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Thailand in the New Asian Economy: The Current State and Way Forward

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Abstract

The 'New Asian Economy' is characterised by a rapidly rising role of China and India in the global economy along with further expansion of the already significant role of the Asian economies, e.g. Japan, Korea and Singapore, etc. with both positive and negative implications.

This paper attempts to analyse the impacts of these global developments on Thailand and Thailand's adjustments as well as impacts on the overall economy.

Both macro and micro data are used within the context of existing policies as a groundwork towards identification of the appropriate ways forward.

Various options are open to Thailand with substantial benefits as well as enormous costs on the Thai economy.

We are grateful to Assistant Governor Atchana Waiquamdee, Suchada Kirakul and colleagues in the Monetary Policy Group for valuable comments and suggestions. The paper also benefits from comments by Dr. Ammar Siamwala and Dr. Sethaput Suthiwart-Narueput at the BOT Symposium 2006 (9 August, 2006). We would like to thank the Director Generals of the Revenue Department, Ministry of Finance; and Department of Business Development; as well as Athipong Hirunraengchok and the Office of Knowledge Management and Development (OKMD) for their assistance in compiling key statistics. Special thanks also go to Oneyiwah Trichakraphop for her research assistance, Chatchawan Intarak, Nuannut Thanaekchareon, Somboon Wangvanichpan, Sureeporn Vananupan and Chantima Pornsetmethakul for statistical support. All remaining errors are the authors' own.

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1. Introduction

The paper is an attempt to analyze Thailand's "true competitiveness" through a wide range of macro and microeconomic aspects. Due to the complexity and qualitative nature of this question, however, no single models or set of data can fully explain the term "competitiveness".

According to the Institute for Management Development (IMD), for example, competitiveness is not solely about economic performance but also encompasses all elements that can explain the success of a nation, thereby including government efficiency, business proficiency and infrastructure, etc. Alternatively, one can also look at the data on Thailand external sector performance in the international market.

Having considered our competitive position in the world, the paper turns towards the domestic economy taking the complex interaction between FDI, the private sector and government policies into perspectives.

In the context of the policy framework introduced by the various governments after the financial crisis in 1997, the paper is next focused on both macro/sectoral analyses of growth-current account nexus and micro adjustments from some evidence on both SMEs and larger corporations listed on the SET.

Moreover, the pros and cons of FDI are taken on board along with some of Thailand's as well as Asia's actual success and failure in moving up from a mere production base ("OEM" type) of MNCs to a more original contributor of global products and services ("ODM" and "OBM").

From these analyses, there emerge the various paths forwards opening up to Thailand, three of which are particularly interesting: should we continue to grow on FDI-based high-tech exports with somewhat less value creation on our own or should we turn to more traditional strength such as processed food and rubber, etc. or we could rely on the new-founded strength in service sector?

In the final analysis, a combination of them will probably be appropriate but in what combination? How to get there? What is needed in terms of further adjustments and reforms at the firm's level, fuel efficiency frontier, human resources development and regional cooperation? These are all important questions that the BOT has proposed to address in the Symposium this year, the background of which is broadly set out in this paper.

2. What is competitiveness?

Competitiveness can be defined at the different hierarchical order of economic units.[1] At company-level, competitiveness is defined as the ability to provide products and services ***more efficiently and effectively than competitors without subsidies or protection from the government***. In traded sectors, performance in the market can be used as an indicator of competitiveness, while competitiveness indicator in the non-traded sector is harder to determine since direct assessment on market performance is hard to come by. At industry-level, competitiveness is the ***ability of the nation's firm to achieve sustained success against foreign competitors*** without protection or subsidies. Thus, the measurement of industry-level competitiveness includes ***overall profitability*** of the industry, the ***nation's trade balance*** in the industry as well as the ***balance of outbound and inbound direct investment***.

The definition of competitiveness for a nation spans a wider spectrum. Various dimensions of a country's performance besides economic aspect intertwine. Align with a micro-perspective, the level and growth of aggregate productivity and the ability of the nation's firms to compete in the international marketplace constitute a part of competitiveness indicator. The other significant part of the indicator is the level and growth of the nation's standard of living. Although we could argue that a nation's standard of living is somewhat dependent upon the competitiveness of its micro-production units, according to the Institute for Management Development (IMD), competitiveness is not solely about economic performance but all elements that can explain the success of a nation, thereby includes government efficiency, business efficiency and infrastructure. The government plays a key role in a national environment through its policies while enterprises and individuals assume the wealth creation process. In this respect, competitiveness reports, be it the IMD or the World Economic Forum's The Global Competitiveness Report, will define competitiveness of a nation as a ***collection or 'wholeness' of factors, policies and institutions along with economic performance***, all in all play an important role in determining the level of prosperity attained by a nation.

In the following section, we will briefly account for the 'wholeness' of competitiveness according to the IMD and the Global Competitiveness Report and identify the nation's strength and weaknesses. However, for the rest of the paper to

[1] Blunck (2006), Garelli (2006) and WEF (2006)

come, the focus would be entirely on economic performance of the nation, particularly, in the international marketplace. The other ingredients to the success of the nation will be carefully investigated by subsequent papers in this Symposium.

3. Where are we?

To set the stage for further discussions, it is imperative to evaluate Thailand's performance in the 'overall' world ranking of competitiveness and compared ourselves against the rest of the New Asian Economy. Such examination allows us to see ourselves from outsiders' perspectives and assess our relative performance within the region and beyond. One of the most comprehensive competitiveness ranking is by IMD in its annual IMD World Competitiveness Yearbook. The ranking laid out areas of strength and weaknesses for each economy and the overall score. To supplement the IMD result, we also consider the Global Competitiveness ranking by the World Economic Forum. Having done so, we will concentrate on exports and foreign direct investment performance to gear to the focus of the paper on economic performance while other aspects of the economy will be available elsewhere.

3.1 International ranking

3.1.1 IMD ranking

The comparative competitiveness for Thailand had gradually improved from 34th in 2001 to 27th in 2005, however, in 2006 we dropped 5 places to 32nd out of 61 countries. In comparison with Asian competitors, Thailand has kept its relative ranking rather steady, i.e. 7th out of 10 countries (China, Hong Kong, India, Indonesia, Korea, Malaysia, Philippines, Singapore, Taiwan and Thailand) in most years with an exception of year 2005 when Thailand was in 4th. Substantial improvement in competitiveness is observed in the case of China, Hong Kong and India over the past few years. (See Table 1)

The fall in ranking from 27th to 32nd between 2005 and 2006 can be accounted for mainly by lower scores in various aspects of economic performance and government efficiency, particularly, current account balance, consumer price inflation, real GDP growth, risk of political instability, transparency and corruption.

According to the IMD, Thailand's strength lies in employment and labour market, cost of living, tourism receipts and hi-tech exports, monetary conditions, fiscal policy, basic infrastructure such as internet and mobile phone costs. The

weaknesses identified in the report were political instability, inefficient competition legislation, low transparency of government policies, investment risks, inefficient SMEs, low expenditure on technological and scientific infrastructure, R&D, health and education and low productivity and efficiency.

Table 1: IMD ranking

	2001	2002	2003	2004	2005	2006	Change in Ranking 2001-2006
South Korea	29	29	37	35	29	38	-9
Taiwan	16	20	17	12	11	18	-2
Singapore	3	8	4	2	3	3	0
Thailand	34	31	30	29	27	32	2
Philippines	39	40	49	52	49	49	-10
Malaysia	28	24	21	16	28	23	5
Indonesia	46	47	57	58	59	60	-14
China	26	28	29	24	31	19	7
Hong Kong	4	13	10	6	2	2	2
India	42	41	50	34	39	29	13

Source: IMD

3.1.2 Global Competitiveness Ranking

To confirm the message from the IMD, we also consider another international ranking from World Economic Forum, the Global Competitiveness Ranking. Although WEF survey spans a greater range of countries, the classification and criteria of each component of the Global Competitiveness Ranking is less comprehensive than that of IMD. Regarding the overall global ranking, Thailand came 36th out of 117 countries. Amongst the 11 Asian economies, Thailand came 6th after Taiwan, Singapore, Korea, Hong Kong and Malaysia and ahead of China, India, Indonesia, Philippines and Viet Nam for the past 3 years. The ranking is comparable to that of the IMD in terms of Thailand's relative competitiveness position.

Table 2: Growth Competitiveness Index Ranking 2003-5

Rank	Taiwan	Singapore	Korea	Malaysia	Hong Kong	Thailand	China	India	Indonesia	Philippines	Viet Nam
2005	5	6	17	24	28	36	49	50	74	77	81
2004	4	7	29	31	21	34	46	55	69	76	77
2003	5	6	18	29	24	32	44	56	72	66	60

Source: WEF

The growth competitiveness index identifies 3 pillars: the quality of macroeconomic environment, the state of the country's public institution and the level of technological readiness by drawing on the survey data from the WEF's executive opinion. Regarding macroeconomic environment, which includes, for instance, inflation performance, exchange rate policies and public finances, Thailand is relatively fine-managed in this respect and ranked 26th. However, in the second pillar criteria- public institutions, which incorporate government spending on infrastructure, transparency, bureaucracy, corruption and government intervention, Thailand came 41st. In terms of technology index, which includes the level of penetration of new technologies, innovation, R&D, adoption of new technology and patent registration, Thailand was ranked 43rd.

Along the same line as the IMD ranking, the ranking suggests weaknesses in public institution and technology, while macroeconomic management has been satisfactory.

To sum up, by international standard, ***Thailand appeared relatively strong in macroeconomic environment and policies while there is a sign of weakness in government efficiency, human capital, R&D and technology***. Subsequent papers in this Symposium will, in parts, account for institutional arrangements and human capital. Meanwhile, this paper will continue examining the country's relative performance in the international marketplace- export. Foreign direct investment will be examined later on in the paper.

3.2 Where are we at the micro level?

Leaving aside the international comparison of macroeconomic performance for the time being, attention can now be focused more on the 'real' and tangible evidence of microeconomic data.[2]

[2] See Appendix for classification of commodity groups

3.2.1 Bilateral perspectives

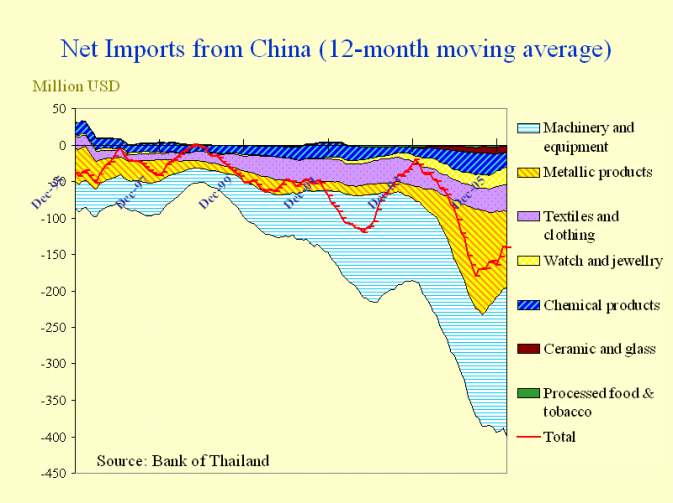
Perhaps, the most obvious way to grasp on how Thailand fares during the rises of China and India of the New Asian Economy is to first look at bilateral trade performance of Thailand against China and India.

On the overall condition, Thailand has been in trade deficit against China and India for the past ten years, except in 2005, when we were having a small trade surplus of 0.26 billion USD against India but a deficit of 1.98 billion USD against China.

Table 3: Trade Balance against China and India

Trade balance (billion USD)	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
China	-0.44	-0.07	-0.50	-0.03	-0.61	-0.55	-0.82	-1.34	-0.31	-1.03	-1.98
India	-0.34	-0.40	-0.30	-0.14	-0.08	-0.05	-0.19	-0.36	-0.23	-0.22	0.26

Chart 1



Out of the 10 top exports identified in overall multilateral trade in the following section, we are the net importer of basic machinery, metallic products and chemicals as well as textiles and clothing, ceramic and glass from China.

Chart 2

While we are net exporting traditional products such as agriculture, fishery and rubber and new lines as plastic and furniture along with exports of fuel to them.

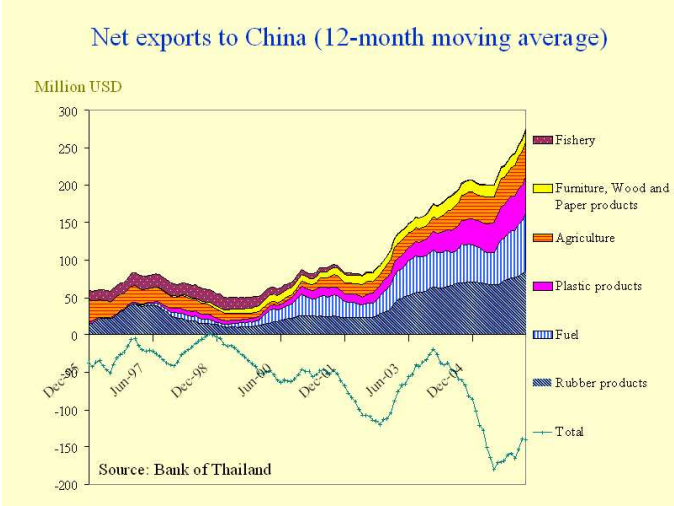
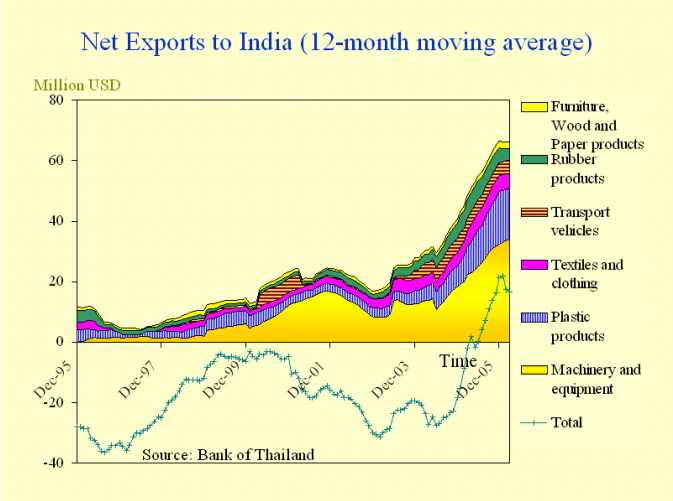


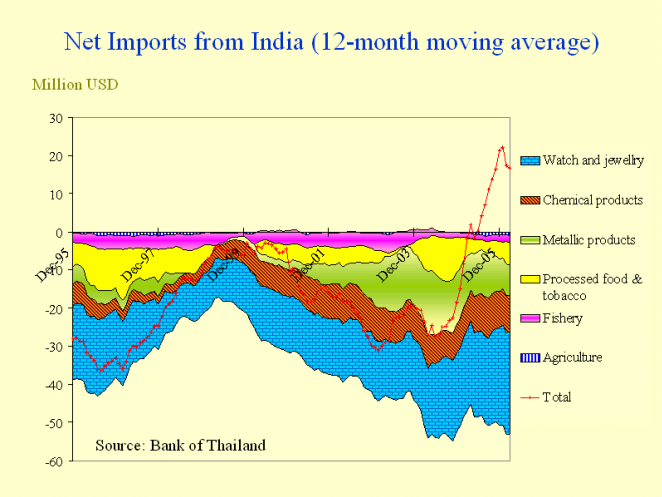
Chart 3



As far as India is concerned, we are net exporting machinery and equipment, transport vehicles as well as textiles, plastic, rubber and furniture wood and paper to them and

Chart 4

net importing India's processed food and tobacco, fishery and agriculture as well as metal and chemicals.



3.2.2 At the multilateral level

Nevertheless, an examination of mere bilateral trade between Thailand, China and India may not be sufficient. The valid question is how do these countries perform in the third market and indeed at the multilateral level.

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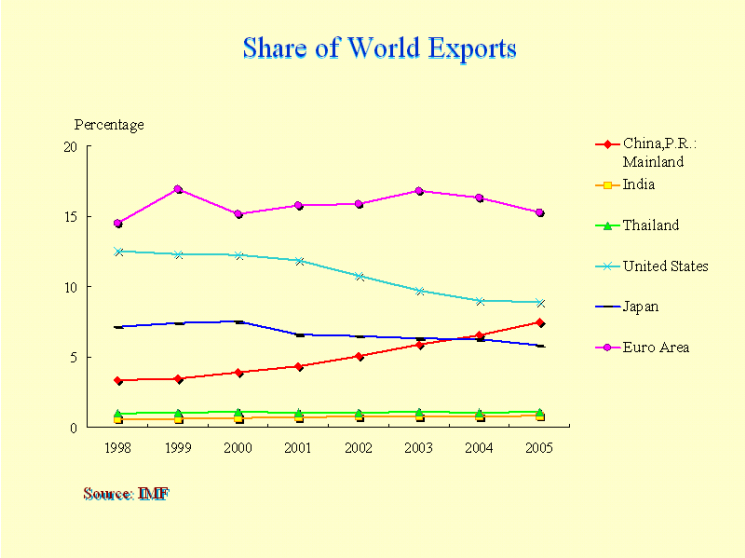
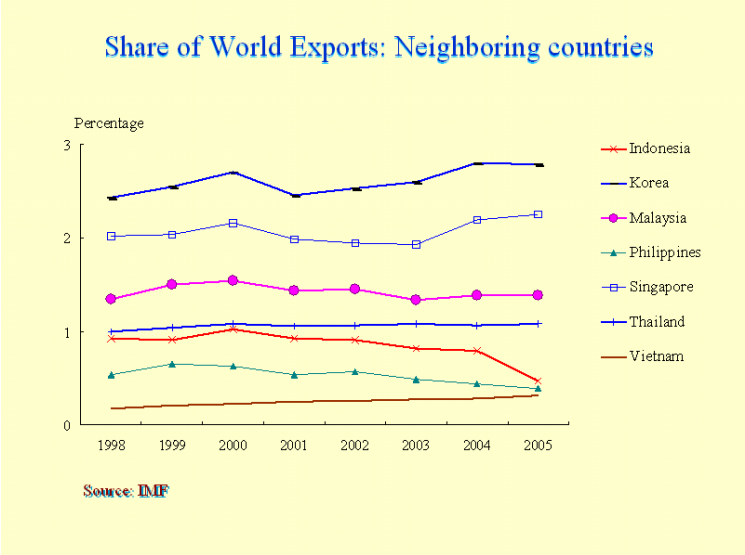


Perhaps contrary to expectations on this front, Thailand has barely retained its share of around 1% of the total world export just slightly before and after the crisis. A stable export proportion pre- and post- 1997 crisis is a similar experience shared by Malaysia and Singapore above India which is catching up fast and way behind China and to a lesser extent Korea.

Chart 6

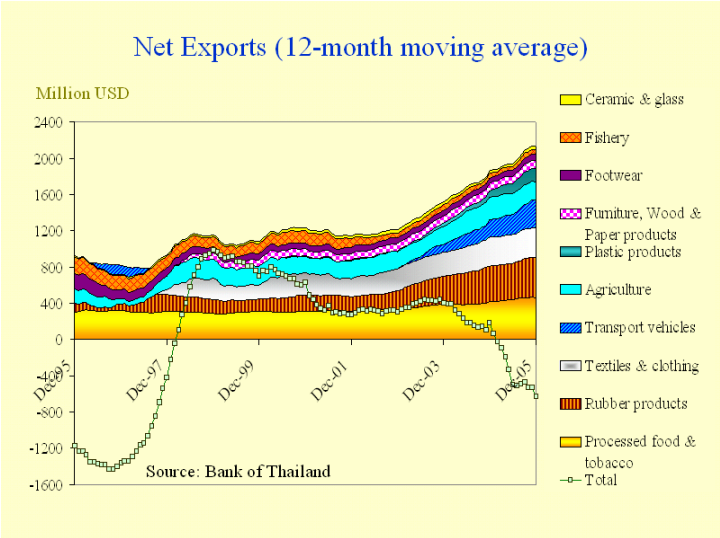


While China, India and Viet Nam race ahead, Hong Kong, Indonesia and Philippines have lost their shares along with Europe, Japan and the US.

It is hard to judge whether Thailand has performed well in the world export department. One conservative argument would be to claim that, despite the intense competition from the rising Asia such as China, India and Viet Nam, Thailand has managed to hold on to its share of exports meaning we are doing relatively well compared to many who have lost theirs. On the other hand, it could also be argued that, while the new Asian countries race ahead, Thailand could have done somewhat better in spite of this. Thus, it depends very much on which countries we use as a benchmark to determine the state of Thailand's export performance.

On the whole, Thailand registered top ten trade surplus (implicitly, have home strength in their productions) in the following commodity groups (ranked according to the size of 2005 average trade surplus) processed food and tobacco, rubber products, textiles and clothing, transport vehicles, agriculture, plastic products, furniture wood and paper products, footwear, fishery and ceramic and glass. The total size of trade surplus from these commodity groups was 25.56 billion USD in 2005.

Chart 7



Within this broad structure, however, there has been a structural change in net export over the years.

Table 4: Change in export ranking

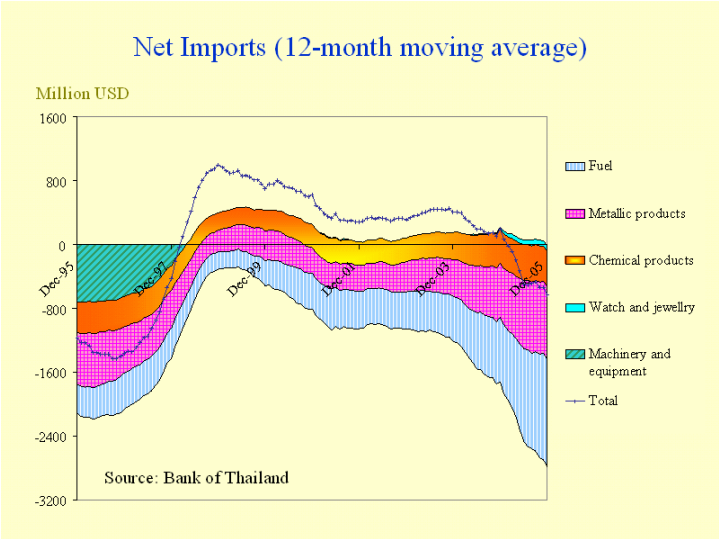
	1995	2000	2005	Change in Ranking 1995-2005
Processed food & tobacco	2	1	1	1
Rubber products	3	5	2	1
Textiles & clothing	1	2	3	-2
Transport vehicles	16	15	4	12
Agriculture	4	4	5	-1
Plastic products	10	12	6	4
Furniture, Wood & Paper products	13	7	7	6
Footwear	6	8	8	-2
Fishery	5	6	9	-4
Ceramic and glass	9	10	10	-1

Source: Bank of Thailand and authors' calculation

Amongst the top 10 net exports, consistent top performers are processed food, rubber products, textiles and clothing, agriculture and ceramic and glass. The rising stars include transport vehicles, plastic products and furniture, wood and paper products, while the decline in ranking is evident in footwear and fishery.

Chart 8

The top 3 net imports of commodity groups are fuel, metallic products and chemical products. In 2005, the import of these 3 commodity groups amounting to the grand total of 32.4 billion USD, and fuel alone took up 16.2 billion USD while the export value of our top ten commodity groups register 25.6 billion USD.



After discounting for the net imports, therefore, the overall trade balance was 7.3 billion USD in deficit.

Table 5: Trade balance

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Trade balance (billion USD)	-14.0	-16.3	-4.9	12.1	8.6	7.6	3.4	3.9	5.0	2.5	-7.3

Source: Bank of Thailand

3.3 Multilateral Export Performance: a Closer Look

How do we fare in the world market?

In the competitive international marketplace, to analyse the performance of a country, we need to incorporate not only the country's net export value on its own but also how those products fare in the world market. Due to limited availability of data on world exports in the commodities we focus on, we supplement disaggregate data from UN Comtrade and BoT, which is available only for 2002-2005, by the data with broader classification of industries as provided by WTO to gain a further insight.

3.3.1 WTO broader classification

WTO provides broad-based data on world exports, however, accessible data is available only in particular years, i.e. 1990, 2000, 2002 and 2004. In the dataset, apart from data on exports of manufacturing and agriculture as a whole, manufacturing is broken down into hi-tech and low-tech commodities, i.e. automotive, IC and electrical equipment, Telecom equipment, EDP (Electrical Data Processor), clothing and textiles. (Chart 9) Regarding manufacturing export data, with an exception of automotive, the share of these commodities to total world manufacturing exports has gradually declined. (Table 6)

Chart 9

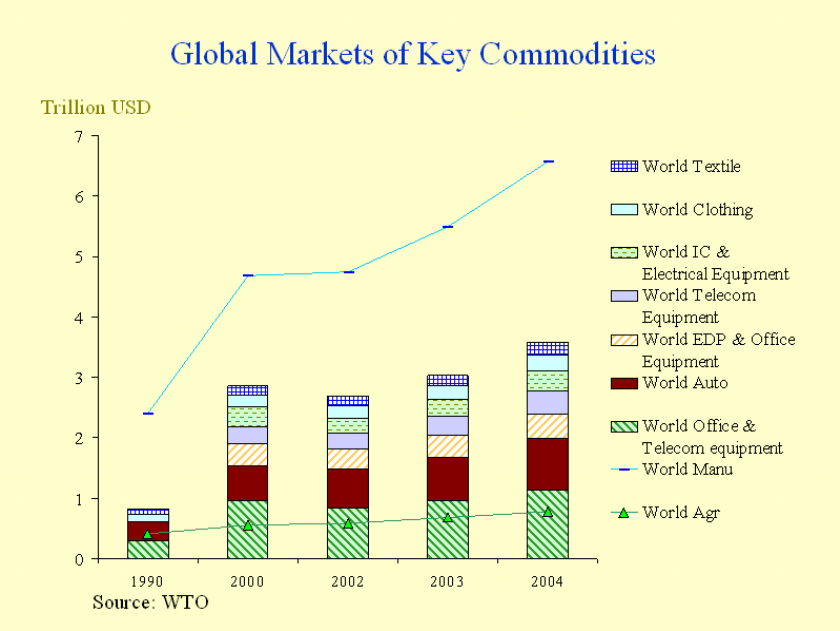


Table 6: Share of World Commodities in Total World Manufacturing Exports

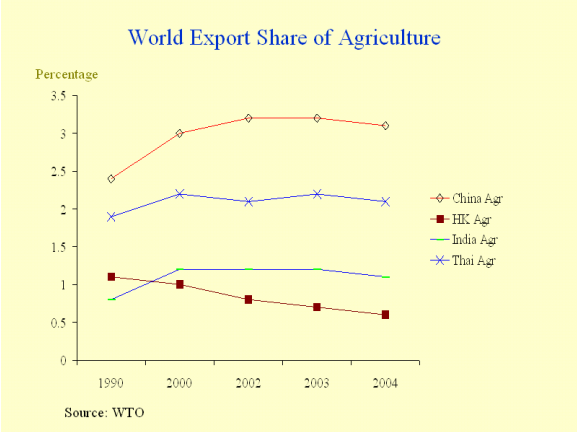
	1990	2000	2002	2003	2004
Automotive	13.3%	12.3%	13.2%	13.3%	12.9%
IC & Electrical Equipment		6.5%	5.2%	5.0%	5.0%
EDP & Office Equipment		7.9%	6.9%	6.7%	6.4%
Telecom Equipment		6.1%	5.7%	5.6%	5.8%
Clothing	4.5%	4.2%	4.3%	4.2%	3.9%
Textile	4.4%	3.3%	3.2%	3.1%	3.0%

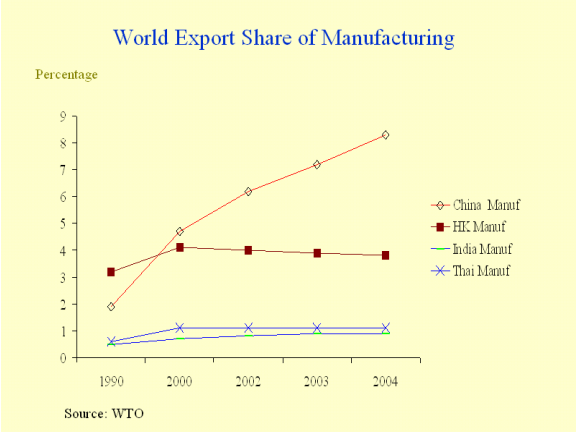
Source: WTO

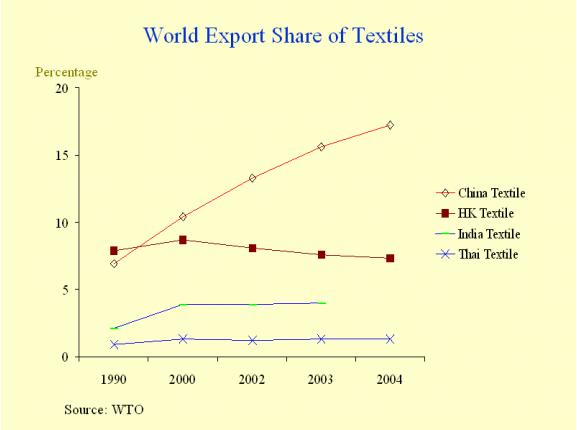
As far as Thailand is concerned, our share of overall world manufacturing and agricultural exports has been stable or rising gradually. Concerning particular commodities, Chinese share of exports leap forward in all. While India and Thailand's

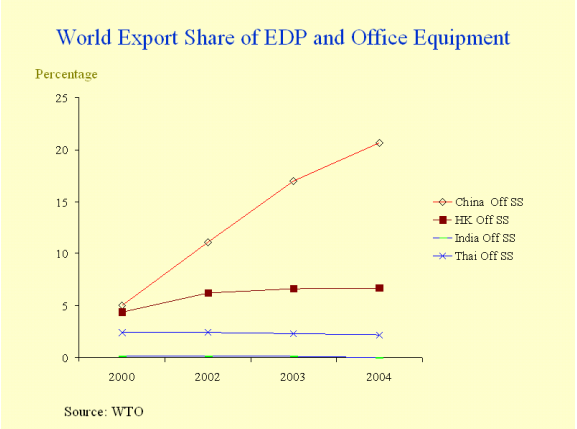
share of export in these commodities remain relatively stable except for automotive in the case of Thailand. (See Panel 1)

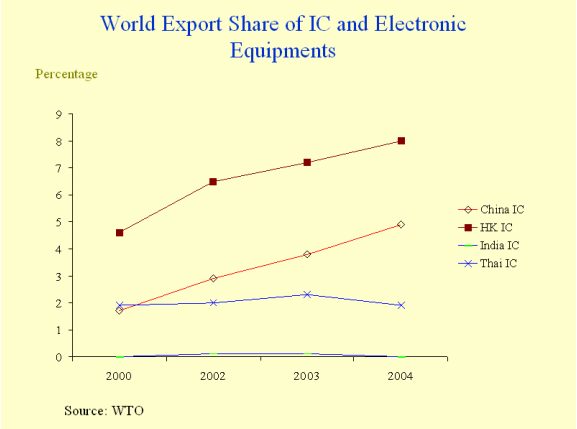
Panel 1: Share of world exports

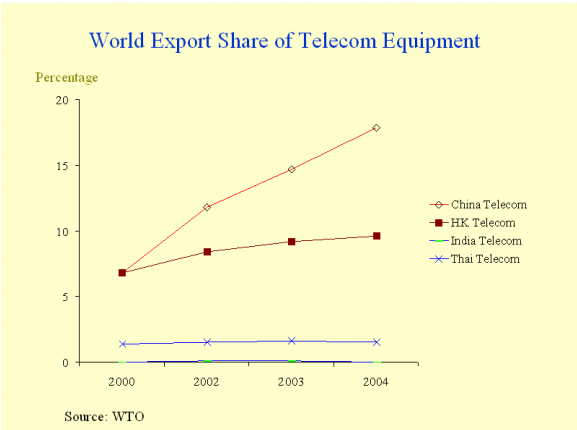


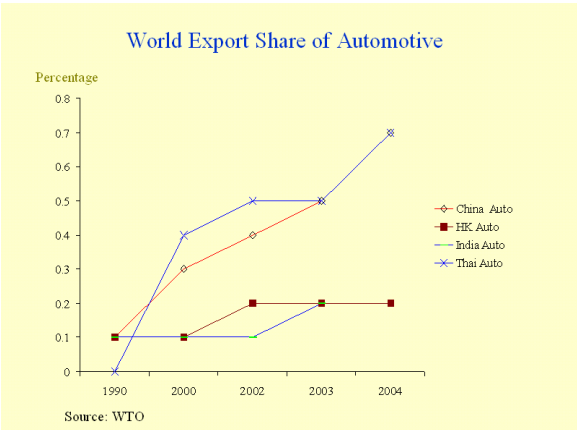












3.3.2 Specific commodity groups based on data from UN Comtrade and Bank of Thailand

We consider the share of world export in our top 10 net export commodity groups identified earlier: agriculture, ceramic and glass, fishery, footwear, furniture, wood and paper, plastic products, processed food and tobacco, rubber products, textile and clothing, transport and vehicles.

We set out a simple test of industry-level competitiveness such that, if Thailand is truly competitive in a commodity group, our share in the world export[3] in that particular group should increase over time. As stated earlier, due to data limitation, we could only consider the share of world commodity export between 2002-2005. Bearing in mind, the overall share of Thai export in world export is only 1%, Thai export share in all 10 commodity groups except rubber products do not exceed 10% of world export in their corresponding commodity groups, while Thai rubber products constitute around 11% of total reported world exports of rubber products.

Evidently, Thailand has an increasing share of world export in all commodity groups considered except footwear, textile and clothing and ceramic and glass of which the share is rather stable. Stable share of textile and clothing is consistent with the data from WTO we considered earlier. (Chart 10)

However, if we consider the share of commodities we have our strength in, their share of export value as a percentage to total world exports is moderately declining in all but rubber and plastic products. This probably accounts for the reason why the share of overall Thai export to total exports remains steady at 1% while our top export commodities are gaining increasing share in their respective industries. (Chart 11)

[3] Refer to all countries that report their trade statistics to the UN.

Chart 10

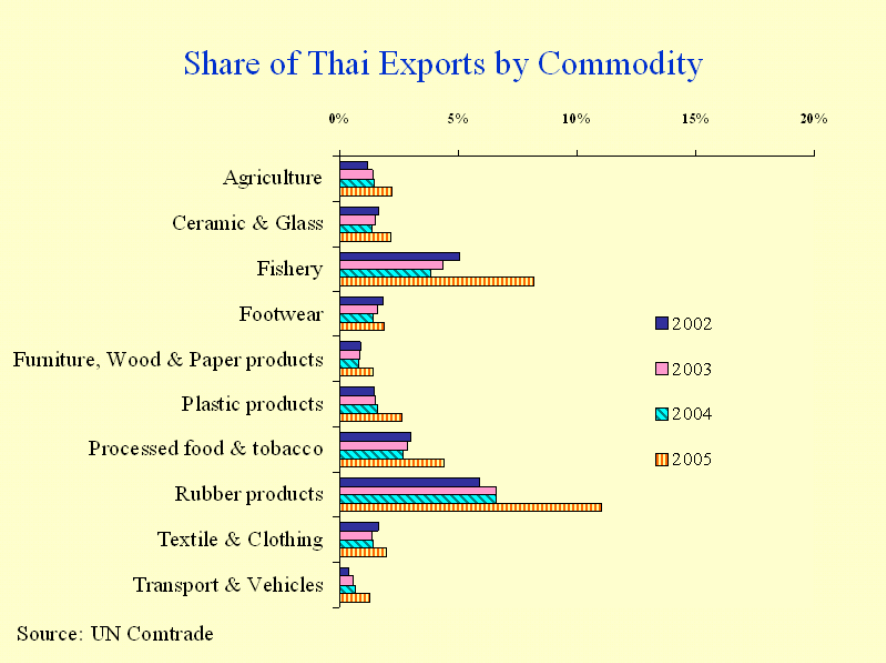
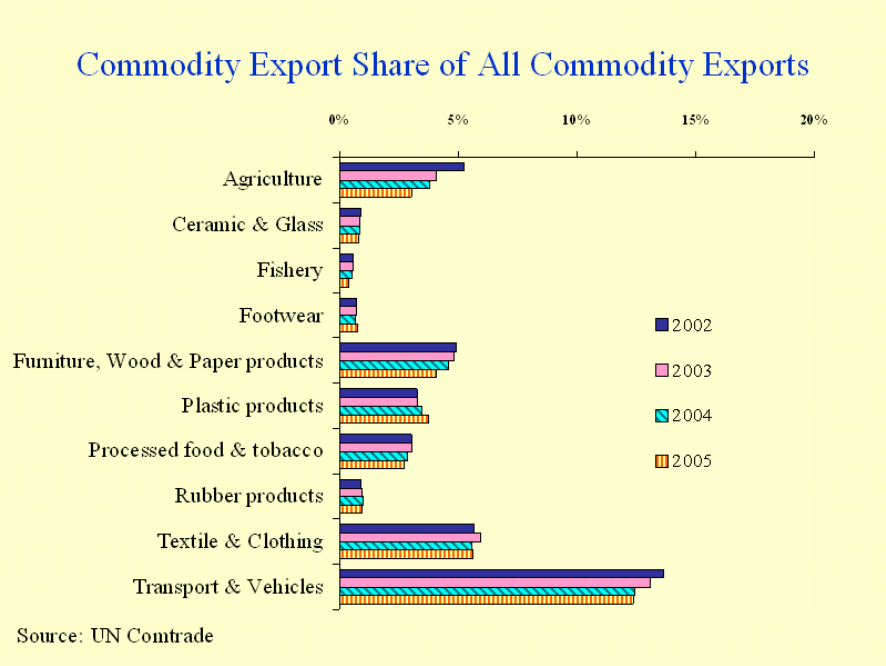


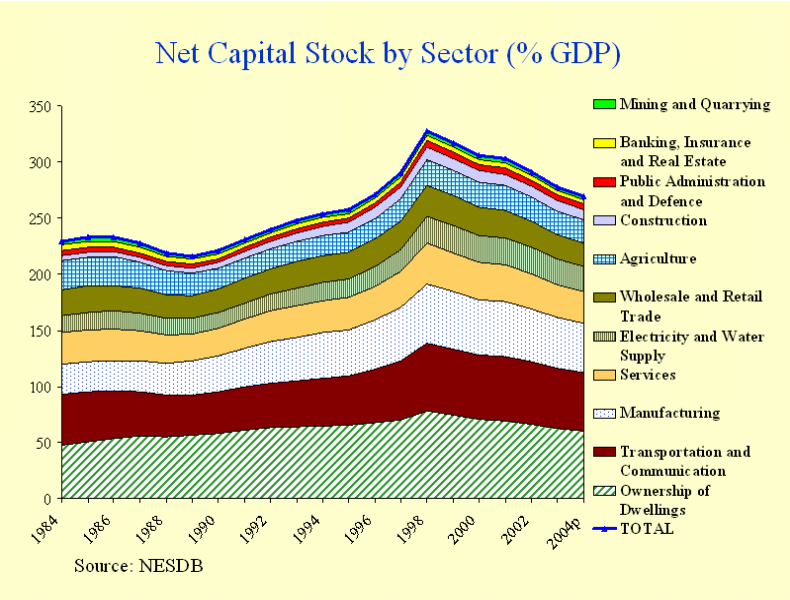
Chart 11



Within the broad classification, Thailand was among the 5 leading world exporters in the following commodities (by harmonized code-broad category): rubber products (HS40), cereal & rice (HS10), fishery (HS3), preparation of meat, of fish or crustaceans (HS16), sugar & sugar confectionary (HS17). Apparently, these are natural resource-based products.

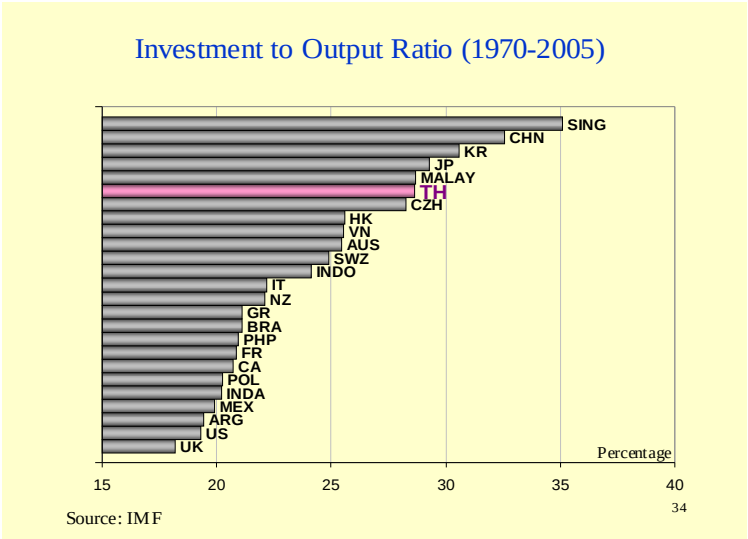
4. How did we get here?

Chart 12



While no single or even groups of factors can be pinpointed as the sole contributor to Thailand's economic development up to now, a number of features do stand out. First, it can be noted that the capital intensity of Thailand (based on NESDB's annual surveys) that has been rising fast to the peak of some 300% of GDP prior to the crisis has begun to come down consistently in recent years.

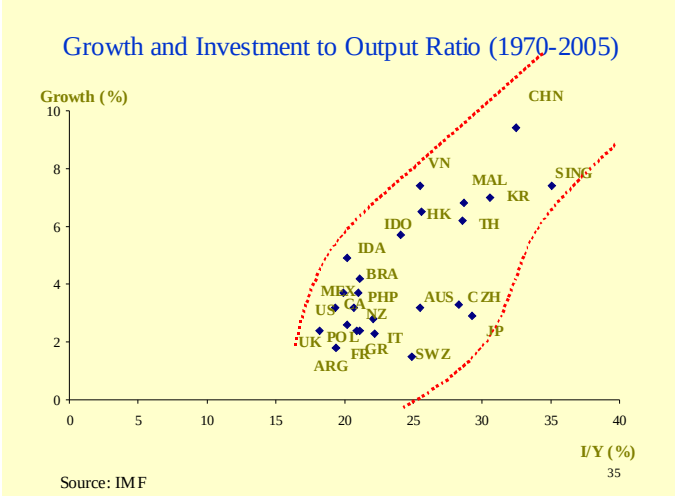
Chart 13



While business sentiment certainly plays a crucial role, it should be noted that Thailand's investment ratios have been and remain among the highest in the world.

Chart 14

While countries that invested more tended to enjoy higher growth rate, the relationship is not perfectly linear and vary depending on the quality of investment, traditionally measured by incremental



capital-output ratio (ICOR), calculated as follows:

$$Growth = \frac{\Delta Y}{Y} * \frac{I}{I} = \frac{I}{Y} * \frac{\Delta Y}{I}$$

$$Growth = \frac{InvestmentRatio}{ICOR}$$

$$ICOR = \frac{InvestmentRatio}{Growth}$$

While, the relationship between ICOR can be derived from the followings:

$$Y = C + I + G + X - M$$

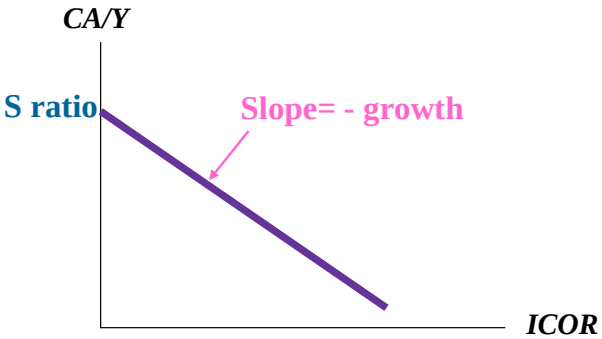
$$X - M = (Y - C - G) - I$$

$$NetExport = Saving - Investment$$

$$X - M = S - I$$

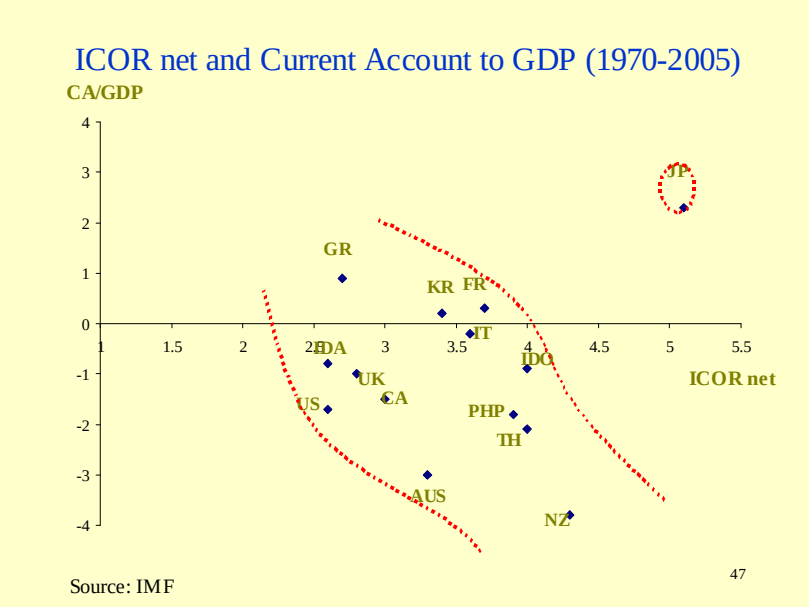
$$\frac{CA}{Y} = \frac{S}{Y} - \frac{I}{Y}$$

$$\frac{CA}{Y} = Sratio - ICOR * Growth$$



As expected, countries with higher ICOR (i.e. lower efficiency of investing) tend to suffer larger current account deficit- Thailand among the highest before the crisis.

Chart 15



The recent decline in investment ratio in Thailand may thus be judged as reasonable from this perspective although the lower quantity needs to be compensated by higher quality which Thailand did get help.

4.1 FDI-based exporter as a backbone of growth

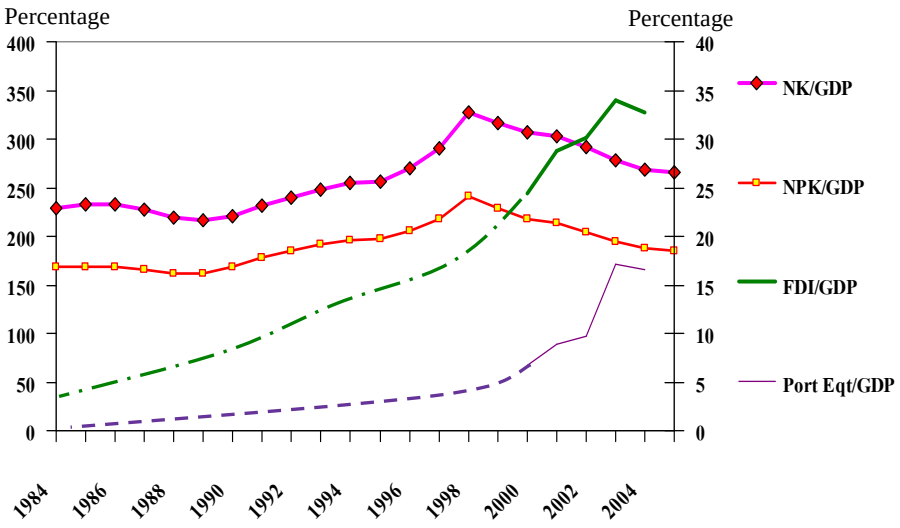
The help comes in the form of FDI the stock of which rose to around 30% of GDP in 2005.[4]

Table 7: Global FDI flows by regions and economies

(Unit: billion USD)	2002	2003	2004	**2005
Global FDI (Gross Inflows)	716.1	637.8	695.0	896.7
Inflow	499.3	455.3	485.4	290.8
Outflow	-346.3	-331.1	-424.4	-349.3
DCs (Net)	-52.1	-135.2	-257.3	-127.3
Europe	30.7	-30.7	-86.1	-136.2
Nth America	-68.9	-77.7	-174.6	2.1
Oth DCs (Net)	11.8	-1.8	26.8	6.8
LDCs	107.8	137.3	150.0	68.7
Latin America & Caribbean	39.1	36.3	56.6	40.7
Asia & Oceania	56.0	84.0	78.1	4.2
China	50.2	53.7	58.8	na
India	2.3	3.4	3.1	na
South-East Asia	8.1	11.6	12.0	na
Thailand	0.8	1.5	0.7	3.5
Other LDCs (Africa)	9.7	12.7	9.4	8.8
South-East Europe & CIS	8.3	13.5	25.2	15.1

Source: UNCTAD World Investment Report 2005
** Global Number based on UNCTAD; Individual regions based on IFS (June2006)

Chart 16: FDI, Inward Equity Investments based on International Positions

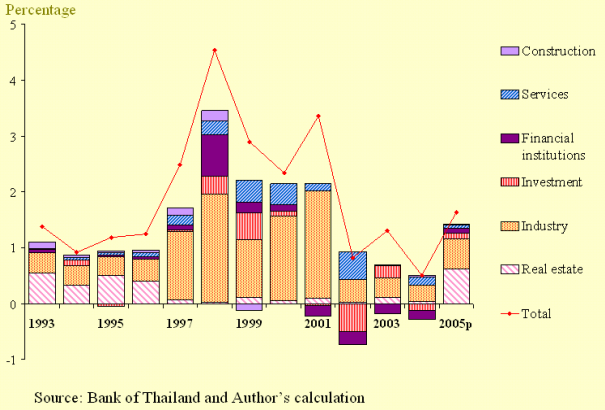


Source: IIP by BoT annual survey of some 1500 firms since 2000, accounting for over 90% of all FDI-related firms in Thailand

[4] UNCTAD (2005)

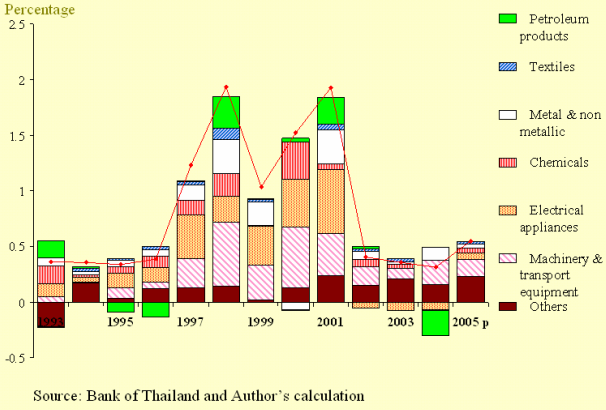
The bulk of these FDIs come into manufacturing sector, notably, automobile, electronics, chemicals, metal and non-metallic and petroleum products.

Chart 17



Source: Bank of Thailand and Author's calculation

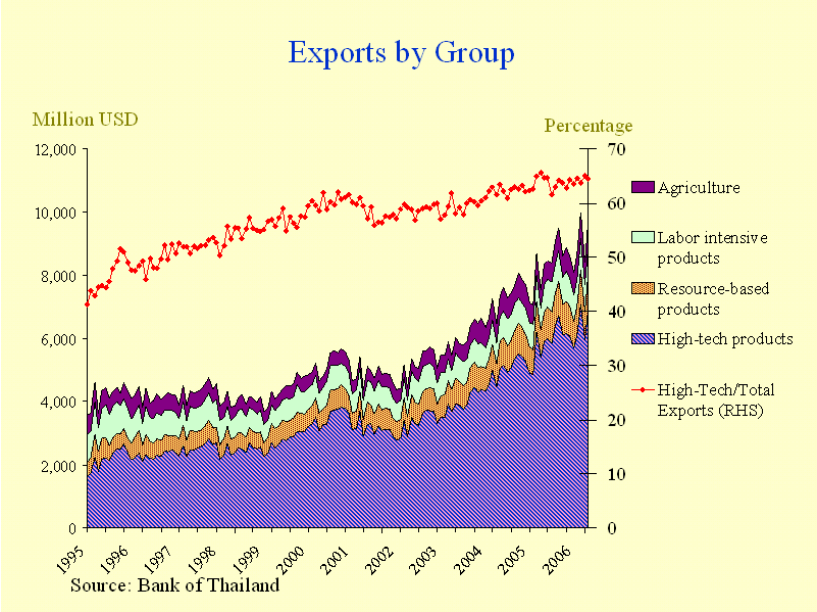
Chart 18



Source: Bank of Thailand and Author's calculation

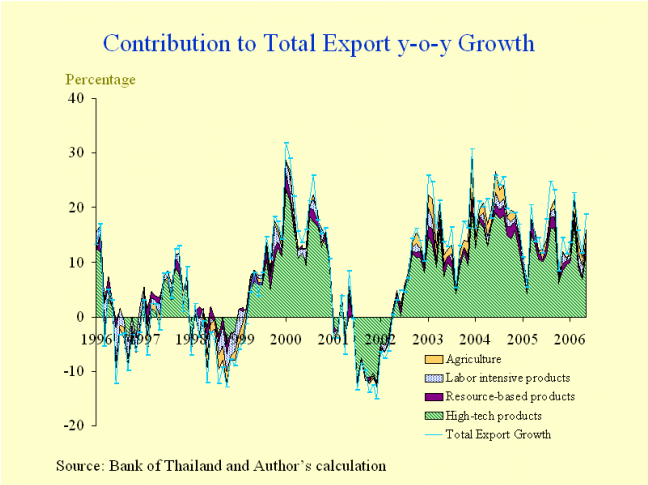
Also quite noticeably during this 1995-2006 period, high-tech exports rose from 41% to 65% of total exports contributing to 85 to over 90% of total export growth.

Chart 19



Source: Bank of Thailand

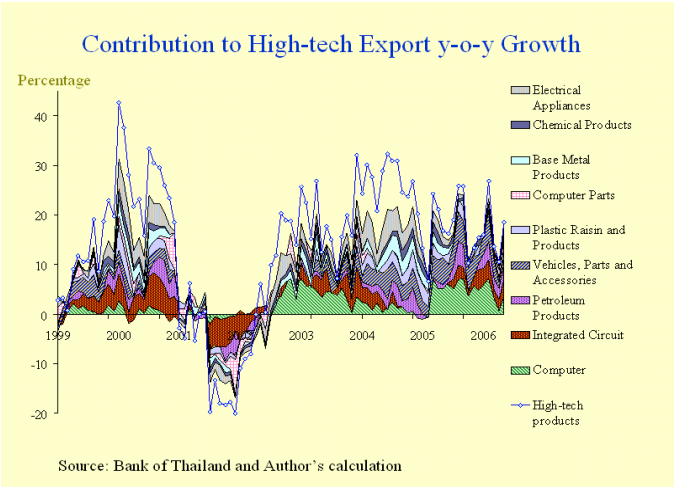
Chart 20



Source: Bank of Thailand and Author's calculation

Contribution to these high-tech exports are derived largely from commodities of similar groups to FDI, namely, automobile, electronics (including computer), chemical, petroleum products, base metal and plastic.

Chart 21



Source: Bank of Thailand and Author's calculation

Therefore, it may be said that the Thai economy over the past decade has been riding more or less on an FDI-based export strategy,[5] with FDI also supplementing and compensating for the declining and perhaps inadequate domestic investment.

The conventional wisdom held among global development organizations is that FDI will help trigger technology spillovers, assist human capital formation, contributes to trade integration and creates a more competitive environment and enhance enterprise development.[6] Knowledge can be diffused to local firms and workers via several routes through assistance to prospective suppliers on the set-up of production facilities, requirements on product quality standards and product innovation with provision of training to meet the standard set, provision of training in business management and assistance to suppliers to find additional markets.[7]

[5]FDI in real terms is found to granger cause real exports, while there are two-way granger causalities between real exports and real GDP with real exports much more significantly leading GDP growth.
[6] OECD (2002)
[7] Lall (1980)

Apart from the argument in terms of technology spillover, FDI was found to stimulate or 'crowd in' domestic investment by increasing the productivity and efficiency of local firms. [8]

4.2 Qualifications against FDI-based strategy

But arguments run deeper than these 'rosy surfaces'. Although FDI helps fill in the investment deficiency we experience during the crisis, whether Thailand truly benefit fully from FDI is a matter of debate. A crucial concern is that multinational companies (MNCs) may use Thailand as an OEM (i.e. original equipment manufacturing implying production to the specification strictly given and prices set by the foreign or parent companies) within their global production networks and returns on such activities are gained by MNCs. Value creation is further eroded by profit remittances, royalties paid as well as high import content.

As shall be evident in the following section that several heavy industries such as vehicles and chemical have high import to export ratio, which raises concern on whether the Thai economy has created high value for the overall economy or value on products are being created elsewhere.

The evidence on spill-over effects has been mixed. Some studies found a clear evidence,[9] others take on more cautious views by specifying host country conditions conducive to technology transfer[10] such as small productivity gap between foreign and domestic firms, good export performance and government policy support on R&D. Some studies even indicate negative spillover effects.[11] Krugman (1998) argued that, generally, domestic investors are more efficient than foreign investors. However, during the financial crisis, domestic firms have cash constraint and become available for purchase at 'fire-sale' prices. Foreign firms are superior only in terms of cash position but not efficiency. Besides, through FDI, foreign investors gain crucial inside information about the productivity of the firms under their control. They will then retain high-productivity firms under their control and sell low-productivity firms onto domestic markets.[12]

UNCTAD (2005) also addressed the obstruction of technology spillovers by MNCs. In the study, MNCs are found to be reluctant to transfer technology or engage

[8] Markussen and Venables (1999), Graham and Wada (2001) and Lensink and Morrissey (2001)
[9] Graham (1995)
[10] Kokko and Blomstrom (1995), Moran (1998), Amsden and Chu (2003)
[11] Krugman (1998)
[12] Razin, Sadka and Yuen (1999)

in local technological activities that may help local firms become competitors. Such actions could be in various forms: entering the host country with wholly-owned operations, thus limiting access to knowledge by local firms, transferring non-core technology of low value to transferer, or transferring core (high value) but dependent (incomplete) technology and transferring technology in tacit rather than explicit form. All forms of actions would slow down absorption of technology by local employees and outcome and production are dependent on the parent firm. These imply, for the production of the goods to continue, the host country needs to rely on FDI for the technology and such a phenomenon can be called 'chronic dependence on FDI'.

It is fair to say that host countries need to have acquired certain condition for which the benefits of FDI will be realized. Many developing countries tried to attract FDI on the basis of low labour cost. Without appropriate technology, countries hoped to rely on FDI in providing the capital they need to work with the army of cheap labour. However, such factors are not sufficient to attract FDI and retain them. Once an alternative destination country becomes available, FDI can readily be relocated to another host country.

According to the literature, the most unambiguous 'pull' factor drawing FDI to countries is the market size, particularly, in terms of GDP per capita of the host country.[13] While mobility is increasing under globalization, other factors such as cost differences between locations, the quality of infrastructure, the ease of doing business and the availability of skills also play important roles. Treatment of foreign investors through expansion of rights and protections of foreign investors has become the norm across countries.

Relating to the earlier findings on conditional benefits of FDI, conducive environment of the host country is found to be a necessary condition for technological diffusion. The host countries must reach a certain development threshold conditions to be able to benefit fully from FDI. Such conditions are the 'wholeness', which are essential ingredients to competitiveness- i.e. pro-market institutional arrangements[14], favourable government policies, highly-educated workforce[15] and ready technological infrastructure. These factors, in themselves, enhance competitiveness of the nation. Rather than relying on FDI to create competitiveness, there could be a reverse

[13] Chakrabarti (2001)
[14] de Mello (1999)
[15] Borensztein, Gregorio and Lee (1998)

causality in that competitiveness attracts FDI and FDI can help enhance existing competitiveness.

Despite relatively high FDI stock as a percentage of GDP, Thailand has been classified by UNCTAD in a below potential group along with Malaysia, Philippines, Korea and Taiwan, in utilizing FDI during 1990s and early 2000s despite Thailand's position in the front runners during the late 1980s.[16] Singapore, China, Hong Kong, and Viet Nam were amongst the front runners in the recent FDI classification for 1990s to early 2000s.

Furthermore, repatriation of royalties and dividends relating to FDI has also lowered the net benefits that each project leaves in the country. To measure this as precisely as possible, the financial data of 350 firms in the SET and combined with BoT's external service account to calculate a 'value creation index' (VCI) from gross margin (GM).

$$GM = \frac{Sales - COGs}{Sales}$$

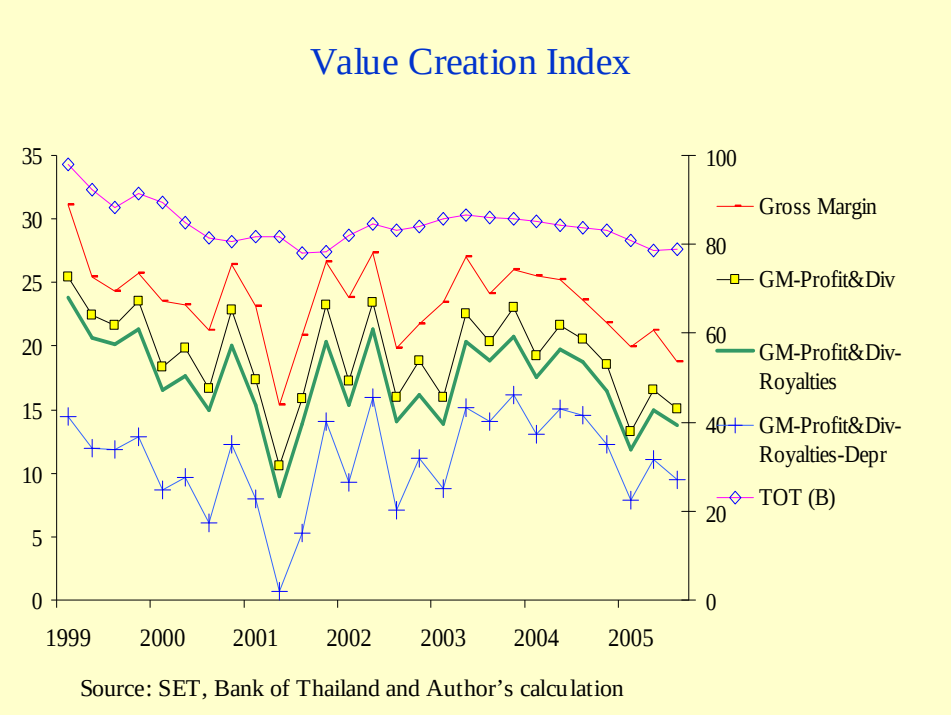
$$GM^* = \frac{GM - (profit \,\&\, dividend + royalties)}{Sales}$$

$$VCI = \frac{GM - (profit \,\&\, dividend + royalties + depreciation)}{Sales}$$

From the chart below, it may be seen that only half or slightly less of the 20% gross margin of the firms listed on the SET remain in the country. The rest are 'repatriated' out in the forms of either royalties, dividend or simply capital goods depreciation. Moreover, there also appears to be a positive correlation between the macro terms of trade and micro firm's gross profit margin and thus Thai value creation. By implications, during such a period of higher import costs and slower export markets largely attributable to the oil price in recent periods, firms' gross profit margin naturally tend to decline.

[16] Pananont (2006)

Chart 22



Source: SET, Bank of Thailand and Author's calculation

4.3 Reverse causality between FDI and competitiveness

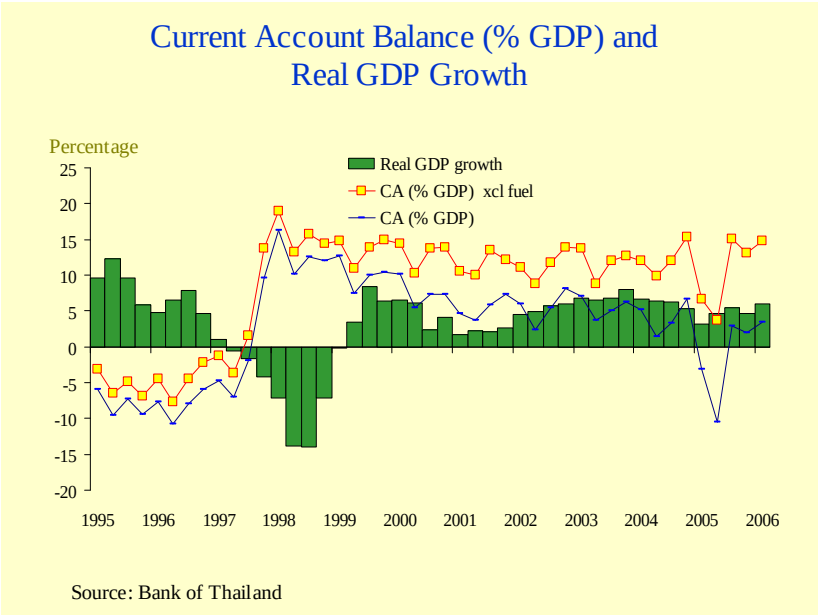
It is probably debatable whether FDI creates competitiveness in the case of Thailand or vice versa. Clearly, Thailand has been an attractive destination for FDI, partly because of its conducive environment as documented in IMD ranking in the earlier section. The effect of FDI may be felt several years after the first factory is established as knowledge spillover effects and training takes time to disseminate. Bearing in mind also, that hi-tech industries such as electronics and automobiles are initiated by FDI, who foresaw the potentials of the country as a production base. We cannot choose to have or not to have FDI, but we can try to benefit from them and do the best we can to improve our competitiveness with or without the push from FDI.

4.4 Sectoral contribution to GDP growth

If some of the FDIs were so bad, then why do we continue to rely on them? The right question is whether we have a choice? The answer appears to be yes and no. To put it simply, in the production of such products, whether we have created high value rather than just assembling parts together and export them. This will lend an important implication on the benefits or costs gained from the production of these products, i.e. the faster we grow, the more current account deficit we become as

shown in Chart 23 prior to the crisis. This relationship, nevertheless, appears to be changing since.

Chart 23



To take a closer look, the I/O table is used to analyze individual sector through different periods in history, bearing in mind that the most recent I/O table available is for the year 2000. Between now and then, there could be a structural change as we have seen the evidence in the preceding sections.

4.4.1 Calculation based on I/O table

Our objective in this section is to examine how much each sector is contributing to GDP growth and their ratio of import over export. On the former aspect, the growth contribution from each sector is derived from the followings:

$$GDP_t = \sum_i VA_i$$

$$GC_{it} = \frac{\left(\frac{\Delta_5 VA}{GDP_{t-5}}\right)}{5}$$

$$MX_i = \left(\frac{M_i}{X_i}\right) * 100$$

where GDP_t is nominal GDP at time t

VA_i is value added of sector I

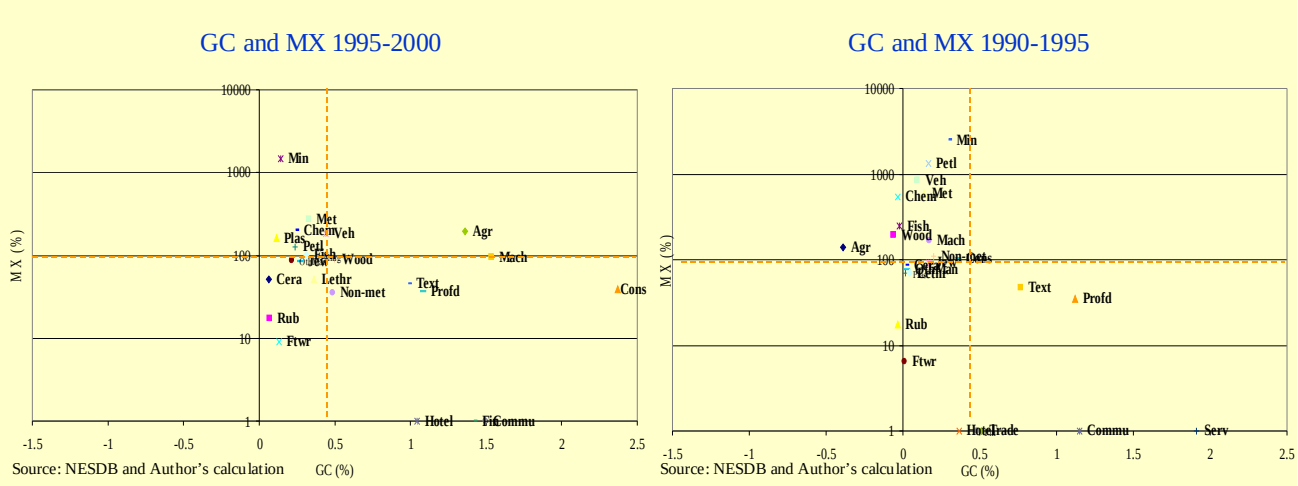
GC_{it} refers to growth contribution of sector i at time t

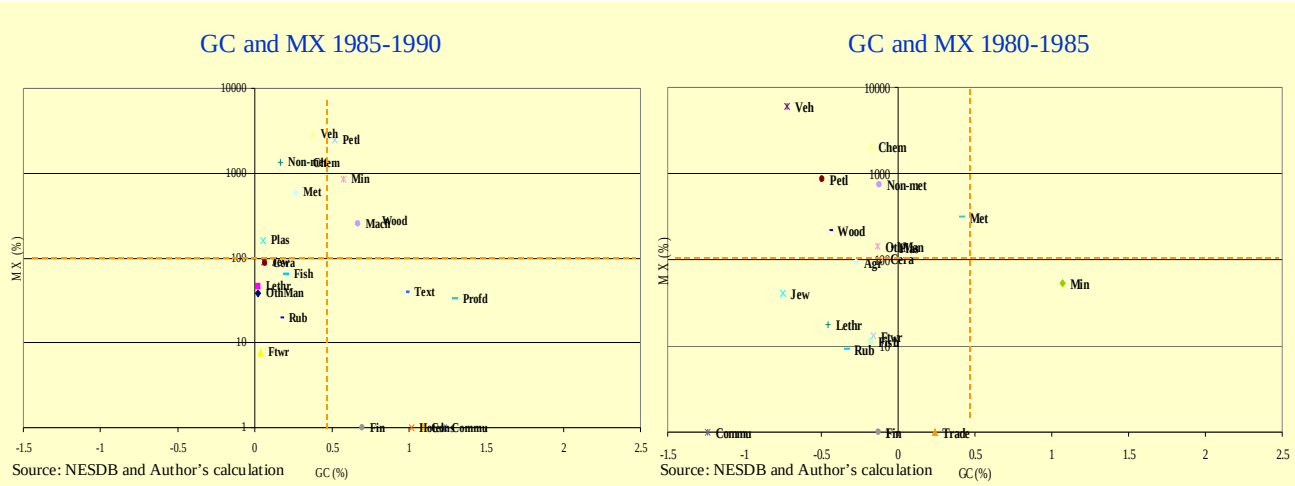
MX_i is import to export ratio of sector i (as a percentage)

From the analysis, there does not appear to be a linear relationship between contribution to GDP growth and import content at the sectoral level. Nevertheless, hi-tech sector such as metal, chemical, petroleum, machinery, etc. do tend to have higher imported elements thereby contributing more towards the current account deficit.

Notably, however, traditional sectors such as processed food, rubber, fishery, etc. can significantly contribute to growth with minimal impact on external stability, if at all.

Panel 2: Sectoral Growth Contribution and Import to Export Ratio





In summary, the various sectors may be classified into different groups using the median contribution to growth of 0.43 as a benchmark.

Table 8: Sectoral Growth Contribution Relative to Median and Import to Export Ratio

manufacturing	0<GC<0.43		0.43 < GC	
	M/X>100	M/X<100	M/X>100	M/X<100
1995-2000	Min, **Plas, Chem,** Met, Petl, Fish	**Cera, Rub, Ftwr,** Non-met, **Lethr,** Jew, Enrg	Agri, **Veh**	Mach, **Text, Profd, Wood,**Non-met
1990-1995	Min, Petl, Veh, Met, Mach, Non-met	Jew, Lethr, Cera, Plas, Ftwr	Agri	Text, Profd
1985-1990	Veh, Non-met, Chem, Met, Plas	Jew, Cera, Lethr, Fish, Rub	Petl, Min, Mach, Wood	Text, Profd
service	0<GC<0.43		0.43 < GC	
1995-2000			Trade, Serv, Commu, Fin, Hotel	
1990-1995	Hotel, Cons		Serv, Commu,Trade, Fin	
1985-1990			Serv, Commu, Cons, Hotel, Fin	

From the table above, we can classify our manufactured commodities, which contribute positively to GDP growth, into two main groups: low import to export ratio and high import to export ratio. The growth in the former will not impose burden on the current account. Members of the group are processed food, rubber, textile, footwear, leather[17], ceramic, furniture, wood and paper, jewelry and non-metallic products. The sectors with high growth potentials but high import ratio are vehicles, plastic, petroleum products and chemical products. On this account, we found that import ratio of these sectors are declining over time.

Indeed, there are sectors, which have contributed significantly to GDP growth with lower import ratio but relying more on the Thai ingenuity such as processed food and rubber. These sectors, however, are subjected to biological constraints that inhibit growth in the short to medium term that may be needed when import bill is high such as during a 'true' energy crisis.

Thus, a combination of Thai traditional and FDI-based products are needed and the appropriate combination may vary over time depending on the terms of trade

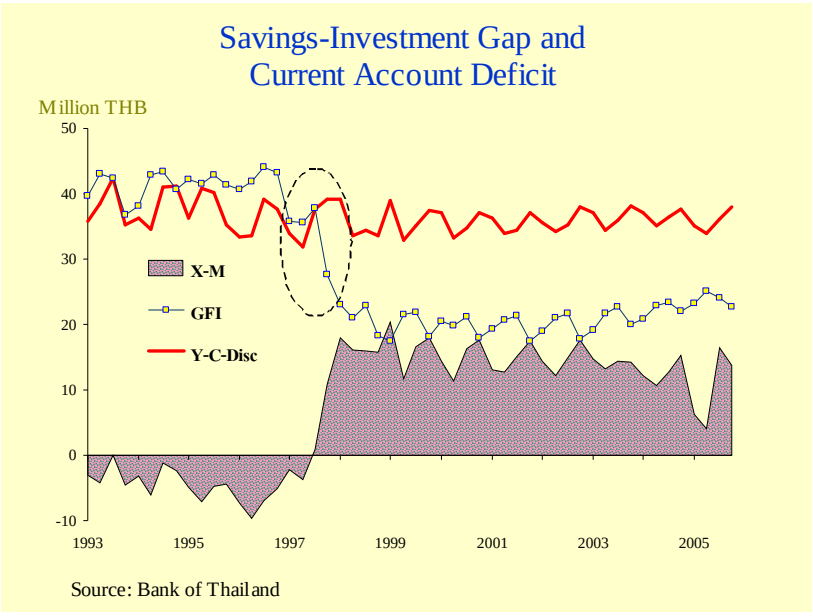
[17] Note that the most recent data on I/O is only until 2000, the lack in raw materials in recent years will not be factored in.

among other things. The question there is whether the government has done sufficiently to move the Thai economy in the right direction.

5. Have we done enough? Assessment of some policy measures

It is probably obvious from the previous analyses that Thailand needs to create its own value (to balance that of the FDI-based) and a number of policies frameworks have been put in place to implement this idea. Before proceeding, however, two caveats are necessary. First, according to Michael Porter[18] only the private sector can create wealth not the government. Therefore, the government can only play supporting role in providing an appropriate environment for the private sector to flourish rather than 'picking the winner'. This leads to the second caveat that government policies are so numerous that the analysis here is meant to focus on only some not all of the measures[19], particularly the ones fostering private sector behavioural reforms.

Chart 24



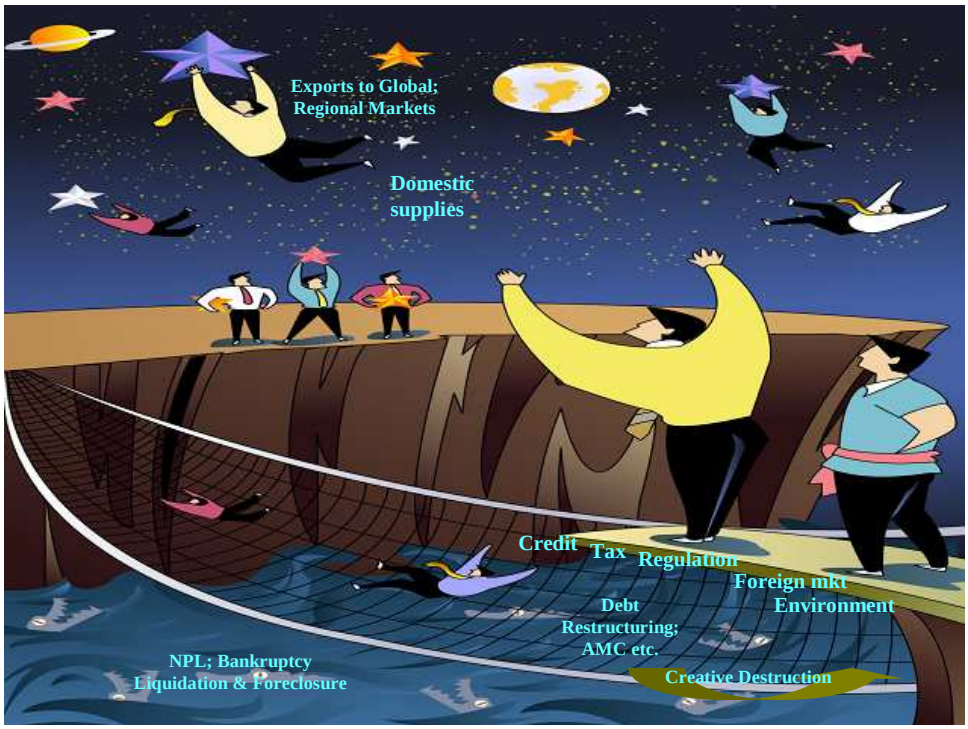
Since the crisis, it appears that Thai private sector has become more conservative, being more conscious on risk management etc. The lower investment ratio implicitly indicates a less favorable future outlook that demands caution. To diversify out of conventional mode of production and rely less on FDI-based export, Thailand severely needs to try out new business models and implement ones that are more prone to succeed.

In this context, the following chart perhaps best represent recent policy frameworks of the various governments up to now. In this framework, a platform has

[18] presentation in Thailand 2005
[19] Bank of Thailand

been raised, e.g. by the SME bank, EXIM bank, lower tax bands for SMEs, etc to allow private business to test out their ideas in production and possibly exports if successful. Otherwise, a debt restructuring 'safety net' has been put in place to allow viable businesses that make mistakes to stand up once again to rise to the challenge without incurring moral hazard problems.

Chart 25: Government Policies and Private Sector



Safety nets such as debt restructuring could help relieve the risk aversion and induces creative destruction. The recent sharp decline in NPL and NPA and the emergence of 'new' services and industrial sectors to be discussed below as well as the resumption of private sector lending are some evidence of the move along this path.

In chronological terms, however, initial post-crisis tasks, given the vast magnitude of the crisis impacts, were mainly to restore the productive capacity after the loss as evident in a reduction in capital stock cited earlier. Due to the limitation of resources, government support needs to be prioritised. Effort has been channeled into various target sectors, the most prominent and persistent support were in export-related target sectors such as automobile, rice and rubber and exporters, SMEs and real estate.

Besides the targets above another feature found from the review is that recent policy measures tended to concentrate on different sectors at different time. In the

early post-crisis years, attention were on electronics, gems and jewelry, petroleum products, steel and iron and glass. In the recent years, tourism, services, wholesale and retail, prawn, poultry, vegetables, electrical appliances, alcoholic beverages and textiles were on agenda.

Table 9

Density of Post-crisis Measures

Persistent		***SMEs, real estate, automobile, exporters, rice, rubber, sugar and milk***
Early post-crisis	**Particular**	**Electronics**
	Some	**gems& jewelry, petroleum products, steel& iron, glass**
	Limited	**Food processing, cement, computer software & IT**
Recent	***Particular***	***Tourism, services, wholesale& retail, prawn, poultry & vegetables***
	Some	***Electrical appliances, alcoholic beverages, textiles***
	Limited	***Communication & mobile phones, drugs & pharmaceutical, television & fiber-optic cables, tobacco***

Most measures issued were nevertheless non-specific. The general sense of measures issued in the early post-crisis years was to encourage foreign investors to invest in Thai industries via relaxation of restrictions and tax incentives at the same time, attempts to revive domestic investment through BOI support and encourage industrial standard. In the recent years, the focus has been more on plans to develop infrastructure such as water resource management, mega projects on transportation and tax incentives for company to promote labour skill development. Alongside the development in infrastructure, upsurge in oil price during the recent years prompted the government to issue various measures to assist industries. Most measures were in the form of price subsidy and reduction in excise tax (now more or less removed). Arguably, such measures may be fruitful if the oil price shock were to be temporary. However, as it appeared, if the surge in the price turn out to be a longer-term trend, for example, reduction in energy intensity may be needed for a more efficient use of energy and a use of alternative energy – if possible, from renewable source. The government is currently embarking upon this important task.

As stated earlier that on the whole the government tends to impose blanket (as opposed to 'pick-the-winner' strategy) measures on manufacturing industries with some measures aimed at different target sectors at different time. Examples include exemption for replacement of machinery (e.g. textiles), delay of tariff restructuring and reduction in import duties on raw materials (e.g. petrochemical and automobile), local content requirement (e.g. automobile) and set-up of joint-venture R&D centre (e.g. automobile). The followings will provide an overview of measures on some of the target sectors which receive persistent support from the government, namely, exporters, agriculture and agro-related industries and SMEs.

Exporters

Several measures on exports have been in place. In the early years, facing with the credit crunch condition, policy measures focus on extension of credit for exporters via EXIM bank (both directly and indirectly). Exemption of taxes on raw materials for exports was practised. At the same time, The government has attempted to improve logistics regarding exports as can be seen, for example, from an establishment of the one-stop service for exports and promote maritime business through tax exemption on profit and establishment of commercial maritime fleet. Moreover, Thailand has opened up more to the world competition, which should help enhance the country's competitiveness in both agricultural and industrial products. Since the crisis in 1997, trade negotiations have been completed with ASEAN, New Zealand, Australia, China and India. Several trading partner negotiations are still under discussions including US, Japan, EFTA, Korea, Bahrain, Peru and BIMSTEC (which includes Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka and Thailand). According to the World Bank's calculation, Thailand have made a significant progress in trade reforms- with a sizeable and continuous reduction in the simple average applied tariff rate from 17.0 percent in 1999 to 10.7 percent in 2005. The effects of trade negotiations and consequential tariff reductions are yet to be seen.

Agriculture and agro-related industries

Measures on agricultural products concentrated on commodities which Thailand is the leading exporter of the world- i.e. rice, rubber and sugar. Measures which stand out are price intervention and support, subsidised price and provision of chemical fertilizers and oil, strategy on organic agriculture, irrigation projects, establishment of central markets for agricultural products, debt suspension for

farmers, liberalisation, trade agreement and government-to-government sale of products and cooperation between major exporters

As for the infrastructure development, irrigation projects, establishment of central and future markets of agricultural products should serve well as pro-market strategy. Out of the measures above, the measures that may appear problematic are price intervention and subsidies of raw materials. Subsidies of raw materials may encourage the inefficient use of resources and may not be sustainable in the longer run. The use of alternatives should be encouraged- for example, organic fertilizer, alternative energy source.

As far as price intervention is concerned, although price support is aimed at providing farmers with stable and predictable income, the implementation of the policy can appear problematic. A good example is price guarantee scheme on rice where farmers can choose to deposit their rice with the government at the guarantee price set. If they wish, they can withdraw their rice from the government stock at a later date and sell on in the rice market. Price guarantee, if set far higher than the market clearing price, there would be a glut of supply which the government has to buy at that price and stock up on loans. Since the price is higher than the market price, farmers will not withdraw their product back from the government. The evidence can be seen from the declining proportion of commodities withdrawn back from the government stock in the case of rice.[20] To release it out of stock, the government resorted to bidding strategy. And the winning bid buys the stock from the government and sells them on to exporters. There could be a loss of budget if the government could not sell off all its stock and the commodity perish. Moreover, apart from the plausible leakages and contamination at each stage of the procedure, the high guarantee price could push up the price of Thai exports. In this competitive world, Thailand could lose its share of exports in commodities. An important concern is a fierce competition in what used to be our competitive territory, a good example can be seen from a competition from Viet Nam in the rice market. Price of Viet Namese rice is lower than that of Thailand and the gap between our exports and theirs is narrowing. (See Charts 26 and 27)

[20] Isavilanont and Naivikul (2006)

Chart 26

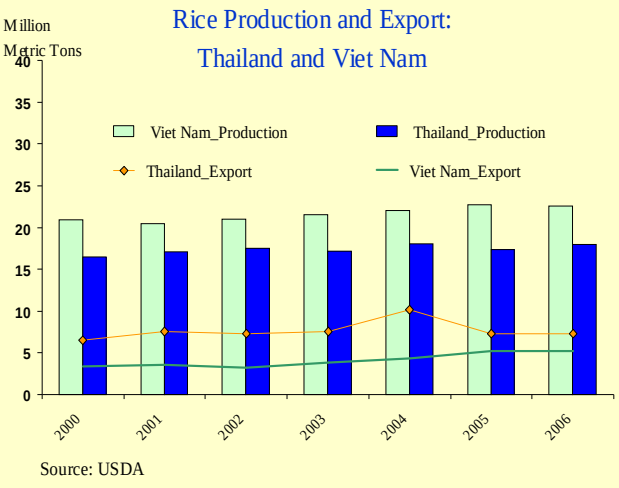
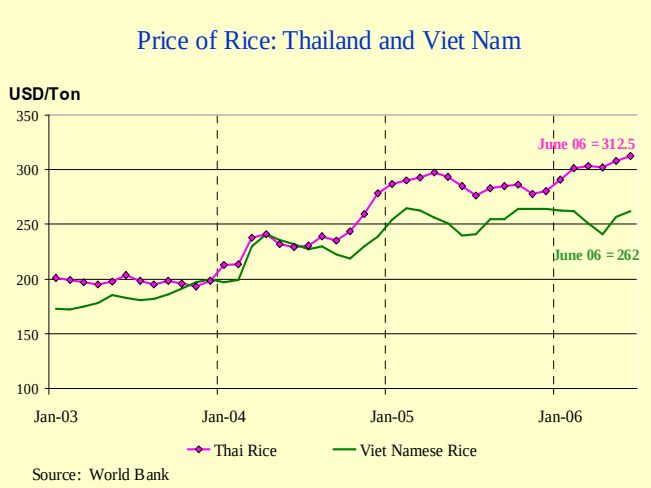


Chart 27



Closely related to agriculture are processed food and rubber products- both are ranked amongst the top ten net exports of the country. Processing food and processed rubber creates value on agricultural product and could facilitate price stability in the domestic market of commodities as it creates domestic demand for commodities. Value creation normally comes in the form of contract farming, where farmers supply their inputs to manufacturers who specified the type of produce and how to cultivate it to meet their specifications. Thus value added is gained by manufacturers. To ensure that the benefits of value creation are bestowed on the original producers of produce, farmers should be encouraged to set up their own network or cooperation to transform their own product into a processed form, thus create value on their produce. The government could lend the helping hands in providing the technology and technological know-how down to the grass-root level and ensure acceptable standards. By this way, it would help supplement farmers' income, moderate their dependence on the fluctuation of commodity prices and avoid the loss of income from perishable product.

SMEs

SMEs have been perceived as an important engine of growth on the domestic front. In the years following the crisis, the government has attached importance to SMEs and issued several measures to encourage the establishment and functioning of SMEs. The majority of measures on SMEs has focus on credit access. This includes SMEs credit targets for commercial banks and financial assistance to SMEs through state-owned financial institutions. Several tax incentives measures have also been in

place, e.g. reduction in corporate income tax rate, VAT exemption, special depreciation deduction rate, set-up of village fund. Moreover, SMEs have been provided with other dimensions of support such as knowledge and training by development institutes, business clinic and debt restructuring plan for NPL but viable SMEs, and One Tumbon One Product (OTOP) project that helps production of specialised products at grass-root level.

As will be evident in the following section, SMEs have mostly engaged in wholesale/retail trade and service sectors rather than productive sector, which could help generate export earnings. However, this does not in anyway imply the failure of the policy implemented. Such results may suggest the government to push harder for SMEs to engage in productive sector, which does not necessarily require economies of scale, for example, handicrafts, furniture and wood products- These sectors required hand-made skills rather than technology or mass production. OTOP project, or alternative approaches along a similar line, can be perceived as an appropriate way forward to further development in productive sector at the grass-root level. At SME level, information search cost for markets could be high. Apart from lending support to production, the products would need to be marketed. SMEs need to find its niche and specialties to compete at both domestic and international level with the help of the government.

Perspectives from manufacturers

Whether the measures implemented are sufficient and what the government should do next to assist industries, manufacturers from industries are the best source of information. In the following, we summarize the common obstacles faced by industries and way forward from the reports by the Department of Trade on exporting industries include jewelry, electronics, plastic products, automobile and parts, textiles, clothing, leather, furniture and wood products, processed food and agricultural/fishery products.

The obstacles found in the reports are lack of new technology on product development, lack of skilled personnel , lack of branding, NTBs, inappropriate tax structure on raw material imports (of high-import content products), expensive or inadequate raw materials, low quality raw materials, transportation costs, lack of coordination between upstream and downstream manufacturer, intense competition and excess supply (particularly of agricultural products). While suggested strategies

include development in technology with assistance from the government, information and analysis on foreign markets and pro-active approach in the search for new potential markets through e-commerce and exhibition, development in human capital with matching skills, create 'unique image' for Thai exports, tax restructuring on imports of raw materials or import substitutes, set standard for quality and safety of exports as well as raw material inputs and establish National Testing Centre, new channels of cheaper transportation, supply-chain management, encourage R&D and value creation, encourage diversification.

6. How did firms respond?

6.1 SMEs

In response to the government efforts in its support on SMEs as a channel to help revive domestic economy. SMEs should serve as a strong base for the country's production. If the government's effort in restructuring the economy has been successful, it should be felt at a grass-root level, i.e. SMEs.

Direct assessment of SMEs performance is difficult, in this case, the indirect measure will be used instead. Data on taxes- corporate income tax and VAT can be a good indicator of performance. The underlying logic is, if SMEs are performing well, its share of taxes should increase. From these sets of data, the structure of SMEs will also be revealed.

Table 10: SMEs contribution to tax

SMES contribution to corporate tax

SMEs%	2000	2001	2002	2003	2004
No.	68.8	69.5	70.1	72.8	77.6
Tax	15.7	14.5	13.2	12.0	12.1

SMEs contribution to VAT

SME%	2000	2001	2002	2003	2004
No.	53.7	53.3	55.6	58.7	61.4
Tax	17.1	17.1	16.8	17.4	18.1

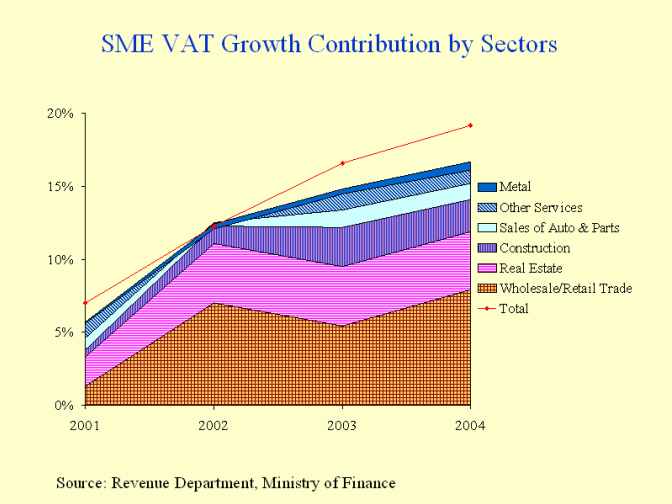
Source: Revenue Department, Ministry of Finance

Share of SMEs to total corporate income tax gradually decreases over time while VAT saw a moderate rise of SME share.

Major SME tax growth contribution derives from wholesale/retail trade, real estate, renting and construction, which are strictly speaking not value creating activities. To a lesser extent, however, services and sales of automobiles also

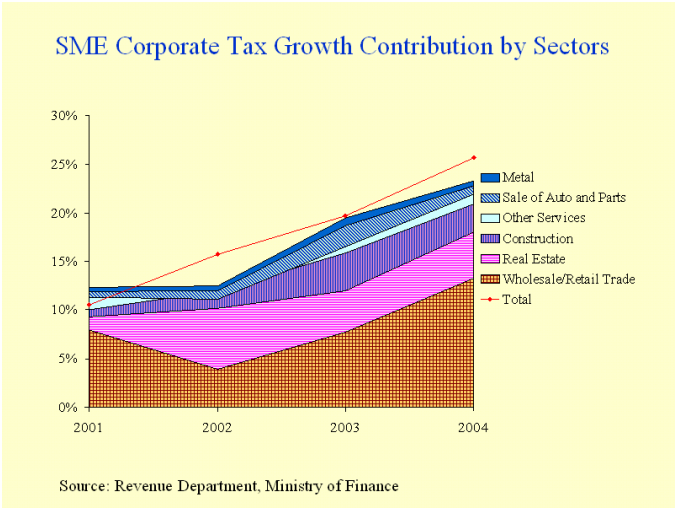
contribute moderately to SME tax collection and generate reasonable amount of export earnings.

Chart 28



Amongst manufacturing sector, SMEs appear to flourish in metal products, food and beverages, rubber and plastic, machinery, chemical products, fiber and garment, wood products and electrical equipment.

Chart 29



The finding implies that SMEs are contributing to competitiveness in tradables to a limited degree as they tend to specialize in service sector rather than manufacturing. The evolution in production structure would have come from large-scale entrepreneurs rather than the grass-root level.

Table 11

Successful SMEs in MAI

Category	No.	Code
Metal & Non-metal; Plastics; Packaging; Hi-tech & Parts; Chemicals	15	LVT;PD; CIG;L&E;PPM; SALEE;STEEL;SWC;TAPAC; TMW;TPAC;TRT;UEC;UMS; YUASA
Construction & Materials	3	FOCUS;PYLON;TRC
Rubber Pd; Jewelry; Rice	3	CPR; GFM;KASET
Sanitary Ware;Hospital	2	STAR;TNH
Media & Advertising; Event Mngt; Mkting; PR	6	CHUO;CMO;MACO;PICO; PR124;RK
Business Information; Cable; S/W	5	BOL;ILINK; IRCP; S2Y;SLC
Financial; Debt Restructuring; Factoring;	3	BROOK;ACAP;DM

Despite the gloomy overview, there is evidence of some successful SMEs. In the MAI (Market for Alternative Investment), for example, SMEs which are reasonably successful and meet the set qualifications to be listed can raise funds or 'go public'. In other words, MAI is a

nursery for SMEs before registering in the SET. Thus companies listed in the MAI are the ones with high growth potentials with systematic and organized accounting standard and management. Out of the 37 companies listed in the MAI, 15 are engaged in manufacturing- contrary to the evidence on tax contribution. (See Table 11) Nonetheless, we need to bear in mind that 37 firms is too few to be representative.

Further evidence of successful SMEs can be found in exports of OTOP products.[21] OTOP products which made it to exports were mainly processed food, beverages, jewelry, textile (particularly silk and batik), clothing, accessories and decorations, thus reflects the strength of production units at grass-root level.

6.2 Listed firms

As representation of larger enterprises, in 2005, the top ten industries in net profit margin terms are banking, finance, transportation and logistics, healthcare service, hotel, petrochemicals and chemicals, property development, professional services, insurance and communication. Clearly, nearly all are in service sectors except for petrochemicals and chemicals.

Average performance over 2001-2005, sectors with high profit margin are mainly those in the service sector, namely property, construction materials, transportation, insurance, paper, communication, hotel, professional services, finance, banking and healthcare services. FDI high-tech related such as petrochemical and automobile industries acquired moderate margin, bearing in mind that parts of profit margin needs to be repatriated back to the parent companies. Traditional industries such as food and agriculture have relatively low margin.

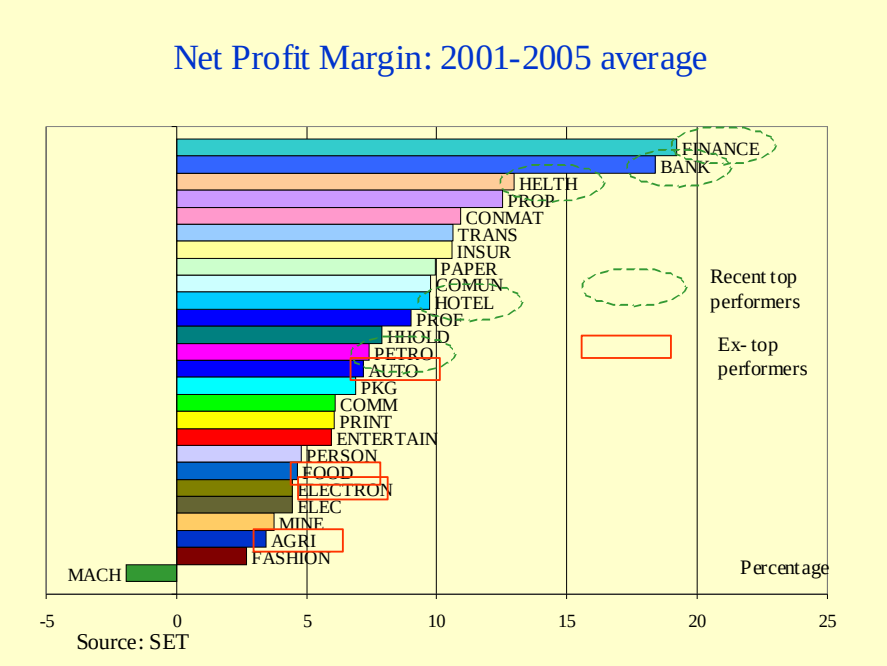
Based on net profit margin of companies listed on the SET over time, there was also some evidence of structural change. The industries, which used to be in the top ten during the early post-crisis years, but have lost their top position were automotive, food and beverages, electronic components, agri-business, household products, paper and printing materials. There are sectors emerging as top performers in recent years, namely, banking and finance, healthcare services, hotel and petrochemicals. Consistent top performers were transportation, logistics and professional services.

All in all, service sectors have become more profitable and snatched the top slots from manufacturing sectors particularly in recent years. Such evidence is in line

[21] OTOP to the World (the Department of Trade)

with the findings on SMEs. On the production front, SMEs tend to specialize in traditional industries, namely, food, textile and clothing, while larger corporates earn higher profit margin in high-tech industries than traditional ones.

Chart 30



Emergence of service sectors probably indicates the changing landscape of Thai businesses. In recent years, tourism and healthcare have come into the limelight. Tourism accounts for a large proportion of foreign earnings while Thai healthcare service has become well-reputed on an international scale with high quality at relatively lower costs. The service sector is rising as a new competitive frontier of the economy.

7. Way Forward

We learn that Thailand's competitiveness lies in a blend between the traditional industries agro-related products, the hi-tech triggered by FDI and services. What should we do to enhance our competitiveness and ensure that we fully utilize the best we have, at the same time, benefit from foreign-based technology? The followings will propose the answers.

7.1 Diversification

Agro-related products have been the country's core competency for generations and create employment for the rural population. The breakout of the crisis

caused losses of jobs in the urban area, however, overall unemployment rate was rather modest due to absorption of labour by traditional sector. Besides, Thailand is endowed with resources and expertise in agricultural production. Nonetheless, entire reliance on the traditional factors would be subject to risks. Commodity prices swing and exogenous factors such as weather condition and conditions in the world markets play an important role. FDI-related products, on the other hand, are less susceptible to such factors, however, it is also embedded with its own flaws- low value creation. As was evident earlier that these hi-tech usually come with high import content, which means that we rely on foreigners for technology or raw materials (or both) to produce the final products, or Thailand may be only an assembly line to MNCs' production chain.

The share of commodity groups we have expertise in is decreasing as world export increases, which is the reason why the share of overall exports for Thailand stabilizes. Over-reliance on particular commodity groups could cause balance of payment crisis in an advent of adverse shocks. Diversification will help mitigate such risks. An appropriate combination between agro-related and hi-tech industries is the way to go. At the same time, we should also branch out into the new areas without stretching too much into the beyond-possibility to catch up with the world product trend and demand.

Appropriate combination will very much depend on how resources should be allocated without competing resources away from other efficient sectors. ***The market usually drives itself to achieve the optimal allocation***. However, ***the government needs to help foster the functioning of the market in such a way that each industry has a potential to compete on an equal footing*** without being undermined by certain protection policies. Bearing in mind the limited information in the hands of the government and globalization, the government could help create convivial environment for business by providing the infrastructure and appropriate rules of law. Blanket approach may work better than selective approach as it allows an efficient industry, which could be an underdog, to shine.

7.2 Adapting to the competition

Another important issue is intense competition, particularly from China. A good example of the most affected industries is textiles where Thailand cannot compete with the direct head-on competition from China as the evidence from

bilateral trade pattern suggests. We could sidestep such a collision, bearing in mind that it is the price that matters. Wattanasuphachoke (2006) suggested the case of strategies employed by Italian textile manufacturer to handle competition from China. The threat from China was not just its cheap labour but also ability to imitate the design and technology. Since Italian textile and clothing industries employed up to 22% of total employment, thus crucial to overall employment. Italian manufacturers, particularly, the middle-sized found their niche in high-quality clothing and aimed for the high-end markets. The flexibility, development in technology and hand-picked materials, which guarantee the quality, differentiate 'Italian' clothing from that of Chinese and enable Italy to keep its share in the market. SMEs reduced costs by pooling their resources together into R&D and innovation in new lines of products with higher quality than the old and the Chinese. The Italians proudly boasted their products as 'The Ferrari of textile and Clothing'.

The case of Italy provides good examples. Over-reliance on the price factor cannot be long-lasting, since it is detrimental in terms of welfare if wages were to be squeezed due to the competition from China. Thus, if price competition is not possible, we need to compete in other dimensions such as quality, design or ingenuity, i.e. creating values to the products.

Moreover, to adapt to the competition, we need to take a pro-active approach in finding new markets. In particular, the rise of China and India could provide ample opportunities and demand for Thai products, if they match consumers' needs.

7.3 Value creation

In relation to competition, instead of competition in terms of prices, values need to be created to gain competitive edge.

Value creation is frequently confused with value added. Value creation is defined as the ***ability to utilize the country's comparative advantage or natural strength in producing valuable goods and services that meet customers'*** need and those goods and services are difficult to imitate, thus prices can be set higher.[22] Value creation differs from value added in the technology used. ***Value added of a product usually involves the use of transferable or imported technology, thus can be easily imitated***.

[22] NESDB (2005)

The government included value creation in the national agenda in 2005. As we learned in this paper, most of Thailand's hi-tech industries involve FDI and foreign technology. Value has been 'added' rather than 'created' to the products and the benefits of this value added goes to foreign owners, while Thailand could not capture the technology or able to utilize or develop our own. The margin earned is from labour usage and this can be easily competed away by cheap labour from other countries. Being an OEM, i.e. assembly line, earns foreign exchange but also crowds out resources, which could have been used in creating value to our own products. Besides, adding value to products can easily be imitated, and for this very same reason, FDI could easily be relocated to countries with cheaper labour force. The evidence in the earlier section is clear- the hi-tech we produced have high- import content, which means that we rely much on foreign technology or raw materials.

Value added is the platform to value creation.[23] Value is created by specialty and uniqueness based on existing or created technology. An important dimension of value creation is quality enhancement. Recently, Non-tariff barriers (NTBs) particularly on quality of products have become the major threats to Thai exports. In the first half of this year, NTBs have been established in various forms in the major Thailand's export markets. To mention a few,[24] Japanese government amended the food sanitation law by adjusting the previous 'negative list system' to 'positive list system' claiming an increasing use of chemicals in agricultural products around the world and the need to protect Japanese consumers. In the previous 'negative list system', chemical substance under inspection totals 293 items but under the new system the number increases to 799 items effective since 29th May, 2006. Moreover, imports are prohibited if 15 chemical substance is found. The most affected Thai export commodity group is food products. According to Kohman (2006), rice will be most affected since it will attract inspection of 301 chemical substance.

Regarding the EU, the EU is expected to implement REACH measure (Registration Evaluation and Authorization of Chemical) around the beginning of 2007. According to the new measures, around 30,000 chemical substance in all

[23] Vinyarat (2005)
[24] Thansethakit (2006)

imports to the EU needs to be declared along with the date of testing and effects on consumers.[25] Such declarations will impose further costs on exporters.

The US will apply ACC (Aquaculture Certification Council) standard to frozen shrimps at first instance, from 1st January, 2006 onwards. The standard required will ensure environmental friendly approach to production. This also imposes further costs on frozen shrimp exporters.

Thus, food safety and quality standard need to be emphasized and the government may assist the private sector by setting up quality control centre and provide guidance and support on acquisition of necessary technology. Safety and quality control is one way to create value to products and sidestep NTBs.

In addition to quality, value can also be created in various dimensions. An example of value creation is Doi Kham product, the organic vegetables.[26] To clean and package vegetables is easily done but to ensure the quality and organic ways of cultivating is the value creation. Another example is healthcare service. Value added on hospital is the cutting-edge medical technology and well-qualified doctors which could be purchased, but value creation on this service is post-operation care and the combination of tourism and hospitalization – a 'unique' feature. Countries with similar technology may not have the natural resources as tourist attraction and may not have labour force with service mind like Thailand. Feasible example is also 'ready-to-eat' Thai meal. Food preservation technology can be acquired by purchasing machines but the way the ingredients are put together to create authentic 'Thai' taste cannot be easily imitated and this part is value creation. Thus, technology goes hand-in-hand with value creation. ***An innovative idea without the technology is an imagination while technology without a unique idea is simply value-added***.

Before a supplier can create value to their products, they need to understand the need of customers and what they truly want from the products.[27] Producers should create the 'value' of consumption through product development to suit human needs, which came into 4 broad dimensions: convenience, quality of life, social status, and relaxation/enjoyment. Using the earlier examples, ready-to-eat Thai meal and organic food, would gain value in terms of convenience and enjoyment. Post-operation care

[25] Danutra (2006)
[26] Isavilanont and Naivikul (2006)
[27] Wongmontha (2006)

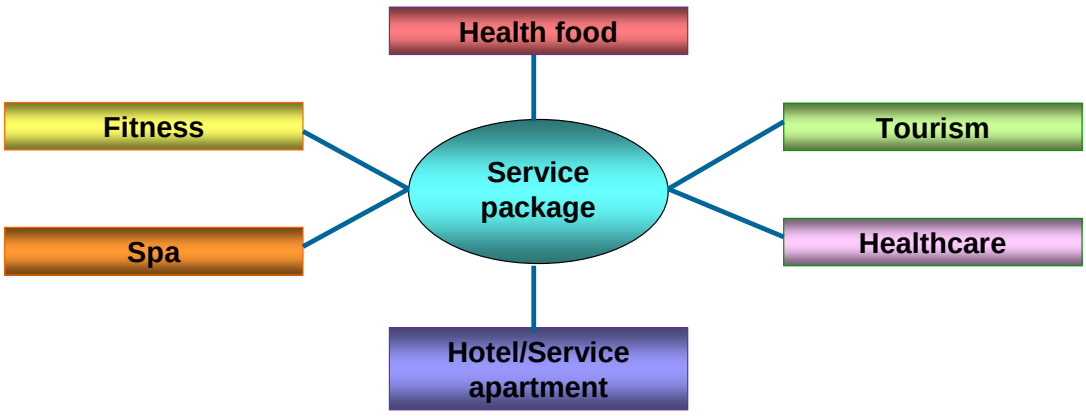
with service mind delivers quality of life and respect while Doi Kham vegetables enhance the quality of life.

Value creation can then be carried out in agro-related products, FDI-related hi-tech and service sector in different ways. For agro-related products, value creation could come in the form of quality standard- which will both create value and side-step non-tariff barriers or in the form of processing raw products into more ready-to-use consumer products, e.g. in the case of rubber, transform them into consumer products such as tires, rubber gloves, condoms, machinery parts instead of exporting the raw products which are subject to large price fluctuations, in the case of food, develop ways to preserve food with health standard while preserving the authentic Thai taste and make it read-to-eat- maybe in the form of microwavable meal. For those products with a lot of competition from cheap-labour countries, we could create value on the products, for example, concentrate on local Thai silk and traditional textiles with reliable quality and modern design, with tailor-made options available.

As far as FDI-hi-tech is concerned, since we still rely on foreign technology to produce and high import proportion reduces value creation, FDI-related industries should be encouraged to use the local content in their production- in every way possible or encouragement to set up local upstream suppliers and downstream manufacturers. Value is created for such completeness.

Recent emergence of service industries as a competitive area allows a room for value creation. Integration of several related dimensions of services could be a way forward. A unique service package, which combines tourism, healthcare, hotel/service apartment, fitness and spa with additional touch of health food, would be convenient for consumers, at the same time, it is difficult to imitate.

Chart 31: A Unique Thai Service Package



7.4 Innovation and dynamic competitiveness

Competitiveness is a dynamic concept. A country could be competitive now but if it becomes too complacent with the historical success, others can overtake them. The ADB (2003) defined two types of dynamic competitiveness: leadership and catch-up competitiveness. The former is centered on the creation of new markets through R&D and marketing investment while the latter group is based on 'behind-the-frontier' innovation, which involves constant improvements to process and products supported by technical and engineering capabilities. Both types would require appropriate entrepreneurship, educational provision, market-friendly institutions and sound macroeconomic management to foster such capabilities. The countries would need to restructure their industries toward more productive and high value-added products.

Table 12: Transition

Period/Stage	**Technological Transition**	**Market Transition**
1960s/1970s Original Equipment Manufacture **(OEM)**	Local firm learns assembly process for standard simple goods	Foreign MNC/buyer designs, brands, and distributes. Also gains non-manufacturing value added
1980s Own Design and Manufacture **(ODM)**	Local firms learns process engineering and detailed product design skills	As with above, MNC buys, brands, and distributes, MNC gains non-manufacturing value added
1990s Own-Brand Manufacture **(OBM)**	Local firm conducts manufacturing, product design, and R&D for new products	Local firms has own brand, organizes distribution and captures all value added

The experience of South East Asia in electronics industry is probably a good example of product innovation and dynamic competitiveness.[28] In 1960s, led by Singapore via the OEM system, technology is imported from the main international sources of technology, the US, Japan and western Europe. The MNC subsidiaries began assembly operations and gradually assimilated technology in Singapore. During 1970s, the MNCs established assembly plants in Malaysia and Thailand. While Singapore progressively gained skills in large-scale process engineering, Thai and

[28] ADB (2003)

Malaysian counterparts were engaged in technological learning and acquiring higher levels of technology.

Later in 1980s, own design and manufacture (ODM) emerged out of OEM. Singapore started carrying out minor product improvements, while Malaysia proceeded to process engineering through acquisition of higher levels of technology. In 1990s, the leading firms in East Asia, particularly Singapore, began their own-brand manufacture (OBM) to compete directly with major international suppliers with all stages of production and innovation carried out under OBM. Malaysia, followed by Thailand at later date, gradually moved toward more complex activities such as process adaptation and limited R&D.

Table 13: Examples of Transition

Decad	Singapore	Malaysia	Thailand	Indonesia	Viet Nam
1960s	Assembly				
1970s	Process	Assembly	Assembly		
1980s	Product	Process	Assembly	Assembly	Assembly
1990s	R&D	Product	Process	Process	Assembly

In relation to earlier discussions on FDI, FDI may not necessarily diffuse technology as much as the host country has hoped due to preventive measures or low-skilled labour. Such facts point out that unless Thailand devote resources to R&D and innovation to capture the existing technology and able to utilize it, at the same time, moving forward to match the leader, we will never be in the frontrunners. Spending on science needs to be well-planned to ensure that there is a coordination between pure science and its applications. Science education needs to go hand-in-hand with expenditure on laboratories and equipment as well as the applications of the technology in production. Firms, universities and the government need to cooperate in order to ensure that the production of human capital and technology are of the kind that suit industrial needs. After all, education, Innovation and commercialisation of R&D are necessary tools to propel the country forward and secure competitive edge.

9. Conclusion

Over the past years, Thailand has found its strength in three main ways: traditional strength particularly in agro-related industries, FDI-based industries and the service sector. FDI has thus far contributed to the growth of the economy via exports of FDI-based products while filling in post-crisis investment deficiency, albeit with a cost in terms of low value creation and high import ratio. Recently emerging service sector, along with traditional sector played their parts by significantly contributing to overall economic growth with lower pressure on the current account, nonetheless with their own limitations.

With the benefits of both our own strength and platforms laid out by various governments, the Thai economy has arisen up to a level in its international ranking. However, crucial areas with plenty of scope for improvements can be identified, namely, education and human resource development, innovation, R&D and technology.

To move forward, however, past strategy may not be sufficient particularly with the rises of China, India and even other Asian tigers as Singapore and Korea. Thai, both private and public sectors, may sooner than later be forced to identify a more balanced path that is likely to be more sustainable. The government could only lend itself in so far as market failure is concerned. The government should help foster convivial environment for business in such a way that each industry has a potential to compete on an equal footing and allow the market to achieve the optimal allocation.

Based on our own strength, how much the technology assimilated so far from past FDI can contribute to our future growth and development will depend on our utilization of the Thai ingenuity inherent in our past success.

In a nutshell, this will depend on the adjustment and reforms at the firm level, energy efficiency frontier, human resources development and regional cooperation frameworks that are yet to be worked out more articulately in the near future.

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Appendix

Classification of commodity groups

Commodity Group	**HS Code**	**I/O Table Code**
Agriculture	01-15 except 03	001-027
Fishery	03	028-029
Processed food and tobacco	16-24	042-066
Mining	25-26	030-041
Fuel	27	
Petroleum products		093-094
Chemical products	28-38	084-092
Plastic products	39	098
Rubber products	40	095-097
Leather products	41-43	075-076
Furniture, wood and paper products	44-49,94	078-083
Textiles and clothing	50-63, 65	067-074
Footwear	64	077
Other non-metallic products	68	101-104
Ceramic and glass	69-70	099-100
Watch and jewelry	71, 91	131-132
Metallic products	72-83	105-111
Machinery and equipment	84-85, 90, 92, 95	112-122, 129-130, 133
Transport vehicles	86-89	123-128
Construction		138-144
Wholesale and retail		145-146
Hotel and restaurant		147-148
Communication and transport		149-159
Finance and Insurance		160-162
Services		163-179