

Please cite this paper as:

Tangkitvanich, S. and O. Onodera (2008-01-07), "Facilitating Trade and Structural Adjustment Thailand: Experiences in Non-Member Economies", *OECD Trade Policy Papers*, No. 63, OECD Publishing, Paris.  
<http://dx.doi.org/10.1787/244406140524>



OECD Trade Policy Papers No. 63

# Facilitating Trade and Structural Adjustment Thailand

EXPERIENCES IN NON-MEMBER ECONOMIES

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**Unclassified**

**TAD/TC/WP(2007)6/PART2/E/FINAL**



Organisation de Coopération et de Développement Economiques  
Organisation for Economic Co-operation and Development

**07-Jan-2008**

**English - Or. English**

**TRADE AND AGRICULTURE DIRECTORATE  
TRADE COMMITTEE**

**TAD/TC/WP(2007)6/PART2/E/FINAL  
Unclassified**

**Working Party of the Trade Committee**

**FACILITATING TRADE AND STRUCTURAL ADJUSTMENT: EXPERIENCES IN NON-MEMBER  
ECONOMIES**

**Country Case Study on Thailand**

**OECD Trade Policy Working Paper No. 63**

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**JT03238460**

Document complet disponible sur OLIS dans son format d'origine  
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**English - Or. English**

## ABSTRACT

This paper is the fourth of four country case studies which is a part of a broader research programme addressing trade and structural adjustment issues in non-member economies which was conducted as a follow-up to *Trade and Structural Adjustment: Embracing Globalisation* (OECD, 2005) which identified policies for successful trade-related structural adjustment. This paper studies the trade liberalisation experience of Thailand from the 1970s.

The report consists of 6 main sections; Section 1 provides the introduction, while section 2 provides an overview of Thailand's growth experiences. Section 3 takes a closer look at the trade liberalisation and investment policies in Thailand: Thailand's initial trade regime and three phases of trade liberalisation: (1) initial tariff reforms (1982-84), (2) comprehensive tariff reform and its reversal with the Asian financial crisis (1993-), and (3) post crisis reforms (1999-) are studied. Section 4 looks at the changes in the investment and trade structure, while section 5 takes a closer look at structural adjustment in three sectors, the automotive and auto-parts sector, textile and clothing, and the telecom services sector. Section 6 concludes with lessons learnt. Thailand's experience confirms that a sound macroeconomic environment, sustainable public finances, a relatively stable political and economic environment, flexible labour markets and reliable infrastructure are crucial for economic growth. It provides an example of gradual trade liberalisation, and demonstrates the benefits of openness to international trade and foreign investment in correcting distortions in the economy.

*Keywords:* trade, structural adjustment, liberalisation, liberalization, Thailand, macroeconomic instability, tariffs, exchange rate policies, import-substitution, automotive and auto-parts, textiles and clothing, telecommunication services.

## ACKNOWLEDGEMENTS

This project was carried out by Dr. Somkiat Tangkitvanich of the Thai Development Research Institute and Osamu Onodera under the supervision of Anthony Kleitz of the OECD Trade and Agriculture Directorate. The authors wish to thank Sanjana Khoobchandani for helpful research assistance on an earlier draft.

The Working Party of the OECD Trade Committee discussed this report and agreed to make the findings more widely available through declassification on its responsibility. The study is available on the OECD website in English and in French: <http://oecd.org/trade>

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## EXECUTIVE SUMMARY

Thailand, with an average GDP growth rate of 7% for four decades in the lead up to the Asian financial crisis in 1997, is among the most successful developing countries in the world. Despite the Asian financial crisis, Thailand has successfully recovered and resumed its growth path although at a lower rate. Thailand has been considered an open economy: it had a liberal foreign exchange regime as early as the 1950s and maintained few quantitative restrictions. It has also been considered the least interventionist government in South East Asia. Thailand, however, was not an exception to the many developing countries taking an import substitution strategy based on high protection. While announcing a shift to an export oriented development strategy in the early 1970s, Thailand's transition has been very gradual. Nonetheless Thailand's openness to world trade has deepened rapidly: Thailand's trade to GDP ratio increased from 35% in 1970 to 72% in 1990 and 136% in 2005. This paper describes Thailand's initial trade regime and three phases of trade liberalisation: (1) initial trade reforms in 1982-1984 and the subsequent period, (2) 1993-1997, the comprehensive tariff reform and its reversal with the Asian financial crisis, and (3) 1999-, the post crisis reforms.

The Thai trade regime in the 1970s was characterised by high tariffs (30-55%) and extensive tariff escalation. Effective rates of protection for manufacturing were even higher. Realisation of the disadvantages of the anti-export bias led to introduction of several schemes to reduce distortions such as tariff exemptions and duty drawbacks on inputs for exports, various Board of Investment (BOI) promotion schemes, bonded warehouses and export processing zones. These measures generally provided exporters access to imported inputs at world market prices. Reduction of anti-export bias resulted in robust export growth. An export structure dominated by agriculture and food-related products has been totally transformed. While the primary sector constituted 80% of exports in the 1970s, by 1990 these products only constituted 35% with other labour-intensive manufactures such as textiles and clothing, electronics and other manufacturing goods growing to make up the balance.

While duty drawback and other measures resulted in robust export growth, some studies found that they had high administrative costs and were biased against small and medium enterprises. This led Thailand to consider the need for comprehensive tariff reform in the early 1980s. While a first attempt in 1982 failed mainly for fiscal reasons, a comprehensive tariff reduction initiative was launched in the early 1990s cutting average tariffs to 15% and simplifying the tariff structure. The Asian financial crisis in 1997 led to a reversal in tariff reform and considerable hardship. This experience illustrated the importance of sequencing of reforms and the need to set up effective supervision mechanisms and prudential regulations before capital account liberalisation. While the Asian financial crisis took its toll on the economy, trade reform was resumed in 1999 as tariffs were cut to an average of 10%. After the turn of the century, exports have boomed and further diversified with further trade liberalisation and a depreciated exchange rate. The automotive sector and chemical sector have doubled and tripled their exports in the last five years.

Trade reform has been essential for realigning the incentive structures in Thailand. Export growth in various sectors, from labour intensive manufactures such as textiles and clothing, to electronics in the 1980s and automobile and auto-parts in the recent past, has practically reshaped Thailand's industrial structure. FDI played a key role in boosting exports in the mid to late 1980s and again played a key role in facilitating the restructuring of industry in the wake of the Asian financial crisis.

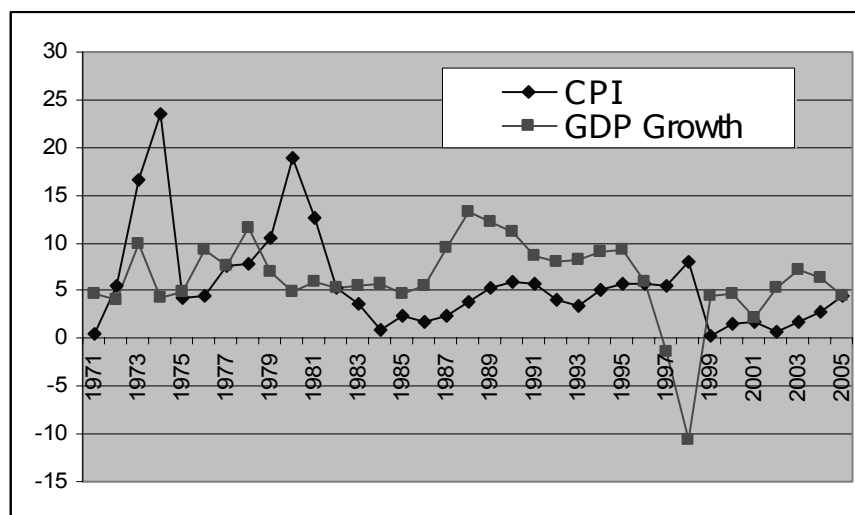
While trade liberalisation has led to increased competition and efficiency, the services sector has been left behind. Lack of effective competition and a poorly designed regulatory regime in some services such as telecommunications has imposed high costs on consumers and user industries. Vested interests pose significant challenges in moving ahead with reform.

## CASE STUDY ON THAILAND

### Section 1. Introduction

1. Judging from its stellar economic growth, Thailand is one of the most successful developing countries in the world. Setting aside city states and island countries, only Korea and China have grown faster than Thailand over the last 45 years (Richter, 2006). The country has sustained an average high growth rate of 7% during the past four decades leading to the economic crisis in 1997. Although the crisis brought about massive firm bankruptcy and worker layoff, Thailand has successfully rebounded and is now set to continue its expansion path, although at a lower rate of 4-5% per year.

**Figure 1. Real GDP growth and consumer price index in Thailand (1971-2005)**



Source: Bank of Thailand

2. Central to this growth was the high rate of capital accumulation, which can be attributed to a number of factors. Firstly, Thailand has maintained macroeconomic stability with generally low inflation except during the two oil crises (Figure 1), due to conservative fiscal and monetary policy. Secondly, despite intermittent military interventions during the past six decades and most recently in 2006, Thailand's economic policy remains relatively stable.<sup>1</sup> The Thai government is said to have been the least interventionist of the South East Asian countries, basically restricting its role to promoting the development of private enterprise (Dixon, 1999).<sup>2</sup> The country has gradually improved the functioning of institutions; its central bank, the budget bureau, and the economic planning agency are but a few examples. Thirdly, the country has been relatively open to foreign direct investment enjoying huge FDI inflows from Japan and NIEs after the 1985 Plaza Accord. Finally, after beginning the shift from an import-substitution

1. Warr (1993) points to lack of ideological differences (major parties share acceptance of the importance of preserving Thai traditions and institutions and strong loyalty to the present monarch), the perceived military threat from communist Vietnam at the time and the degree of independence of Thai bureaucracy from political control as some of the reasons for this seeming paradox between apparent political instability and stability of economic policies and the economy.

2. As we will see in the sectoral studies, there has been some government intervention nonetheless.

regime to an export oriented one in the early 1970s, Thailand has gradually liberalised its trade regime. Although the country maintained relatively high tariffs compared to other Asian countries, use of exemptions and duty drawbacks has resulted in a relatively liberal trade regime in practice (Box 1 for an overview of Thailand's economic policy).

### **Box 1. A Glance at Economic Policy in Thailand**

#### *Macroeconomic policy*

Maintaining relatively stable prices has always been a main priority in macroeconomic management in Thailand and inflation has risen above two digits only during the two oil shocks. During the first three years after the crisis, monetary targeting which focuses on maintenance of a stable money supply was adopted to guide monetary policy. However, after realising that the relationship between money supply and output growth was becoming less stable, the Bank of Thailand has replaced monetary targeting with inflation targeting since May 2000. Under this regime, a nine-member Monetary Policy Board sets the direction of monetary policy with price stability and growth as the key objectives.

More recently, learning from its past failure of an over-heated economy and financial crisis, one of the objectives of Thailand's overall economic policy has been to strive for a "sufficient and sustainable economy" while promoting free, fair and progressive trade liberalisation, more balanced income distribution, and good governance and transparency. It is thought that this will prevent the country from embarking on any extreme steps, and would allow it to pursue a moderate path towards sustainable and secure development.

#### *Exchange rate policy*

From 1955 the Thai baht was fixed to the US dollar and was only adjusted slightly a number of times to maintain parity with the dollar. The over-valued dollar in the late 1970s and consequential over-valuation of the baht led to a worsening of the current account deficit and in March 1978, the Bank of Thailand announced that the baht would be pegged to a basket of currencies in which the dollar will be a major component. There were only a few devaluations after 1978 (July 1981 and Nov 1984). The devaluation of the dollar after the Plaza Accord in 1985 led to a depreciation of the baht to other currencies. One major change brought about by the financial crisis in 1997 was the adoption of a flexible exchange rate regime.

#### *Tax and fiscal Policy*

The Thai government has long used fiscal policy to fulfill its development goals. During 1961-1987, it experienced budget deficits due to huge investment in public infrastructure. Tax incentives were also introduced to attract foreign direct investment. As a part of overall fiscal sector reform, the Thai government initiated tax reform starting in 1992 with the introduction of the value added tax. The booming years during 1988-1996 brought about fiscal surpluses for many years. Expansionary fiscal policy again played a significant role in mitigating the effects of the economic crisis in 1997. Although a framework for fiscal sustainability was introduced in 2002, there are growing concerns over fiscal sustainability and transparency of fiscal policy due to extensive use of quasi-fiscal policy measures, growing extra-budgetary money via various governmental funds and the increase in overall government expenditure during the Thaksin government.

#### *Trade policy and product market reform*

Since the shift from import substitution strategy to an export-promotion strategy in 1972, Thailand has gradually lowered its tariff rates unilaterally. Starting from the provision of tariff exemptions and use of drawbacks to reduce anti-export bias, significant tariff reductions were undertaken in the late 1980s and mid-1990s. The reform was temporarily interrupted by the financial crisis but resumed in 1999. The WTO has not played a major factor in tariff reductions, although it has contributed to the abolition of many non-tariff measures. The implementation of bilateral free trade agreements (FTAs) with many trading partners in 2005 has triggered the latest round of tariff reduction and trade liberalisation.

#### *Investment policy*

The Thai government has long strived to promote investment in the country by granting income tax concessions and other privileges to approved investment projects. These incentives were initially directed to import-substitution

companies but subsequently modified to promote export-oriented companies. Preferential treatment for export-oriented companies was later scrapped to comply with the WTO TRIMs agreement. Currently, a maximum of eight years of income-tax concessions and other privileges are granted to promoted projects in many eligible sectors. Although foreign direct investment is generally viewed as favourable, there is a statutory limit for foreign participation in sectors related to national security, art and culture and natural resources. Most service sectors are also reserved to Thai nationals. In these sectors, foreigners aspiring to enter the market are required to get a permit, which is approved on a case-by-case basis. The statutory limit is currently being strengthened by the new controversial draft Foreign Business Act. Outward investment to neighbouring countries, particularly in the field of agri-business and bio-energy sectors, are starting to be encouraged as a means to overcome all emerging deficiencies in raw materials, labour, increasing logistic and production costs and currency appreciation.

#### *Competition Policy*

Thailand shifted away from the archaic price-control regime towards a competition policy regime in 1999 when the Business Competition Act was legislated. However, the enforcement of the law has not been effective due to heavy lobbying by business groups and political intervention, resulting in a long delay in the issuance of the bylaw defining 'market dominance' and the guideline on merger and acquisition. During seven years of the implementation of the law, only one firm has been found guilty for violation.

#### *Infrastructure*

Cross-country comparisons suggest that Thailand has developed internationally competitive infrastructure networks. Thailand is well endowed with roads and railway with weaknesses in fixed telephone lines compensated through wide subscription in mobile phones (Richter, 2006). From the early 1960s to mid-1980s, investment in infrastructure aimed at stimulating regional and industry development and were financed by government budget and loans. From the late 1980s until the 1997 crisis, infrastructure investment was increasingly conducted through public-private participation, mostly through built-transfer-operate (BTO) concessions in telecom and transport projects. After the Asian crisis, infrastructure development became dormant for many years. The current wave of infrastructure development involves investment in 'mega-projects' in constructing mass transit, transportation and water resources management systems and will be financed by a combination of government and state-owned enterprises' budget and loans.

#### *Privatisation*

The Thai government has gradually privatised most of the state-owned enterprises in the manufacturing sector. Most of the remaining state-owned enterprises operate in public utilities or services sector. The latest wave of privatisation began after the 1997 crisis as privatisation was a key condition tied to the IMF loan. Recent privatisation, including the listing of the state electricity generation in the Thai stock market, was heavily opposed by the public because it was considered that there was a lack of effective regulation and other safeguards of public interests. It was subsequently overturned by the court's ruling on the ground of procedural irregularities.

#### *Labour market and social safety nets*

The Thai labour market covers workers in both formal and informal sectors. As of 2002, about 44% of the labour force works in the formal sector. Workers in the formal sector are protected by the Labour Protection Act of 1998, which guarantees their rights, regulates the working conditions and sets minimum wages, which vary by geographical location. They are also covered by the social security scheme, which grants benefits in case of sickness, maternity, invalidity and old age and the unemployment insurance program. Labour flexibility has been relatively high in Thailand. Although workers have the rights to form unions, the rate of unionisation is very low. The unemployment rate has historically been relatively low, with agriculture and the informal sector acting as a social safety net. The rise in unemployment to 3.5% in the period after the Asian crisis led to the introduction of an unemployment insurance programme since 2004. Due to labour shortages in some sectors and geographical areas, unskilled immigrant workers have been temporarily allowed to work in Thailand since 2001.

#### *Science and Technology Policy*

The country has consistently invested very little in scientific research and development (R&D). For example, R&D in 2001 was USD 275 million, or only 0.22% of the country's GDP. Moreover, a large fraction of R&D projects is concentrated in public agencies and there are little linkages between public research supply and private sector's demand. With little investment and weak public-private linkages, technology and innovative capabilities in Thailand lag behind other Asian countries of comparable income level.

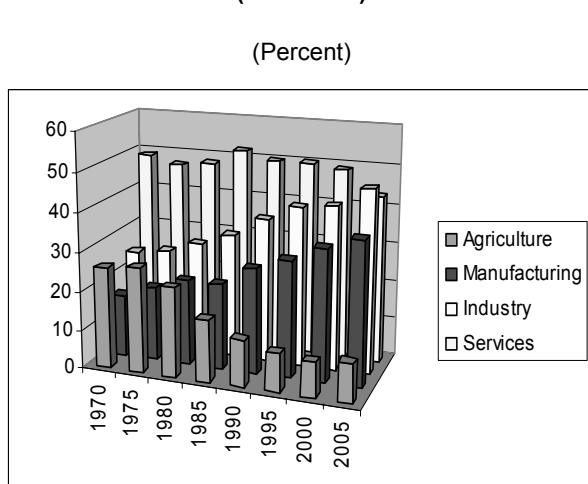
*Source:* compiled by the author



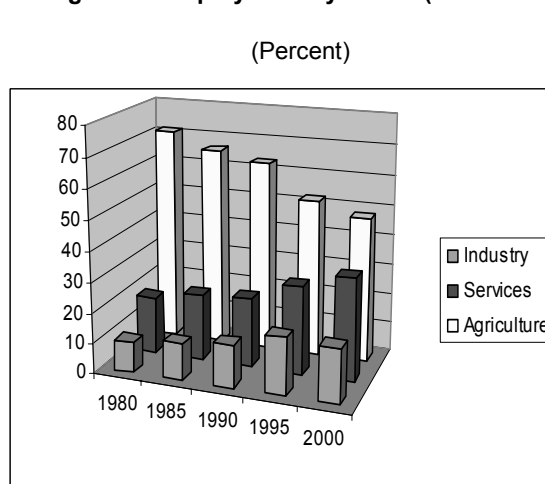
3. The economic structure of Thailand has changed dramatically in the past 40 years. Although agriculture and related industries were originally the leading sectors of the country, the service sector is currently the largest contributor to GDP, with a near constant share in the range of 45-50% in recent years (Figure 2 and 3). The share of the industry sectors in GDP has increased at the expense of the agriculture sector, which currently constitutes less than 10% of the GDP. The expansion in industry has been initially driven mainly by growth in labour-intensive manufacturing activities such as the clothing sector but more recently is increasingly supported by more capital intensive industries such as autos, electronics and chemicals (Annex Table A and B).

4. The share of the agriculture sector in employment has also declined gradually while those of industry and service sectors have increased. It is interesting to note that the decrease in employment in agriculture was very slow up to the 1980s but has accelerated in the 1990s as the bias towards agriculture has been gradually removed. Although the situation has improved, the share of agriculture in total employment remains high at 38.6% in 2005 compared to the share in GDP of 10% which reflects the low labour productivity in this sector. Low productivity in the agricultural sector is partly due to the long standing anti-agricultural bias and low level of capital and technology investment.

**Figure 2. Changes in GDP composition by sector (1970-2005)**



**Figure 3. Employment by sector (1980-2000)**



5. Many studies on the source of growth of Thailand<sup>3</sup> show that the bulk of Thailand's growth could be attributed to increases in labour and capital inputs with little increase in total factor productivity (TFP). Recent growth accounting by Bosworth (2006) confirms these previous studies (Annex Table C). TFP growth appear low especially in individual sectors (agriculture, industry and services) while TFP improvements in the aggregate economy average between 1.5 and 2% per year excluding the crisis years of 1997-99, where resource reallocation took place among sectors: from low productivity agriculture to industry and services with higher productivity levels.<sup>4</sup>

3. e.g. Tinakorn and Sussangkarn (1998) and Achara et. al (2004)

4. Bosworth (2006)'s study also finds that the financial crisis had a very large impact on the Thai economy and a major portion of the productivity losses associated with the crisis appeared to be permanent, with little evidence of a post-crisis recovery to the old path of GDP. Thailand no longer has a particularly high

6. Despite a restructuring of the economy and substantial shift in resource allocation, labour adjustment costs seem to have been relatively low. General economic growth has led to a continued increase in industrial jobs while labour reallocation has been relatively smooth due to a flexible labour market and the presence of informal safety nets.<sup>5</sup> While economic development in the 1970s and 1980s led to the widening of income disparities between agriculture and non-agriculture, and between regions (Sussangkarn, 1990), there has been a general decrease in poverty, except for the price decline in agricultural products in the early 1980s and post-Asian crisis.

7. The Asian crisis revealed shortcomings in the Thai economic system such as lack of formal social safety nets and absence of a sufficient regulatory and supervisory framework. Despite its proven track record, there remain some concerns about the prospect of the country's economic future. Thailand is unlikely to match its pre-crisis growth rate now since a large increase in factor input (labour and capital) cannot be foreseen anymore due to greater competition in attracting foreign investment. Greater competition in the global market will make it increasingly difficult for Thai exports to continue its expansion at its current rate. While trade and foreign investment have been large contributors to growth, there are signs of increasing economic nationalism and declining support for economic liberalisation: this is exemplified by the revision of the law on foreign businesses and the increasing antagonism toward trade liberalisation. Finally, further development may also be constrained by existing institutional weakness as exemplified by the prolonged political situation. The weakness of public and corporate governance, the lack of effective regulation and competition law, and chronic corruption all may lead to continued rent seeking activities and misallocation of resources.

8. Thailand's trade policy and experience in trade and investment liberalisation is of special interest for several reasons. (1) its use of unconventional methods to reduce anti-export bias. While Thailand has been considered as 'always been open', it maintained relatively high tariffs with tariff escalation until the 1980s. Initial reduction of anti-export bias was mainly realised through duty drawbacks, tariff exemptions, export processing zones, bonded warehouses and various investment promotion schemes. (2) its successful transition to general trade reform. While such unconventional methods were used initially with seeming success, Thailand successfully proceeded with trade reform as the downside to such policies became apparent. (3) the role of FDI. While domestic investment has always been the main player, FDI played a prominent role especially in export sectors. (4) the lessons from the Asian financial crisis. Thailand's experience in the Asian financial crisis and its aftermath provides interesting lessons in terms of policy coherence and the role that trade and investment can play in overcoming a crisis. Trade and investment liberalisation after the Asian financial crisis in 1997 has further provided a boost to exports.

9. The objective of this paper is to study the trade liberalisation experiences of Thailand to draw policy implications on trade policy and complementary policies. In section 2 of this paper, we first take a brief overview of Thailand's growth experiences. In section 3 we look at how Thailand's trade and investment policies have evolved. In section 4, we discuss how the structure of investment and trade has changed and how this has affected the manufacturing sector. In the fifth section, we take a more detailed look at developments in a few selected sectors: (i) the automotive sector, (ii) textile and clothing industry, and (iii) telecommunication. In the final section we draw lessons from the Thai experiences.

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rate of capital accumulation and large losses in TFP have been experienced in services such as banking and wholesale and retail trade (Bosworth, 2006 and Richter, 2006). The greatest challenge for Thailand seems to be how to improve productivity in areas such as services.

5 As of 2002, the informal sector (mainly self employed and unpaid family workers) employed nearly 60% of the workforce. Unskilled workers move from the formal sector to the informal sector, specifically the agricultural sector, in the third quarter of the year (i.e. in August). This is a sign of how workers have maintained strong links to the agricultural sector and how informal safety nets work. In recent years however, these seasonal variations have become smaller.

## Section 2. Thailand's growth experiences

10. In this section, we briefly discuss Thailand's growth experiences as background to discuss Thailand's trade liberalisation experience by dividing it into three periods: pre-crisis (1950-1996), crisis (1997-1998) and post-crisis (1998 onward) periods.

### 1) *Pre-crisis period (1950-1996)*

11. Thailand's history of economic development begins in the late 1950s. With technical advice from the World Bank, the government established key economic agencies including the Budget Bureau (1959), the Fiscal Policy Office (1961), and the National Economic Development Board (1959)<sup>6</sup>. The three agencies and the Bank of Thailand jointly were responsible for determining the annual budget. These institutions introduced sound fiscal policy to control public debt and placed a high priority on infrastructure development. According to national development plans, the industrial development strategy first focused on the promotion of import substitution and the reliance on domestic raw materials (1<sup>st</sup> and 2<sup>nd</sup> National Economic Development Plans of 1961-66 and 1967-71). There was also a shift towards a more market-friendly policy that reduced the role of state monopolies and promoted private investment.

12. Despite improvements in the investment environment, it was not the industry sector but the agriculture sector which was the driving force behind the high average GDP growth of 7.2% between 1958 and 1973. Helped by the high government expenditure on road building and establishment of a large-scale irrigation system, farmers rapidly cultivated new land. The revenue generated by the expansion in agricultural export in 1960s provided necessary resources for early industrialisation that was primarily aimed at substituting imports (Jitsuchon, 2004).

13. In the 3<sup>rd</sup> National Economic Development Plan (1972-76) there was a slight policy change in favour of the promotion of export oriented industries and labour intensive industries, although import substitution continued to be important (Cuyvers et al 1997). Thailand experienced political uncertainty and economic turbulence during 1974-1985 with a series of coups d'état, the two oil shocks, the appreciation of the US dollar/Thai baht, threat of communism from neighbouring countries and the tumbling of world commodity prices in the early 1980s. One of the consequences of these events was the soaring government budget deficit, arising from increased government expenditure, which eventually led to the serious public debt problem during the first half of the 1980s. Political stability and fiscal discipline was restored during eight years of Prem Tinsulanonda's technocratic administration between 1980 and 1988. As rapid growth in agriculture could no longer be relied on, the idea of shifting the country's industrial policy from import-substitution to export-promotion began to gain momentum. Services have also grown in importance. Tourism and remittances from migrant workers became especially important as sources for foreign exchange. From negligible figures in the 1970s, receipts from tourism and remittances grew to 69.2 billion baths and 21.1 billion baths in 1989 which were equivalent to 57% and 17% of the trade deficit in that year (Pasuk and Samart, 1993)

14. The decade between 1986 and 1996 was perhaps the fastest growing period of the Thai economy with double digit growth rates during 1988-1990. Two external events are noteworthy related to the high growth in this period. Firstly, following the 1985 Plaza Accord, the US dollar, and consequently the Thai baht, weakened against other major currencies. This provided impetus for the relocation of industrial productions from Japan, Taiwan and Hong Kong, whose rising currencies made them more costly as production locations. Secondly, the depreciation of the US dollar/Thai baht and a sharp decrease in oil prices during 1986-1991 also benefited Thai exports, especially the manufacturing sector. As a result of

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6. The National Economic Development Board is the predecessor of the current National Economic and Social Development Board.

these two events, FDI flooded into Thailand at an unprecedented magnitude. This was helped by the government's investment policy put in place a few years earlier, and also by sluggish agricultural production, which released a large number of young workers suitable for labour intensive industries (Jitsuchon, 2004).

## 2) *The 1997 financial crisis*

15. Thailand liberalised its financial market during the late 1980s and early 1990s. Following the removal of the cap on lending interest rate, ceilings on deposit interest rates were gradually removed during 1989-1992. The capital account was also liberalised with an eye to making Bangkok into a regional financial centre by the setting up of the Bangkok International Banking Facilities (BIBF) in 1993. Under this scheme, licensed banks were allowed to provide international banking services, which enabled the corporate sector to gain access to cheap foreign loans, mostly short-term ones, at low cost. However, the Thai government failed to realise the need to strengthen financial supervision and regulation regime (Siamwalla, 2004).

16. An over-optimistic view and over confidence in the "fixed" exchange rate led banks and companies to borrow in dollars and invest in the domestic market especially in heavily protected sectors such as steel and petrochemicals and non-tradable sectors such as real estate. The state of over-confidence also pushed up the Thai stock market index to rise more than twelve-fold between 1985 and 1993 while trading volumes increased by more than a hundred-fold during the same period. The danger of maturity mismatch of financing long-term investment projects by short-term loans was largely ignored.

17. Massive capital inflow led to a real appreciation of the Thai baht, which in turn hurt the country's export performance. The lack of effective competition in service sectors, especially telecommunication, logistics, energy and finance, also imposed high costs to the exporting sector. When the economy showed signs of slowing down, as witnessed by the rapid deterioration of export growth and poor financial performances of publicly listed companies in 1996, confidence in the Thai economy was quickly eroded. The Thai baht then underwent heavy speculative attacks by hedge funds and currency speculators. After futile defenses and exhaustion of its foreign reserve, the Bank of Thailand and the Thai government decided to float its currency in July 1997. With massive capital flight, the baht temporarily experienced an overshooting from 25 baht per dollar to over 50 baht per dollar in January 1998 before returning to around 40 baht per dollar. The deterioration of the baht had a catastrophic impact on large and medium-sized companies' balance sheets, because of their exposure to unhedged dollar debts.

## 3) *Post-crisis period*

18. What happened to economic growth after the crisis was more or less the results of the responses to the crisis by the government itself (Jitsuchon, 2004). The very tight monetary and fiscal policy stance under guidance from the IMF shrunk the economy to the point that, together with the ballooning debt burdens from the rapid devaluation of baht, the quality of most private companies' balance sheets deteriorated quickly and severely. This problem was reflected most notably in the high percentages of the non-performing loans (NPLs) of the commercial banks. Archaic bankruptcy law aggravated the problem of financial restructuring. As a result of the crisis, GDP fell by 14% and GDP per capita fell by 12% in 1998 compared to its 1996 levels.

19. Despite weak domestic demand and tight fiscal policy, Thailand recovered from the crisis mainly through growth in exports and investment inflows. The weak domestic demand and weak baht led to a contraction of imports while the weak baht made Thai exports more competitive. The trade balance improved rapidly and exports continued to expand from 58 billion in 1997 to 80 billion in 2003. The depreciation also reduced asset values, making FDI more profitable during the economic downturn. Net

inflows of FDI increased sharply from USD 3.6 billion in 1997 to USD 5.1 billion in 1998. The growth of FDI in the post-crisis period can be attributed to the increase of loans provided to affiliates and the dramatic increase in the number of mergers and acquisitions which increased sharply from USD 633 million in 1997 to USD 3.2 billion in 1998. However, M&A activity subsided in 2002 along with the pace of debt restructuring as the most attractive assets had already been sold. Thailand finally fully recovered from the crisis as GDP per capita reached its pre-crisis level in 2003. The Asian crisis has led to increased integration with the global economy as trade's share in GDP has increased to 149% in 2005 and the role of multinational companies have increased in all parts of the economy.

20. The Asian crisis entailed high social costs, especially in low-income households. Job losses in the formal sector could not be entirely absorbed by the movement of the workforce to the agricultural and informal sectors, and unemployment rose to unprecedented levels. While these unemployment rates were not high, the lack of unemployment benefits meant that the social costs were quite high. The Thai government, with financial support from the World Bank and Japanese government, introduced temporary labour intensive civil works programmes in construction and infrastructure rehabilitation. The increased realization for the need of social safety nets led to the introduction of unemployment insurance in 2004.

### Section 3. Trade and investment policies

#### 1) Trade policy

21. Thailand was one of a very few developing countries identified by Sachs and Warner (1995) as having 'always been open'. Such an assessment stems from the fact that Thailand did not have a restrictive foreign exchange regime accompanied with extensive quantitative restrictions as was the case in some developing countries. Nonetheless, a closer look reveals that the country's trade regime may not have been as open as often thought. Despite a decline in tariff rates, Thailand was a high-tariff country when compared to other countries with similar income levels as recently as the mid 1990s (Table 1).<sup>7</sup> Export taxes were historically applied to several agricultural commodities such as rice most of which been significantly reduced or dismantled. The use of non-tariff measures (NTMs) has been relatively low and mostly limited to agricultural products.

**Table 1. Simple average of tariff rates in selected Asian countries (1985-2001)**

(Percent)

	China	Indonesia	Korea	Malaysia	Philippines	Taiwan	Thailand	Vietnam
<b>1985</b>	n.a.	27.0	n.a.	n.a.	27.6	26.5	41.2	n.a.
<b>1990</b>	40.3	20.6	13.3	n.a.	27.8	9.7	39.8	n.a.
<b>1995</b>	n.a.	n.a.	n.a.	n.a.	20	11.2	23.1	12.8
<b>2000</b>	17.5	8.4	n.a.	n.a.	7.5	n.a.	18.4	16.5

Notes: n.a. = not available

Source: Kohpaiboon (2005)

22. While announcing a shift to an export-promotion strategy in 1972, there was no immediate change in Thailand's trade regime itself and the transition has been gradual (Table 2). While it is difficult to identify distinct liberalisation periods, for purposes of analysis in this paper we will first look at the initial trade regime before liberalisation, then look at (i) early efforts towards trade reform (1972 - 1980),

<sup>7</sup> It should be noted that as a result of voluntary tariff reductions, the simple averages of MFN applied tariffs in 2006 was lower at 10.0 percent.

(ii) the first attempt at narrowing tariff dispersion (1982-1984) and interim period, (iii) comprehensive tariff reform (1990-1997) and (iv) post crisis trade reform (after 1999).

**Table 2. Chronology of official tariff changes in Thailand (1970-2003)**

<b>Period</b>	<b>Event</b>
<b>1964</b>	Adoption of tariff escalation.
<b>1971</b>	Rise in tariff gap between finished consumer goods and intermediate goods as a result of tariff increases in the former.
<b>1972</b>	Announcement to shift to export-promotion strategy.
<b>1974</b>	Reduction in tariffs for machinery and equipment for both agricultural and industrial use.
<b>1980</b>	Reference to the need for tariff reform made in the Fifth National Economic and Social Development Plan of Thailand.
<b>Oct. 1982</b>	First attempt to narrow the gap of tariff rates by increasing tariff rates for intermediate chemical products and machinery.
<b>1982-4</b>	Reversal of the change in October 1982 and return to previous tariff structure. Introduction of a special surcharge on imports to generate public revenue.
<b>1985</b>	Tariff increase by 5% on raw materials and intermediate goods, 10% for finished goods.
<b>1988</b>	Reduction of tariffs on several electronics and electrical appliances.
<b>1990</b>	Launch of a comprehensive tariff restructuring (reduction and rationalisation), implemented in 1995 and 1997
<b>1993</b>	Phasing preferential tariff reduction under AFTA's Common Effective Preferential Tariff (CEPT)
<b>Oct 1997</b>	Tariff increase for luxury products e.g. perfumes, cosmetics, clothing, leather products, glassware and crystal products, certain shoes and jewellery, etc. for two years. 10% surcharge on other goods whose tariff rates are equal to or greater than 5% for two years.
<b>2000</b>	Tariff reduction of IT products to comply with WTO's ITA
<b>2003</b>	Tariff reduction on 900 intermediate products.
<b>2005</b>	Preferential tariff reduction for free trade agreement partners, including China, Australia, New Zealand and India

*Source:* Adapted from Kohpaiboon (2005) with additions by author

#### *Initial trade regime (before the 1970s)*

23. Thailand's initial trade regime can be characterised by relatively high tariffs and tariff escalation. There was also discrimination against agriculture in the form of export taxes, notably for rice. Tariff escalation, where tariff rates for raw materials and intermediates are lower than those of finished products, was introduced in 1964 and has remained a key feature of the Thai tariff structure to this day. The original goal of tariff escalation was to provide incentives for local manufacturing during the import substitution period. Although nominal tariffs were 25-30% ad valorem in the mid-1960s, Thailand increased the effective protection for finished consumer goods in 1971, raising nominal tariffs for these goods to 30-55% range, while maintaining machinery tariffs at low levels. The main protected industries were textiles, automobiles and pharmaceuticals.

24. Tariff escalation had some negative economic effects. Firstly, the number of tariff categories had to be expanded to accommodate different tariff rates for raw materials, intermediates and finished products leading to increased administration costs. Secondly, effective rates of protection (ERP) became higher than the nominal rates of protection (NRP) for most products. For example, the average ERP for manufacturing products in 1980 was 51.7% much higher than the corresponding average NRP of 32.9% (Table 3. and Annex Table D for sectoral data). Although the gap between the average ERP and the average NRP was gradually reduced, it was still 8.2 percentage points in 2003.

**Table 3. Nominal and effective rates of protection in Thailand (1980-2003), %**

	1980	1985	2002	2003
<i>Nominal rate of protection (NRP)</i>				
Total Manufacturing	32.9	23.8	16.4	15.4
Overall	n.a.	22.9	14.7	13.9
<i>Effective rate of protection (ERP)</i>				
Total manufacturing	51.7	78.4	25.2	23.6
Overall	n.a.	65.9	20.6	18.2
Coefficient variation (CV) of ERPs (%)	120	200	188	204

Source: Kohpaiboon (2005).

25. High tariffs and tariff escalation has doubly distorted resource allocation. Firstly, high tariffs not only protect domestic industries from imported products but also penalise exporting industries that heavily use imported materials. Secondly tariff escalation enhances the distortion in resource allocation between upstream and downstream industries. Import-substituting industries, most of which were capital intensive were favoured at the cost of export-oriented ones, which were mainly labour intensive. Thus, the tariff structure designed for the import substitution regime inhibited Thailand from fully adopting an export promotion strategy.

26. Export taxes also distorted resource allocation. Export taxes were historically applied to several commodities of which rice was by far the most important. Rice exports were taxed by a combination of instruments: the rice premium (a specific export tax), an export duty (an ad valorem export tax) and a reserve requirement (Warr 1993). Pintong (1984) calculated that the combined effect of these policies was equivalent to a 31% export tax in 1970 and a 67% export tax in 1973-74 (years of very high international prices) (Warr 1993). The export tax kept both consumer prices and farm gate prices well below world market prices providing a disincentive in investment in agricultural production.

#### *Early efforts towards trade reform between 1970-1982*

27. The early efforts at trade reform were not very strong despite the announcement to support export promotion. Reduction of import tariffs were minimal and export taxes remained in place. This was mainly because tariff policy in this period was dominated by the Ministry of Finance which was reluctant to cut tariffs because of fiscal concerns. However, several steps were taken to reduce the anti-export bias, the first of which was the reduction in tariffs for machinery and equipment for both agricultural and industrial use in 1974.

28. The second and more important was the adoption of several schemes in the early 1970s to moderate the negative impacts of protection imposed on exporting industries such as (a) the 'duty drawback' and 'duty compensation' schemes, (b) Board of Investment (BOI) promotion schemes, and (c) tariff exemptions on inputs and capital equipment provided to companies with bonded warehouses and companies located in export processing zones (EPZ). While these measures all promoted exports, they differed in terms of eligibility, scopes of benefits, and associated administrative processes and costs.

29. For example, the duty drawback was available for exporters who use imported materials while the duty compensations scheme was available for any exporter.<sup>8</sup> The duty drawback and the duty compensation schemes allowed a full refund of paid import duties and other taxes while the BOI promotional scheme also allowed corporate income tax exemption and exemption of duties on imported

<sup>8</sup> Average input coefficients were calculated using input-output data and applied to all exporters. As a result, refunds paid to exporters did not reflect the actual duty paid and the duty compensations scheme is perceived to be an export subsidy mechanism. It was also fraught with abuses.

machinery. In terms of eligibility, the BOI and EPZ benefits were limited to new investment projects, including expansion projects, while other schemes were open to all businesses. In terms of administration, the application for BOI promotion, the duty drawback and the duty compensation schemes required submission of production formulae while the users of EPZs and bonded warehouses were subjected to detailed customs examination of materials moving into or out of designated areas.

30. One implication of these tariff exemption schemes was that the effective tariff rate of Thailand, defined as the ratio of net tariff revenue and total import value, was significantly lower than its nominal rate. While data in earlier periods is not available, the effective tariff rate was between one third and half of the weighted average tariff rates in the recent past (Table 4) which provides an indication of the order of magnitude of these schemes in recent years. In this sense, Thailand's trade regime has been more liberal than it appears.

**Table 4. Nominal and effective tariff rates (1996-2003)**

	1996	1997	1998	1999	2000	2001	2002	2003
Import duties (Billion Baht)	122	95	61	73	85	91	98	110
Import value (Billion Baht)	1,833	1,924	1,774	1,907	2,494	2,752	2,775	3,139
Effective tariff rate (%)	6.6	4.9	3.4	3.8	3.4	3.3	3.5	3.5
Simple average tariff rate (%)	23.05*				18.48	16.08		15.38
Weighted average tariff rate (%)	14.79*				9.51	9.44		9.71

*Source* : Author calculations from Bank of Thailand data. WITS data for simple and weighted average tariff rates.

*Note*: (\*) The figure stands for 1995 tariff rate level.

31. While implicit trade liberalisation has been useful for reducing anti-export bias, they have come at a considerable cost. The first and main cost was the administration costs borne by government to maintain a complicated tariff structure, to examine materials moving into or out of designated areas, to calculate tariff exemptions and to ensure that these schemes are not being misused. Secondly, it entailed high transaction costs for business (Poapongsakorn et al 1998). Thirdly, these schemes were found to be biased against small and medium enterprises (ibid).<sup>9</sup> Fourthly, anti-export bias was only partly mitigated by these tariff exemption schemes.<sup>10</sup>

#### *Effort towards comprehensive trade reform (1982-1984 and 1990-1997/98)*

32. Realising the adverse impacts caused by its tariff structure and due to an improvement in its fiscal balance, the Thai government embarked upon tariff reform in 1982. The tariff escalation structure was to be rectified through a combination of an increase in tariff rates for intermediate chemical products and

9. For example, it takes many months to apply for a rebate under the tariff drawback scheme. The tariff compensation scheme also requires a bank guarantee for the value of the duty exemption sought. As a result, many small firms that have insufficient liquidity or have difficulties applying for bank guarantees are discouraged from using these schemes. As for the application of bonded warehouses, high registered capital and huge initial investment are required. Again small firms are barred from making use of the scheme.

10. Kohpaiboon (2005) found that the ERP faced by most exporting industries even in 2003 were mildly negative. This would indicate that ERP faced by some exporters were even more negative in times of higher tariffs in the past.



machinery and a lowering of tariffs for consumer products. However, a continued current negative trade balance and fiscal concerns led to a policy reversal in 1984.

33. In the meantime, saturation of the domestic market and a rise in the trade deficit largely caused by falling agricultural commodity prices influenced a further shift to export orientation, albeit limited to reduction of export taxes and adjustment to reduce anti-export biases (Rasiah 1998). Import duties on inputs and machinery used in export manufacturing were reduced in 1985. Export subsidies were introduced in 1986 and special promotions intensified to attract export oriented foreign investment, also through trade and investment missions abroad. From 1986, the BOI allowed even non-American export oriented foreign manufacturing firms to own 100% equity (Rasiah 1998). Thailand also started to reform its export taxes as rural development increasingly became an issue. Maize exports were completely liberalised at the end of 1981, all taxes on rice exports were removed in 1986 and taxation of rubber was gradually reduced and then temporarily removed altogether in 1989 (Siamwalla et al 1993). This has contributed to reducing anti-export bias in this sector. The use of duty drawbacks and rebates became increasingly common, and tariffs forgone under duty drawbacks and rebates increased from 2.0 billion bahts in 1983 to 10.5 billion bahts in 1989 (GATT 1991).

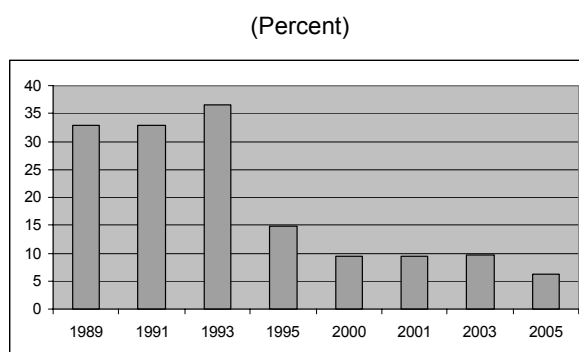
#### *Comprehensive trade reform (1990-1997/98)*

34. Trade reform in earnest started with the comprehensive tariff rationalisation programme in 1990. Thailand reduced its tariff structure from 39 tariff rates categories (or bands) to 6 categories. The average tariff rate was lowered from 30.2% to 17.0%. The escalation structure was maintained with 0% rate for necessary goods such as medical equipment, 1% for raw materials and electronic parts and vehicles for international transport, 5% for primary and capital goods, 10% for intermediate goods, 20% for finished products and 30% for goods which require additional protection (WTO, 1999).

#### *Post-crisis trade reform (after 1998)*

35. The reform was temporarily interrupted and even slightly reversed by the financial crisis. In 1998, the Ministry of Finance announced tariff increases for some items, including tobacco, leather goods and apparels, to counter the shortfall in government revenues. An additional temporary surcharge of 10% on all imports with a customs duty over 5% was also applied. The reform was partially resumed in 1999 as the government announced a set of measures to promote economic recovery, including tariff reduction for capital goods, raw materials and other products. The goal was to cut costs and boost competitiveness of exporting industries. As a result of the trade reform in the 1990s average tariffs have been reduced from a trade weighted average of over 30% to below 10% in the last 15 years (Figure 4).

**Figure 4. Trade-weighted average tariff rates applied on Thai imports (1989-2005)**



Source : Computed by Secretariat from WITS/Trains UNCTAD databases

36. A further effort to restructure the general tariff structure was started in the year 2000. The idea has been to categorise goods under four general headings: 0 percent for goods not domestically produced, 1 percent for primary and raw materials, 5 percent for intermediate and semi-processed products and 10 percent for finished products have led to some simplification of the tariff structure. According to the Thai government, this new scheme applied to seventy percent of 8301 items in 2007. However, it has been pointed out that the current tariff structure of Thailand was still complex (WTO, 2003) as of 2002 with a multiplicity of rates applicable to the tariff lines.<sup>11</sup> About a quarter of all tariff lines remained unbound, and the significant gap between bound rates and applied MFN rates left considerable scope for the authorities to raise tariffs at any time. Protection remained high on agricultural products, and some import competing goods – in particular autos and auto parts, fabrics and apparel, certain electrical appliances, as well as luxury products such as wine and spirits, tobacco, passenger cars and wool carpets (Annex Table E). For example, tariffs on vehicles were around 33% while tariffs on beverages and spirits were close to 60%. Tariffs on agriculture products were high across the board; duties on ready-to-eat food products ranged between 40-50%, the highest in ASEAN and tariffs on meats, fresh fruits and vegetables were similarly high. The Thai government has indicated that it aims to adjust tariff rates of all products into the four categories above in the long run.

37. Tariff reductions under the WTO and other regional initiatives, including APEC and ASEAN Free Trade Area (AFTA) has been relatively less important for Thailand compared to its unilateral initiatives. The only exception is the tariff reduction for information technology products in the late 1990s under the WTO's Information Technology Agreement (ITA). The GATT and the TRIMs agreements were instrumental to the abolition of many non-tariff measures including the local content requirements imposed on automotive producers.

38. Bilateral free trade agreements (FTAs) have provided the latest impetus for trade liberalisation. Since 2005, the Thai government has reduced tariffs for products originating from Australia (under TAFTA), New Zealand (under the Thailand – New Zealand Closer Economic Partnership Agreement), China (under China-ASEAN FTA) and India (under TIFTA). An Economic Partnership Agreement was signed with Japan in April 2007 and agreements between Thailand and Bahrain, Peru, the US, and the European Free Trade Association (EFTA) are being negotiated. Preliminary statistics on the utilisation of TAFTA and TIFTA show that the overall utilisation rate by Thai exporters under the two FTAs in 2005 was 88.2 and 80.6%, respectively (Table 5). Most of the utilisation was concentrated in the automotive sector, followed by the textile and clothing sectors. While these FTAs contributed to the reduction of Thailand's applied tariff rates and thus generated tariff savings for importers, they further complicated the Thai tariff structure and might confuse exporters with multiple and inconsistent rules of origin.

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11. The multiplicity of tariff rates are a problem as it can result in uncertainties about how an imported product will be classified and valued by customs. A survey by the Japan External Organization (JETRO) (JETRO, 2005) asking Japanese companies operating in Thailand showed that tariff classification was not uniform among officers and that there were frequent delays in classification. It should be noted that this assessment was made prior to the full implementation of the most recent tariff simplification programme.

**Table 5. Utilization rates of Thailand-Australia FTA and Thailand-India FTA in 2005**

	Export from Thailand		Import into Thailand	
	TAFTA	TIFTA	TAFTA	TIFTA
<i>Number of products covered in FTA</i>				
- Total	5,223	5,223	5,223	5,223
- with tariff reduction in 2005	2,546	72	3,393	64
- % with tariff reduction	48.75	1.38	64.96	1.23
<i>FTA tariff preferences and utilization rates</i>				
Average tariff reduction (%)	4.47	2.56	0.74	6.61
Utilization rate (%)	88.2	80.6	32.0	45.0
Tariff savings by importers - Value (USD million)	111.4	7.3	5.83	4.55
- % of trade value	4.73	2.24	0.62	5.68

Source: Tangkitvanich et al (2006).

39. While FTAs have created notable winners it has also generated some losers. For example, while the implementation of the Early Harvest Program between Thailand and China has led to a 35% rise in bilateral trade volumes in fruits and vegetables, resulting in a trade surplus in these goods for Thailand, some Thai farmers such as apple growers in Northern Thailand found their products unable to compete with Chinese products. Liberalisation of dairy products under TAFTA also threatened the survival of Thai dairy farms, many of which operate on a small scale.

40. It is quite recently in this context that a need for trade-related structural adjustment programmes has been discussed. While unemployment insurance programmes have been put in place since 2004, the agriculture sector and a large number of workers (approximately 20%) even in the non-agricultural sector are not covered. At the end of 2006, the Thai government established a scheme to support adjustment for businesses affected by trade liberalisation. Applicants are limited to business groups that can demonstrate that their aggregate shares in the domestic market have been or are likely to be affected by imported products and that there are risks of worker layoffs as a result. Assurances under the scheme include financial support for research and development, advisory services, training of workers and management and activities to promote consumption of the domestically produced goods. As of September 2007, there are 21 applications, of which 2 projects have been approved for assistance.

## 2) *Investment policy*

41. From 1960, the Thai government has strived to promote investment in manufacturing activities and established the Board of Investment (BOI) as the key investment promotion agency. The BOI has promoted investment through provision of investment incentives, including income tax concessions and other privileges to approved investment projects. Initially the incentives were directed to import-substitution industries but from 1970 onward the focus was shifted to the promotion of export-oriented industries and industrial decentralisation.<sup>12</sup>

42. An example of a BOI measure aimed at making Thailand an attractive location for foreign export-oriented firms is the 1983 change adding a tariff exemption on imported raw materials to the list of privileges granted to export-oriented firms. Many such export promotion measures were later scrapped to comply with the WTO TRIMs agreement. The income-tax concessions were also redesigned to promote

12. Industrial decentralisation has been promoted through zoning and provision of differentiated incentives. Companies located in areas further from Bangkok were provided better incentives.

industrial decentralisation rather than to promote export. Other benefits such as special rights for foreign firms to own land and obtain work permits for foreign professionals remain. A more liberal FDI regime was also introduced as part of the crisis management policy after 1997. In particular, foreigners were allowed to own banks and financial institutions.

43. While investment incentives are designed to induce private investment, most of which was FDI, the Foreign Business Act was legislated to protect local businesses. Like its predecessor, the National Executive Council Announcement 281 of 1972, the Foreign Business Act limits the participation of foreigners, both natural and legal persons in local businesses<sup>13</sup>. A breach of the law constitutes a criminal offence.

44. In short, Thailand has an active investment promotion policy while trying to regulate foreign entry in certain sectors, including most service sectors. This may have been impractical given the openness of the Thai economy and the increasing link between trade in goods and services. The country has in practice relied on foreign investment and technology for the development of many of its key service sectors such as telecommunications and transport, in order to ensure the survival of its manufacturing sector that struggles to maintain its competitiveness in the global market. The only reason that such regulations did not pose serious impediments to the development of the Thai economy so far was the weak enforcement of the law (Tangkitvanich et al, 2004).

45. Triggered by a complaint of law infringement in a high-profile takeover bid in early 2006, the Thai government began to strictly enforce the law. Subsequently the law was revised to close loopholes that had long enabled foreigners to operate in prohibited sectors, which has triggered strong reactions from foreign chambers of commerce and embassies.

#### **Section 4. Changes in investment and trade structure in Thailand**

##### *Increase in FDI has contributed to export growth*

46. Before the first half of the 1980s, Thailand received relatively small amounts of FDI. As discussed before, FDI inflows from Japan and the Asian newly industrialized economies (NIEs) picked up substantially after the 1985 Plaza Accord. During this period, the Thai government also further increased emphasis on an export-led growth strategy. As a politically stable country with few ethnic conflicts and relatively cheap labour due to the government's conservative minimum wage policy, Thailand became an increasingly attractive destination for FDI, especially for Japanese manufacturers. The value of total net FDI inflows increased 10.6 fold between 1980 and 1995, from USD 189 million to USD 2.0 billion (Figure 5 and Annex Table 6). After the crisis, the form of FDI changed from green-field investment to loans provided to foreign affiliates and mergers and acquisition in the financial sector, real estate and manufacturing sectors as foreign equity was used to bail out companies in distress.

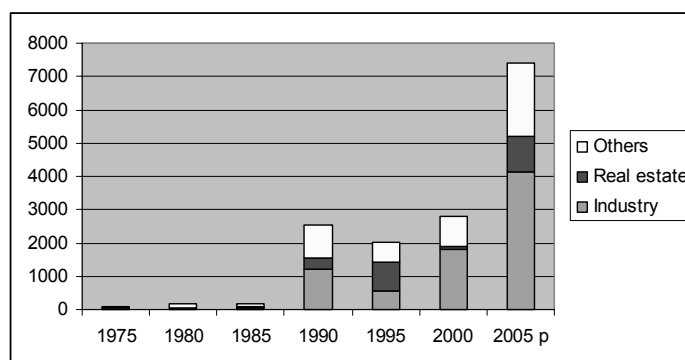
47. The manufacturing sector has consistently been the largest recipient of FDI, except in 1995 when it was outpaced by the trade and real estate sectors. Within manufacturing, electrical appliances, machinery and transport equipment, and chemicals have received the largest amount of FDI. The automotive sector

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13. Under the act, foreigners are free to operate in any industry that is not in the three 'prohibition lists'. The first list contains business activities, ranging from mass media, rice and animal husbandry and other resource-based business, that are strictly prohibited to foreigners. The second list contains business that can only be operated by foreigners with approvals from the cabinet such as businesses related to national security, art and culture, natural resources and environment. The third list contains business activities that are deemed vulnerable to foreign competition that can be operated by foreigners only with permission from the Business Development Department. The third list also contains a blanket clause prohibiting foreign participation in all service sectors unless explicitly allowed.

has been a major recipient since 1995. Following the crisis, many Japanese companies injected capital into the industry in a bid to assist their subsidiaries and suppliers. FDI in chemicals increased sharply in 2000, when many local producers were restructured.

**Figure 5. FDI flows into Thailand (1975-2005)**



Source : Bank of Thailand

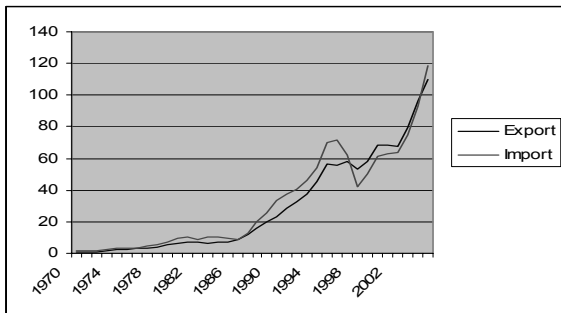
48. Massive FDI inflow into the Thai manufacturing sector during the past two decades has greatly shaped the current pattern of Thai exports. Although there is no data on the export contribution of multinational companies, existing data show strong presence of multinational firms in major export sectors. For example, a survey by the National Statistical Office in 2000 found that 85%, 40% and 31% of firms in computer machinery, refined petroleum products and motor vehicles were fully or partly owned by foreigners. It is believed that multinational firms have promoted exports through two main channels. Firstly, they have promoted direct export by possessing advanced production technology and a capability to access overseas markets. Secondly, they have served as a catalyst for domestic firms to increase their level of export, thus creating 'export spillovers'. Both of these beliefs have been confirmed in the case of Thailand (Kohpaiboon forthcoming).

*Robust export growth has contributed to economic growth*

49. Thailand's exports have grown at a considerable rate of about 15% per annum since 1970 (Figure 6). However, export growth has not been even and can be divided into three main periods (Figure 7). Figure 8 and Annex Figure G shows the evolution of the share of major sectors in total exports. Starting with an export sector which is dominated by agriculture, forestry and fisheries, and food and beverages which together constituted nearly 80% of exports, the textile and apparel sector and electrical machinery sector first started to grow in the 1980s. While textiles and clothing began to lose share in the early 1990s, machinery further increased its share in total exports. Transport equipment has gradually increased its share in exports reaching nearly 10% of exports in recent years. The growth of import is linked to the growth of export since most industries rely on imported machinery and raw materials (Annex Figure H).

**Figure 6. Thai trade figures (1970-2005)**

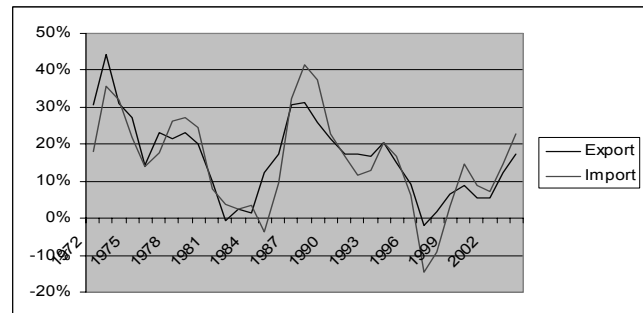
(Billion Current USD)



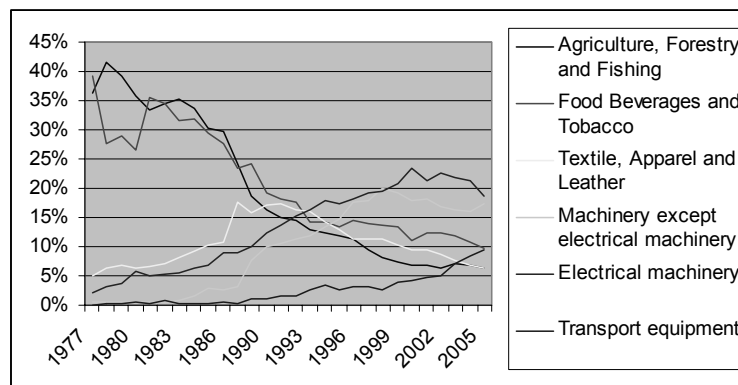
Source : Secretariat using WITS database

**Figure 7. Growth of Thai exports and imports (1970-2005)**

(Moving 3 year average of growth rates)



Source : Secretariat using WITS database

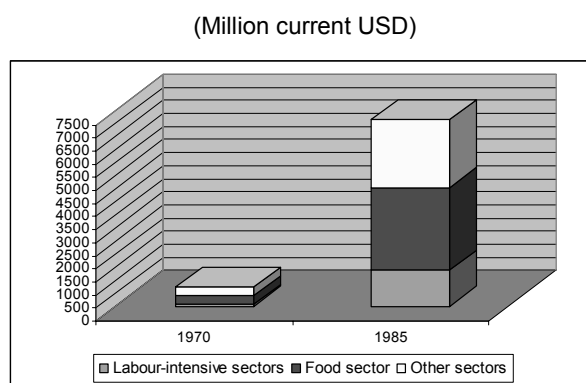
**Figure 8. Share in exports of major manufacturing sectors (1977-2005)**

Note: Data for 1988 is missing. ISIC Rev 2: Agriculture, Forestry and Fishing (Cat 11, 12 and 13); Food Beverages and Tobacco (Cat 31); Textile, Apparel and Leather (Cat 32); Machinery except Electrical Machinery (Cat 382); Electrical Machinery (Cat 383); Transport Equipment (Cat 384)

Source : Secretariat using WITS database

*Export growth in the first period (1970 to early 1985) – agricultural products and labour intensive products*

50. Growth in the first period between early 1970s and early 1980s was driven mainly by export of agricultural and simple labour-intensive products (Figure 9). This coincides mainly with the comparative advantages that Thailand has: the timing of export growth roughly coincides with the initial removal of anti-export bias. Exports grew tenfold from 710 million USD in 1970 to 7.1 billion USD in 1985. Food exports decreased their share in the export structure by 7%, while they increased in absolute terms more than nine fold. Other labour-intensive products (like textile, clothing, leather products, jewelry and other miscellaneous goods) grew twenty-five fold in value in 1985 compared to 1970. Exports growth leveled off between 1981 and 1985 as the Thai economy slowed down with the appreciation of the Thai baht.

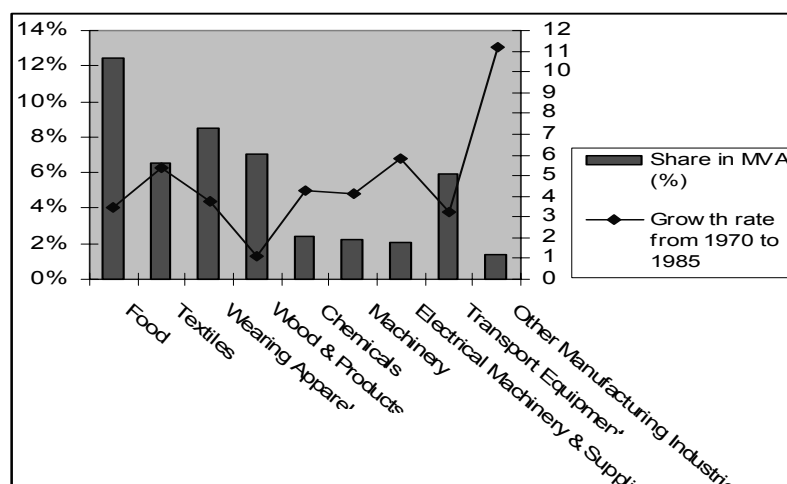
**Figure 9. Food and labour-intensive industries (1970-1985)**

Share of sectors	1970	1985
Labour-intensive	7.7%	19.2%
Food	47.6%	44.4%
Other	44.7%	36.5%

Source : Secretariat using WITS database, SITC, Rev.1.,

Note: Labour-intensive sector is composed of the following SITC Rev1. product groups: 26, 61, 65, 83, 84, 85, 89.

51. When looking at how manufacturing value added has changed in this period, one finds that capital intensive industries such as chemicals and machinery also increased their share in manufacturing showing signs of remaining import-substitution policy. Figure 10 shows share of selected sectors in total manufacturing value added in 1970 and their size in 1985 compared to 1970. While the manufacturing sector in 1985 was 3.2 times its size in 1970, with the exception of the wood industry, the selected sectors grew faster than average. In particular other manufacturing goods grew by 11 times although from a low level in 1970. The food industry, wearing apparel and transport equipment sub-sectors showed average performance while textiles, chemicals, machinery and electrical machinery showed higher than average growth in 1985 than in 1970.

**Figure 10. Share of selected sectors in manufacturing value-added in 1970 and their growth in manufacturing value added (1970-1985)**

Source: Central Bank of Thailand

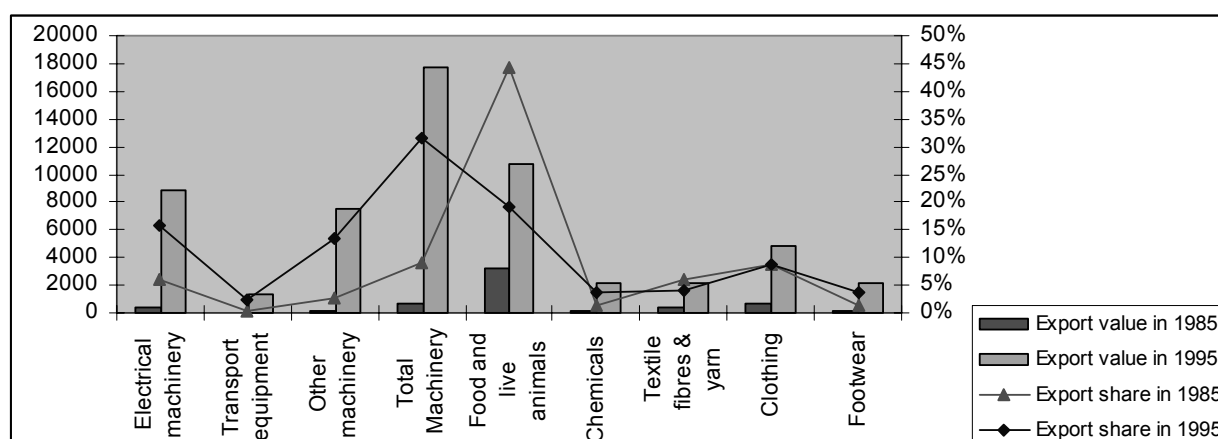
Note: The average growth rate was 3.2

*Export growth in the second period (mid-1980s to mid-1990s) – electronics and machinery*

52. In the second period from the mid-1980s to mid-1990s, export was lifted by Thailand's further shift to export-oriented strategy, supported by the depreciation of the Thai baht vis-à-vis non-dollar currencies and the increase in the inflow of export oriented FDI after the Plaza Accord in 1985. The depreciation in 1985 had an almost immediate effect as exports rose rapidly and imports decreased. While exports in food and agricultural goods continued to grow, the large majority of export growth in this period was in the electronics and machinery sector. Figure 11 shows export values and share of exports of major machinery categories and some other categories. All machinery categories showed robust growth and increased their share in exports.

**Figure 11. Major product exports (1985-1995)**

(Million current USD)



Source : Secretariat using WITS database, SITC Rev.1, calculations based on product groups 7, 72, 73, 0, 5, 26, 65, 84, 85 and total trade

*Export growth in recent years (the Asian crisis and after) – accelerated growth with new sectors such as transport equipment*

53. More recently, growth was boosted by the devaluation of the Thai baht after the economic crisis in 1997 and by the outward expansion of petrochemical and vehicles sectors (Table 6). Machinery and electrical machinery have long taken over food as the largest exporting items, followed by food, chemical and plastic products. Sectors with high export growth rates are automotive and chemical sectors, both of which grew over 10 fold during the last fifteen years. Not incidentally, these are the sectors where multinational companies play an active role.



**Table 6. Export growth and structure (1995-2005)**

(Million current USD)

	1990	2000	2005	2000/1990	2005/1990
Food and live animals	6494.95	9641.68	12367.97	1.48	1.90
Textiles	1010.80	2216.04	3237.69	2.19	3.20
Clothing	2829.38	3788.67	4124.83	1.34	1.46
Leather & footwear	991.05	1224.90	1294.04	1.24	1.31
Plastic materials	142.72	2137.81	4762.28	<b>14.98</b>	<b>33.37</b>
Other chemicals	323.80	2100.42	4386.78	6.49	13.55
Electrical machinery, apparatus	2265.73	14951.93	20200.75	6.60	8.92
Transport equipment	228.63	2610.36	9430.71	<b>11.42</b>	<b>41.25</b>
Other machinery	2086.58	11293.24	18278.21	5.41	8.76
Other goods	6693.20	18813.02	32026.78	2.81	4.78
Total Trade	23066.83	68778.09	110110.03	2.98	4.77

Source : Secretariat using WITS database, SITC Rev.1, product groups :0, 26, 5, 58, 61, 65, 7, 72, 73, 84, 85 and total trade

## Section 5. Structural adjustment in selected sectors

54. In this section, we take a more in depth look at the structural adjustment experiences of three selected sectors; the automobile and auto-parts industry, the textiles and clothing industry and the telecom sector. The automobile and auto-parts industry provides an example of a highly protected sector dominated by multinational companies which has successfully made a transition from an import-substitution industry to an export-oriented one. The textiles and clothing industry is an example of an exporting industry dominated by local firms which has well adjusted to an increasingly competitive global business environment. In contrast, the telecom sector is an example of a non-tradable sector where reform has proved elusive.

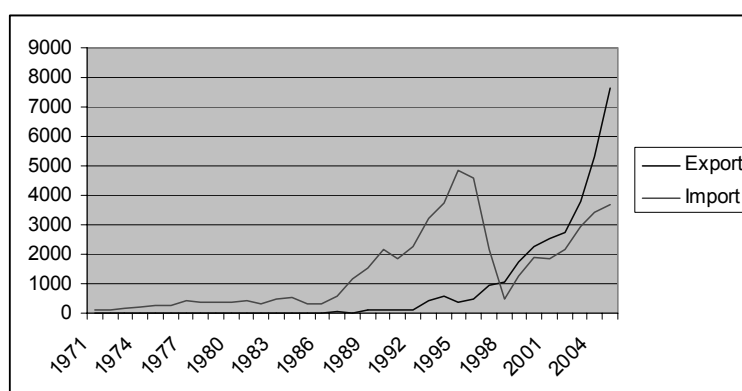
### *The automotive and auto-parts sector*

55. The automotive industry is Thailand's second largest manufacturing industry constituting 4.1% of GDP and 2.9% of manufacturing employment in 2005. Starting as an import substituting sector, it has succeeded in transforming into an export oriented industry (Figure 12). The industry has grown mainly through foreign direct investment (Table 7). One characteristic of the Thai domestic market is the popularity of the one-ton pick up truck which has been an important factor for the industry's success in Thailand.<sup>14</sup> It is also one of the few industries in which the Thai government has continually intervened to promote backward linkages and local suppliers.

14. One ton pick-up trucks have a simpler structure than a normal automobile: technology can be transferred more easily. The relative size of the Thai market and high share of pick-up trucks (over 50%) created a good environment for FDI in pick-up truck production to concentrate in Thailand.

**Figure 12. Thailand exports and imports in the automobile sector (1970-2005)**

(Million current USD)



Note. SITC Rev 1 Cat 732 Road motor vehicles. Data for 1988 missing for exports

Source : WITS database

**Table 7. Car assemblers in Thailand (1962-2002)**

Assembler's Name/Nationality	Type of vehicles	1st Year of Operation	Production Capacity			
			1989	1994	1999	2002
Toyota Motors Thailand <sup>2</sup>	A & B	1962	24,000	100,000	200,000	240,000
Siam Car Industry <sup>2</sup>	A (Nissan)	1962	18,000	74,900	81,900	124,000
Siam Motor <sup>2</sup>	2 (Nissan)	1962	5,520	21,600	31,200	
Isuzu Motors (Thailand) <sup>2</sup>	A	1966	25,000	76,000	131,000	180,000
Thai Hino Industry <sup>2</sup>	C	1964	9,600	9,600	9,600	28,800
M.M.C Sitthiphon Motors <sup>2</sup>	A & B (Mitsubishi)	1961	40,000	126,600	160,000	190,200
Auto Alliance (Thailand) <sup>2,3</sup>	A & B (Mazda)	1974	7,200	8,400	135,000	135,000
Bangchan General Assembly <sup>2</sup>	B (various brands)	1970	8,220	18,000	20,000	20,000
Y.M.C Assembly <sup>1</sup>	B (BMW)	1973	12,000	12,000	12,000	12,000
Thai Swedish Assembly <sup>4</sup>	B (Volvo & Renault)	1976	6,000	6,000	6,000	6,000
Thonburi Automotive Assembly <sup>1</sup>	B (Mercedes Benz)	1960	2,340	4,600	14,900	18,100
Thai Rung Union Cars <sup>1</sup>	A & B (modified car)	1973	2,400	7,200	9,600	9,600
Honda Cars <sup>2</sup>	B	1996	n.a.	21,000	50,000	60,000
General Motor <sup>3</sup>		1997	n.a.	n.a.	40,000	40,000
Total			160,280	486,100	901,200	1,063,700

Note: For nationality of assemblers: 1 = Thai, 2 = Japanese, 3 = US, 4 = Swedish

For types of vehicles: A = pick-up truck, B = passenger cars, C = truck

Source: Kohpaiboon (2005)

56. Government intervention in this sector had the objective of promoting inward FDI and initially took the form of high tariffs and later the combination of high-tariffs and local content requirements. In the first stage, tariff rates on completely built-up (CBU) vehicles<sup>15</sup> were set at higher levels than those on

15. CBU vehicles are complete vehicles which pass through customs in the form of a completed automobile. CKD vehicles are assemblies of parts which pass through customs as automobile parts and are subsequently assembled in the domestic territory.

knocked-down (CKD) vehicles to promote domestic assembly activities. As in other industries, the tariff escalation structure for the automotive industry has remained in place until the present (Table 8).

**Table 8. Changes in tariff and taxes on CBU and CKD vehicles (-2000)**

(Percent)

	Before 1991	1992	1999	2000
<b>Completely built-up (CBU) vehicle</b>				
Passenger cars over 2,400 cc. <sup>1</sup>				
Tariff rate	300	68.5	80	80
Excise tax	44-55	41.8	43-50	41-48
Passenger cars under 2,400 cc. <sup>1</sup>				
Tariff rate	180	42	80	80
Excise tax	44-55	35.75	41.25	38.5
Pick-up truck				
Tariff rate	120	60	60	80
Excise tax	9.9	n.a.	5.5	3.3
<b>Completely knocked-down (CKD) vehicle</b>				
Passenger car over 2,400 cc. <sup>1</sup>				
Tariff rate	112	42	20	33
Excise tax	44-55	41.8	43-50	41-48
Passenger cars under 2,400 cc. <sup>1</sup>				
Tariff rate	112	42	20	33
Excise tax	44-55	41.8	41.25	38.5
Passenger cars under 2,400 cc. <sup>1</sup>				
Tariff rate	72	20	20	33
Excise tax <sup>2</sup>	9.9	3	5.5	3.3-19.8 <sup>3</sup>

Note: <sup>1</sup> Before 1992, the classification of a passenger vehicle is 2,300 cc.

<sup>2</sup> Excise tax includes the municipal tax.

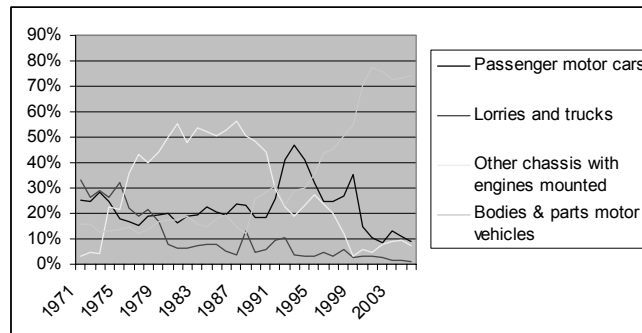
<sup>3</sup> Excise tax for one-ton pick-up trucks is 3.3% whereas for the so called 'pick-up passenger vehicle (PPV) it is 19.8%.

Source: Ministry of Finance.

57. Announced in 1971 and implemented in 1975, a local content requirement of 25% was placed on domestically assembled cars, vans and pick-up trucks in order to qualify for CKD tariff rates. Since the local content requirement imposed additional costs on locally assembled vehicles, tariff rates on CBUs were increased as compensation (Kohpaiboon, 2005). The protection for locally assembled vehicles was subsequently raised during 1975-1990. The number of models for domestic assembled cars was also limited to increase economies of scale. In 1981, the original value-based local content system was changed to a point-based system to make it more flexible and less costly for assemblers to comply. Figure 13 shows how the import structure has changed over the years. The share of chassis with engines mounted initially and increased as the share of imports of passenger motor cars and lorries decreased. As local production came on stream the chassis were replaced by bodies and parts.

**Figure 13. Import structure of Thai auto industry**

(Percent)



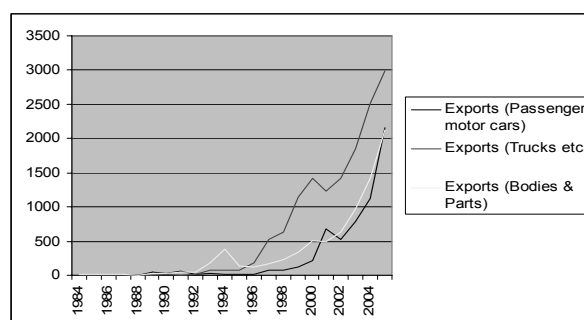
Note. Percentage shown as share in SITC Rev 1 Cat 732 Road motor vehicles. Passenger motor cars (Cat 7321), Lorries and Trucks (Cat 7323), Other chassis (Cat 7327), Bodies and parts (Cat 7328)

Source : Secretariat using WITS database

58. The automotive sector in Thailand entered an expansion phase in the 1980s when the country experienced high economic growth rates. The rapid growth brought about a steep rise in the number of cars sold in Thailand, reaching its peak of 590,000 units in 1996. By this stage, most major Japanese and US car manufacturers had already set up their assembly plants in Thailand. The formation of AFTA attracted further investment from global assemblers and part suppliers as Thailand began to be considered as a potential supply hub in the region for one-ton pick-up trucks. Exports started to increase first in parts and subsequently in completed automobiles (Figure 14). The expansion phase then turned into an export phase when the financial crisis struck Thailand in 1997 and the domestic market shrank rapidly. The transformation of Thailand to an export base was achieved mainly by virtue of the decision of Japanese assemblers aiming to sustain their production levels in Thailand in the face of a shrinking market. In 2006, Thailand exported over 500,000 cars, over half of which were one-ton pick-up trucks.

**Figure 14. Exports in automobiles and auto-parts**

(Million current USD)



Note. SITC Rev 1 Passenger motor cars (Cat 7321), Lorries and Trucks (Cat 7323), Bodies and parts (Cat 7328)

Source : Secretariat using WITS database

59. By the time of the phase out of the local content requirement under the TRIMs Agreement, the automotive industries in Thailand had succeeded in developing strong production clusters, especially for one-ton pick-up trucks. As a result, local content has increased and the value of imported parts and

components has decreased from USD 8.7 million per one thousand vehicles in 1990 to USD 1.2 million in 2005 (Tangkitvanich et al, 2006). Due to their high ratio of local content, vehicles produced in Thailand have easily obtained ‘originating’ status in most implemented FTAs. The automotive sector has benefited especially from the FTA between Thailand and Australia since its implementation in 2005, obtaining an estimated tariff savings of USD 77.2 million in that year.

60. The successful development of automobile and auto parts industry in Thailand can be attributed to a number of factors. Firstly, Thailand has the largest domestic market for vehicles among the ASEAN countries. This acted as an incentive for multiple FDI projects while leaving room for some competition. Secondly, the automotive sector policy in Thailand was more pragmatic than other ASEAN countries as they were prepared with close industry consultation.<sup>16</sup> Unlike Malaysia, the country has never aspired to develop a national car. Thirdly, the establishment of production clusters led to Thailand being chosen by global car producers to be the regional export hub. Finally, recent government trade policies especially FTAs have provided momentum for the industry to further expand.

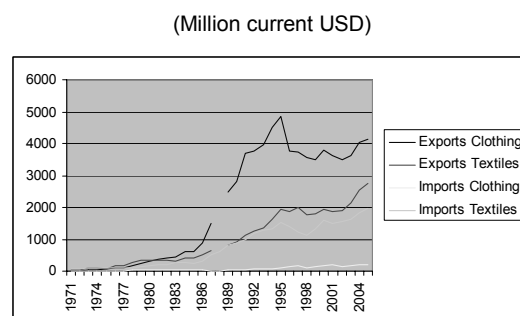
### *The textile and clothing sector*

61. As in other developing countries, the textile and clothing sector has been the point of entry for Thailand into the era of industrialisation. The textile and clothing sector gradually expanded and overtook rice as Thailand’s biggest exporting industry in the mid-1980s. Export value continued to expand 1.8 fold from USD 3.7 billion to USD 6.8 billion during 1990-2005. The number of workers employed in the sector also grew 1.78 times during the same period and currently stands at 1.1 million workers, making it the largest manufacturing sector in terms of employment. However, the share of the sector’s export in the total export of Thailand’s manufacturing products decreased from 16.7% to 6.3% during the last fifteen years, reflecting a relative decline in the sector’s importance in the Thai economy.

62. The textile and clothing sector has long experienced policy distortions at the national and international level. In the fifties, subsidised exports from Pakistan caused a contraction of the industry and led to tariff protection (Supachalasai, 1998). In the 1970s, the tariff rate was raised to 100%. The government also prohibited capacity expansion and establishment of new textile factories to curb excess capacity. However, production capacity continued to grow at an annual growth rate of about 10% during this period due to ineffective enforcement. Clothing exports gradually increased throughout the 1970s and mid-1980s. Textile imports also grew in the period despite high tariffs probably making use of tariff exemptions/duty drawbacks for exports. The growth of exports and local shortages of yarn led to the lifting of capacity limitations in 1987. Rapid growth in the industry followed afterwards until the 1997 crisis (Figure 15) when many companies went bankrupt as a result of the financial crisis. However, the devaluation of the Thai currency turned out to be a boon for surviving companies.

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16. It should be noted that while it is clear that local content requirements affected trade and investment flows significantly, it is unclear whether the benefits outweighed the costs, and whether the industry would have led a different growth path in the absence of such policies.

**Figure 15. Thailand's textiles and clothing trade (1971-2005)**

Note. SITC Rev 1 Clothing (Cat 84), Textiles (Cat 65). Export Figures for 1988 missing for exports

Source : Secretariat using WITS

63. The quota system under the Multi-Fiber Arrangement (MFA) greatly shaped the country's textile and garment trade and production structure. In the early years of the MFA, Thailand benefited from huge investment inflows from Japan, Korea and Taiwan, whose export reached their quota ceilings. In the late 1980s, Thai exports also started to face limitations under the MFA quota system (Evans and Harrigan, 2004). Disfavored by the domestic quota allocation, small firms and new entrants were forced to export to non-MFA countries (Supachalasai, 1998). As a result of the Uruguay Round negotiations, the MFA which started in 1974 and ended in 1994 was replaced by the WTO Agreement on Textiles and Clothing (ATC) which provided for a transitional period for the ultimate removal of the quotas under the MFA.

64. By the time of expiration of the quotas in 2003, many local companies had successfully shifted from labour-intensive downstream activities to more capital-intensive upstream ones by investing in new production facilities. As a result, the growth rate of textile exports has overtaken that of clothing for many years. About ten companies have become fully integrated with a capacity to manage their supply chains from upstream activities (spinning and weaving or knitting) to downstream activities (design, cutting and sewing) inside Thailand. This enables them to survive in a liberalised market where costs, quality and delivery time are key for competitiveness. Being integrated producers, they can meet shorter delivery requirements because of the time saved in procuring the necessary inputs. Many such integrated firms have become original equipment manufacturers (OEMs) for global retailers like Walmart and JC Penny. A few have even managed to develop design and marketing capabilities. Non-integrated firms that still rely on cheap labour costs have been forced to relocate their production facilities to the Northeastern part of Thailand or to Laos and Vietnam.

65. Thai textile and clothing firms have greatly benefited from AFTA allowing these companies to take advantage of economies of scale and become main suppliers of textile products to be cut and sewn in Laos, Vietnam and Cambodia. However, some FTAs such as the FTA between Thailand and Australia have fallen below expectations due to tariff preference erosion as a result of unilateral tariff reduction by the Australian government.

66. The Thai textile and clothing industry illustrates how government intervention initially limited growth, how deregulation contributed to industry development, and how companies adjusted to the increasing competition from other emerging economies after the expiration of the quotas. Competitive firms managed to lock themselves in the global supply chain before the expiration of the quotas by improving their product costs and quality and acquiring supply chain management capability. They also moved upstream to less labour-intensive segments. Less competitive companies adjusted by relocating their production facilities to lower cost locations. The role of government in securing market access through FTAs also proved to be beneficial, albeit to a lesser extent than in the automotive industry.

### *The telecom services sector*

67. While the manufacturing sectors in Thailand have been more or less exposed to international competition, the service sectors had been largely shielded, partly by the non-tradable nature of services and partly by the country's restrictive trade and investment policy. As a result, the service sectors are much less efficient and have imposed high costs on the export sector. The telecom sector presented in this section exemplifies the problems of the service sectors in Thailand.

68. The Thai telecom market had been characterized by ineffective competition and poorly designed regulations. Until the early 1990s, telecommunications services in Thailand were monopolised by two state-owned enterprises (SOEs), the Telephone Organisation of Thailand (TOT) and the Communication Authority of Thailand (CAT), which exclusively provided domestic and international telecom services, respectively. The lack of capital investment and the inefficiency of the state agencies resulted in inadequate supply and low quality of services.

69. It was thus recognised that the industry could grow further through the infusion of private capital. However, instead of fully liberalising the market, a concession scheme was designed as a means to bring in capital while preserving the statutory monopoly of the SOEs. Starting in 1992, the state agencies awarded concessions to private companies to undertake network development and provide fixed line, mobile, satellite, paging and other communication services under Build-Transfer-Operate (BTO) agreements. Under such an agreement, private concessionaires invested in infrastructure and transferred legal ownership of the installed network and paid an agreed percentage of their revenue as 'concession fees' to the state agencies. In exchange, they were granted 25-30 years' exclusive operation of the network. While these concessions led to growth of the telecom industry, they contained several flaws that led to distortions in and restrictions on competition in the market. For example, private operators that secured concessions from TOT and CAT were charged different concession fees and were under different access/interconnection arrangements. The revenue-sharing concession fee also provided an incentive for the state agencies and their concessionaires to collude with each other. Such collusive arrangements persist and have obstructed attempts to reform the sector.

70. Thailand has made some progress towards reforming its telecommunication regime through liberalisation and improved regulation. An independent regulator, the National Telecommunication Commission (NTC) was put in place in 2004, and is expected to play a key role in moving the Thai telecommunications sector away from the concession-based regime to a license-based regime.

71. The NTC has issued over 60 regulations in the 2 years since its establishment according to the Thai authorities. Nonetheless, reforms are moving at a slow pace, partly due to opposition of interest groups. Attempts to license new wireless operators have been delayed by the selection of the National Broadcasting Commission, as the law requires a joint committee of the two agencies to issue a license for using frequency spectrum. The Thai government has been planning to privatise the two state-owned enterprises since 1997. However, implementation has been delayed considerably. The state-owned enterprises have been corporatised but have not yet been listed in the stock market following a failed attempt to privatise the state electricity generating agency. In addition, the selection of strategic partners has been delayed. The NTC has also been criticised not only for its inability to resolve frequent disputes between operators, as exemplified by the deadlock in access/interconnection disputes, and to protect consumers but also for its lack of transparency.

72. In term of international commitments, Thailand's commitment under the WTO's Basic Telecom Agreement has been quite limited. According to a cross-country comparison (Marko, 1998), Thailand's commitment in Southeast Asia is the least and even below the world average. In particular, the country has committed to allow foreign investors to hold no greater than 20% share in four basic telecom services:

fixed line, telex, telegraph and facsimile, which is much lower than the actual foreign equity participation allowed under the Thai law.<sup>17</sup> Most major services, including mobile phone, leased line and Internet services have been exempted from commitments.

73. As a result of protection, many basic telecommunication services are generally more expensive than in other Asian countries (Tangkitvanich, 2002), and this has imposed high costs on the overall economy. According to Dee (2004), the prices of fixed line services were estimated to be about 90% higher than otherwise, and the prices of cellular services about 83% higher than otherwise, as a result of all the restrictions on trade in telecommunications services (Table 9).<sup>18</sup> These are significantly higher than that of Korea, Malaysia and Singapore. The Thai telecom sector demonstrates how vested interests once created can continue to obstruct subsequent reform.

**Table 9. Tax equivalents of market access (MA) and national treatment (NT) restrictions on investment in telecommunications<sup>a</sup>**

	(Percent)					
	<i>Fixed lines</i>			<i>Cellular phones</i>		
	<i>MA</i>	<i>NT</i>	<i>Total</i>	<i>MA</i>	<i>NT</i>	<i>Total</i>
<b>Thailand</b>	27.0	66.2	89.2	24.9	58.0	82.9
<b>Chile</b>	0.5	0.0	0.5	1.2	0.0	1.2
<b>China</b>	>1000	>1000	>1000	>1000	>1000	>1000
<b>Indonesia</b>	32.0	192.3	224.4	54.3	325.5	379.8
<b>Korea</b>	2.7	5.2	7.9	4.6	6.7	11.2
<b>Malaysia</b>	1.4	12.6	14.0	3.6	15.1	18.7
<b>Philippines</b>	0.0	66.3	66.3	0.0	33.2	33.2
<b>Singapore</b>	1.5	1.3	2.8	1.3	1.3	2.6
<b>Thailand</b>	30.8	78.6	109.4	25.6	66.8	92.3
<b>Turkey</b>	18.7	26.2	44.9	37.3	53.3	90.6
<b>Australia</b>	0.3	0.0	0.3	0.8	0.0	0.8
<b>France</b>	0.3	2.7	3.0	0.8	3.0	3.8
<b>Japan</b>	0.2	0.0	0.2	0.5	0.0	0.5
<b>Sweden</b>	0.8	0.0	0.8	1.0	0.0	1.0
<b>United States</b>	0.0	0.0	0.0	0.0	0.0	0.0

<sup>a</sup> Data for Thailand are for 2003. Data for remaining countries shown are for 1997.  
Source: Dee (2004).

17. An amendment to the Telecommunication Business Act went into effect in 2005 raising the allowed foreign equity participation up to 49% under the Foreign Business Act.

18. From a cross-country comparison of liberalisation commitments and domestic regulation, Dee (2004) constructed 'trade restrictiveness indices' for the telecom sectors in a number of East Asian countries. The indices were then used to quantify the effects of trade policy restrictions on the level of telecom penetration (quantity effects) and their associated 'tax equivalents' (price effects). Table 9 shows the tax equivalents of the policy restrictions of the Thai telecom sector, classified as market access and national treatment restrictions on investment, in comparison to that of other countries.



## Section 6. Lessons learned

74. A number of lessons can be drawn from the case study of Thailand. Firstly, it provides another example to confirm that a sound macroeconomic environment, sustainable public finances, a relatively stable political and economic environment, flexible labour market and reliable infrastructure are crucial to industry development and economic growth. Fluctuation of the exchange rate has had a huge impact on export growth and FDI flows, underlining the importance of exchange rate policy and its effect on trade and investment.

75. Secondly, the Thai experience demonstrates the benefits of openness to international trade and foreign investment in correcting distortions in the economy and the diverse ways in which a country can achieve such ends. While tariffs have remained comparatively high, Thailand has effectively reduced its anti-export bias using unconventional means such as tariff exemptions for exports, duty drawbacks and other measures. However, finding that such measures have entailed substantial costs, Thailand has since decided to reduce distortions through a general cut in tariffs. Exports are experiencing a renewed boost since the tariff cuts after the Asian financial crisis gaining impetus from the depreciated exchange rate. Relatively liberal policies to foreign direct investment especially in the manufacturing sector have paid off as these sectors have contributed to export growth.

76. Thirdly, the sectoral case studies show the mixed results that an interventionist industrial policy can have. While the automotive and auto-part industry case study would suggest that government policy contributed to success of the automobile cluster in Thailand, the textile and clothing sector suggested that government intervention was ineffective or at times harmful. The telecommunication case suggested that continued protection of this sector has impeded further growth both in the telecom sector and in user industries. The case study on automobiles seems to indicate that whatever industrial promotion measures are taken should be prepared under consultation with industry, be relatively pragmatic with sufficient flexibility to adapt to the changing business and economic environment. The presence of effective competition was also a key factor.

77. Fourthly, the Thai case study showed the limitations of an import substitution policy based merely on input expansion. To maintain growth, it was necessary for Thailand to gradually shift to an export oriented policy for which many complementary policy measures were necessary. Broad-based liberalisation, including further tariff reduction and rationalisation and the opening up of non-tradable sectors to greater competition, is required to reduce transaction costs and further minimise distortions in resource allocation and increase the efficiency of the production sector. Policy measures to promote technological capability, including private investment in research and development, are also required to increase productivity.

78. Fifth, reform packages need to be properly designed or sequenced to maximise potential benefits and minimise associated costs. With regards to design of reforms, the Thai telecom sector case study shows that a poorly designed regulatory regime can lead to inefficiencies and loss of competitiveness in user-industries. It also illustrates that entrenched vested interests can pose a major obstacle to subsequent reforms. With regard to sequencing, the Thai case study shows that it is critical to set up an effective financial supervision mechanism and prudential regulation before liberalising the capital account.

79. Finally, the Thai case illustrates the difficulties of economic reform from a political economy perspective. Economic reform in general and trade liberalisation in particular, generates winners and losers. While the gains from reform can be significant, they are usually widely dispersed such that winners cannot be easily identified. By contrast, costs associated with the reform, though smaller, tend to be highly concentrated in certain industries such that the negative effects of reform are more visible. As a result, voices of opponents of reforms would tend to be louder than those of the proponents. In a democratic

society, the reform process must be transparent and allow for broad-based participation. Otherwise the reform may lack popular support as in the case of trade liberalisation and privatisation in Thailand.

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## ANNEX

Table A. Change in manufacturing value added (1970-1995)

(Billion current Thai baht)

	1970	1975	1980	1985	1990	1995
<b>Total value added (Billion Thai Baht)</b>	<b>84.1</b>	<b>136.4</b>	<b>273.5</b>	<b>268.1</b>	<b>540.9</b>	<b>909.3</b>
Food	12.5%	12.0%	8.5%	13.4%	9.6%	7.8%
Beverages	10.4%	8.0%	7.0%	8.2%	6.7%	6.9%
Tobacco	7.6%	6.8%	4.7%	4.5%	2.9%	1.9%
Textiles	6.5%	9.7%	8.5%	11.0%	10.0%	7.7%
Wearing Apparel except Footwear	8.5%	9.1%	6.8%	9.9%	10.5%	8.3%
Leather, Leather Products and Footwear	2.7%	2.5%	1.5%	2.2%	3.9%	3.2%
Wood and Wood Products	7.1%	6.0%	3.0%	2.4%	1.4%	0.5%
Furniture and Fixtures	3.3%	2.1%	1.7%	3.3%	2.7%	1.8%
Paper and Paper Products	1.3%	1.0%	1.4%	1.6%	1.3%	1.6%
Printing, Publishing and Allied Industries	1.3%	1.4%	1.2%	1.8%	1.0%	1.1%
Chemicals and Chemical Products	2.4%	2.3%	2.2%	3.2%	2.7%	2.6%
Petroleum Refineries and Petroleum Products	10.0%	13.4%	7.3%	8.7%	6.0%	7.4%
Rubber and Plastic Products	2.3%	2.4%	2.0%	2.3%	2.7%	3.1%
Non-metallic Mineral Products	5.1%	4.8%	3.7%	5.5%	5.7%	6.1%
Basic Metal Industries	4.0%	2.4%	2.2%	2.1%	1.6%	1.9%
Fabricated Metal Products	3.6%	2.6%	1.7%	2.6%	2.6%	2.8%
Machinery	2.2%	2.2%	1.9%	2.9%	5.3%	7.7%
Electrical Machinery and Supplies	2.0%	2.1%	2.5%	3.7%	6.1%	9.8%
Transport Equipment	5.9%	6.6%	6.7%	6.0%	9.5%	9.7%
Other Manufacturing Industries	1.4%	2.5%	2.8%	4.8%	8.0%	8.5%

Source : Author's calculations using data from Central Bank of Thailand  
Note: The statistical classification was changed in 1995. (See next table)

**Table B. Change in manufacturing value added (1995-2005)**

(Billion current Thai baht)

	1995	2000	2005p
<b>Total value added (Billion Thai Baht)</b>	<b>958.4</b>	<b>1096.2</b>	<b>1500.1</b>
Food Products and Beverages	17.2%	15.9%	14.8%
Tobacco Products	1.8%	1.2%	0.9%
Textiles	7.4%	6.9%	5.4%
Wearing Apparel	7.9%	6.5%	5.3%
Leather Products and Footwear	3.6%	3.8%	3.0%
Wood and Wood Products	0.5%	0.3%	0.2%
Paper and Paper Products	1.5%	2.0%	1.8%
Printing and Publishing	1.1%	0.8%	0.8%
Refined Petroleum Products	7.0%	9.5%	7.5%
Chemicals and Chemical Products	3.5%	4.7%	4.9%
Rubber and Plastic Products	2.7%	3.6%	3.6%
Other Non-metallic Mineral Products	5.7%	4.3%	5.1%
Basic Metals	1.8%	1.2%	1.1%
Fabricated Metal Products	2.2%	2.6%	2.7%
Machinery and Equipment	4.1%	4.1%	5.4%
Office, Accounting and Computing Machinery	3.7%	6.5%	6.9%
Electrical Machinery and Apparatus	1.2%	1.9%	2.0%
Radio, Television and Communication Equipment and Apparatus	7.7%	9.7%	9.2%
Medical, Precision and Optical Instruments, Watches and Clocks	1.3%	1.1%	1.0%
Motor Vehicles	7.7%	5.2%	10.5%
Other Transport Equipment	1.5%	1.0%	1.7%
Furniture; Manufacturing n.e.c.	8.9%	7.2%	6.2%

Source : Author's calculations using data from Central Bank of Thailand  
Note: The statistical classification was changed in 1995.

Table C. Sources of growth of the Thai economy (1977-2004)

Sector	Period	Real output growth	Labour	Labour employment	Labour quality	Capital	Land	TFP
Total Economy	1977-2004	6.0	1.8 (30)	1.4 (23)	0.4 (7)	3.1 (52)	0.0	1.0 (16)
	1977-1996	7.7	2.0 (25)	1.6 (21)	0.3 (4)	4.0 (51)	0.0	1.6 (21)
	1999-2004	5.0	1.9 (30)	1.4 (23)	0.4 (7)	0.9 (52)	0.0	2.1 (16)
Agriculture	1977-2004	2.9	0.4 (14)	0.2 (8)	0.2 (6)	1.9 (68)	0.0	0.5 (17)
	1977-1996	3.3	0.5 (16)	0.4 (12)	0.1 (4)	1.9 (59)	0.1	0.7 (23)
	1999-2004	3.2	0.1 (14)	-0.1 (8)	0.2 (6)	1.6 (68)	0.0	1.4 (17)
Industry	1977-2004	8.0	2.7 (34)	2.3 (29)	0.4 (5)	4.7 (59)	n.a.	0.4 (5)
	1977-1996	10.2	3.5 (34)	3.2 (31)	0.3 (3)	6.1 (59)	n.a.	0.4 (4)
	1999-2004	6.3	2.9 (34)	2.7 (29)	0.4 (5)	1.2 (59)	n.a.	2.0 (5)
Manufacturing	1977-2004	8.4	2.8 (34)	2.4 (29)	0.4 (5)	4.1 (49)	n.a.	1.2 (15)
	1977-1996	10.2	3.2 (31)	2.8 (27)	0.4 (4)	5.4 (53)	n.a.	1.3 (13)
	1999-2004	6.6	2.9 (34)	2.6 (29)	0.4 (5)	0.8 (49)	n.a.	2.7 (15)
Services	1977-2004	5.4	3.4 (63)	2.9 (53)	0.5 (10)	2.5 (46)	n.a.	-0.5 (-9)
	1977-1996	7.3	3.5 (47)	3.1 (42)	0.4 (5)	3.2 (44)	n.a.	0.5 (7)
	1999-2004	4.2	3.6 (63)	2.7 (53)	0.5 (10)	0.6 (46)	n.a.	0.0 (-9)

Note: Percentage shares of the total growth are shown in parentheses.

Source: Bosworth (2006).

Table D. Protection rates (1980-2003)

	1980	1985	2002	2003
<i>Nominal rate of protection (NRP)</i>				
Agro-processing	34.4	30.9	22.7	20.3
Textile products	41.0	27.8	18.9	18.6
Leather and Footwear products	54.1	26.8	18.8	18.5
Wood products	31.6	28.2	13.7	13.5
Paper and pulp	24.0	17.8	14.4	10.5
Chemical and petroleum products	32.8	21.4	9.4	8.4
Rubber products	29.1	26.8	23.2	23.2
Other non-metal products	36.7	23.0	15.0	10.0
Metal products	25.2	16.6	13.2	10.7
Machinery	22.4	14.3	6.2	6.2
Consumer goods and motor vehicles	31.2	19.7	11.4	10.6
Total Manufacturing	32.9	23.8	16.4	15.4
Overall	n.a.	22.9	14.7	13.9
<i>Effective rate of protection (ERP)</i>				
Agro-processing	58.1	135.2	26.9	21.2
Textile products	74.5	118.4	35.6	35.4
Leather and Footwear products	87.8	152.7	26.3	28.5
Wood products	65.4	62.0	25.2	25.4
Paper and pulp	20.4	53.5	46.8	31.8
Chemical and petroleum products	43.0	44.5	15.6	13.9
Rubber products	2.1	42.0	65.3	65.6
Other non-metal products	72.1	108.5	32.5	20.1
Metal products	35.6	70.9	23.0	18.5
Machinery	27.1	29.3	2.0	3.1
Consumer goods and motor vehicles	48.4	45.6	15.3	15.3
Total manufacturing	51.7	78.4	25.2	23.6
Overall	n.a.	65.9	20.6	18.2
Coefficient variation (CV) of ERPs	120	200	188	204

Source: ERP estimates for 1980 are from Akrasanee and Ajanant (1986), those of 1985 from World Bank (1988) and of 2002-3 are from Athukorala, Jongwanich and Kohpaiboon (2004).



**Table E. Trade-weighted average tariff rates applied on Thai imports (1989-2005), %**

Product	Product name	1989	1991	1993	1995	2000	2001	2003	2005
<i>Total</i>	<i>Total</i>	<b>32.96</b>	<b>32.85</b>	<b>36.49</b>	<b>14.79</b>	<b>9.51</b>	<b>9.44</b>	<b>9.71</b>	<b>6.16</b>
1	Live animals	18.46	14.35	40.00	14.57	10.77	10.65	12.69	10.21
2	Meat and edible meat offal	60.00	60.00	60.00	60.00	60.00	49.32	45.07	41.63
3	Fish, crustacean etc.	60.00	60.00	60.00	60.00	60.00	5.01	5.01	5.15
4	Dairy products, eggs etc.	25.25	25.37	26.28	12.25	12.4	9.99	9.91	9.72
15	Animal/vegetable fats/oils etc.	38.03	37.93	32.4	26.85	26.91	19.27	25.39	24.68
17	Sugars and sugar confectionery.	40.07	40.08	45.88	37.93	25.77	26.4	23.36	22.57
22	Beverages, spirits and vinegar.	0.00	0.00	60.00	59.99	59.84	58.06	59.04	59.69
24	Tobacco etc.			60.00	48.5	45.82	60.00	60.00	60.00
27	Mineral fuels, oil products	25.01	25.05	24.97	2.70	0.67	1.80	1.70	0.78
29	Organic chemicals.	30.00	30.32	30.00	11.09	6.73	1.82	1.98	1.67
30	Pharmaceutical products.	25.54	25.13	30.00	7.45	1.19	14.25	14.51	8.54
33	Essential oils, perfume and cosmetics	66.18	69.96	100	22.22	20.14	15.15	16.1	19.63
38	Miscellaneous chemical products.	32.00	31.98	30.00	11.84	9.5	8.97	8.89	8.43
39	Plastics and articles thereof.			60.00	25.27	15.07	24.71	24.27	15.34
40	Rubber and articles thereof.	49.3	49.45	50.00	29.59	21.65	24.37	23.31	11.31
42	Leather articles and travel goods	94.34	96.42	100.00	58.42	37.36	36.3	34.95	38.51
44	Wood and articles thereof	17.05	17.49	40.00	3.66	3.9	4.59	5.36	3.65
45	Cork and articles of cork.	30.00	30.00	30.00	9.84	10.1	11.26	13.12	8.75
47	Pulp of wood/of other fibrous material;	10.00	10.00	10.00	5.61	3.55	1.18	1.00	1.00
60	Knitted or crocheted fabrics.	100.00	100.00	100.00	31.37	20.00	20.00	20.00	5.00
63	Other made up textile articles; sets; worn clothing	95.03	96.31	100.00	28.87	16.22	27.18	27.19	27.16
64	Footwear etc and parts thereof	56.44	64.08	100.00	27.02	21.16	20.38	21.32	26.03
70	Glass and glassware.	36.02	34.9	39.01	19.43	14.67	15.31	15.27	8.94
71	Natural/cultured pearls, precious stones & metals, co	18.17	18.74	15.25	2.46	1.26	1.06	1.43	1.43
72	Iron and steel.	11.16	14.47	18.63	8.22	9.48	12.79	6.67	3.82
73	Articles of iron or steel.	35.4	34.16	34.21	22.66	19.48	19.39	18.44	9.66
83	Miscellaneous articles of base metal.	39.57	39.53	40.00	19.11	17.58	20.03	19.86	11.91
85	Electrical machinery equipment and parts thereof; sound record	38.01	38.04	37.76	11.5	6.49	6.97	7.5	3.43
86	Railway/tramway locomotive & parts thereof;	5.00	5.00	5.00	1.41	2.58	5.54	1.91	2.09
87	Vehicles other than railway etc	62.49	62.13	60.1	50.04	37.19	42.94	43.27	32.95
89	Ships, boats etc.	25.91	34.46	35.00	2.75	1.83	9.44	10.28	6.3
96	Miscellaneous manufactured articles.	51.56	50.75	50.29	33.51	15.24	15.15	15.35	12.19

Source: Computed from WITS/Trains UNCTAD databases

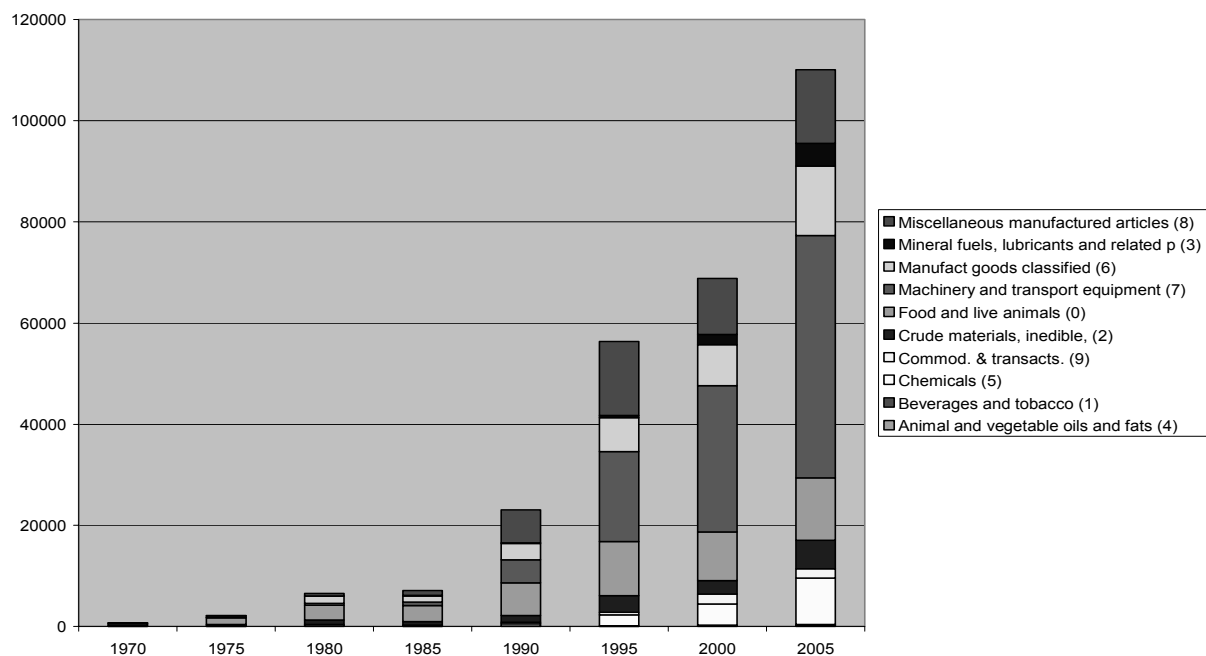
Table F. Net flow of foreign direct investment classified by sector (1975-2005), USD million

	1975	1980	1985	1990	1995	2000	2005 p
Industry	29.10	49.40	49.37	1,216.73	567.10	1,810.67	4,122.04
Food & sugar	4.11	4.46	14.18	63.06	39.08	93.01	-10.20
Textiles	9.63	-0.08	2.19	69.70	37.80	-3.48	86.41
Metal & non metallic	1.10	2.33	-4.76	113.23	92.45	-83.67	246.73
Electrical appliances	5.51	21.88	10.29	419.06	233.53	507.23	861.24
Machine & transport equipment	0.09	4.50	1.16	97.06	144.47	655.48	1,509.92
Chemicals	4.58	10.41	17.89	169.46	93.70	393.38	464.66
Petroleum products	2.17	0.11	0.00	118.83	-161.28	29.30	351.88
Construction materials	0.35	0.07	1.41	0.48	25.14	57.82	9.09
Others	1.56	5.72	7.01	165.86	62.21	161.59	602.32
Financial institutions	19.64	-8.75	-47.97	180.50	25.82	132.97	662.37
Trade	27.27	36.62	39.45	507.50	446.34	67.79	330.91
Construction	8.43	38.20	58.30	129.57	36.39	-1.71	38.74
Mining & quarrying	3.11	29.12	18.99	44.68	56.97	-274.74	-556.71
Agriculture	0.11	10.25	2.84	29.99	9.33	0.71	2.60
Services	-1.12	22.51	19.52	80.56	87.81	448.28	189.10
Investment	0.00	0.00	0.00	0.00	-78.42	99.12	172.45
Real estate	0.68	11.64	19.49	330.63	853.22	69.11	1,067.45
Others	0.00	0.00	0.00	21.83	-0.67	461.05	1,383.13
<b>Total</b>	<b>87.23</b>	<b>188.99</b>	<b>159.99</b>	<b>2,541.99</b>	<b>2,003.89</b>	<b>2,813.26</b>	<b>7,412.09</b>

Source: Bank of Thailand

**Table G. Export structure (1970-2005)**

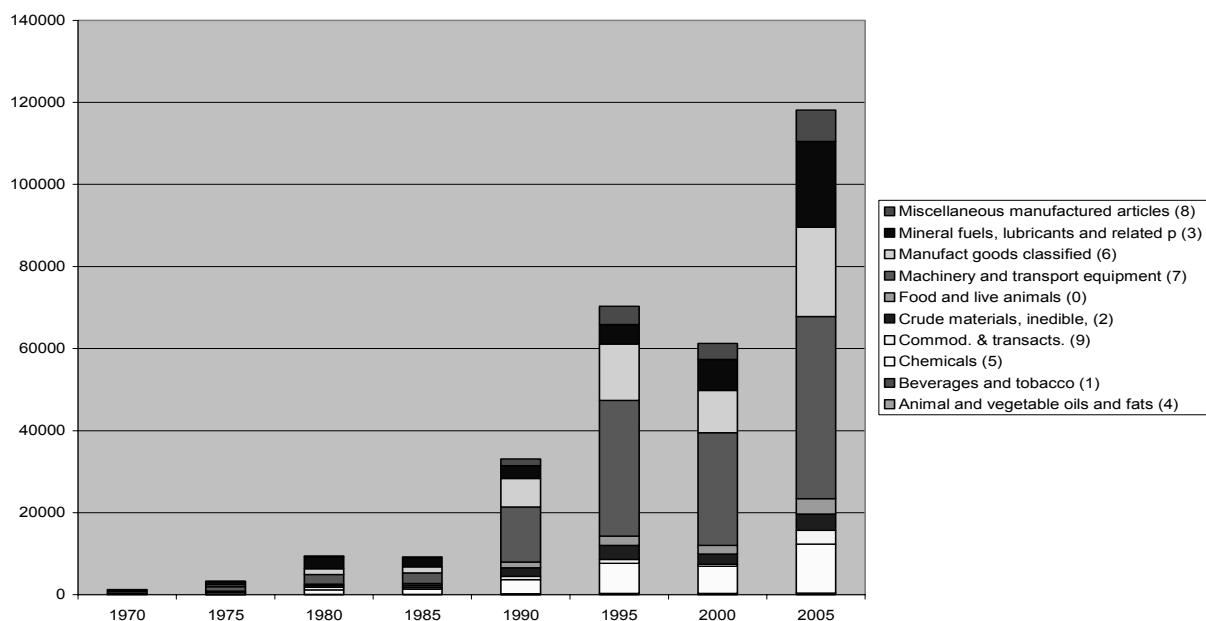
(Million current USD)



Source : WITS database, SITC, Rev 1

**Table H. Import structure (1970-2005)**

(Million current USD)



Source : WITS database, SITC, Rev 1