fluctuated with its price. Similar to broiler farming, the number of hen eggs farmers dropped drastically from 77 thousand households in 2000 to only 20.8 thousand households in 2005. In the case of beef cattle, production quantity and value steadily declined during 1995-2000. This led to rising price trends surging production and increasing number of beef cattle farmer households from 2000-2005. Dairy cattle and fresh milk, on the other hand, enjoyed steadily rising trends in production quantity and value, price and number of farmers.

In fisheries, the major products are fresh water aquacultured Nile Tilapia and Walking Catfish and coastal aquacultured Jumbo Tiger Prawn. Fresh water aquaculture of Nile Tilapia has gradually increased in terms of area and output. The production value fluctuated with the combined effect of changes in aquaculture area and yield per area as the price tended to be stable. It is worth noting that during 1995-2004 the number of Nile Tilapia farmers increased from 54 thousand households to 186 thousand households as the production value increased from 2.7 billion baht to 6.3 billion baht.

In contrast, Walking Catfish aquaculture exhibited steady and gradual expansion in total output as the rapid expansion of aquaculture area was offset by declining yield per area. It is also observed that total production value which rose from 1.3 billion baht to 5.1 billion baht during 1995-2004 fluctuated in accordance with the price.

Figure 1: Major Agricultural Production: Crops, Livestock and Fisheries

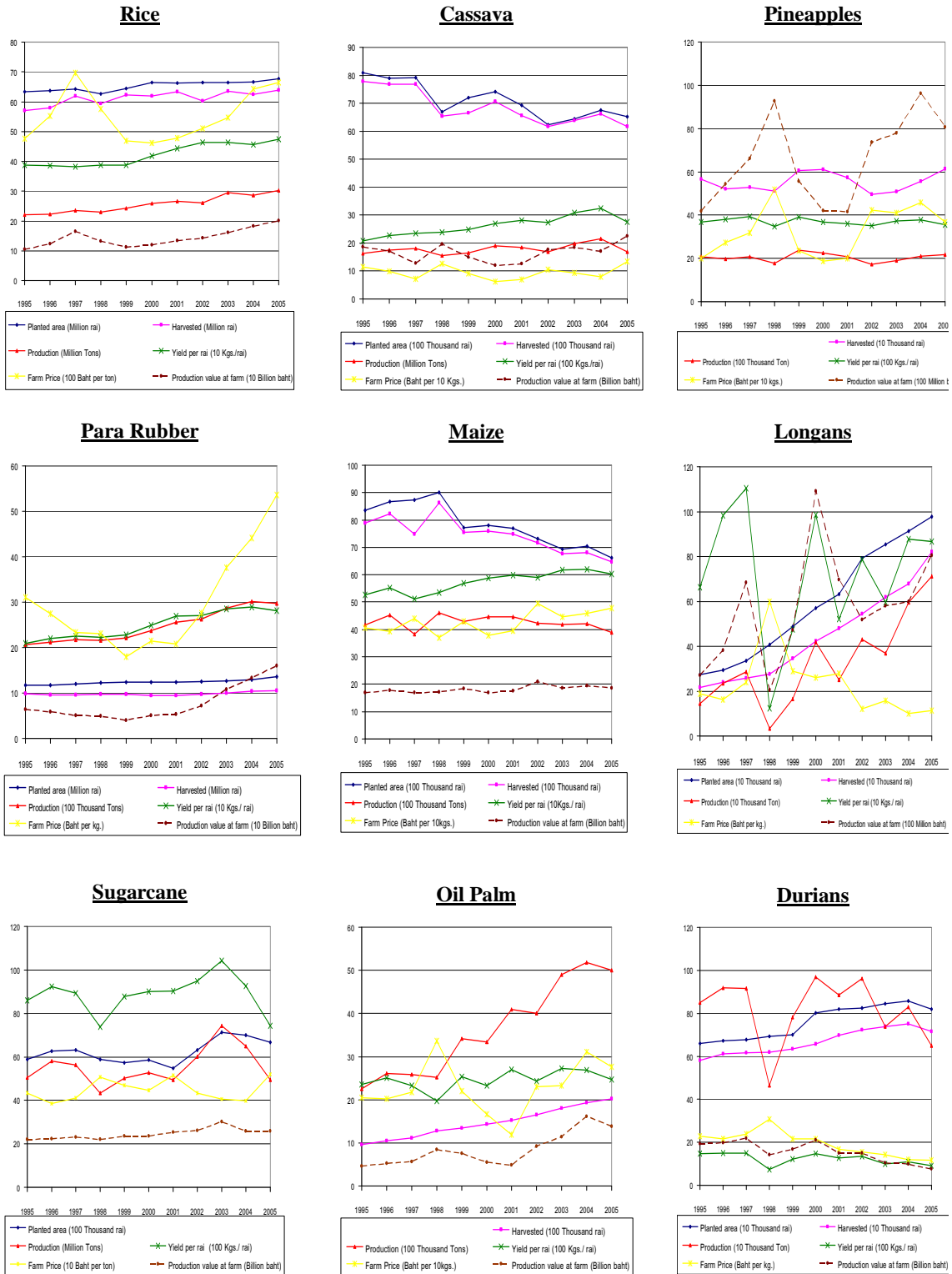
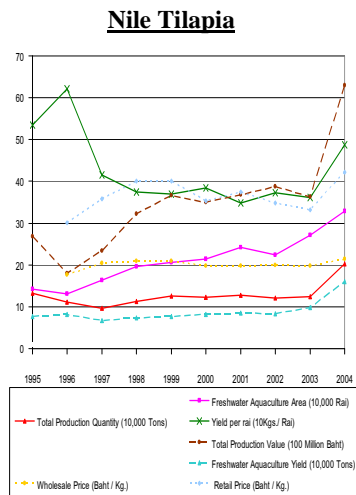
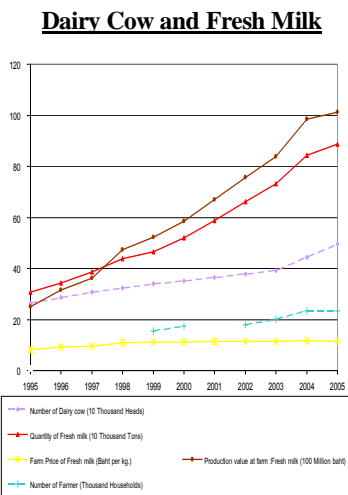
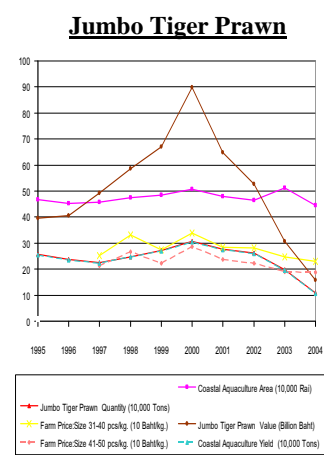
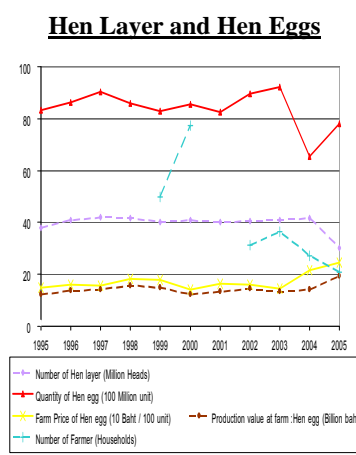
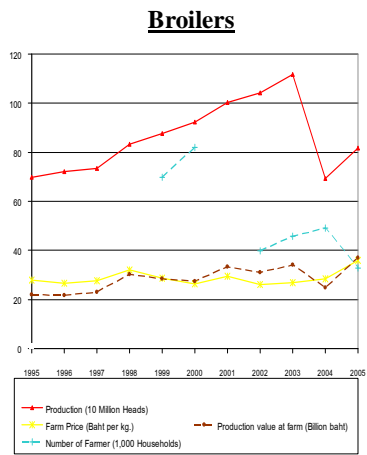
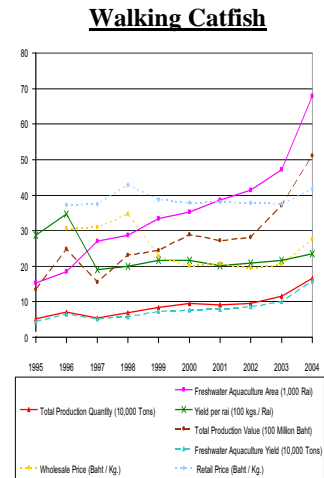
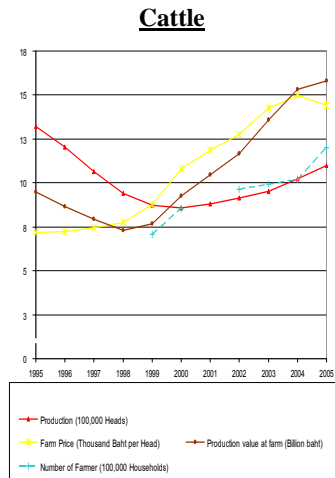
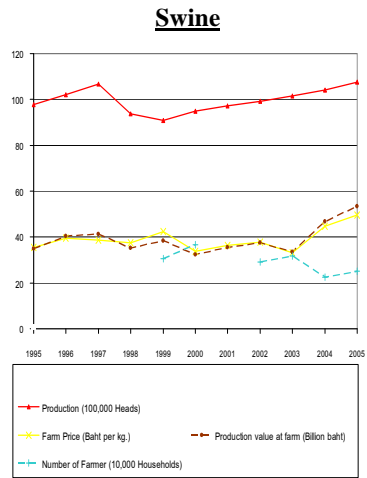


Figure 1: Major Agricultural Production: Crops, Livestock and Fisheries (Continued)



Source:

1. Agricultural Statistics of Thailand, Office of Agricultural Economics, Ministry of Agriculture and Cooperatives
2. Department of Livestock Development, Ministry of Agriculture and Cooperatives
3. Fisheries Statistics of Thailand, Department of Fisheries, Ministry of Agriculture and Cooperatives
4. Department of Internal Trade, Ministry of Commerce

On the other hand, Jumbo Tiger Prawns aquaculture production grew to its peak in both quantity and value at 307.2 tons and 89.97 billion baht respectively in 2000 and then rapidly declined due to falling price and yield and was substituted by *Penaeus Vannamei*. The price of Jumbo Tiger Prawns also fluctuated before 2000 and successively declined after that. It is noteworthy that while the number of farms and areas of aquaculture have increased from around 5,000 farms and 255 thousand rai to more than 33 thousand farms and 445 thousand rai over the last two decades, the production of other kinds of shrimp and prawns have now declined to a small amount as the farmers converted to *Penaeus Vannamei* farming.

2.3 Trade in Agricultural Products

2.3.1 Major Agricultural Exports and Imports

Major agricultural exports of Thailand are rice, natural (para) rubber, fishery products, manioc, sugar, fowl meat, pineapples, leather, lumber and prepared food (Table 2).

It has been observed that while the total agricultural export earnings and the earnings from the major agricultural exports have grown over the decade, there have been some fluctuations in export earnings in aggregate and with each product as well as some structural changes.

Those that have declining trends and lower shares in agricultural export earnings are manioc, natural rubber (smoked sheets), sugar, shrimp and prawns (frozen). Rice, pineapples, shrimp and prawns (prepared or preserved) also had declining shares in export earnings although their export values still increased. Other major agricultural exports, in comparison, kept growing in terms of export value and share in total agricultural export earnings. There were noticeable structural changes within each product group. In rice, the share of broken rice export increased. In manioc group, dextrin and starch grew in export values and shares. In the case of natural rubber, the export value and share of other forms of natural rubber expanded. Due to the outbreak of avian flu, the export of fowl (mostly chicken) changed from fresh or frozen to prepared/preserved. Regarding fisheries, the expansion was found in prepared/preserved tuna. Overall there appeared to be diversification into other agricultural products for export as the share of the major agricultural exports decreased from 73.69% in 1996 to 71.4% in 2005.

On import side, the major agricultural import items are cotton, fisheries, soya beans, lumber, wheat and milk powder (Table 3). The products that grew rapidly in terms of import value as well as share in total agricultural imports were fisheries (particularly frozen tuna), soya beans and leathers. Those that also grew relatively fast but still had relatively small shares were malt extract, prepared food and cigarettes. Those having relatively moderate shares and growth rates were wheat and prepared animal feed. On the other hand, lumber and cotton were the two large import items that appeared to have declining trends. Overall Thailand's imports tended to concentrate more in the above listed major products as their share rose from 56.1% to 65.4% during 1996-2005.

2.3.2 Major Trade partners

Thailand's major export markets are the US, Japan, China, Singapore, Hong Kong, Malaysia, Indonesia, Australia, UK and Netherlands (Table 4). The US, Japan and Singapore were dominant markets for total exports as well as for agricultural exports of Thailand in 1996. By 2005 China rose from the sixth largest market for Thailand's total exports and the 3rd largest market for Thailand's agricultural exports in 1996 to replace Singapore as the third largest market for Thailand's total exports and remaining 3rd largest for agricultural exports. Although, the US and Japan remained the first and second largest markets for Thailand's exports, their shares in Thailand's total exports fell from 18% and 16.8% in 1996 to 15.5% and 13.7% in 2005. While Japan's share in Thailand's agricultural exports came down from 24.3% to 18.7%, the US's share increased from 13.6% to 14.9%. During the same period China's share in Thailand's total exports and agricultural exports rose from 3.4% and 8.3% to 8.3% and 10.6% respectively.

Singapore, Hong Kong and Malaysia used to be the 3rd, 4th, and 5th ranked markets for Thailand's total exports and the 4th, 5th and 6th ranked markets for Thailand's agricultural exports in 1996. Their ranks changed to the 4th, 5th and 6th for total exports and the 9th, 7th and 4th for agricultural exports.

Although Thailand's exports tended to concentrate less in the top 10 largest markets, as the share of other markets increased from 30.6% to 33.6% for total exports and from 29.7% to 35.6% for agricultural exports during 1996-2005, the distribution appeared to be more even among the major markets.

Table 2: Major Agricultural Exports of Thailand (Value in US\$billion and Share)

HS Code	Product Description	1996		2000		2005		Growth 1996-2005
		Value	%	Value	%	Value	%	%
Rice								
100630	Rice, semi-milled or wholly milled, whether or not polished or glazed	1.80	12.76	1.47	11.94	1.96	10.87	8.41
100640	Rice, broken	0.15	1.09	0.12	1.01	0.28	1.57	82.86
Manioc								
071410	Manioc (cassava), fresh or dried, whether or not sliced or pelleted	0.49	3.45	0.19	1.56	0.32	1.76	-34.98
350510	Dextrins and other modified starches	0.14	1.00	0.16	1.27	0.27	1.49	89.16
110814	Manioc (cassava) starch	0.13	0.94	0.13	1.08	0.22	1.23	66.35
Pineapples								
200820	Pineapples nes,o/w prep or presvd,sugared,sweetened,spirited or not	0.26	1.87	0.21	1.72	0.33	1.82	24.28
Natural rubber								
400129	Natural rubber in other forms nes	0.50	3.52	0.55	4.48	1.60	8.91	222.21
400121	Natural rubber in smoked sheets	1.66	11.72	0.73	5.92	1.30	7.22	-21.69
400110	Natural rubber latex, whether or not prevulcanised	0.34	2.42	0.23	1.90	0.75	4.19	120.70
Sugar								
170199	Refined sugar, in solid form, nes	0.48	3.38	0.31	2.51	0.36	2.00	-24.71
170111	Raw sugar, cane	0.79	5.57	0.33	2.71	0.33	1.85	-57.70
Fowl								
020714	Fowls (gallus domesticus), cuts & offal, frozen	n.a.	n.a.	0.39	3.21	0.01	0.03	-
160232	Fowl (gallus domesticus) meat, prepared/preserved	n.a.	n.a.	n.a.	n.a.	0.69	3.81	-
Fisheries								
160414	Tunas,skipjack&Atl bonito,prepard/preservd,whole/in pieces,ex mincd	0.56	3.92	0.51	4.16	1.13	6.28	103.48
030613	Shrimps and prawns, frozen, in shell or not, including boiled in shell	1.67	11.80	1.47	11.94	0.90	5.02	-45.88
160520	Shrimps and prawns,prepared or preserved	0.74	5.22	1.18	9.57	0.83	4.64	12.98
030749	Cuttle fish and squid,shelled or not,frozen,dried,salted or in brine	0.25	1.80	0.27	2.18	0.33	1.85	30.71
Lumber								
440799	Lumber, non-coniferous nes	0.00	0.03	0.05	0.43	0.20	1.11	5358.58
Leather								
410439	Bovine and equine leather, nes	0.04	0.30	0.05	0.37	0.28	1.56	557.29
Food								
210690	Food preparations nes	0.19	1.34	0.18	1.48	0.42	2.33	120.30
230910	Dog or cat food put up for retail sale	0.22	1.57	0.22	1.83	0.33	1.86	50.83
	Sum	10.42	73.69	8.75	71.26	12.84	71.40	23.23
	Total Agriculture(billion US dollar)	14.14	100	12.28	100	17.99	100	27.18

Source: The Personal Computer Trade Analysis System (PC-TAS) of the International Trade Centre UNCTAD/WTO

Table 3: Major Agricultural Imports of Thailand (Value in US\$ billion and Share)

HS Code	Product Description	1996		2000		2005		Growth 1996-2005
		Value	%	Value	%	Value	%	%
Wheat								
100190	Wheat nes and meslin	0.17	3.34	0.10	2.63	0.24	3.65	38.15
Malt								
190190	Malt extract&food prep of Ch 19 <50% cocoa&hd 0401 to 0404 < 10% cocoa	0.02	0.45	0.03	0.86	0.10	1.59	351.66
110710	Malt, not roasted	0.07	1.34	0.03	0.87	0.07	1.11	4.28
Soya beans								
230400	Soya-bean oil-cake&oth solid residues,whether or not ground or pellet	0.24	4.58	0.27	6.75	0.48	7.41	103.80
120100	Soya beans	0.14	2.63	0.28	7.23	0.46	7.15	243.02
Milk								
040210	Milk powder not exceeding 1.5% fat	0.15	2.99	0.09	2.31	0.16	2.45	3.15
Fisheries								
030343	Skipjack or stripe-bellid bonito,frozen ex headg No 03.04,livers&roes	0.24	4.66	0.14	3.64	0.52	7.97	115.63
030379	Fish nes, frozen, excluding heading No 03.04, livers and roes	0.09	1.72	0.12	3.05	0.22	3.47	154.24
030342	Tunas, yellowfin, frozen excluding heading No 03.04, livers and roes	0.07	1.31	0.05	1.20	0.13	2.08	99.62
030613	Shrimps and prawns, frozen, in shell or not, including boiled in shell	0.06	1.14	0.13	3.31	0.07	1.12	23.40
Wood								
440349	Logs, tropical hardwoods nes	n.a.	n.a.	n.a.	n.a.	0.07	1.11	n.a.
440799	Lumber, non-coniferous nes	0.45	8.84	0.16	3.95	0.39	6.05	-13.69
Hide and Leather								
410129	Hide sections, bovine, nes, fresh or wet-salted	0.16	3.06	0.13	3.39	0.07	1.09	-55.16
410439	Bovine and equine leather, nes	0.06	1.16	0.09	2.22	0.18	2.78	203.02
Cotton								
520100	Cotton, not carded or combed	0.68	13.23	0.47	11.81	0.61	9.45	-9.97
Food								
210690	Food preparations nes	0.05	1.05	0.05	1.38	0.13	1.95	133.08
230990	Animal feed preparations nes	0.08	1.63	0.08	2.06	0.12	1.84	42.11
Whiskies and Cigarettes								
220830	Whiskies	0.12	2.36	0.08	2.00	0.11	1.68	-10.02
240220	Cigarettes containing tobacco	0.03	0.64	0.06	1.58	0.10	1.48	192.55
Sum		2.88	56.13	2.37	60.26	4.24	65.42	46.98
Total Agriculture(billion US dollar)		5.14	100	3.94	100	6.48	100	26.12

Source: The Personal Computer Trade Analysis System (PC-TAS) of the International Trade Centre UNCTAD/WTO

Table 4: Major Market for Thailand's Exports

Market / Year	1996		2000		2005	
	Total Exports	Agriculture Exports	Total Exports	Agriculture Exports	Total Exports	Agriculture Exports
	(%)	(%)	(%)	(%)	(%)	(%)
U.S.A.	18.01	13.60	21.42	19.46	15.48	14.85
Japan	16.83	24.33	14.85	22.45	13.67	18.72
China	3.36	8.30	4.09	5.17	8.28	10.58
Singapore	12.12	3.86	8.75	4.21	6.78	1.94
Hong Kong	5.82	4.92	5.05	4.40	5.57	2.36
Malaysia	3.62	4.23	4.09	4.09	5.16	6.74
Indonesia	1.73	3.14	1.94	2.83	3.57	2.55
Australia	1.51	1.80	2.35	2.07	2.87	2.08
United Kingdom	3.22	1.82	3.44	2.11	2.54	2.61
Netherlands	3.22	4.35	3.27	3.35	2.50	1.93
Others	30.56	29.65	30.74	29.86	33.59	35.64
Total	100.00	100.00	100.00	100.00	100.00	100.00
Total (billions US dollars)	55.68	14.14	68.73	12.28	109.92	17.99

Source: The Personal Computer Trade Analysis System (PC-TAS) of the International Trade Centre UNCTAD/WTO

On the import side, the major sources of Thailand's imports are Japan, China, the US, Malaysia, United Arab Emirates, Singapore, Taiwan, Saudi Arabia, South Korea and Australia (Table 5). For Thailand's all imports, Japan, the US, Singapore and Taiwan were the top 5 sources in 1996. By 2005 the ranking changed to Japan, China, the US, Malaysia and United Arab Emirates. As China and United Arab Emirates rose from the low ranks to the 2nd and 5th, Singapore and Taiwan dropped out of the top 5. Particularly, China rose from the 7th ranked source and 2.7% share in Thailand's imports in 1996 to the 3rd sharing 9.5%.

The source structure of Thailand's agricultural imports differed from that of all imports. The top 3 sources of Thailand's agricultural imports were the US, Malaysia and Australia and remained so during 1996-2005. However, China moved up from the 5th sharing 2.5% of Thailand's agricultural imports in 1996 to the 4th with a share of 5.6% in 2005.

While Thailand's all imports seemed to concentrate in the major sources more in 2005 than in 1996, her agricultural imports appeared to be diversifying from these major sources. The sources of all imports were also more diversified than that of agricultural imports. While the other sources, share of Thailand's all imports dropped from 34.1% in 1995 to 31.7% in 2005, their share in Thailand's agricultural imports rose from 53.61% to 56.1%. Within the group of these major sources, there seemed to be more even distribution of sourcing of Thailand's all imports as well as agricultural imports over the decade.

Table 5: Major Source of Thailand's Imports

Source / Year	1996		2000		2005	
	Total Imports	Agriculture Imports	Total Imports	Agriculture Imports	Total Imports	Agriculture Imports
	(%)	(%)	(%)	(%)	(%)	(%)
Japan	28.24	2.43	24.85	2.97	22.00	3.58
China	2.71	2.45	5.49	5.19	9.47	5.62
U.S.A.	12.50	16.53	11.88	16.63	7.37	13.97
Malaysia	5.00	12.78	5.45	5.54	6.84	7.62
United Arab Emirates	1.08	0.10	2.90	0.20	4.83	0.02
Singapore	5.54	1.41	5.55	1.06	4.57	1.30
Taiwan	4.34	2.57	4.70	2.25	3.80	2.71
Saudi Arabia	0.86	0.01	1.90	0.01	3.45	0.08
Korea, South	3.69	0.68	3.51	0.86	3.26	1.33
Australia	1.94	7.44	1.89	10.45	2.75	7.70
Others	34.10	53.61	31.87	54.84	31.66	56.06
Total	100.00	100.00	100.00	100.00	100.00	100.00
Total (billions US dollars)	72.18	5.14	61.31	3.94	117.82	6.48

Source: The Personal Computer Trade Analysis System (PC-TAS) of the International Trade Centre UNCTAD/WTO

3. Essence of ASEAN-China EHP and AEHP

The Framework Agreement on Comprehensive Economic Co-operation between the Association of South East Asian Nations and the People's Republic of China stipulates the following:

- The Parties negotiate expeditiously to establish an ASEAN-China FTA within 10 years
- To strengthen and enhance economic co-operation between the Parties through various measures including elimination of tariffs and non-tariff barriers in all trade in goods
- Progressive liberalization of trade in services
- Establishment of an open and competitive investment regime
- Provision of special and differential treatment to the newer ASEAN Member States
- Provision of flexibility in the negotiations on the Parties sensitive areas in the goods, services and investment sectors
- Establishment of effective trade and investment facilitation measures
- Expansion of economic co-operation in areas that will complement the deepening of trade and investment links between the Parties
- Establishment of appropriate mechanisms for effective implementation of the Agreement.

On trade in goods, all products subject to tariff reduction or elimination are categorised into Normal Track and Sensitive Track. The products under the Normal Track are subject to tariff reduction or elimination over the period from 1 January 2005 to 2010 for ASEAN 6 and China and to 2015 for the newer ASEAN. Those tariffs under the Normal Track that have not been eliminated in this timeframe will be progressively eliminated within timeframes mutually agreed between the Parties. The products under the Sensitive Track are, on the other hand, subject to tariff reduction and elimination within timeframes mutually agreed between the Parties.

To accelerate the implementation of the Framework Agreement, the Parties agree to implement an Early Harvest Programme (EHP) for products under HS 01-08. The products under the EHP are grouped into 3 categories. For China and ASEAN 6, category 1 refers to all products with applied MFN tariff rates higher than 15%; category 2 are those with the rates between 5% and 15% inclusive and category 3 are those with the rates lower than 5%. For the newer ASEAN Member States, categories 1, 2 and 3 refer to those with tariff rates 30% or higher, between 15% (inclusive) and 30% (exclusive) and lower than 15% respectively. China and ASEAN 6 would reduce tariffs on products in categories 1, 2 and 3 to 10%, 5% and 0% by 1 January 2004 and 5% further each year for the remaining tariffs such that products in categories 1 and 2 would reach 0% by 1 January 2004 and 2005 respectively. Vietnam would implement the EHP sooner than the other newer ASEAN Member States, cutting tariffs on products in category 1, 2 and 3 to 20%, 10% and 5% respectively by 1 January 2004 and reaching 0% for all products by 1 January 2008. Lao, Myanmar and Cambodia would implement the EHP 2 years later, cutting tariffs on products in categories 1, 2 and 3 to 20%, 10% and 5% respectively by 1 January 2006. Lao and Myanmar would reduce tariffs faster and reach 0% tariff by 1 January 2009, one year sooner than Cambodia (Table 6)

The Framework Agreement, however, allows the Parties to exclude certain products in HS 01-08 from the EHP and to include specific products other than HS 01-08 in the EHP. Consequently, Cambodia excluded 30 products while Vietnam excluded 15 products from the EHP. On the other hand, Indonesia and Thailand included 14 products while Thailand included 2 products in the EHP.

It should be observed that accession to the EHP is based on ASEAN-China minus X reciprocal principle, i.e. a Party shall enjoy the tariff concessions of all other Parties for a product under the EHP so long as the same product of that Party remains in the EHP. On the other hand, for specific products included in the EHP by any Party, the accession would be reciprocal between that Party and China. Brunei and Singapore would however, be Parties to all specific product inclusions.

The Framework Agreement also covers various issues comprehensively including those related to trade in goods such as detailed rules governing the tariff reduction or elimination programme, rules of origin, non-tariff measures, safeguards, subsidies and countervailing measures and anti-dumping measures, intellectual property rights as well

as those related to trade in services, investment, other areas of economic co-operation and dispute settlement mechanism. Where relevant, the WTO provisions are, in the interim, applicable to the EHP products and will be superseded and replaced by the relevant disciplines negotiated and agreed to by the Parties under the Framework Agreement.

Table 6: EHP Implementation Time Frame

	Product Category	Applied MFN Rate	EHP tariff rates by 1 January						
			2004	2005	2006	2007	2008	2009	2010
China and ASEAN 6	1	$t > 15\%$	10%	5%	0%	0%	0%	0%	0%
	2	$5\% \leq t \leq 15\%$	5%	0%	0%	0%	0%	0%	0%
	3	$t > 5\%$	0%	0%	0%	0%	0%	0%	0%
Vietnam	1	$t \geq 30\%$	20%	15%	10%	5%	0%	0%	0%
	2	$15\% \leq t < 30\%$	10%	10%	5%	5%	0%	0%	0%
	3	$t < 15\%$	5%	5%	0-5%	0-5%	0%	0%	0%
Lao and Myanmar	1	$t \geq 30\%$	-	-	20%	14%	8%	0%	0%
	2	$15\% \leq t < 30\%$	-	-	10%	10%	5%	0%	0%
	3	$t < 15\%$	-	-	5%	5%	0-5%	0%	0%
Cambodia	1	$t \geq 30\%$	-	-	20%	15%	10%	5%	0%
	2	$15\% \leq t < 30\%$	-	-	10%	10%	5%	5%	0%
	3	$t < 15\%$	-	-	5%	5%	0-5%	0-5%	0%

Source: Framework Agreement on Comprehensive Economic Co-Operation between the Association of South East Asian Nations and the People's Republic of China

China and Thailand, then agreed on Accelerated Tariff Elimination under the EHP (AEHP) on 18 June 2003. Under the AEHP, China and Thailand would eliminate tariffs on all vegetable and fruit products subject to HS 07-08 under the EHP by 1 October 2003. The Rules of Origin applicable to the EHP products were then adopted on 6 October 2003.

Table 7 shows the status of ASEAN's and China's tariff protection on MFN basis and liberalization under AFTA –CEPT for the EHP products. Thailand has the highest protective MFN tariffs on the EHP products among the Parties of ASEAN-China FTA. However, Thailand has been readily liberalizing more than other ASEAN Member States under the CEPT, except for Brunei and Singapore which been already free trading countries for these products Cambodia, Laos, Philippines and Vietnam also have large number of the EHP products under the MFN tariff rates of higher than 20%

and also liberalize less than Thailand under the CEPT. Indonesia and Malaysia are less protective than Thailand on both the MFN basis and under the CEPT. China, on the other hand, protects most of the EHP products at the MFN rates of 6%-20% with an average at 12.8% compared with 24.53% of Thailand.

Table 7: Tariff on Agricultural Products under HS 01-08 in ASEAN Member Countries and China

Countries	Tariff Rate	Tariff lines								tariff Av. (%)
		HS 01-08	T = 0%	T = 1-5%	T = 6-10%	T = 11-15%	T = 16-20%	T >20%	Specific Rate	
Brunei	MFN (2005)	510	510	-	-	-	-	-	-	0
	CEPT (2007)	510	510	-	-	-	-	-	-	0
Cambodia	MFN (2005)	510	46	-	141	205	-	118	-	16.06
	CEPT (2007)	456	41	105	99	141	70	-	-	9.47
Indonesia	MFN (2005)	547	58	434	23	18	-	14	-	5.52
	CEPT (2007)	547	546	1	-	-	-	-	-	0.01
Laos	MFN (2005)	510	-	40	221	-	18	231	-	21.00
	CEPT (2007)	334	-	327	7	-	-	-	-	2.39
Malaysia	MFN (2005)	596	453	67	39	1	8	13	15	1.90
	CEPT (2007)	596	568	13	1	1	6	7	-	1.13
Myanmar	MFN (2005)	510	103	104	112	191	-	-	-	8.51
	CEPT (2007)	508	103	338	67	-	-	-	-	4.33
Philippines	MFN (2005)	591	-	247	167	33	23	121	-	12.84
	CEPT (2007)	591	277	255	-	-	2	57	-	4.97
Singapore	MFN (2005)	510	510	-	-	-	-	-	-	0
	CEPT (2007)	510	510	-	-	-	-	-	-	0
Thailand	MFN (2005)	536	19	157	18	-	3	339	-	24.53
	CEPT (2007)	536	127	402	-	-	7	-	-	4.01
Vietnam	MFN (2005)	510	60	57	7	5	89	292	-	22.80
	CEPT (2007)	510	173	321	-	-	10	6	-	3.99
China	MFN (2005)	579	6	56	156	201	97	57	6	12.80

Source: The data for ASEAN countries are from the ASEAN Secretariat (www.aseansec.org) and China data are from WTO (www.wto.org)

Table 8 summarizes the commitments of Thailand and China under ASEAN-China FTA. Thailand's commitment under ASEAN-China FTA covers 8063 products or tariff lines under the Normal Track and 682 products under the Sensitive Track. In addition 336 products are in the EHP and 134 products in the AEHP. In comparison, China's commitment covers 6583 products under the Normal Track and 393 products under the Sensitive Track, 377 products under the EHP and 188 products under the AEHP.

It is observed that Thailand's commitment offer larger product coverage and faster pace of tariff reduction and elimination than China's under both the Normal Track and the Sensitive Track. This is seen starting from a higher level of average applied MFN rate (14.98% VS 10.48%) to a lower average ASEAN-China FTA rate in 2009 (3.21% VS 3.26%) and 0% thereafter for the Normal Track and from a higher average applied MFN tariff rates (18.45% VS 13.39%) to 0% in 2006 for the EHP products and similarly from a much higher average applied MFN rate (39.52% VS 15.05%) to 0% in 2004 for the AEHP. Therefore, Thailand appears to offer broader and deeper market access preference to China than vice versa under the EHP and AEHP as well as the over all ASEAN-China FTA.

Table 8: Tariff Preference under ASEAN-China FTA

Product coverage	No. of tariff line	Average Applied MFN (2003)	Average ASEAN-China								
			2004	2005	2006	2007	2009	2010	2012	2015	2018
Thailand											
Normal Track	8063	14.98	14.98	12.18	12.18	7.98	3.21	0	0	0	0
Sensitive Track ¹	682	25.50	25.50	25.50	25.50	25.50	25.50	25.50	23.50	21.24	12.91
EHP ^{1,2}	336	18.45	6.49	2.23	0	0	0	0	0	0	0
AEHP ^{1,3}	134	39.52	0	0	0	0	0	0	0	0	0
China											
Normal Track	6583	10.48	10.48	8.32	8.32	6.75	3.26	0	0	0	0
Sensitive Track ¹	393	20.53	20.53	20.53	20.53	20.53	20.53	20.53	18.66	17.85	13.68
EHP ²	377	13.39	6.39	2.12	0	0	0	0	0	0	0
AEHP ³	188	15.05	0	0	0	0	0	0	0	0	0

Note: 1. For product having tariff quota, the tariff reduction is applicable to in-quota tariff; the out-of-quota tariff remains at the relevant applied MFN rate.

2. EHP include 01-06 plus Anthracite(2701110008 for Thailand and 27011100 for China) And Coke and Semi-coke(2704000904 for Thailand and 27040010 for China)

3. AEHP include HS 07-08

Source: 1.Trade Analysis and Information System, United Nations Conference on Trade and Development

2. Ministry of Commerce, Kingdom of Thailand

4. Relevance of the EHP and AEHP to Thailand's Agricultural Trade

The fact that Thailand agreed to immediately eliminate tariffs on the AEHP and EHP products seemed to suggest that Thailand was willing to liberalize these highly protected agricultural sectors under the ASEAN-China framework. The question is whether the AEHP and EHP constitute any significant trade volume and trade potential between Thailand and China.

Table 9 gives some useful information on how relevant or important the AEHP and EHP products are to Thailand's total agricultural trade and Thailand's agricultural trade with China. It is evident that in 2003 the EHP exports constituted about 21.5% of Thailand's agricultural exports, while the EHP imports shared almost 30% of Thailand's agricultural imports. Although the EHP imports were much smaller than the EHP exports in absolute value, the EHP products were proportionally more important in imports than exports. Moreover, as the share of the EHP products in exports continued to decline in later year, the share of the EHP products in imports subsequently increased. This tends to suggest that Thailand's exports are diversifying to non-EHP products while Thailand's imports remain mainly the EHP products.

On the other hand, the AEHP products were insignificant in terms of exports and also very small in terms of imports. While the AEHP exports grew more or less proportional to Thailand's agricultural exports, the AEHP imports grew in greater proportion to Thailand's agricultural imports.

China has been an important importer and exporter of Thailand's agricultural products. Chinese market absorbed about 4% of Thailand's agricultural exports in 1999. China's share, then rose to 8.8% in 2003 and 13.4% in 2006. To a lesser extent, China's share in Thailand's agricultural imports rose from about 4% in 1999 to 6.1% in 2003 and 7% in 2006.

Noteably, China is a more relevant market and source of Thailand's agricultural trade, particularly in the EHP and AEHP products relative to other countries. In 1999, Thailand's agricultural exports to China were more concentrated in the EHP and AEHP products than to the rest of the world (40.14% VS 27.81% of EHP and 5.15% VS 0.05% for AEHP). China's relative concentration in the EHP product exports of Thailand declined to less than the rest of the world (19.38% VS 21.47%) in 2003 but rose back in later years after the implementation of the EHP. On the other hand, China's relative

concentration in the AEHP product exports of Thailand rose sharply even before the implementation of the AEHP from 5.15% in 1999 to 14.71% in 2003 and continued so to 17.78% in 2006. On the import side, source concentration of Thailand's EHP product imports was less in China relative to over the rest of the world (25.76% VS 27.81%) in 1999, but turned to more concentration in China in 2003 (37.51% VS 21.47%), increasingly more so after the AEHP implementation (49.05% VS 15.73% in 2006). In the case of the AEHP products, the relatively greater concentration in China as a source of Thailand's imports was also highly pronounced, rising from 17.88% to 34.99% compared with 0.053% to 0.046% from all over the world during 1999-2006.

Table 9: Relevance of EHP and AEHP to Thailand's Agricultural Trade

Categories	1999	2003	2004	2006
Thailand's agricultural exports (million baht)	448,807	630,599	693,976	837,059
EHP share in Thailand's agricultural exports (%) ¹	27.81	21.47	16.77	15.73
AEHP share in Thailand's agricultural exports (%)	0.0532	0.0418	0.0480	0.0461
Thailand's agricultural imports (million baht)	134,164	215,539	234,516	251,812
EHP share in Thailand's agricultural imports (%) ¹	32.92	29.78	30.34	33.23
AEHP share in Thailand's agricultural imports (%)	2.10	2.78	3.10	3.93
Thailand's agricultural exports to China (million baht)	18,110	55,943	70,631	112,149
Share of agricultural exports to China in Thailand's total agricultural exports(%)	4.04	8.87	10.18	13.40
Share of EHP exports to China in Thailand's total agricultural export to China (%) ¹	40.14	19.38	19.51	20.08
Share of AEHP exports to China in Thailand's total agricultural export to China (%)	5.15	14.71	16.33	17.78
Thailand's agricultural imports from China (million baht)	5,459	13,244	12,698	17,641
Share of agricultural imports from China in Thailand's total agricultural imports(%)	4.07	6.14	5.41	7.01
Share of EHP imports from China in Thailand's total agricultural imports from China (%) ¹	25.76	37.51	48.25	49.05
Share of AEHP imports from China in Thailand's total agricultural imports from China (%)	17.88	25.06	32.65	34.99

Note: 1. EHP not include Anthracite(2701110008 for Thailand and 27011100 for China) and Coke and Semi-coke(2704000904 for Thailand and 27040010 for China)

Source : Information and Communication Technology Center with Cooperation of the Customs Department, Ministry of Commerce Thailand

5. Trade effects of China-Thailand AEHP and EHP

There have been great public attention and concern focused on the effects of the China-Thailand AEHP and EHP because China has been perceived both as a large competitor and potential customer for Thai products, including agricultural products which have been perceived as having a strong comparative advantage in the world market. Soon after the AEHP implementation, there were complaints by farmers and NGOs on its adverse effects on garlic and onion farmers (www.ftawatch.org, www.thaifta.com and www.ftamonitoring.org). There were also a few studies on the post-implementation effects of the China-Thailand AEHP and EHP.

A study by a group of members of the Faculty of Economics at Chulalongkorn University concluded that the AEHP and EHP had little effect on trade of the products under the coverage. Although there were noticeable growth of exports and imports of the AEHP and EHP products, the growth might be attributable to other factors such as the Parties' income growth since the growth of trade in these products with the non-Parties was not much different. The China-Thailand AEHP and EHP trade growth also tended to be in line with each Party's comparative advantage and hence both Parties benefited from trade creation effects rather than suffered from trade diversion effects. In addition, the AEHP and EHP effects were little because there were still non-tariff barriers and cumbersome export/import procedures (Faculty of Economics, Chulalongkorn University, 2005, Ch.5 and 6, pp 5-1 to 5-41 and 6-1 to 6-29).

Taratorn Ratananarumitsorn and Somkiat Tangkitvanich reported that for the first few months after the AEHP implementation, Thailand's imports of fruits from China increased sharply to 1.6 billion baht during October-December 2003, a 214% increase from 0.5 billion baht during the same months of 2002, while Thailand's exports of fruit to China increased much less at 42% from 0.74 billion baht to 1.06 billion baht. They explained that the sharp rise in Thailand's imports of fruits from China was attributable partly to tariff elimination under the AEHP and partly to transformation of fruit smuggling into formal imports. On the other hand, Thailand's fruit exporters were still ignorant of the AEHP implementation as well as faced with restrictive sanitary and phytosanitary measures, as well as local governments' regulations, some of which were improved subsequently. It was observed, however, that the rate of growth of Thailand's imports from China slowed down more than that of Thailand's fruit exports to China

during 2003-2004. Moreover, it turned out that Thailand's fruit imports from China during the first half of 2005 increased over that of 2004 less than that from the rest of the world (7.4% VS 18.5%), while the opposite was true for Thailand's fruit exports (12.7% VS 6.9%). These trends could be attributable to both consumer's concerns of contamination of imported fruits and improvement of China's NTBs on some Thai fruit, especially durian and longan. (Ratananarumitsorn and Tangkitvanich, 2005).

Garlic and onion were cited to be most severely affected by the AEHP implementation. However, the AEHP applied 0% tariff only to the in-quota imports of about 65 tons for garlic and 365 tons for onion. The voluminous out-of quota imports of garlic (42.3 thousand tons in 2003 and 53.3 thousand tons in 2004) and onions (14.9 thousand tons in 2003 and 3.4 tons in 2004) were subject to MFN tariff rates of 57% and 142% respectively. Therefore, the AEHP had very little to do with the problems of Thai garlic and onion farmers. The problems were rather due to very low price of imported garlic and onion from China which already existed before the AEHP implementation. On the other hand, the tariff elimination on China's imports of manioc from Thailand under the AEHP helped to give Thailand the preference a temporary advantage over Viet Nam, which is a competitive exporter of manioc. However, by 2006 Thailand and Viet Nam would enjoy equal access to China's market under ASEAN-China FTA. The AEHP hence, temporarily played a role in increasing Thailand's manioc exports to China, although the major cause of such increase was China's growth of demand for manioc. (Ratananarumitsorn and Tangkitvanich, 2005).

Both studies mentioned above suffered from data limitation since their analyses are based on only 1-2 years data after the AEHP and EHP implementation.

A recent study on the impact of the AEHP, based on more updated annual trade data, found that after the AEHP implementation, Thailand's exports of fruits and vegetables to China enjoyed a sharp rising trend, mainly due to the growth of exports of manioc. Other products that enjoyed rising trends included various kinds of fresh fruits such as longan, mangosteen, lichee and durian. At the same time, vegetable and fruit imports from China also increased dramatically. Apples, pears and quinces, grapes, carrots and turnips, mushrooms, broccoli, garlic and onions, chestnuts and oranges were the items that saw the greatest import increase. The study focused on trade balance effects and concluded that Thailand had a larger surplus on the vegetable trade due to rapid growth of manioc exports; excluding manioc Thailand would have rising

vegetable trade deficit. However, Thailand maintained surplus in fruits trade with China. It then argued that the low and declining import prices of garlic, onions, apples and grapes, in effect, suppressed the domestic prices for garlic, onions and fruits for Thai farmers. On the other hand it also argued that the Thai fruit and vegetable exports to China suffered from price fluctuations and, for some products such as dried longan and frozen durian, declining prices. (Center for Applied Economics Research, et al., 2008, pp.26-40).

Bilateral trade balance effects and trade balance effects by commodity or group of commodities are an inappropriate measure for evaluating FTAs. First, a bilateral trade deficit (surplus) does not imply loss (gain) of national welfare. A country might have a large trade deficit with one country and surplus with another while maintaining an overall trade balance. Furthermore, bilateral trade deficit and surplus might increase without any overall trade balance problem. Such cases would imply improving international specialization and, hence, better national economic well being. Second, overall trade balance tended to be disturbed by poor macroeconomic management. Therefore, a careful analysis is needed before blaming an FTA for any trade balance problem. Finally, it is inappropriate to set an objective on individual commodity or group of commodities trade balance and therefore nonsense to evaluate FTA effects on individual commodity or group of commodities' trade balance.

To evaluate the effects of an FTA, we should analyze whether the trade increases are attributable to concessions under the FTA and whether such trade increases are welfare improvement through trade creation and/or terms of trade improvement.

5.1 How Agricultural Trade Has Changed

5.1.1 Exports and Imports under AEHP

China rose to become the largest market for Thailand's exports of fruits and vegetables in 2001. (Figure 2). Exports of fruits and vegetables to China continued to grow at much faster rate than elsewhere before and after the year of the AEHP implementation. Since 2003, there seemed to be some extent of export diversion from Hong Kong to China as exports of the AEHP products to Hong Kong declined while those to China increased rapidly and those to other countries stayed more or less leveled.

Major exports of Thailand to China under the AEHP are other manioc (HS071400906), durian (HS0810600000), longan (HS0810900102 and HS0813400104), other fruits (HS 0810900904), mangosteens (HS 0804500301), lichee (HS08109008506), dainty bananas (HS0803000120) and other oranges (HS0805100905). These products showed different patterns of change before and after the AEHP implementation. Manioc exports to China rose sharply from a small value in 2000 to nearly 16 billion baht in 2006. The growth trend started before the AEHP and continued so afterwards. The export value growth was mainly due to growth of export quantity while export price remained more or less the same. China makes up almost the entire market of Thailand's manioc exports. The other markets of Hong Kong and Malaysia are rather insignificant. As the growth trend of manioc exports appeared to be almost the same before and after the AEHP implementation, the effect of the AEHP, if any, could have been rather insignificant.

Durian was the second largest export to China under the AEHP. Thailand's export of durian was in the form of fresh and frozen. Hong Kong and Taiwan were the major importers of Thailand's fresh durian until 2003. After the AEHP implementation, China became the largest importer of fresh durian from Thailand. To some extent, there appeared to be a market diversion from Hong Kong to China as the export quantity to Hong Kong declined while those to China increased. It is interesting to note that the export price of durian to China fell sharply from the highest of all markets in 2002 to the lowest in 2004 before rising back to the second highest in 2006. Similarly, the export price to Hong Kong declined from its peak price in 2002 to its lowest price in 2005 and rebounded to become the highest price again in 2006. It was apparent that the AEHP helped to revive durian exports from a declining trend to a rising one both in terms of quantity and price. On the other hand, frozen durian were exported mostly to the U.S., Australia and Canada. The export volume was on an upward trend before 2003 but fell after that while the export price moved in the opposite direction during the same period. The resultant export value was however on a declining trend. There was also an increase in quantity and value of frozen durian export to China such that China became the largest market for Thailand's frozen durian in 2006. The changes in export volume, price and value seemed to suggest that there were some diversion from export of frozen durian to the U.S., Australia and Canada toward export of fresh and frozen durian to China following the AEHP implementation.

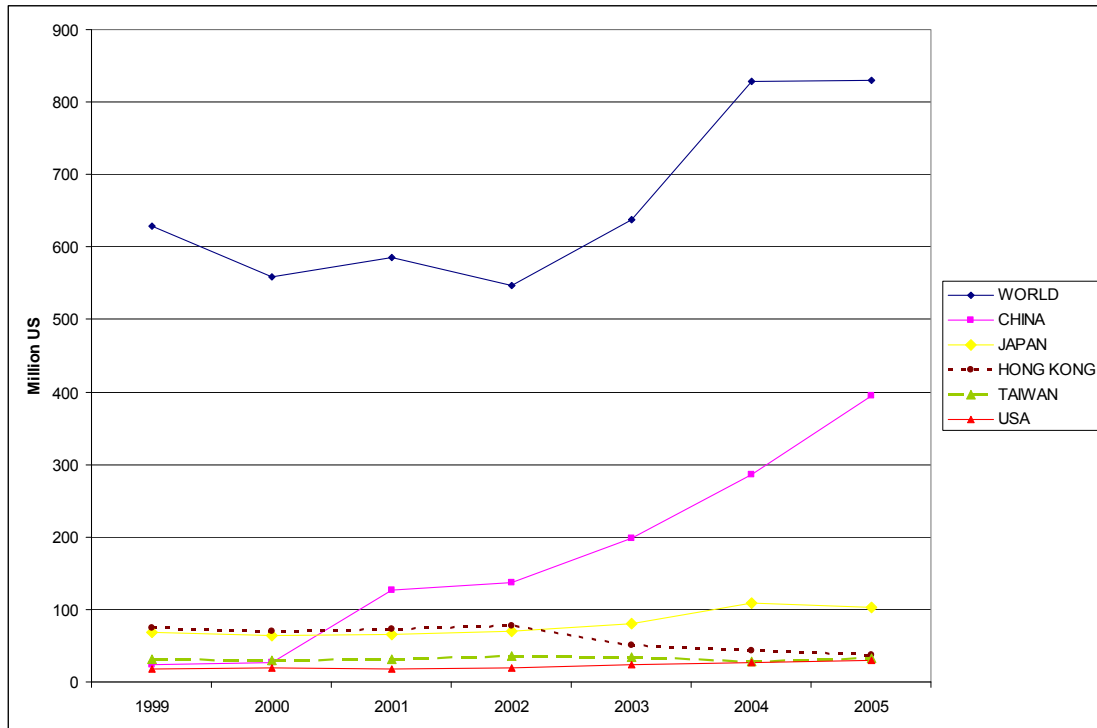
Longan, another important fruit export of Thailand showed interesting effects from the AEHP. Longan export volume and value had grown and then started to fall down before the AEHP implementation but rose again following the AEHP implementation. However, unlike durian, the effects on longan seemed to be merely a diversion from Hong Kong to China with little net increase in total export. In deed, the export volume and value to China and Hong Kong fell in 2006. The net increase of longan export value appeared to be attributable to increasing volume of exports to Indonesia. The export price of longan fluctuated along the declining trend in every major market. It is observed that the export price to China and Hong Kong tended to be lower than the export price to Canada and Indonesia except in 2006 when the export price to China and Hong Kong rose above Indonesia, though still below the export price to Canada. Dried longan export, mostly to China, had grown rapidly to peak in 2003. After the AEHP implementation, however, dried longan export quantity, price and, hence, value to China fell. Therefore, the AEHP seemed to have no positive effect on longan export, fresh or dried, to China.

In the case of mangosteens and lichee, it is quite clear that the AEHP helped increase export quantity and value to China as both the export quantity and value to China stayed low until 2003 but shot up in 2004 and 2005. It is doubtful, however, whether the effect would be sustainable as the export quantity and value dropped in 2006. Curiously, the price of mangosteen export to China was stable and very low, much lower than the price of export to Japan. The price of lichee export to China was also lower than elsewhere but for the first time rose to a level higher than elsewhere as the export quantity fell in 2006.

China and Hong Kong were also the major top two markets for Thailand's dainty bananas exports. Both price and quantity trends were declining in both markets. After the AEHP implementation, the quantity of exports to China rose while the export price dropped sharply for two consecutive years. In 2006, the quantity dropped but the price rose still with continuing growth in export value.

Figure 2: Thailand's Major Exports under AEHP to China and Other Markets

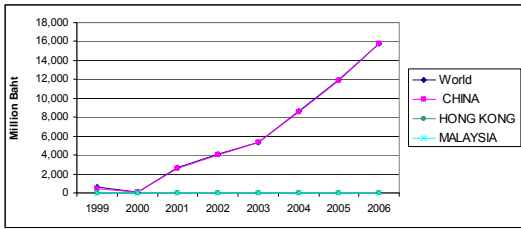
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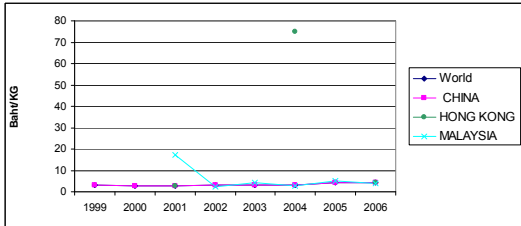
2.1 OTHER MANIIOC, FRESH, CHILLED, FROZEN OR DRIED

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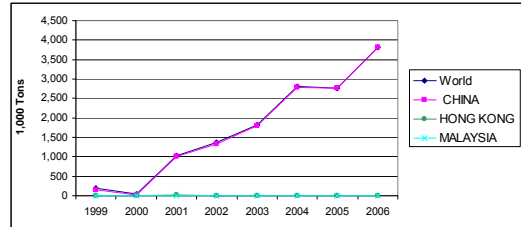
Value



Price



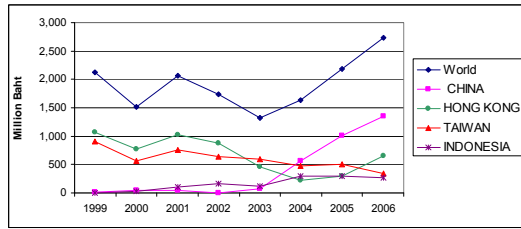
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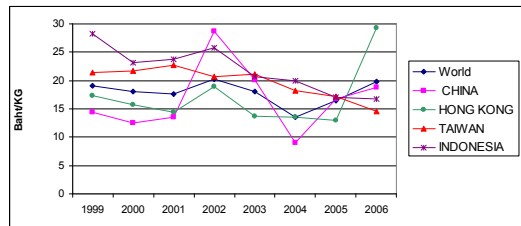
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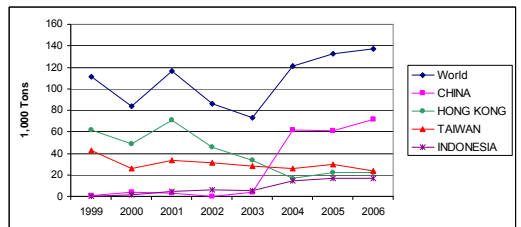
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Price



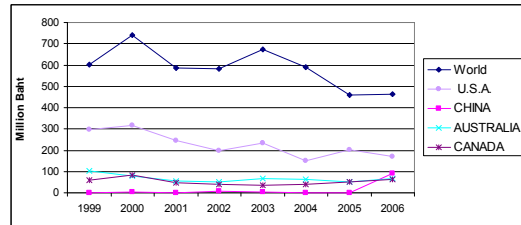
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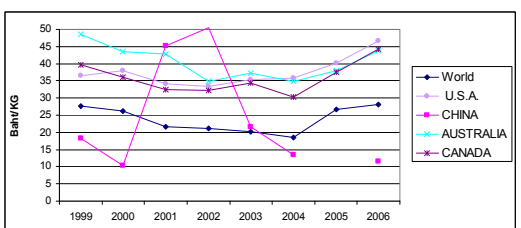
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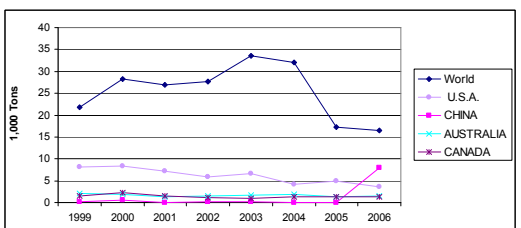
Value



Price



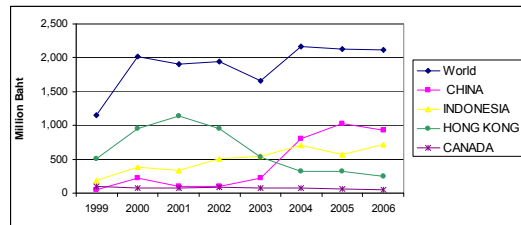
Volume



2.4 LONGANS, FRESH

HS CODE : 0810900102

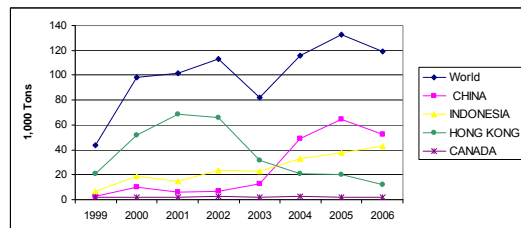
Value



Price



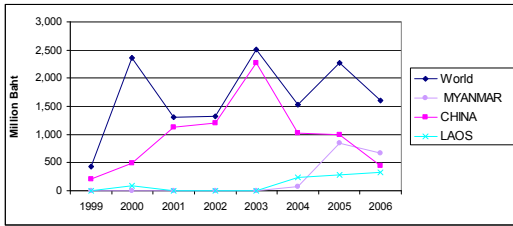
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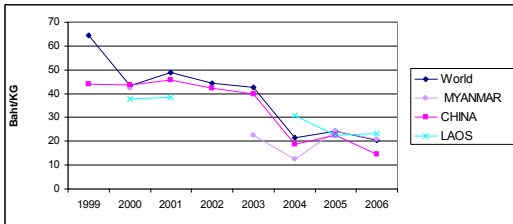
2.5 LONGANS, DRIED

HS CODE : 0813400104

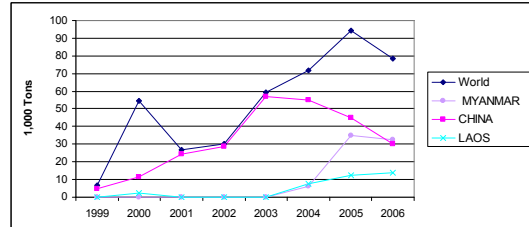
Value



Price



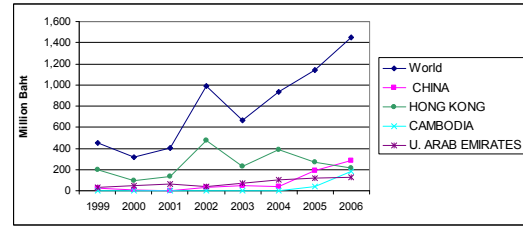
Volume



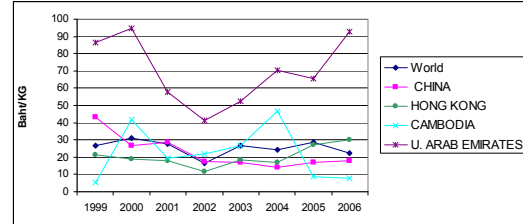
2.6 OTHER FRUITS, FRESH

HS CODE : 0810900904

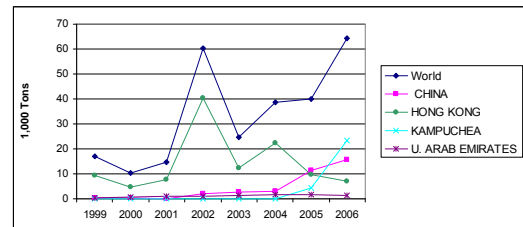
Value



Price



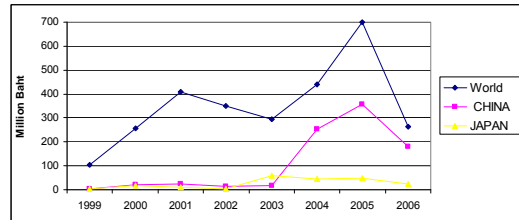
Volume



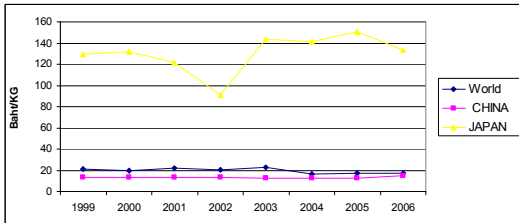
2.7 MANGOSTEENS, FRESH OR DRIED

HS CODE : 0804500301

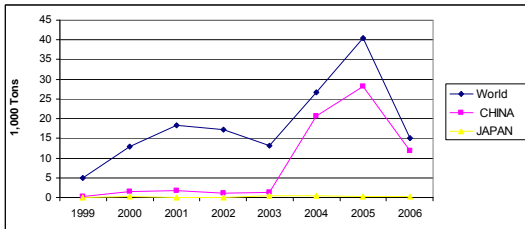
Value



Price



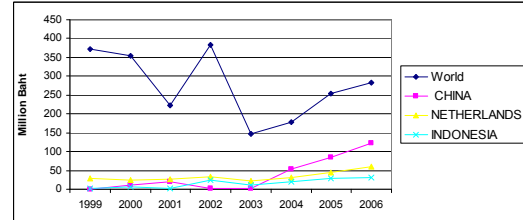
Volume



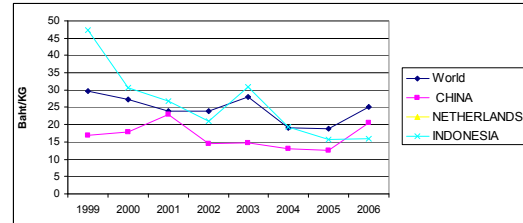
2.8 LICHEE, FRESH

HS CODE : 0810900506

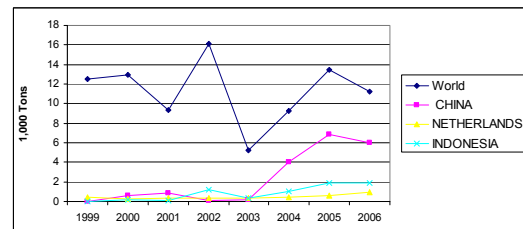
Value



Price



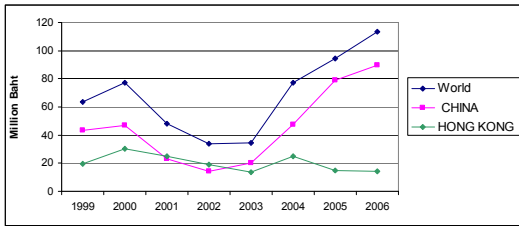
Volume



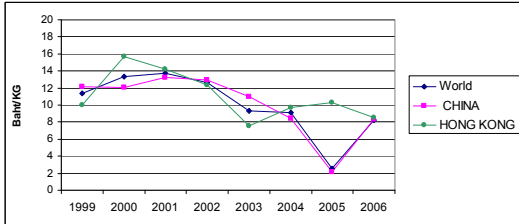
2.9 DAINTY BANANAS (KULE KAI), FRESH

HS CODE : 0803000120

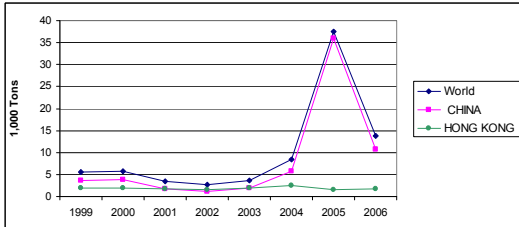
Value



Price



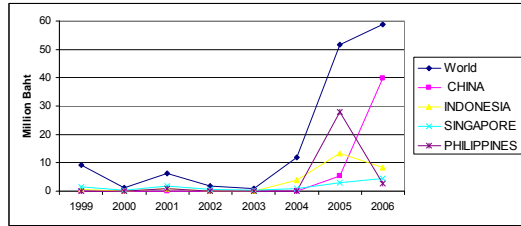
Volume



2.10 OTHER ORANGES, FRESH OR DRIED

HS CODE : 0805100905

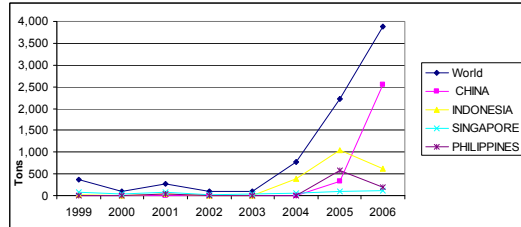
Value



Price



Volume



Note: Export price is FOB unit price = FOB value/volume

Source: The Customs Department of the Kingdom of Thailand

It was also observed that after the AEHP implementation, the volume and value of export of other oranges from Thailand to China increased sharply with a price level much lower than those exported to Singapore.

On the import side, China had been the largest source of Thailand's imports of agricultural products under the AEHP for years before the AEHP implementation in 2003. (Figure 3) Thailand's imports of fruits and vegetables started to grow faster in 2003 when the AEHP agreement was reached, but in deed slower in the following years of the AEHP implementation. In contrast, Thailand's import of fruits and vegetables from other major country sources, namely, the US, Australia, Myanmar and Viet Nam grew very little. Therefore, the AEHP appeared to induce import growth bias in favour of China.

Thailand's major imports of fruits and vegetables from china are apples (HS0808100003), pears and quinces (HS0808200005), grapes (HS0806100002), mandarins (HS0805200907), carrots and turnips (HS0706100001), dried mushrooms (HS0712390000 and HS0712310000), cauliflowers and broccoli (HS0704100000), garlic (HS0703200007), dried wood ears (HS0712320000), onions (HS0703100119), other nuts (HS0802900903), and other dried vegetables (HS0712900904).

China had been the largest source of Thailand's imports of apples for years before the AEHP implementation. It was noticeable that Thailand's import volume of apples increased sharply in 2003, leveled off in subsequent years and even declined in 2006 while the import price of apple from China fell successively until 2006 when it turned up as the import quantity dropped. The import value increased with the import quantity in 2003 but reflected the changes in import price in the subsequent years. It was noted also that the US, South Africa and New Zealand, the competing sources of Thailand's apple imports were subject to competition from China such that their export volume to Thailand could not expand while their prices, though were still higher than China's had to come down along with China's price decrease.

In case of pears and quinces, the import quantity jumped many fold in 2003 and kept growing until 2006 when it leveled off, while the import price declined successively, pulling down the prices on imports from the US and South Africa and suppressed the import quantity from the US and South Africa to remain at low level.

Unlike other fruits discussed above, grapes were not much affected by the AEHP. The import quantity from China were small before and grew at comparable rate with other competing country sources after the AEHP implementation except for 2006 when the import quantity from China surged drastically as those from other competing countries leveled off. The import price of grapes from China came down drastically from the level higher than other competing country source to less than half their prices in 2002 then rose up to just below the competitor's prices in the subsequent years. Thailand's import prices from all major exporters of grapes were on declining trend.

Different effect could also be observed in the case of mandarins. Imports of mandarins from China began to rise in 2002, but after the AEHP implementation, its growth was greater while the import price increased successively, probably due to lack of competition.

After the AEHP implementation, carrots and turnips from China grew very fast and substituted those from Australia and New Zealand. However, the import price of carrots and turnips from China tended to rise in the later years to come closer to but still lower than the competitors' prices.

Import of other dried mushroom from China also started to grow rapidly after the AEHP implementation but with declining rate over time. Its price fluctuated along a rising trend as China became almost the only source of Thailand's import of other dried mushroom with out any significant competitor.

In comparison, Thailand's import of dried mushrooms started to grow rapidly before the AEHP implementation then leveled off and declined while the import price remained rather stable until 2006 when the price rose as the import quantity dropped.

Cauliflower and broccoli, like several other fruits and vegetables, demonstrated the effect of the AEHP. Although Thailand's import of cauliflowers and broccoli started to rise before the AEHP implementation, its growth accelerated after the AEHP implementation. The import price from China declined to the lowest level during 2002-2004 but seemed to rise up after that as there was no significant competitor against China in Thailand's market.

Garlic is one of the most controversial products in the AEHP. However, it was observed that Thailand's imports of garlic from China rose sharply prior to the AEHP implementation and declined sharply since 2004. The import price from China had

been low and even falling before the AEHP implementation. Although Myanmar and Laos offered competitive prices, China became and remained the dominant source of imported garlic for Thailand.

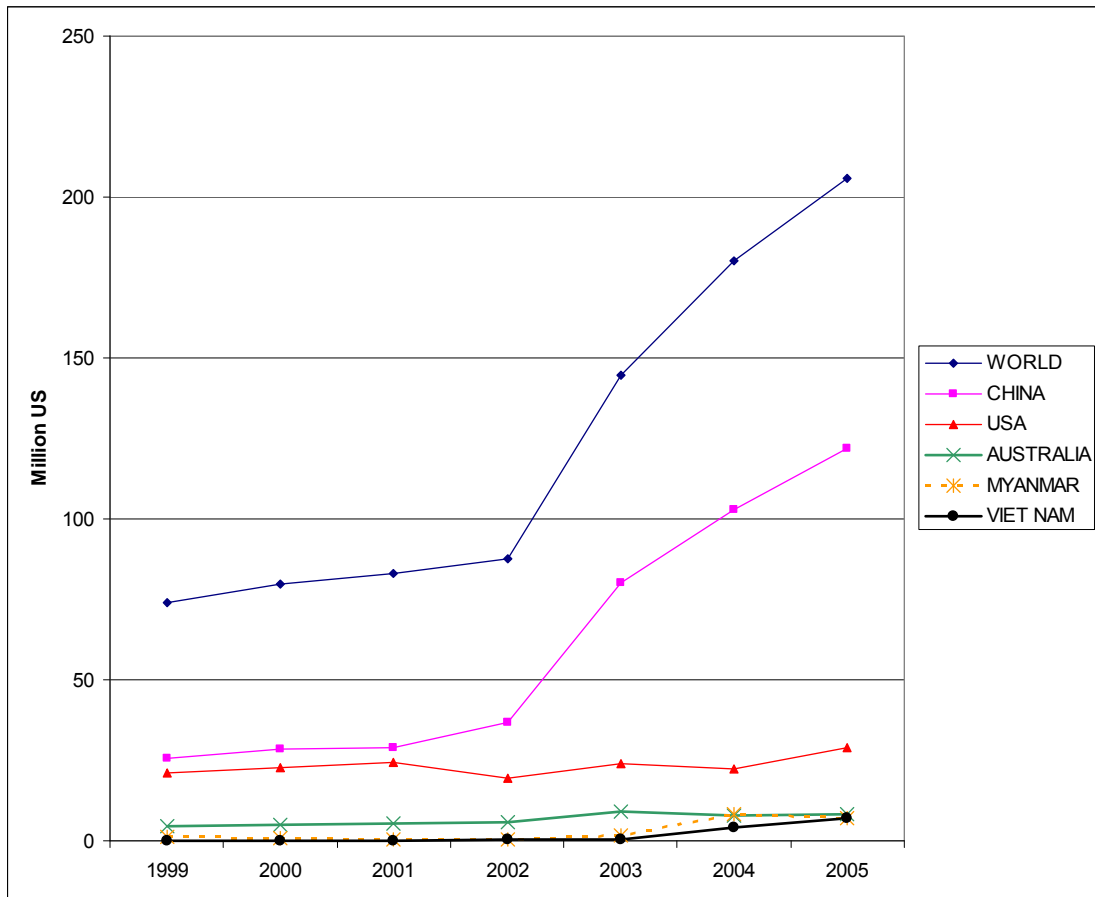
China was also the dominant source of Thailand's import of dried wood ears. Thailand's imports of dried wood ears from China rose sharply in the first year of the AEHP implementation but leveled off after 2004. Unlike other products discussed above, the import price of dried wood ears from China was higher than from an alternative source such as Laos and even getting higher under the AEHP.

Onions are another controversial product. Similar to garlic, it was observed that Thailand's imports from China started to rise sharply before the AEHP implementation. However, the imports of onions from China after the AEHP implementation fluctuated highly with substitution by onions import from Myanmar. Note that over the period, China's onion price was lower than the prices from alternative sources including Myanmar, and remained so.

In the cases of other nuts and other dried vegetables, China had been the primary source of Thailand's imports before AEHP. The AEHP implementation then increased the volume of imports from China and hence, the role of China as a source of Thailand's imports, while other sources maintained more or less the same level over time. The import prices of other nuts and other dried vegetables from China were very low and relatively stable compared with very high fluctuating prices from other sources.

Figure 3: Thailand's Major Imports under AEHP from China and Other Major Sources

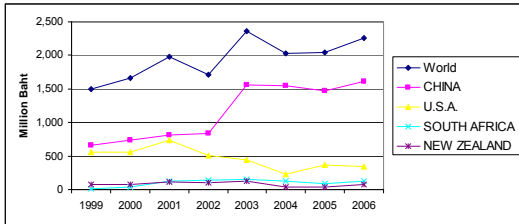
Total AEHP



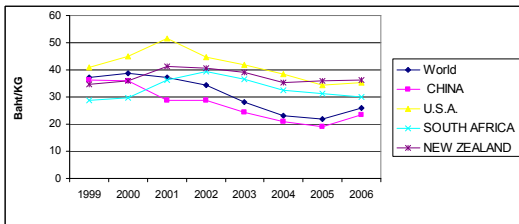
3.1 APPLES, FRESH

HS CODE : 0808100003

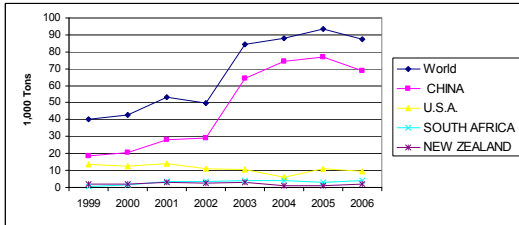
Value



Price



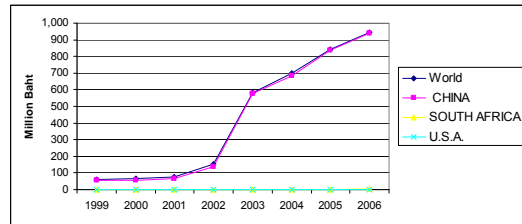
Volume



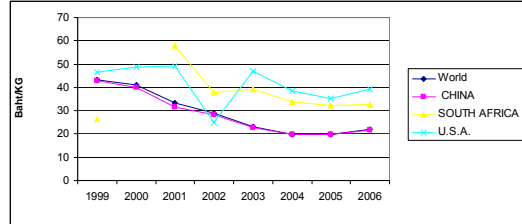
3.2 PEARS AND QUINCES, FRESH

HS CODE : 0808200005

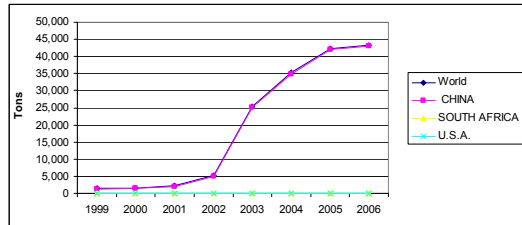
Value



Price



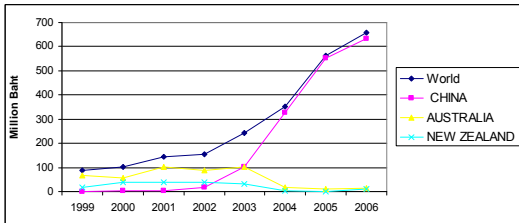
Volume



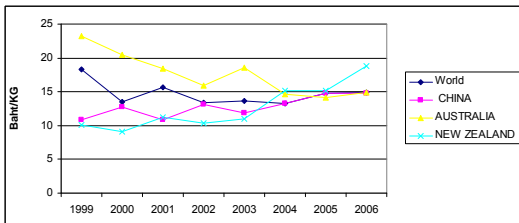
3.3 CARROTS AND TURNIPS, FRESH OR CHILLED

HS CODE : 0706100001

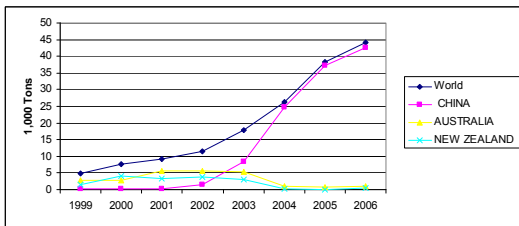
Value



Price



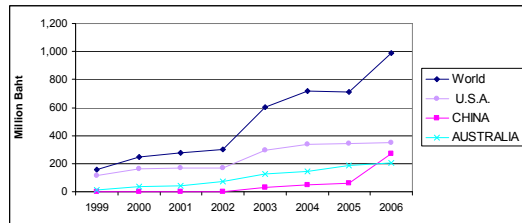
Volume



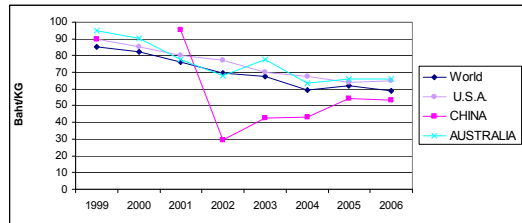
3.4 GRAPES, FRESH

HS CODE : 0806100002

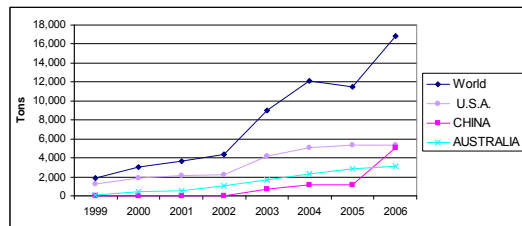
Value



Price

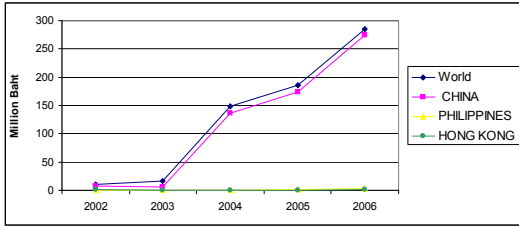


Volume

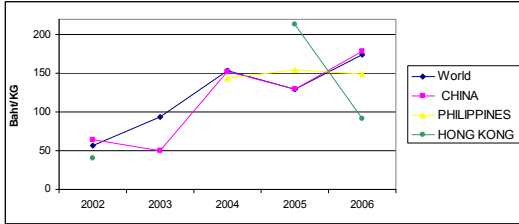


**3.5 OTHER DRIED MUSHROOMS AND TRUFFLES
AGARICUS**
HS CODE : 0712390000

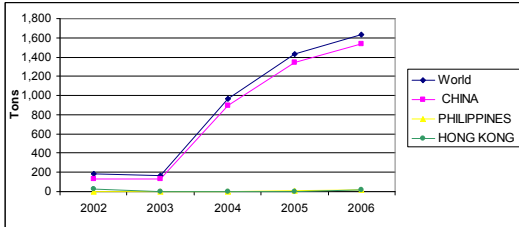
Value



Price

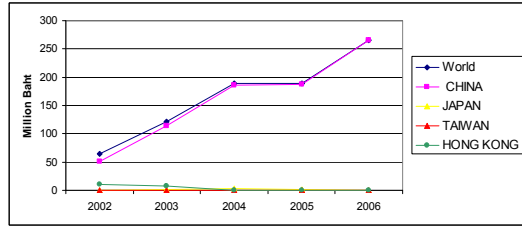


Volume

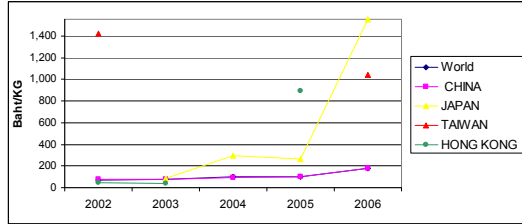


**3.6 DRIED MUSHROOMS OF THE GENUS
AGARICUS**
HS CODE : 0712310000

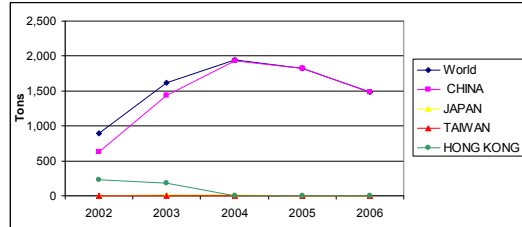
Value



Price

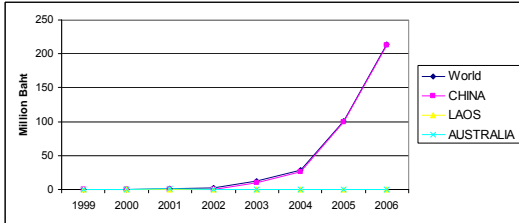


Volume

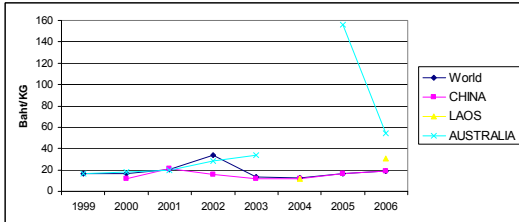


**3.7 CAULIFLOWERS AND BROCCOLI,
FRESH OR CHILLED**
HS CODE : 0704100000

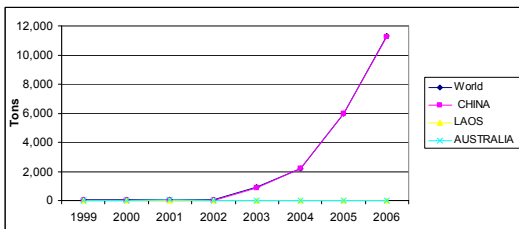
Value



Price

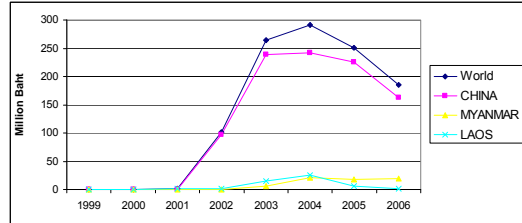


Volume

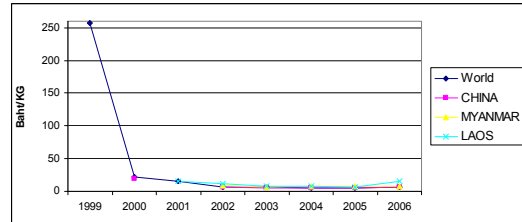


3.8 GARLIC, FRESH OR CHILLED
HS CODE : 0703200007

Value



Price

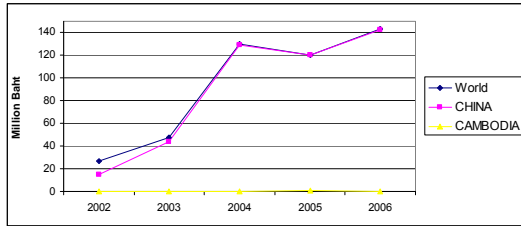


Volume

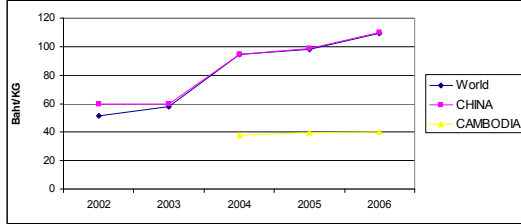


3.9 DRIED WOOD EARS
HS CODE : 0712320000

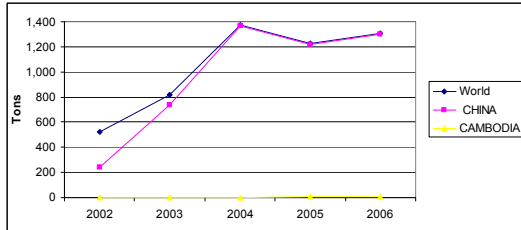
Value



Price

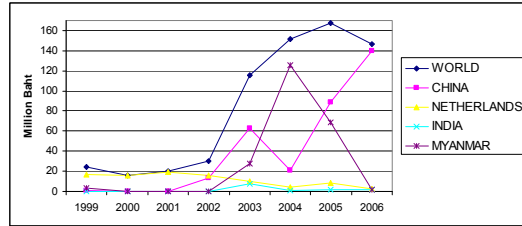


Volume

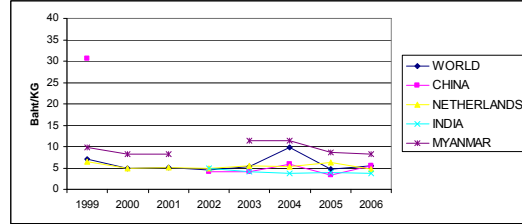


3.10 ONIONS, FRESH OR CHILLED
HS CODE : 0703100119

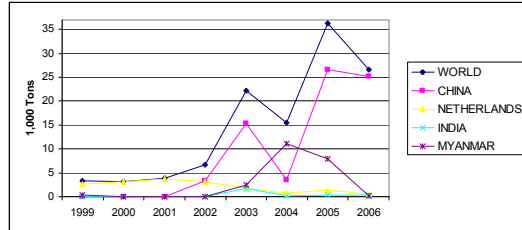
Value



Price

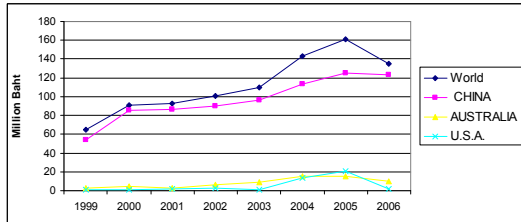


Volume

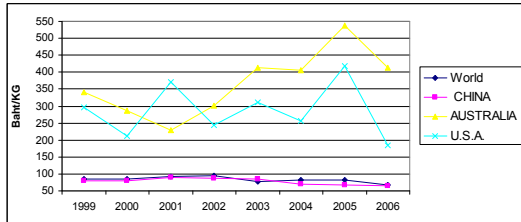


3.11 OTHER NUTS, FRESH OR DRIED
HS CODE : 0802900903

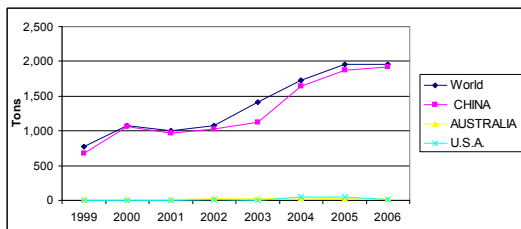
Value



Price

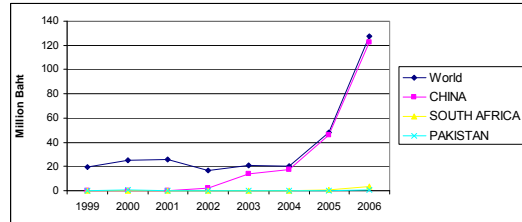


Volume

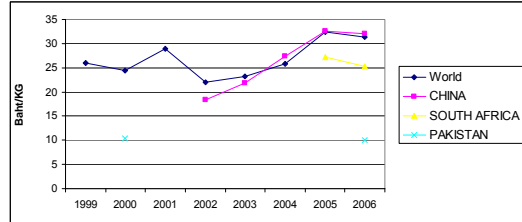


3.12 MANDARINES, FRESH OR DRIED
HS CODE : 0805200907

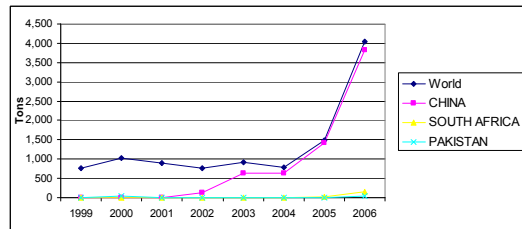
Value



Price

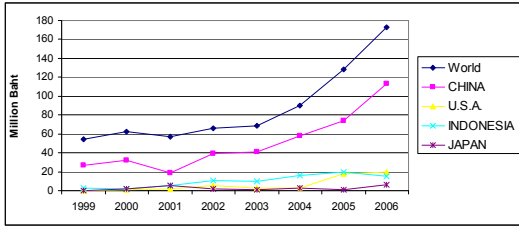


Volume

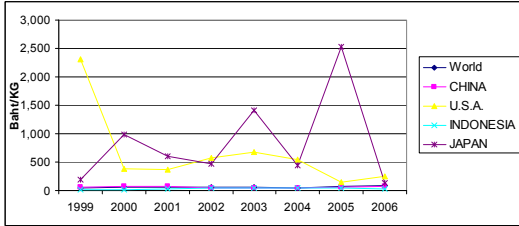


3.13 OTHER DRIED VEGETABLES
 HS CODE : 0712900904

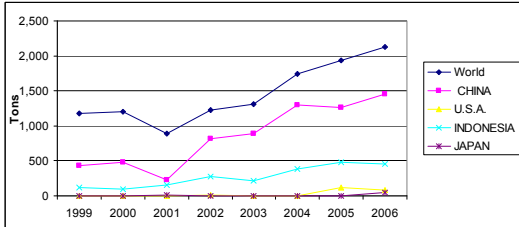
Value



Price



Volume



Source: The Customs Department of the Kingdom of Thailand

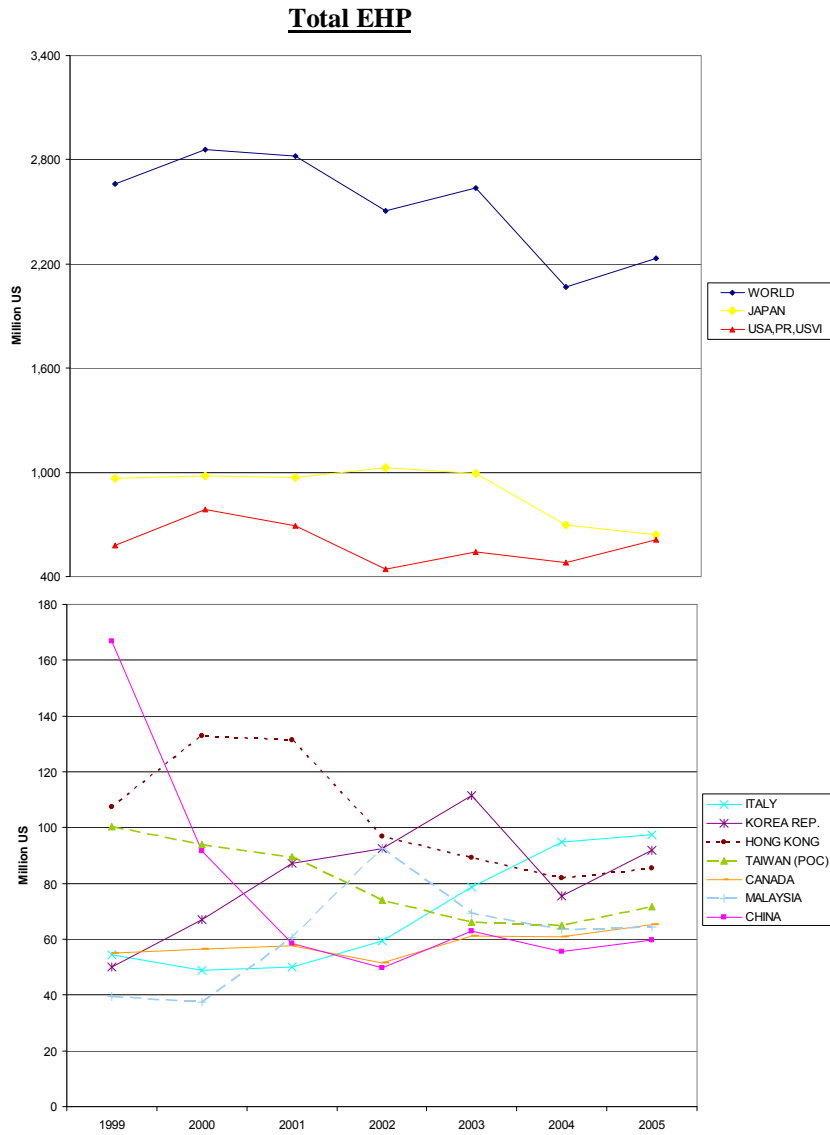
5.1.2 Exports and Imports under EHP

Although ranked ninth as a major export market for and import source of Thailand's trade in agricultural products included in the EHP, China's trade value in these product groups with Thailand was still rather small. Thailand's exports to and imports from China were only 2.7% and 3.8% of total exports and imports, respectively, in this product group.

It was interesting to observe that the EHP implementation didn't seem to affect Thailand's exports to China. In deed Thailand's exports of EHP products to China declined from US\$166.8 million in 1999 to US\$ 63.0 million in 2003 and US\$59.6 million in 2005, despite the EHP implementation. During the same period, Thailand's export value of the EHP products to most major markets declined, reflecting Thailand's falling competitiveness. (Figure 4)

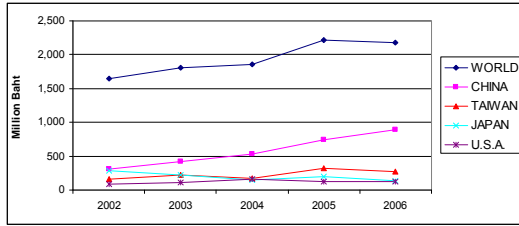
Major products of Thailand's exports to China in the EHP include other fish (HS 0303790090), cuttle fish (HS 030749123), other shrimp and prawns (HS 0306130090), giant fresh water prawns (HS 0306130002), other salmonidae (HS 0302190004), giant black tiger prawn (HS 0306130001), cuttle fish head (HS 0302190004), slipper lobster (HS 0306190107) and other live reptiles (HS 0106209090)

Figure 4: Thailand's Major Exports under EHP to China and Other Major Markets

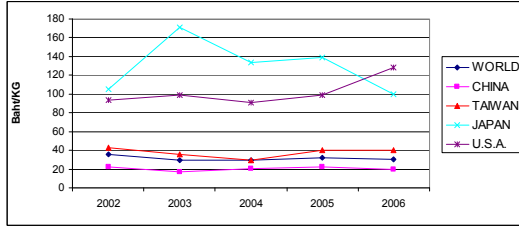


4.1 OTHER FISH,FROZEN
HS CODE : 0303790090

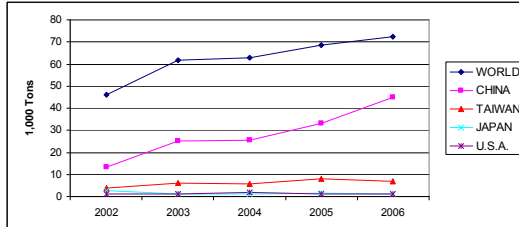
Value



Price

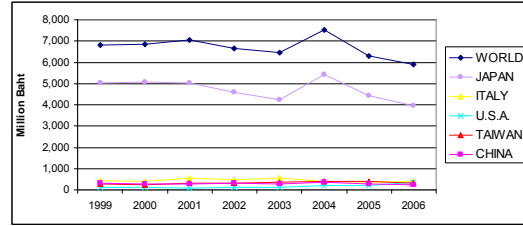


Volume

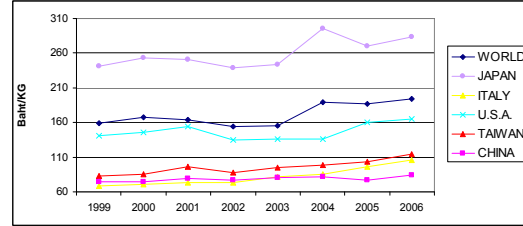


4.2 CUTTLE FISH, FROZEN
HS CODE : 0307490123

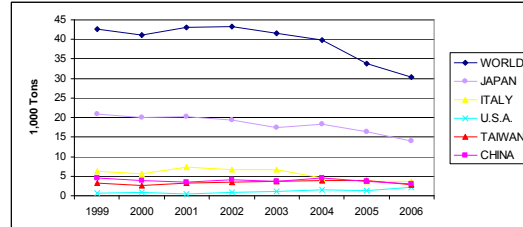
Value



Price

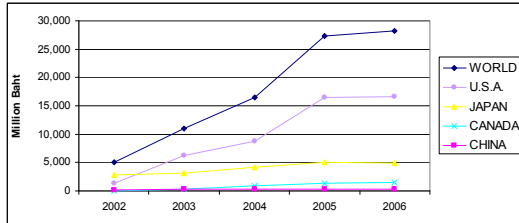


Volume

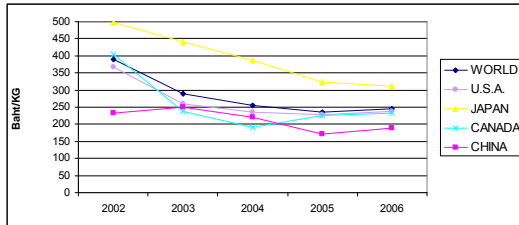


4.3 OTHER SHRIMPS AND PRAWNS, FROZEN
HS CODE : 0306130090

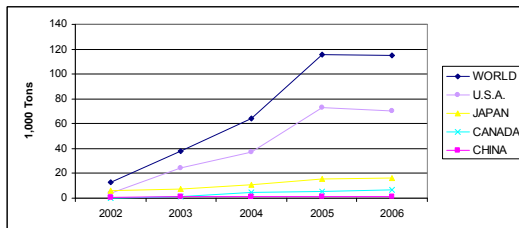
Value



Price

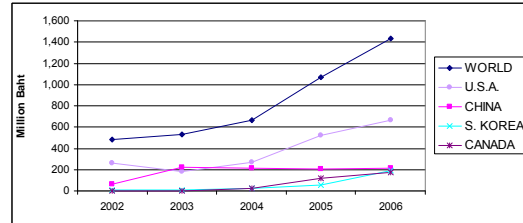


Volume

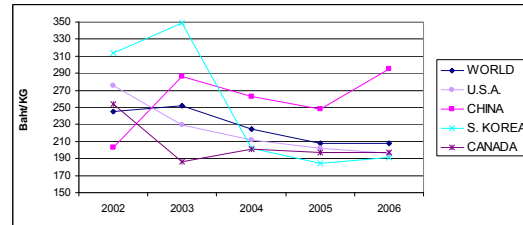


4.4 GIANT FRESHWATER PRAWN, FROZEN
HS CODE : 0306130002

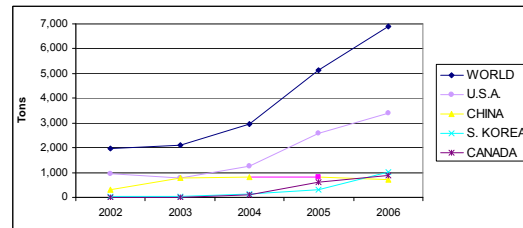
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Price

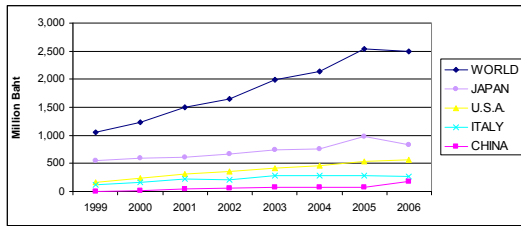


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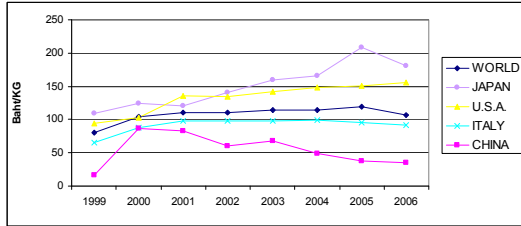


4.5 ORCHIDS, FRESH
HS CODE : 0603100105

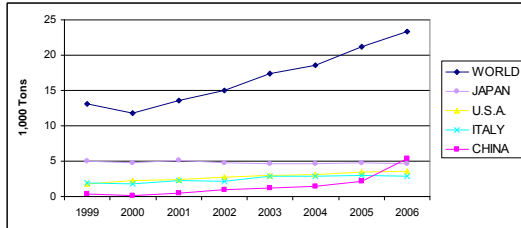
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Price

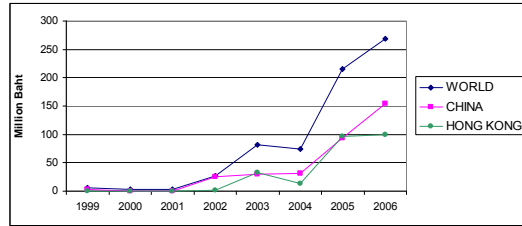


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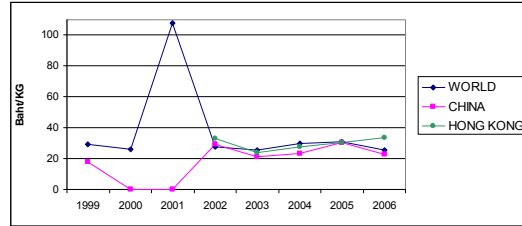


4.6 OTHER SALMONIDAE, FRESH OR CHILLED
HS CODE : 0302190004

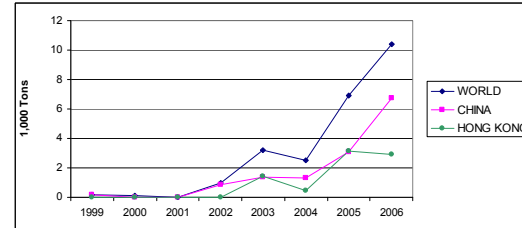
Value



Price

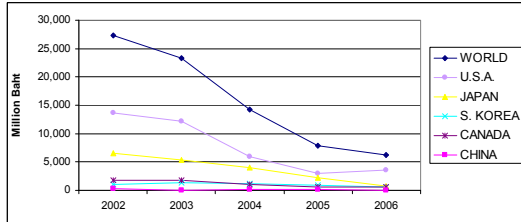


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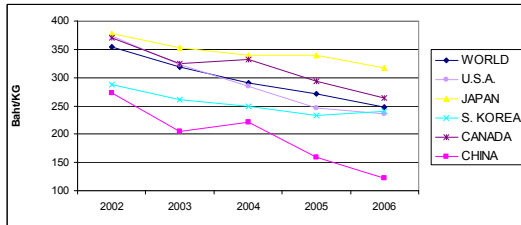


4.7 GIANT BLACK TIGER PRAWN, FROZEN
HS CODE : 0306130001

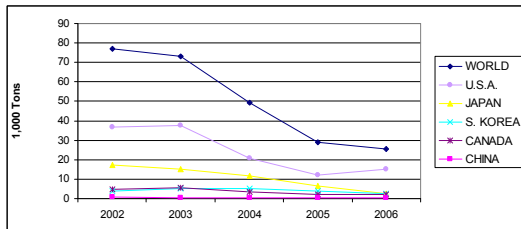
Value



Price

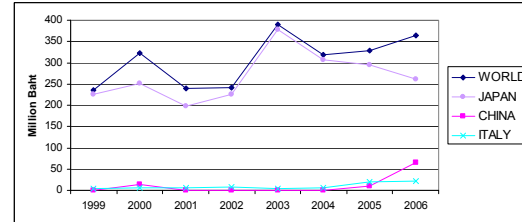


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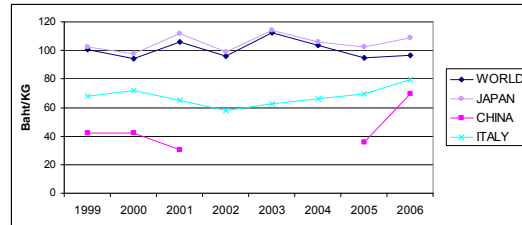


4.8 CUTTLE FISH HEAD, FROZEN
HS CODE : 0307490110

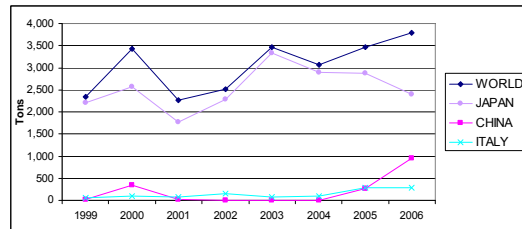
Value



Price

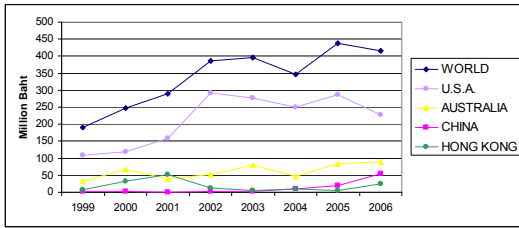


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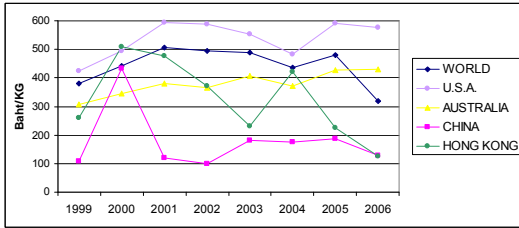


4.9 SLIPPER LOBSTER, FROZEN
HS CODE : 0306190107

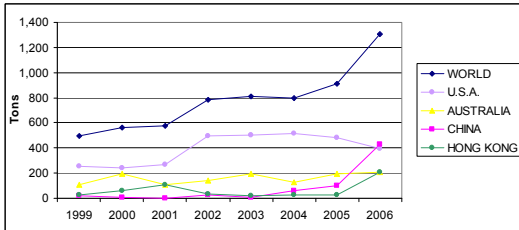
Value



Price

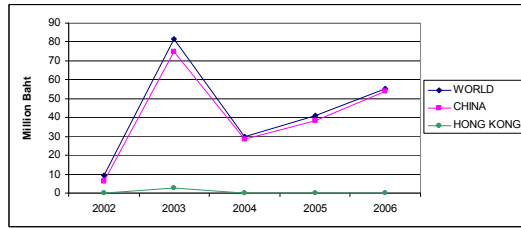


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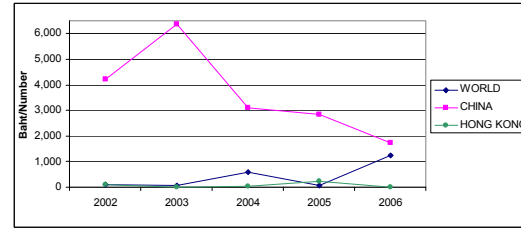


4.10 OTHER LIVE REPTILES
HS CODE : 0106209090

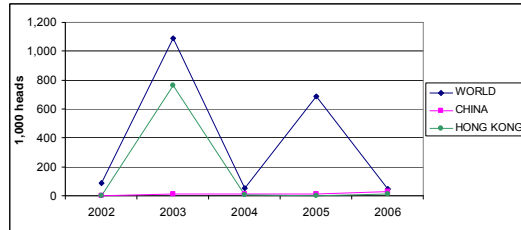
Value



Price



Volume



Of all these major exports to China, those products that enjoyed export expansion effects from the EHP were other fish, other salmonidae, cuttle fish head and slipper lobster. China had been the largest market for Thailand's export of other fish before the EHP implementation. The EHP implementation appeared to accelerate the growth of Thailand's exports to China faster than before and relative to other markets. The export price to China, however, was lower than other markets.

Other salmonidae became a significant export of Thailand only recently and was exported mainly to China and Hong Kong. The EHP implementation helped accelerate the growth of exports to China more than Hong Kong. However the price of export to China was lower than Hong Kong.

In the case of cuttle fish, the EHP seemed to promote China as a new market while losing the Japanese market. The export price to China, though rising, was still lower than the prices in other major markets.

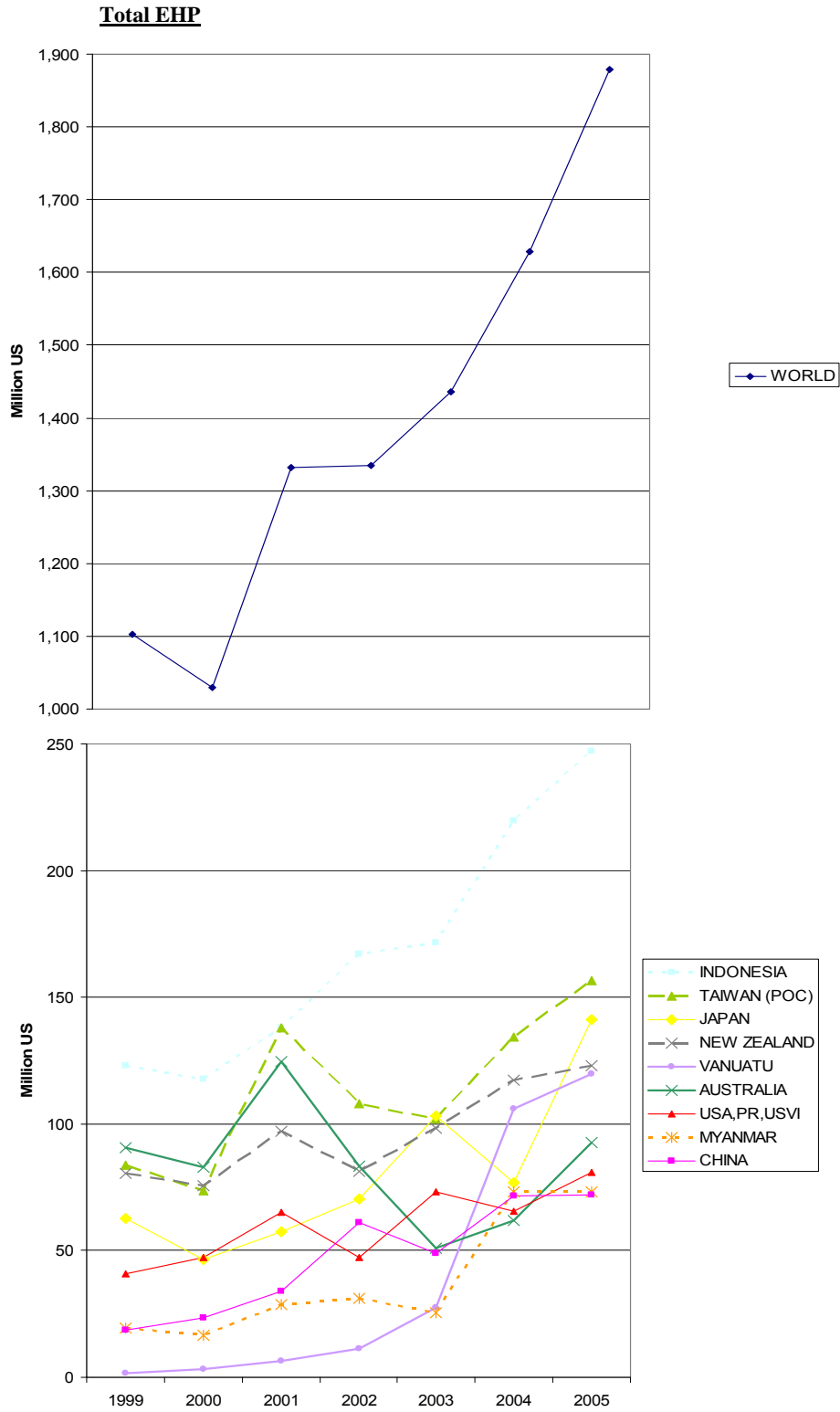
In contrast, the EHP seemed to have no effect on exports of other shrimp and prawns, giant fresh water prawns, cuttle fish head, giant black tiger prawn, and other live reptiles as exports of these products to China remained at low level.

The EHP implementation seemed to have no significant effect on Thailand's import of the EHP products from China either. Although the total import of the EHP products from China rose after the EHP implementation, the growth rate was neither higher than those from other non-parties of the EHP nor higher than its own past growth. (Figure 5)

Major products in the EHP included skipjack or stripe-bellied bonito (HS 0303430004), other types of other fish meat (HS 0304900190), orchids (HS 0603100105), yellow fin tunas (HS 0303420009), other products of fish (HS 0511919000), cod (HS 0303600000), other salmonidae (HS 0303290001), other fish filet (HS 0304200190), and coke and semi-coke of coal, of lignite or of peat (HS 2704000904). Most of these products, except other types of fish meat and orchids, did not show any change in the trends of Thailand's imports from China before and after the EHP implementation, although the growth of Thailand's imports of these products from other non-parties of the EHP could be observed.

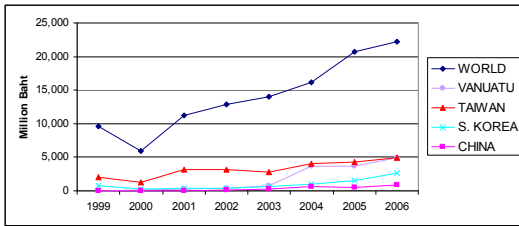
In the case of other types of fish meat and orchids, some rises in Thailand's imports from China that appeared to be sharper than before and relative to other source could be observed. China's prices of these products were lower than the others.

Figure 5: Thailand's Major Imports under EHP from China and Other Major Sources

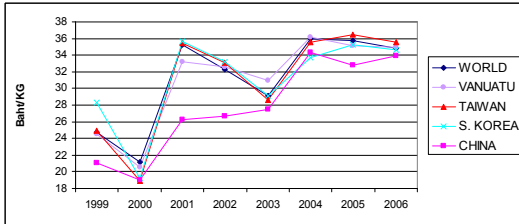


5.1 SKIPJACK OR STRIPE-BELLIED BONITO, FROZEN
HS CODE : 0303430004

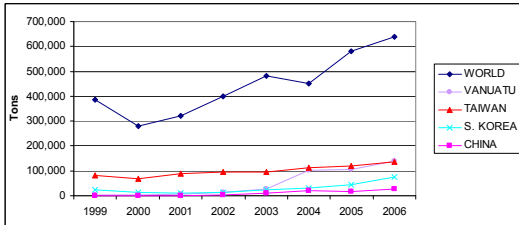
Value



Price

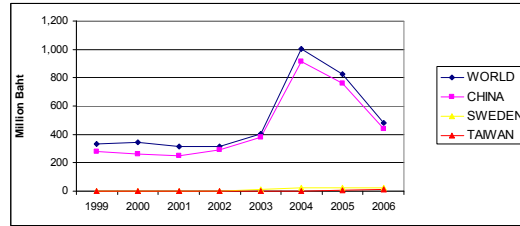


Volume

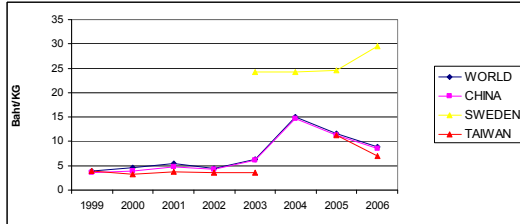


5.2 COKE AND SEMI-COKE OF COAL
HS CODE : 2704000904

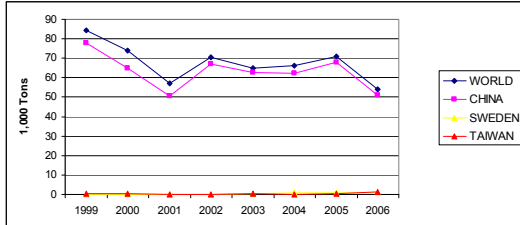
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Price

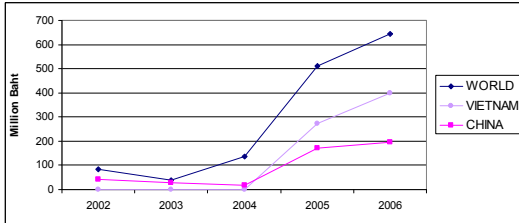


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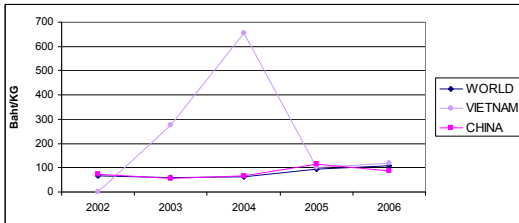


5.3 OTHER TYPES OF OTHER FISH MEAT, FROZEN
HS CODE : 0304900190

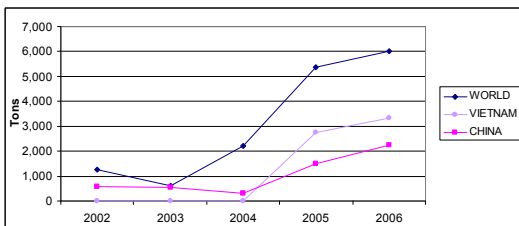
Value



Price

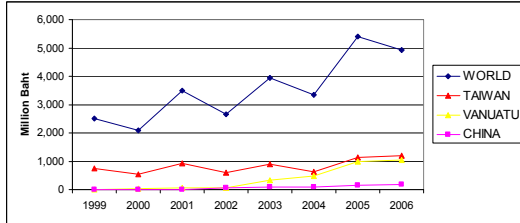


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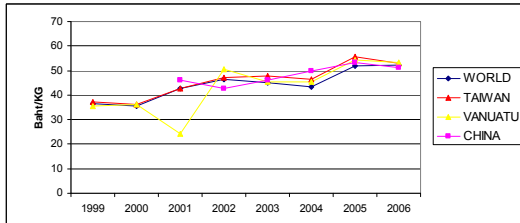


5.4 YELLOWFIN TUNAS, FROZEN
HS CODE : 0303420009

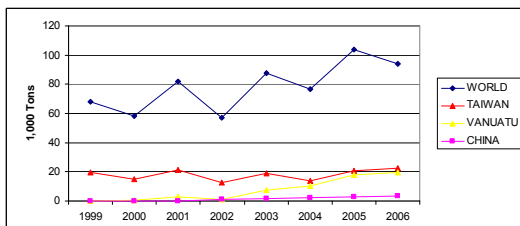
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Price



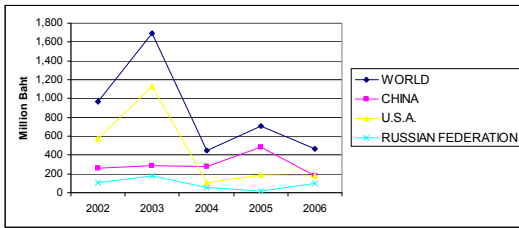
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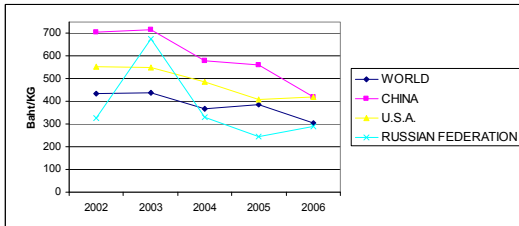
5.5 OTHER PRODUCTS OF FISH, UNFIT FOR HUMAN CONSUMPTION

HS CODE : 0511919000

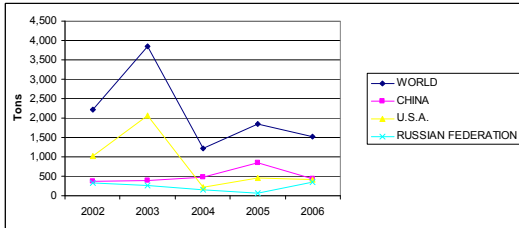
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Price



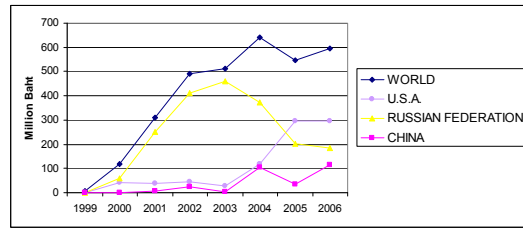
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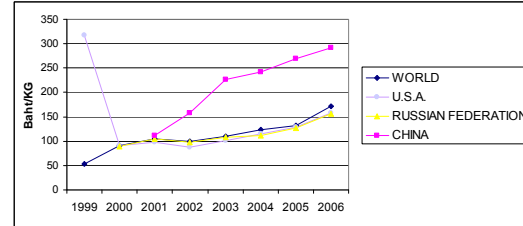
5.6 COD, FROZEN

HS CODE : 0303600000

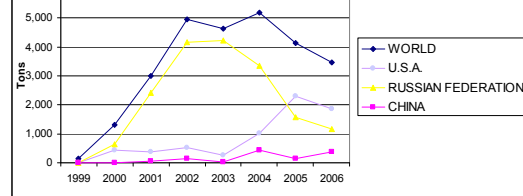
Value



Price



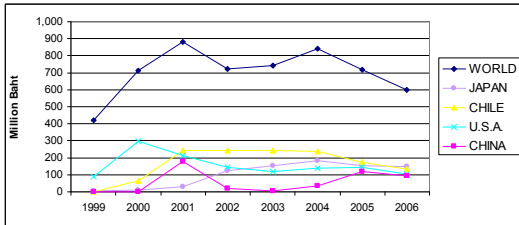
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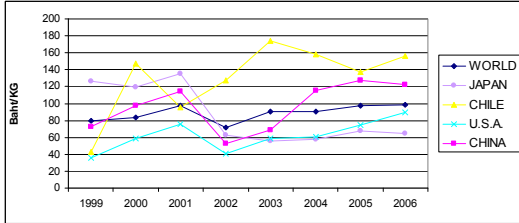
5.7 OTHER SALMONIDAE, FROZEN

HS CODE : 0303290001

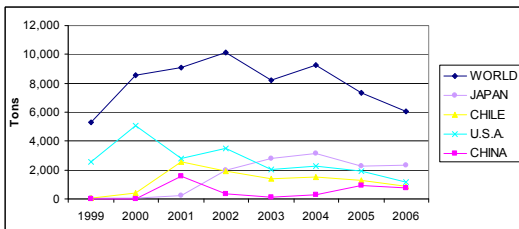
Value



Price



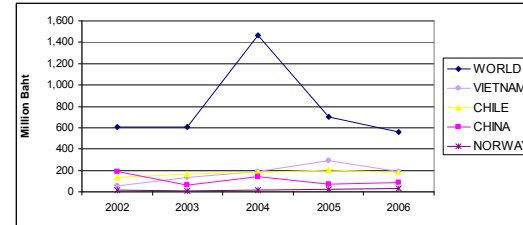
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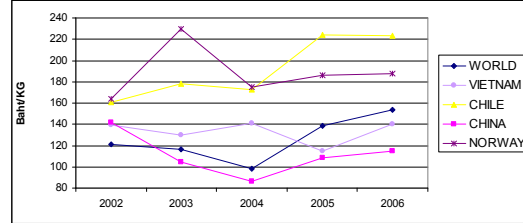
5.8 OTHER FISH FILLETS, FROZEN

HS CODE : 0304200190

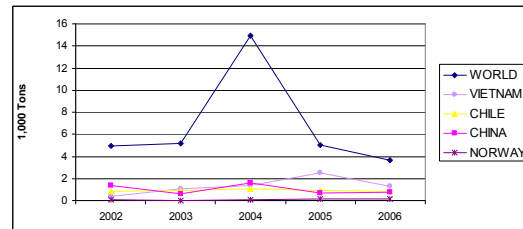
Value



Price



Volume



5.2 Effect on Competitiveness and Trade Intensities

One of the reasons for pro-activeness in FTAs is to improve one's competitive edge through preferred market access. To assess the effect of the AEHP and EHP on trade competitiveness of Thailand and China revealed comparative advantage (RCA) index for both countries' exports and imports of the AEHP and EHP products defined at 6 digit HS were measured and compared between the year before (2003) and after (2005) the AEHP and EHP implementation. It is expected that the AEHP and EHP should increase the value of RCA of the AEHP and EHP products of Thailand and China and hence the number of product having $RCA > 1$ for both countries. Moreover, such increases should be stronger with reference to Thailand and China as the market and source of each other exports and imports. It is also expected that trade intensity between Thailand and China should increase as a result of trade preference under the AEHP and EHP. To see this, therefore, trade intensity (TI) index of both countries' trade in the AEHP and EHP products were also measured and compared between 2003 and 2005. The result are summarized in table 10.

The number of products that Thailand has competitive advantage in the world market ($RCA_{xw} > 1$) did not change under the AEHP but increased from 41 products to 43 products under the EHP. However, Thailand's export competitive advantage in China ($RCA_{xc} > 1$) increased from 15 to 17 products under the AEHP and from 26 to 31 products under the EHP. Moreover, the AEHP and EHP increased the number of products that Thailand enjoyed stronger export competitiveness in China than in world market ($RCA_{xc} > RCA_{xw}$) for 5 products under the AEHP and 7 products under the EHP while reducing the number of products that Thailand had less export competitiveness in China than in world market ($RCA_{xc} < RCA_{xw}$) by 1 product under the AEHP and 8 under the EHP.

The AEHP and EHP implementation also affected Thailand's comparative advantage in imports. The measure of comparative advantage in imports ($RCA_m > 1$) may be interpreted as a revealed opening up of Thailand relative to the rest of the world for imports. It was found that despite the AEHP and EHP implementation, the number of products that Thailand is more open than the "all countries average" to import from the world suppliers ($RCA_{mw} > 1$) decreased by 1 products under the AEHP and 5 products under the EHP. There was also an increase in the number of products that

Thailand is more open than _“all countries average”_ to import from Chinese suppliers ($RCA_{mc}>1$) by 17 products under the AEHP but a reduction in the number of products that Thailand is more open than _“all countries average”_ to import from China by 6 under the EHP. Furthermore, the number of products that Thailand was in favour of Chinese suppliers ($RCA_{mc}>RCA_{mw}$) increased by 11 products while the number of products that enjoyed Chinese bias decreased by 4 products. In addition, the disadvantage of Chinese suppliers ($RCA_{mc}<RCA_{mw}$) decreased by 8 products while the disadvantage of Chinese suppliers increased by 3 products in the EHP.

In comparison, the China’s relative competitiveness in world market did not change but China’s competitiveness in Thailand did increase in 6 products. China’s competitiveness of the EHP products in world market decreased for 2 products but China’s competitiveness in Thailand’s market increased for 4 products. The AEHP increased the bias toward Thailand’ market by adding 5 more products of higher competitiveness in Thailand’s market relative to world market and removing 6 products that of lower competitiveness in Thailand’s market relative to world market. Similarly, the EHP added 7 products that are more competitive in Thailand’s market relative to world market and removed 7 less competitive products in Thailand’s market relative to world market.

On imports, China’s market was more open to world suppliers ($RCA_{mw}>1$) for one additional AEHP products and to Thailand’s suppliers ($RCA_{mt}>1$) for another additional AEHP product. At the same time, the number of AEHP products having more competitive sourcing from Thailand relative to world decreased by 3 products and the number of product having less competitive sourcing from Thailand relative to world increased by 2 products. On the other hand, the number of competitive imports of EHP products from world decreased by 6 products while there was no change in the number of competitive import of EHP products from Thailand. In addition, the EHP was bias in favour of Thailand by reducing competitive sourcing from world in 3 EHP products. On the contrary, despite the EHP, Thailand’s relative competitiveness decreased in 1 EHP product.

The effect of the AEHP and EHP could also be observed in changes in trade intensity between the Parties. As summarized in table 11, trade intensity between Thailand and China changed substantially. In terms of export interest of Thailand, the number of Thailand’s export products having intensive trade with China ($Ti_x>1$)

increased from 15 to 20 products under the AEHP and from 22 to 31 products under the EHP. Between 2003 and 2005 there were 12 products under the AEHP and 30 products under the EHP that showed greater trade intensity. However, despite the AEHP and EHP implementation, there were also 12 products under the AEHP and 19 products under the EHP showing less intensity.

In regards to import interest of Thailand, the number of AEHP products of high trade intensity increased from 45 to 55 while the number of EHP products of high trade intensity decreased from 31 to 26. Although there were 35 AEHP products and 23 EHP products having greater trade intensity, there were also 23 AEHP products and 30 EHP products experiencing less trade intensity.

From China's perspective the number of export products with high trade intensity increased by 6 under the AEHP and by 8 under the EHP. While 22 AEHP products showed greater trade intensity, 21 AEHP products experienced declining trade intensity. Likewise, 23 EHP products experienced greater trade intensity, 17 products became less trade intensive.

Similarly, the number of products of China's import interest having high trade intensity with Thailand decreased by one under the AEHP and another under the EHP. As 14 AEHP products and 25 EHP products increased trade intensity between Thailand and China, 10 AEHP products and 20 EHP products experienced declining trade intensity.

Table 10: Comparison of RCAs and TI between Pre and Post AEHP and EHP Implementation

	2003		2005	
	AEHP	EHP	AEHP	EHP
Thailand				
Total no.of products	110	214	110	214
No.of products having RCAxw > 1	19	41	19	43
No.of products having RCAxc > 1	15	26	17	31
No.of products having RCAxw > RCAxc	14	22	19	29
No.of products having RCAxc < RCAxw	63	112	62	104
No.of products having TIx with China > 1	15	22	20	31
No.of products having TIx with China rising	-	-	12	30
No.of products having TIx with China falling	-	-	12	19
No.of products having RCAmw > 1	8	34	7	29
No.of products having RCAmc > 1	23	26	40	20
No.of products having RCAmc > RCAmw	46	31	57	27
No.of products having RCAmc < RCAmw	33	115	25	118
No.of products having TIIm with China > 1	45	31	55	26
No.of products having TIIm with China rising	-	-	35	23
No.of products having TIIm with China falling	-	-	23	30
China				
Total no.of products	111	214	111	214
No.of products having RCAxw > 1	31	39	31	37
No.of products having RCAxt > 1	33	21	39	25
No.of products having RCAxt > RCAxw	34	22	39	29
No.of products having RCAxt < RCAxw	62	144	56	137
No.of products having TIx with Thailand > 1	33	22	39	30
No.of products having TIx with Thailand rising	-	-	22	23
No.of products having TIx with Thailand falling	-	-	21	17
No.of products having RCAmw > 1	5	29	6	23
No.of products having RCAmt > 1	7	15	8	15
No.of products having RCAmt > RCAmw	15	20	12	19
No.of products having RCAmt < RCAmw	61	140	63	137
No.of products having TIIm with Thailand > 1	16	24	15	23
No.of products having TIIm with Thailand rising	-	-	14	25
No.of products having TIIm with Thailand falling	-	-	10	20

Source: The Personal Computer Trade Analysis System (PC-TAS), International Trade Centre UNCTAD/WTO, Geneva

Note:

Thailand

$$RCAxw = (X_i^{TW} / X_{total}^{TW}) / (X_i^{WW} / X_{total}^{WW})$$

$$RCAxc = (X_i^{TC} / X_{total}^{TC}) / (X_i^{WC} / X_{total}^{WC})$$

$$TIx = (X_i^{TC} / X_i^{TW}) / (X_i^{WC} / X_i^{WW})$$

$$RCAmw = (M_i^{TW} / M_{total}^{TW}) / (M_i^{WW} / M_{total}^{WW})$$

$$RCAmc = (M_i^{TC} / M_{total}^{TC}) / (M_i^{WC} / M_{total}^{WC})$$

$$TIIm = (M_i^{TC} / M_i^{TW}) / (M_i^{WC} / M_i^{WW})$$

China

$$RCAxw = (X_i^{CW} / X_{total}^{CW}) / (X_i^{WW} / X_{total}^{WW})$$

$$RCAxt = (X_i^{CT} / X_{total}^{CT}) / (X_i^{WT} / X_{total}^{WT})$$

$$TIx = (X_i^{CT} / X_i^{CW}) / (X_i^{WT} / X_i^{WW})$$

$$RCAmw = (M_i^{CW} / M_{total}^{CW}) / (M_i^{WW} / M_{total}^{WW})$$

$$RCAmt = (M_i^{CT} / M_{total}^{CT}) / (M_i^{WT} / M_{total}^{WT})$$

$$TIIm = (M_i^{CT} / M_i^{CW}) / (M_i^{WT} / M_i^{WW})$$

Where

X_i^{TW} = the value of Thailand's exports of product i

X_{total}^{TW} = the value of Thailand's total exports

X_i^{WW} = the value of world exports of product i

X_{total}^{WW} = the value of world total exports

X_i^{TC} = the value of Thailand's exports of product i to China

X_{total}^{TC} = the value of Thailand's total exports to China

X_i^{WC} = the value of world exports of product i to China

X_{total}^{WC} = the value of World's total exports to China

M_i^{TW} = the value of Thailand's imports of product i

M_{total}^{TW} = the value of Thailand's total imports

M_i^{WW} = the value of world imports of product i

M_{total}^{WW} = the value of world total imports

M_i^{TC} = the value of Thailand's imports of product i from China

M_{total}^{TC} = the value of Thailand's total imports from China

M_i^{WC} = the value of world imports of product i from China

M_{total}^{WC} = the value of World's total imports from China

X_i^{CW} = the value of China's exports of product i

X_{total}^{CW} = the value of China's total exports

X_i^{CT} = the value of China's exports of product i to Thailand

X_{total}^{CT} = the value of China's total exports to Thailand

X_i^{WT} = the value of world exports of product i to Thailand

X_{total}^{WT} = the value of World's total exports to Thailand

M_i^{CW} = the value of China's imports of product i

M_{total}^{CW} = the value of China's total imports

M_i^{CT} = the value of China's imports of product i from Thailand

M_{total}^{CT} = the value of China's total imports from Thailand

M_i^{WT} = the value of world imports of product i from Thailand

M_{total}^{WT} = the value of World's total imports from Thailand

6. Socio-Economic Effects of China-Thailand AHP and EHP

There have been a few interesting socio-economic effects observed and voiced after the AEHP and EHP implementation.

First and foremost was the effect on garlic and onion farmers. These farmers were affected by voluminous imports of very low priced garlic and onion from China. Interestingly, the AEHP allowed limited duty free imports for in-quotas of 65 tons for garlic and 365 tons for onion. 40-50 thousand tons of imported garlic and 25-26 thousand tons of onions during 2003-2005 were in fact subject to tariff rates of 57% and 142% respectively. The AEHP effect, if any, was therefore quite negligible. The real cause of the problem was the much lower price of the imported garlic and onions from China compared with the cost of production and prices of Thai garlic and onions.

In effect the imported garlic and onions from China suppressed the domestic prices and farmers' income severely. Our field survey in the villages of garlic farmers found that most farmers suffered from a lowering garlic price and hence lowering income and, at the same time, rising cost of production and cost of living and this led to the incurring of more debt. Two other studies similarly concluded that the imported garlic and onions from China had price suppression effect on Thai garlic and onions and worsened the farmers' income (Center for Applied Economics Research, et al, 2008 and Chavin Leenabanjong, et al, 2007).

Many (616) garlic farmers joined in the government's agricultural restructuring assistant program to reduce garlic farming area and diversify into other crops such as bell pepper, potatoes, corn, tobacco and para rubber in 2003/2004 (Srestsirot, and Lianjamroon, 2005). Many of the farmers failed in their crop diversification attempt and returned to garlic farming. They in turn became ineligible for subsequent restructuring assistance and suffered even more than those who chose to stick to garlic and onion farming. The failure was due to farmers' lack of know-how and skill for the alternative crops and inadequate supporting measures such as farmer training, marketing and financial assistance. Worse yet, some farmers complained that they did not receive the financial compensation for their production reduction. Furthermore, there were also corruption and fraud in the implementation of the financial compensation scheme. (Kaosod, 30/05/2006).

The crop diversification program aimed to promote commercial crops through contract farming. Although contract farming has been practiced in Thailand for decades with great success, there were some drawbacks and significant socio-economic implications. On one hand, contract farming enhances production and marketing efficiency through technology transfer, skill improvement, economies of scale, transaction cost reduction, efficient information access and utilization, and better risk management over the value chain or contracting network. It also helps reduce the disadvantage of a small holding farming system relative to large plantations and integrated farming systems. On the other hand, contract farming might turn into an asymmetrical interdependent relationship between contracted farmers and the parent company and consequently biased distribution of income against farmers. Thailand's experience showed that most of the contracts were one-sided in favour of the company (Delforge, 2007). Moreover, contract farming is a new business culture that in order for the farmer to benefit from requires change and adaptation of one's attitude, value system and life style. There were, however, cases of farmers' failure to honor the contract or meet the standard requirement of the contract.

Most of the adversely affected farmers would therefore, suffer unless an appropriate restructuring assistance scheme is carefully and comprehensively devised and effectively and transparently implemented.

Farmers including hill tribes who grew high land fruits and vegetables were also adversely affected by large flows of temperate fruits and vegetables imported from China following the AEHP implementation. The high land fruits and vegetables were introduced almost four decades ago by the Royal Project to hill tribes in the North of Thailand to promote conservation of forest and watersheds and as a substitute for opium production. The temperate fruits and vegetables from China had greater cost advantages and, hence, suppressed the domestic prices of these fruits and vegetables. So far, the Royal Project has tried to diversify to alternative crops as well as develop niche market of hygienic and environmental friendly products

It was also reported that as Thailand's SPS test has been lax, the imported fruits and vegetables from China were found to be contaminated and might be not healthy for consumption.

The AEHP and EHP as well as China's rapid economic growth have opened great opportunities for Thailand's exports. Consequently, Thai farmers hastened to increase supply of many agricultural products of China's import interest through inappropriate ways and means. For example, there were production expansion of longan and para rubber in new areas where the lands were less suitable for cultivation of these crops. There were also wide spread overuse of chemical fertilizers and pesticide in longan, which resulted in lower quality longan and less yield in subsequent years. Even worse, there were cases of corruptions and fraud in the implementation of the government programs of para rubber production promotion and longan price stabilization.

One noteworthy effect was changes in market participants and market structure of exported and imported fruits and vegetables. In our field survey in Chiangrai and Chiangmai we were informed that as the export opportunity enlarged and China's import demand increased rapidly, the local Thai exporters, mostly small scale traders did not have the capacity and financial resource to meet large orders. In turn some Chinese traders, then came in with large amount of financing to collect the products, employing the local Thais as their product collecting agents and brokers. Therefore, Chinese traders became exporters, especially those fruits and vegetables grown in the northern provinces of Thailand, such as longan, while many local Thai traders failed to increase or even maintain their participation in the growing markets. Moreover, under the AEHP and EHP, the market opening was accompanied by certain regulations, conditions and requirements. Local small scale traders became disadvantaged in information access, cost of compliances to and capacity to meet those regulations, conditions and requirements. In addition, since Bangkok is the largest market and center of modern trade and services, it became gateway and hub of Thailand's trade of fruits and vegetables with China. Therefore, the large scale Bangkok based exporters/importers and large modern wholesalers and retailers became major players, displacing local small scale exporters/importers in the northern provinces. This changing market participants and structure was also reported in another study. (Center for Applied Economic Research, et al, 2008).

7. Thai Government's Adjustment Assistance

Prior to the implementation of the AEHP and EHP, Thailand already had some problems with garlic as the garlic price was quite volatile. Often the garlic farmers were faced with very low prices and they pressured the government to provide price support. The problem was aggravated by smuggled garlic from neighboring countries. Since 1992, the government has implemented a price guarantee scheme through the Farmer Relief Fund. In 1997, the government decided to launch a program to reduce the area of garlic and onion cultivation, mainly in Chiangmai during 1998/99-2000/01 and diversify to potatoes, under which 1,395 farmers joined and 3,592.55 rai (2.5 rai = 1 acre) of garlic farms were diversified.

In order to help farmers to adjust to agricultural trade liberalization under FTAs the government established a Fund for Restructuring of Agricultural Production to Enhance Competitiveness (FAC). The FAC provides financial and technical assistance to improve competitiveness through R & D, training, technology up grading, development of infrastructure for agriculture and entry and exit facilitation. In 2004 the government implemented a nation wide program to reduce the garlic cultivation area in 15 provinces from 132,000 rai to 80,000 rai so that the total production of garlic would be reduced to 76,000 tons. The participating farmers would receive 1,500 baht per rai for diversifying to other biennial crops such as potatoes, baby corn, sweet corn, bell pepper, tobacco and other vegetables or 2,000 baht per rai for diversifying to perennial crops, such as para rubber. (Office of Agricultural Economics, Ministry of Agriculture)

In 2005, due to a severe fall in garlic price and pressure from garlic farmers, the government implemented a price support program that bought garlic from farmers at 18 baht per kilogram provided that the recipient farmers diversified to crops other than onions, shallots, lichee, longan and oranges. After fulfilling the diversification commitment, the farmers would receive an additional 12 baht per kilogram (for the garlic bought earlier at 18 baht per kilogram) or 12,000 baht per rai (of the fulfilled diversification commitment) in the following year.

In 2006, under the FAC, a budget of 82 million baht was allocated for further restructuring of garlic farming. About 21,000 rai of low yielding (less than 1,000 kilogram per rai) garlic farms were to be diversified to bell pepper (600 rai) and potato

(10,000 rai) under contract farming with interest subsidy and price guarantee. The other 10,400 rai were to be diversified to para rubber with interest subsidy.

In 2006 the FAC also provided financial and technical assistance for restructuring in other agricultural sectors affected by other FTAs such as beef and dairy farms, palm oil and tea.

The Ministry of Commerce also established an Adjustment Fund in 2007 to assist adjustment in production and services adversely affected by Thailand's trade liberalization. The budget allocated for the year 2007 and 2008 amounted to 140 million baht. Out of 9 projects approved for implementation 4 projects are agricultural projects, one each in strengthening the competitiveness of oranges, beef and fresh water fisheries sectors and another in beef consumption and marketing promotion. (Department of Foreign Trade, Ministry of Commerce, 2008). These sectors, however, were not significantly affected by the AEHP and EHP.

The restructuring/adjustment assistance measures have not been really effective and successful for various reasons: First, the price support and financial assistance for crop diversification from garlic to other crops reached the farmers too late after many of them had already sold their garlic and hence could not benefit from the program; second, many farmers did not hold the land title on their cultivated land and therefore were not eligible for the crop diversification assistance; Third, certain areas were not suitable for the promoted new crops and requirements for contract farming. For example, in certain project areas the soil quality was not right for potatoes growing. In some areas, farmers' lands were not close to one another and collectively not large enough to meet the required economy of scale, or otherwise too far from the contracting company's processing factory; Fourth, most farmers had no experience in the promoted crops and hesitated to participate in the diversification program; Fifth, many farmers had received crop diversification assistance before without success and became ineligible for other assistance; Finally, farmers did not have adequate cash flow during the transition period as the financial assistance was too little.

8. Policy Recommendations

One of the most problematic issues arising from trade liberalization, especially under a bilateral FTA framework is how to restructure and adjust, especially in an uncompetitive sector that is adversely affected by trade liberalization. Although the

EHP and AEHP products were thought of as sectors of advantages, there will inevitably be certain disadvantageous sectors. These sectors are then faced with sudden liberalization and immediate negative effects. The effects might be small or insignificant in the total picture, but could be severe on individual persons and households. Thailand's experience showed that it was not easy to come up with the right policy and measures to compensate the losers and effectively induce appropriate restructuring/adjustment. It would take further, more in-depth study and better understanding of the problems and intelligent and comprehensive policy measures to implement such restructuring/adjustment. On the other hand, the failure of adjustment could be politically sensitive and costly for further widening and deepening trade liberalization.

Contrary to our expectations that an FTA is a step forward in trade liberalization and that it would enable freer flows of goods, greater and more equal competition, lower cross-border transaction cost and hence greater opportunities for small and medium enterprises, the FTA, including AEHP and EHP tended to have many attached restrictions on one hand and give advantages to the larger enterprises, on the other, and thus, greater bias against the small and medium sized operators. It is, therefore, important to pay greater attention to eliminate unnecessary restrictions and to simplify relevant rules and regulations to allow greater participation of the small and medium sized operators in the FTA benefits.

Chiangrai is an important port of agricultural product trade between China and Thailand but has been by passed as Bangkok has become the center of fruits and vegetables trade. It would be more efficient and equitable if Chiangrai were to be developed as a gateway and hub of China-Thailand agricultural trade. Development and investment in logistics services and other important trade and investment supporting services such as financial services, telecommunication and information technology services and transport infrastructure network are vital and instrumental to enhance the participation of and distribution of benefits to Chiangrai and other northern provinces. Decentralization of the government authorities and services and efficient one-stop government services would also be key to promoting the role of and benefits to Chiangrai and other northern provinces. In addition, the local business sector need to build up its capacity to both meet the challenges and take advantages of international trade and investment opportunities under the new international trade agreements, rules,

standards, etc, especially human resource capacity, information technology capacity and logistics related capacity.

In order to efficiently and effectively protect the consumers' health and welfare as well as Thailand's agricultural productivity and environment, Thailand also needs to build up the capacity to administer the SPS measures. In particular, such capacity building is urgently needed at various ports of entry in Chiangrai and other border provinces where the implementation of the SPS measures tended to be lax.

Product differentiation has been an important marketing strategy in industrial products but has not been employed much for most agricultural products. In deed, there exists the potential and increasing opportunity to make use of product differentiation to add value and strengthen certain producer's competitiveness in various agricultural products by source or producer, product characteristics and quality, geographical location, etc. In the case of garlic, product differentiation might be an alternative strategy of adjustment to production reduction. Different attributes of Thai garlic and China's garlic should be highlighted and a niche market for Thai garlic should be identified. This could be a promising way to avoid the adverse effect of the AEHP on Thai garlic farmers.

Reference

1. Agreement between the Government of the Kingdom of Thailand and the Government of the People's Republic of China on Accelerated Tariff Elimination under the Early Harvest Programme of the Framework Agreement on Comprehensive Economic Cooperation between ASEAN and China.
2. Center for Applied Economics Research, Faculty of Economics, Kasetsart University, FTA Watch Group and Healthy Public Policy Foundation (2008), Impact of Thailand-China FTA under the Framework Agreement on Comprehensive Economic Cooperation between ASEAN and China, a study report volume submitted to the Office of Knowledge Management and Development. (in Thai language)
3. Center for Applied Economics Research, Faculty of Economics, Kasetsart University, FTA Watch Group and Healthy Public Policy Foundation (2008), The Impact of Thailand-China FTA (under ASEAN-China FTA) and Adjustment in Vegetables and Fruit Business., Final Report, Volume 1, presented to the Office of Knowledge Management and Development, March 2008. (in Thai language).
4. Chavin Leenabanjong, et al, (2007), Impact of Thailand's FTAs on Agricultural Sector, a study report submitted to the Office of Agricultural Economics, Ministry of Agriculture. (in Thai language).
5. Delforege, Isabells, (May 2007) Contract Farming in Thailand A View from the Farm, Occasional Papers 2, Focus on the Global South, CUSRI, Chulalongkorn University.
6. Department of Foreign Trade, Ministry of Commerce, 2008 (www.dft.moc.go.th)
7. Department of Internal Trade, Ministry of Commerce, 2008 (www.dit.go.th)
8. Faculty of Economic, Chulalongkorn University, (2005), Final Report on a Study for Thailand's Structural Adjustment for Bilateral FTA : Case of China-Thailand, submitted to Fiscal Policy Research Institute, Ministry of Finance. (In Thai language).

9. Framework Agreement on Comprehensive Economic co-operation between the Association of South East Asian Nations and the People's Republic of China.
10. Kaosod, (30/05/2006), a Thai daily newspaper. (in Thai language).
11. Office of Agricultural Economics, Ministry of Agriculture and Cooperatives, 2008. (www.oae.go.th/restructureArgFunds/)
12. Ratananarumitsorn, Taratorn and Somkiat Tangkitvanich, (2005), "Two years of China-Thailand FTA : Effects and Misunderstandings," FTA Digest Project, Thailand Development Research Institute (In Thai language) <http://www.FTAdigest.com>
13. Srestsirot, Bantoon and Vitoon Lianjamroon, (2005), Impact of Thailand's FTAs a study report submitted to the Secretariat of Senate. (in Thai language).