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## **Export Strategies and Policies in Thailand until 1995**

**Ludo Cuyvers  
Philippe De Lombaerde  
Beatrix Dewulf  
Danny Van Den Bulcke**

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### **Abstract**

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## 1. Introduction

Since the 1960s, the Thai economy has experienced steady economic growth. The country did relatively well in the oil-crisis struck 1970s<sup>1</sup> and a new acceleration in growth has been observed during the second half of the 1980s. A historical maximum has been reached in 1988 with a spectacular GDP growth rate of 13.2 %, but since then growth figures stayed on a continual high level (Table 1).

**Table 1: GDP Growth Figures (% per year), 1961-96**

Period	Growth in GDP	Growth in per capita GDP
1961-72	11.3	...
1973-79	7.7	...
1980-85	5.5	...
1986-89	10.0	...
1990	11.2	10.0
1991	8.5	7.1
1992	8.1	6.8
1993	8.3	6.9
1994	8.7	7.4
1995	8.6	7.4
1996	8.3	7.2
1997	8.0	7.9

Sources: (a) Warr (1993:57); (b) ADB (1996)

In spite of a recession in large parts of the industrialised world, high growth continued in Thailand during the nineties. GDP of 1995 (in 1988 prices) has been estimated at 117 billion USD, an increase in real terms with more than 40% since 1991. Since the beginning of 1996, economic growth seems to slow down, mainly because of a decline in export growth, tight monetary policy and political instability. The Bank of Thailand estimated growth to be less than the 9.3% forecast for 1996 (Thammavit, 1996:6).

Of the developing countries in Asia (following the ADB definitions), only Hong-Kong, the Republic of Korea and Taiwan performed better during the 1970s. Only the Republic of Korea, Taiwan, and PR China did better in the 1980s and for 1994 only the PR China is expected to show higher growth figures (Asian Development Bank, 1993:258).<sup>2</sup>

According to the national development plans, the industrial development strategy of Thailand first focussed on the promotion of import substitution and the reliance on domestic raw materials (1st and 2nd National Economic Development Plans of 1961-66 and 1967-71).

A policy reorientation could be observed in the 3rd National Economic Development Plan (1972-76) in favour of the promotion of export oriented industries and labour-intensive industries, although import substitution continued to be important.

<sup>1</sup> This was partly the result of compensation by higher rice and rubber prices of the immediate negative effects in 1973-74 (Akrasanee e.a., 1991:3), and also partly to adequate macro-economic management.

<sup>2</sup> In order to illustrate the extraordinary growth accomplishment of the Thai economy, we refer to The Economist's extrapolation of Thailand's growth using The World Bank's regional growth projections. *Ceteris paribus*, the country would become the world's eighth economy in 2020 (Woodall, 1994:4). Of course, this is only an extrapolation and real growth figures are likely to drop in the medium term due to domestic bottle-necks, fiercer competition on the worldmarkets and trade political responses.

Policies shifted further in the 5th and 6th National Economic and Social Development Plans (1982-86, 1987-91), where greater emphasis was laid on international competitiveness and industrial restructuring, rather than on policies sheltering particular sectors.

## 2. Thailand's export performance and structural transformation

### 2.1 Thailand's export performance

The impressive economic results of the Thai economy, especially since the 1980s, are to an important extent linked with Thailand's export performance. Exports at constant prices have grown in the 1977-87 period with 10.2 % and in the 1987-89 period with 19.6% (World Bank, 1991) and were estimated to reach 33% of GDP in 1995 (BOI, 1996: 14), against only 17% of GDP in 1985.

**Table 2: Exports by major category (million THB), 1992-1996**

Target Product	Number of items	1992	1993	1994	1995e*	1996e*
Agricultural products	35	164,998	158,759	188,842	218,449	226,815
Agro-industrial products	46	88,007	83,594	100,062	123,246	131,720
Major ind. products	114	476,524	555,434	683,311	780,550	921,800
Minerals & fuels	3	5,614	4,443	5,337	5,600	5,940
Others		82,501	138,633	160,050	232,155	318,725
Total exports		824,643	940,863	1,137,602	1,360,000	1,605,000
% growth		13.67	14.09	20.91	19.55	18.01

Source: Business Econ. Dept.

\*Estimates.

**Table 3: Exports by Economic Sector (%), 1961-94**

	1961	1971	1981	1991	1993	1994
Agriculture	82.7	62.2	47.7	15.1	11.9	11.4
Fishing	0.4	2.0	4.3	6.0	6.0	6.0
Forestry	3.3	1.5	0.1	0.12	0.04	0.05
Mining	6.6	13.7	7.7	1.0	0.6	0.6
Manufacturing	2.4	10.0	35.8	76.2	80.4	81.1
Others*	4.7	3.3	4.3	1.5	1.1	0.9
<b>TOTAL</b>	100	100	100	100	100	100

\* Incl.: re-exports.

Source: Tambunlertchai (1993:119); Bank of Thailand (several issues); TDRI (1995:6).

Manufactured exports explain the major part of Thailand's export performance. During the past three decades (1961-90), the relative importance of manufactures exports increased from 2 to 75%; during a period of 20 years (1971-90) its relative importance increased from 10 to 75% (Herderschee, 1993:350). In 1994 they counted for more than 80% of total exports (Table 3).

Computers and parts (9.3%), garments (7.3%), rubber (4.4%), electrical circuits (4.1%), shoes and parts (3.8%), plastic products (3.7%), gems & jewellery (3.7%), frozen, shrimps (3.6%), rice (3.5%) and canned seafood (2.4%) (Business Economic Dept., cited in Ungphakorn, 1996: 8). Computers and computer parts overtook garments as the top export product in 1995.

Although manufacturing contributed for the major part to this development, agriculture still counts for a fairly important share of exports although much less than before. Agricultural exports counted for 11% of total exports in 1994, whereas they still counted for 83% of export earnings in 1961 (Table 3). Rice, sugar and tapioca have been important currency earners. The success of Thai agricultural exports can be attributed to its successful adaptation and diversification into changing and new markets (Herderschee, 1993:348). The declining relative importance of agricultural exports further masks the expansion of exports of processed foodstuffs.

## 2.2 Thailand's export performance, industrial structure and the structure of imports

### 2.2.1 Industrial structure

Thailand's export development has been reflected in the transformation of its industrial structure and in its imports structure.

The share of agriculture in GDP declined from 30.2% in 1970 to 10.8% in 1995. The manufacturing sector's share in GDP rose from 25.7% in 1970 to 32.2% in 1995 (Table 4). The manufacturing sector recorded practically uninterrupted double-digit growth rates since the 1970s (Table 5). There has only been some slow-down in the early 1980s due to the oil crisis and the recession in the world economy.

**Table 4: GDP at 1988 prices by industrial origin (%), 1989-1996**

<b>GDP 100</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>
Agriculture	15.8	13.6	13.3	13.1	11.8	11.3	10.8	10.3
Mining & quarrying	1.6	1.6	1.7	1.7	1.6	1.6	1.5	1.5
Manufacturing	26.7	27.8	28.6	29.5	30.3	31.1	32.2	33.2
Construction	5.5	6.0	6.3	6.1	6.1	6.1	6.1	6.2
Services & others	48.6	51.0	50.1	50.2	50.2	49.9	49.4	48.8
<b>GDP</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source: Bank of Thailand, Key Econ. Indicators, April 1996.

Industrial production increased in both 1992 and 1993 with about 10% (Bangkok Bank, 1993a:13), but agriculture only with 3% in 1992 and with 2.3% in 1993 (Bangkok Bank, 1993b:32).<sup>3</sup>

**Table 5: Growth rates of value added, 1971-1994**

	<b>Av.71-80</b>	<b>Av.81-90 (a)</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994(a)</b>	<b>1994(b)</b>
Agriculture	3.1	3.9	4.5	3.5	2.7	3.5	3.0
Manufacturing	12.1	9.9	11.5	8.6	10.8	11.8	11.5
Construction	12.1	9.9	11.5	8.6	9.5	11.8	11.5
Services	8.2	7.9	6.9	7.9	6.9	7.1	8.2
<b>GDP</b>	<b>7.9</b>	<b>7.8</b>	<b>8.2</b>	<b>7.5</b>	<b>7.8</b>	<b>8.5</b>	<b>8.2</b>

Source: (a) Asian Development Bank (1993:258-262); 93 & 94 are projections; (b) BoI (1994).

The process of structural transformation started (slowly) with the 1st National Economic Development Plan (1961-66) and was supported by an import-substitution policy. Therefore, in the first phases of industrialisation, domestic market-oriented industries and natural resource based export oriented in-

<sup>3</sup> One of the reasons is that the low price level for most of the agricultural products does not act as an incentive to considerably increase production.

dustries grew faster than import-dependent export-oriented industries. This situation has been reversed in the 1970s (Pupphavesa, 1992:2 & Table 1).

During this process of increasing export oriented production, a strong correlation has been observed in industries between production growth rates and export orientation.

Kunnoot & Chowdhury (1992) studied the impact of the growing export orientation of the Thai economy on the industrial structure and on industrial interdependence, using 1975 and 1980 input-output tables.<sup>4</sup> During this period, the export/output ratios of both natural resource based sectors and non-natural resource based sectors have risen considerably from 14.2% to 61.7%, and from 8.6% to 27.9% respectively. The share of the non-natural resource based industries in total manufacturing exports increased, however, from 21.5% to 28.2% during the same period (Kunnoot & Chowdhury, 1992:54).

As a whole, the two groups of sectors did not show an increase in their integration in the national economy via economic linkages and their degree of integration was quasi-equal.

A differentiation between export-oriented and domestic market-oriented sectors (on the basis of average export/output ratios) provides more accurate information. In the case of natural resource based activities, the export orientation of export-oriented industries increased sharply (from 34.4% to 47.1%). Whereas their linkage with the other national economic sectors remained unchanged, it was well above the linkage indicator of the domestic market-oriented industries (Kunnoot & Chowdhury, 1992:55,56). These average results mask to some extent a sectorally differentiated situation. As far as employment is concerned, the export-oriented natural resource based industries seemed to generate significantly (and increasingly) more employment (a more than double export/employment intensity), indicating the labour-intensive character of the former. Moreover, the export-oriented industries that increased their export-output ratio were those that managed to raise their employment intensity most (Kunnoot & Chowdhury, 1992:55). Here also, individual sectors show very different figures.

For non-natural resource based industries, the finding is confirmed that export-oriented industries show greater backward linkages and higher employment intensities than the domestic market-oriented industries.

The correlations between export orientation and linkage, on the one hand, and employment on the other hand, have both strengthened (Kunnoot & Chowdhury, 1992:59). This is especially the case for natural resource based activities; for non-natural resource based activities the export orientation/linkage correlation is low and not rising, pointing to the relative isolation of these new activities (Export Processing Zone type of activities).

During the second half of the 1980s the positive association between industry growth and export performance could also be observed. Most of the industries which show an above-average real growth, also show above-average export performances, and *vice versa* (Pupphavesa, 1992). Examples of the

former industries (high-growth high-exports) include: leather and leather products, plastic products, manufactured pottery, non-metallic mineral products, metal products, electrical and non-electronical machinery, transport equipment, and professional and scientific equipment.

This industrial structure/exports relationship is somewhat more complex. Export success should not be regarded as the sole cause of industrial restructuring. In spite of capacity controls, market saturation for protected import-substituting industries was also a cause of export-orientation, from the 1970s onwards (Akransee e.a.,1993:6).

## 2.2.2 Imports structure

The imports structure also reflects the changes on the exports side (Table 6).

Whereas in the 1960s, capital goods dominated imports, the share of intermediate goods rose in the 1970s with the expansion of import-dependent export oriented industries. External factors (oil crisis) were responsible for the rise in oil imports in the 1970s; they declined again during the second half of the 1980s with falling oil prices and local substitution. From the second half of the 1980s on, and in line with the acceleration in investment, imports of capital goods and intermediate goods accelerated.

The rapidly growing intermediate imports were mainly directed towards equally rapidly growing export industries, e.g.: basic metal products, chemicals, yarn and fabrics, electronic products, jewellery and precious stones (Pupphavesa,1992:3 & Table 5).

**Table 6: Imports by economic category (% shares)**

	1980-85	1985-87	1990	1993	1994
Consumer goods	10.06	9.05	8.77	9.75	10.6
Intermediate products and raw materials	26.92	34.42	23.76	21.23	20.1
Capital goods	27.67	34.48	51.98	53.27	55.0
Other imports	34.60	22.06	15.48	15.75	14.3
<b>TOTAL</b>	100.00	100.00	100.00	100.00	100.00

Source: Pupphavesa (1992:Table 4), TDRI (1994:11), TDRI (1995:11).

The top-10 import items in 1995, totalling 62.5% of Thai imports, were in decreasing order: industrial machinery (23.5%), electrical machinery (15.5%), chemicals (13.1%), iron and steel (10.8%), electrical circuits (8.5%), autochassis & bodies (6.9%), crude oil (6.5%), computers and parts (5.9%), metal products (4.7%) and metal ores and scrap (4.4%) (preliminary figures of the Business Econ. Dept., cited in : Ungphakorn, 1996: 8).

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<sup>4</sup> The authors calculated backward linkage indices as proposed by Rasmussen (1956), using the elements of the inverse direct input coefficient matrix. See also: Cella (1984).

### 3. Export policies and the instruments used

#### 3.1 A stable and competitive exchange rate

In dynamic export oriented economies, the crucial role of the exchange rate policy has been duly recognised (Sachs,1985:523-575; Montiel,1990:99-108). Overvaluation of the currency, especially when it is a recurrent phenomenon, leads to disturbances and should be avoided.

The exchange rate policy of the Thai monetary authorities is characterised by a great stability, a quasi-continuous peg to the USD and occasional corrections for overvaluations.

Since the start of the 1970s, Thailand's exchange rate regime(s) are as follows: fixed (but adjustable) exchange rate with the USD until 1978 (leading to overvaluation), floating exchange rate during 1978-79, peg to a currency basket during 1979-81, peg to the USD during 1981-84, *managed float* between 1984-87, peg (mainly) to the USD since 1987. The exchange rate changed in the same period from 20.5 THB per 1 USD at the beginning of 1973, 20 THB in 1973-78, 23 THB in 1981, 27 THB in 1984-87, to 25.7 THB in 1989, 25.3 THB in 1993 and 24.91 in 1995 (Herderschee, 1993:350; Bank of Thailand,1994:Table 1, BOI, 1996: 15). Devaluations occurred in March 1973 (10% in terms of gold), in 1981 (8.7 % in terms of the USD), in November 1984 (15% in terms of the USD). Relatively low inflation levels (cfr. infra) were instrumental in facilitating this relatively stable exchange rate policy.

Apart from macro-economic policies, some less important but related specific measures are also relevant for foreign trade. In 1993, e.g., foreign exchange controls (in terms of limits on freedom of cross-border transfers) have been relaxed in order to facilitate the use of the Thai Baht in the Indochina area (Bank of Thailand,1994:110).

#### 3.2 Price and 'low-factor-cost' policies

##### 3.2.1 Stabilisation of the general price level

Inflation in Thailand has been at a moderately low rate. During the period 1980-91, consumer prices only rose on average at 4.5% per year. Since the beginning of the 1990s, inflation stepped up and reached 5.8% in 1995. For 1996 and 1997 it is estimated at 5.5% in both years (ADB, Asian Devt. Outlook, various issues).

The absence of higher inflation can partly be attributed to structural characteristics of the country, and partly to pursued policies<sup>5</sup>.

Contrary to many other developing countries, the occurrence of bottlenecks such as insufficient food production, failing infrastructure, energy shortages or labour shortages have not pushed up inflation rates in Thailand as yet. In the future, problems (with inflationary dangers) that will likely occur include: increasing dependence on oil imports, the need for important infrastructural investments, and the

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<sup>5</sup> For econometric tests of monetary and structural inflation models for Thailand and five other Asian countries, we refer to Sundarajan (1992). It seems that both model types lead to significant specifications, be it that monetary models usually reveal higher explanatory power.



shortage of certain types of skilled labour when activities will be developed with higher value added and technology-content<sup>6</sup>, in turn pushing up the average wage level. All these factors lead us to expect that in the near future it will not be easy to avoid a larger government budget deficit and higher inflation rates related to rapid industrialisation.

However, for the years to come no real problems are being foreseen. The slight rise of inflation since 1995 has been attributed to labour shortages, especially of higher-educated labour (TDRI,1992). More and more, technologically intensive companies are demanding at least secondary educated labour, whereas in 1990 about 83% of the labour force had attended only primary education or less (Gus-sangkorn & Chalamwong, 1994: 20-21).

One of the instruments used by the government to control the price level are price controls on *essential products*, which have been made possible with the passage of the *Price Setting and Anti-Monopoly Act* of 1979 (34 commodities in 1986). In addition, export controls (cfr. *infra*) also have had a price lowering effect.

As far as monetary policy in Thailand is concerned, the preferred instruments of the Bank of Thailand, the controlling body, are: the discount rate and interest rate restrictions, rather than legal reserve ratios or open-market operations. The Bank of Thailand seems to have played a relatively successful stabilising role in the Thai economy. Policies have tended to be a restrictive, but not strictly monetarist. The relatively strict monetary policy of the Bank has been discretionary in the sense that it has repeatedly been interrupted by expansionary measures with primarily real objectives. Short term policies in particular show this discretionary character of monetary policy. However, if we take long-term instruments into account (long-term interest rates), monetary policies have been relatively strict (Nidhiprabha, 1993).

In the beginning of the 1980s, inflation reached a relatively high rate. The GDP deflator rose from 1980 to 1981 with 8.6% and the consumer price index increased during the same year with 12.6% (IMF,1993:686-687). However, the world recession and the policy of the Bank of Thailand resulted in a moderation of inflation.<sup>7</sup> In 1982, the GDP deflator was only 3.3 percentage points higher than in 1981 and in 1983 the rise was 3.4 percentage points. In the same years the consumer price index increased with only 5.3% and 3,8% respectively (IMF,1993:686-687).

The central bank gradually moved towards a less restrictive policy. Not earlier than in 1986 the discount rate has been reduced to 8% (IMF,1993:686-687). During the period 1985-90, which was a period with relatively strong economic growth, inflation rose slowly but stayed under control. As the current account deficit was being balanced by inward foreign investment, monetary policy was not changed (Nidhiprabha,1993:177,178). The reduction of the government deficit with 50% in the period 1978-84 (down from 7% of GDP to 3.6%), as a result of higher fiscal revenues, slowed down demand inflation. In June 1989, the interest ceiling on long-term deposits was abolished in order to encourage

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<sup>6</sup> Participation rates in secondary education in Thailand are about 25 years behind compared to those of Taiwan and they are lower than those in Indonesia and in the Philippines (Akraanee e.a.,1991:33).

<sup>7</sup> At the end of 1981, the discount rate was 14.5% (IMF,1993:686-687).

long-term savings.<sup>8</sup> The central bank has taken up again its restrictive monetary policy when inflation increased in 1990, because of a booming world economy and the exceptionally high inflow of foreign capital in Thailand. In 1990, the discount rate was raised to 12%.

The loan rate of the Bank of Thailand has risen the past few years from 9% (December 1993) and 9.5% (December 1994) to 10.5% (July 1995) (Bank of Thailand Quarterly Review, Vol. 35 Nr. 2, June 1995).

### 3.2.2 Low-wage policies

To a large extent, the success of Thailand's export orientation policies has been built on low wages, both to create competitive advantages for the national producers, as well as to attract FDI from higher-wage countries.

The government is following a policy of controlling wage increases, mainly through its conservative minimum wage policy. From a political-economy point of view, this facilitated employers being far better organized and far more effectively putting the government under pressure, than the workers are doing.<sup>9</sup>

An additional way of controlling labour costs is through a wider supply of skilled labour in the provinces in order to cope with local shortages and competition for labour in the Bangkok Area. This is attempted through the government's policy of regional distribution of industrial investment and up-grading education and training in the provinces.

Increasing competition for labour and rising income inequalities raise questions as to the sustainability of these low-wage policies.

### 3.2.3 Other factor-price policies, infrastructural policies and industry targeting

#### ***Energy and infrastructure***

Until the 1980s, the government pursued a policy of stable and low (i.e. below world market level) prices for electricity, oil, and public transportation (incl. rail), in support of the development of the domestic industries. In the 1980s, however, the gap between domestic and world prices was gradually reduced, in order to force the domestic producers to produce more efficiently and to reduce the financial burden of public enterprises on the government budget. In 1991, price controls on oil were completely abandoned.

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<sup>8</sup> Together with the measure to exempt deposits up to 200,000 THB of taxes.

<sup>9</sup> In addition, there seems to be an 'unofficial policy' not to enforce these minimum wage provisions. A recent survey among managers and local authority officers showed that effective wages in garment manufacturing in the Northeastern Region are considerably below the official wages. The effective wages seem to oscillate between 60 and 80 Baht per hour (except for Nakhon Ratchasima and Udon Thani: 90 and 100 Baht respectively), whereas official minimum wages would be 110 Baht for Nakhon Ratchasima and 102 Baht in all the other provinces (Watanapanom e.a., 1994).

Until 1990, special electricity rates (20% lower than standard domestic prices) were applied by the Electricity Generating Authority of Thailand (EGAT) for exports producing firms. However, complicated application procedures made this measure not very effective and only relatively few firms benefited (160 cumulative applications in 1988) (Herder-schee,1993:354).

Apart from the government's general policy to improve the country's infrastructure, specific action is taken through the development of the industrial estates. Minimum infrastructural provisions are required. Infrastructural bottlenecks could become major restraints for Thailand's growth, however. The lack of sufficient infrastructure is mainly due to previous public under-investment as a result of a (voluntary) low level of foreign debt. The government now endeavours to accelerate the upgrading of infrastructure by increasing the budget. In the Seventh Plan (1992-1996), 35 billion USD is allocated to infrastructure projects. Other measures include the increased involvement of the private sector in major energy and transportation projects. Examples are the partial privatisation of the Thai International Airways and the Independent Power Producer's (IPP) programme of EGAT, inviting private companies to sell electricity to the grid (DEP, 1995: 38-39).

One example of investment in much needed infrastructure is the development of the new coastal container port of Laem Chabang.<sup>10</sup> The port of Bangkok (Klong Toey) seems to have become a bottleneck involving significant delays and costs for exports. Because of port-hinterland transport difficulties, lacking port infrastructure, congestion, inefficiency and other barriers<sup>11</sup>, there were already visible indications of investment diversion to Malaysia and Indonesia, where port liberalization and upgrading of port activities have been in place since 1987-88 (Airriess,1993:36).

### ***The cost of capital***

Controls of the cost of capital (through interest rate ceilings) have been gradually relaxed during the 1980s because of negative effects: occurrence of negative real interest rates and a widening savings-investment gap (leading to increased external borrowing).

The interest ceiling for loans is still in place but is high enough not to hinder the market. The ceilings for interest rates on deposits have been abolished.<sup>12</sup>

### ***Privileges granted by the Board of Investment and industry targeting***

Other factor price policies include the incentives provided by the Board of Investment. This authority may grant privileges for investors under the *Investment Promotion Act* of 1977. According to this Act, promoted investment should correspond to general guidelines related to economic and technological development, environmental policies, and/or balance-of-payments considerations as stated in the

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<sup>10</sup> Although privatization of the port (against the vested interests of the military, customs and port labour unions) would probably have created additional efficiency gains (Airriess,1993:36).

<sup>11</sup> According to Airriess (1993:36), corruption would approximately add 20% to the official cost of using export services at Klong Toey. Lacking hinterland transportation connections made that 80% of the containers were stripped and stuffed within the confines of the port (Airriess,1993:37).

<sup>12</sup> For time deposits with a maturity of more than one year, interest ceilings have been lifted in June 1989; for time deposits with a maturity of less than one year, they have been lifted in March 1990.

National Economic and Social Development Plans. A number of criteria concerning the invested capital apply, for possibly benefiting from the privileges. These privileges are modulated in two respects: according to the geographical zone in which the companies are located, and whether they are part of an industrial estate or not (Table 7). Three geographical zones are distinguished: Zone I (Bangkok Area and 5 neighbouring provinces), Zone II (10 central provinces), and Zone III (the rest of the country). Special status is further given to micro-zones with special status: General Industrial Zones, Special Areas, and Export Processing Zones.

In general, privileges reduce the investment cost and/or the operation cost. As already mentioned, they depend on the location of the investment (geographical zones, special status zones) and on a number of other criteria. Investment promotion involves industry targeting: project proposals should concern activities appearing on a regularly updated *eligibility list*. We refer to BoI (1995a) for the details concerning the investment promotion criteria, the eligibility list and the privileges granted. For the trade-related criteria and privileges we refer to Cuyvers, De Lombaerde, Dewulf and Van Den Bulcke, 1996b).

**Table 7: Modulation of Investment Promotion by Zones**

SPECIAL STATUS	GEOGRAPHICAL ZONES		
	ZONE I	ZONE II	ZONE III
	BMA Samut Prakan Samut Sakhon Pathum Thani Nonthaburi Nakhon Pathom	Samut Songkhram Ratchaburi Kanchanaburi Suphanburi Angthong Ayutthaya Saraburi Nakhon Nayok Chachoengsao Chonburi	All other provinces
GIZ	1972 Bang Chan 1983-89 Lat Krabang I-II-III 1988-90 Minburi I-II 1996 Gemopolis 1977-93 Bang Poo I-IIA-IIB 1984-89 Bang Plee I-II 1990 Theparak 1988 Navanakorn 1989 Bangkokadi 1988 Mah Boonkrong 1990 Mueng Thong Thani 1992 Samut Sakhon 1993 Jongsatit	1990 Rojana I-II-III 1992 Hi-Tech I-II 1991 Bang Pa-In 1995 Saharattanakorn 1994 Ayutthaya 1995 Saraburi 1992 Nong Kae 1992 Siam Cement 1992 Ratchburi 1991-93 Well Grow I-III 1993 Gateway City 1994 Bangpakong 1993 Chonburi 1988 Sriracha 1990 Laem Chabang	1993 Eastern 1993 Rayong 1993 Ma Ta Phut 1991 TPI 1995 Suranaree 1990 PCS 1995 Kabinburi 1991 Prachinburi 199? Prosperity 1985 Northern Region 1992 Saha Group
SA	1992 Samut Sakhon		
EPZ	1983-89 Lat Krabang I-II-III 1977 Bang Poo I	1992 Hi-Tech 1991 Bang Pa-In 1995 Saharattanakorn 1995 Saraburi 1992 Nong-Kae 1992 Ratchburi 1993 Gateway City 1991 Chonburi 1990 Laem Chabang	1993 Ma Ta Phut 1995 Suranaree 1995 Kabinburi 1991 Prachinburi 1985 Northern Region

GIZ: General Industrial Zone; SA: Special Area for Dyeing, Food, Chemical Industries; EPZ: Export Processing Zone. [Year of completion is indicated]

Sources: IEAT (1979); BoI (1993a,1993b).

Current government policies consider *export supporting industries*, to be promoted mainly with the objective to boost exports: e.g. automotive parts, electronic parts and further components. The Bol approved an additional list of 10 supporting industries. Regardless of their location, an 8-year income tax exemption will be granted and no limit on foreign ownership will apply (BOI announcement No. 3, 1994) (BOI, 1995,b).

Table 8 shows the importance of Bol promoted investment. Comparing with the data in Table 9, a rough association can be detected between Bol approved investment and net inflows of FDI (aggregate and in the manufacturing industry in particular). External factors however, also played an important role in explaining the FDI boom (e.g. the appreciation of the Yen, Won and Taiwanese Dollar against the USD and THB).

**Table 8: Data on investment promotion in Thailand, 1985-1994\***

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
<b>APPLICATIONS</b>										
Number of applications	325	431	1085	2128	1284	1016	631	444	1225	1538
Tot. investment (bn THB)	60	60	209	531	462	525	250	213	279	592
Reg. capital (bn THB)	15	16	57	139	132	113	68	41	68	137
Thai employees (x1000)	76	101	332	533	410	316	178	118	313	323
<b>APPLICATIONS APPROVED</b>										
Number of approvals	210	295	626	1464	1179	932	605	394	852	1189
Tot. investment (bn THB)	54	35	68	202	290	477	279	284	176	281
Reg. capital (bn THB)	7	9	18	60	71	98	84	46	35	73
Thai employees (x1000)	59	60	206	353	335	292	189	103	209	252
<b>PROMOTION CERTIFICATES ISSUED</b>										
Number of certificates	-	-	-	-	848	731	528	357	478	943
Tot. investment (bn THB)	-	-	-	-	183	194	179	446	177	209
Reg. capital (bn THB)	-	-	-	-	44	62	59	37	32	62
<b>PROJECTS STARTING OPERATIONS</b>										
Number of projects	78	145	168	223	277	415	433	440	375	311
Tot. investment (bn THB)	8	21	20	24	31	80	83	97	129	101
Reg. capital (bn THB)	2	4	5	9	13	33	41	39	46	38
Thai employees (x1000)	14	26	41	55	60	98	90	87	88	92

Source: TDRI (1993:20), TDRI (1994:18), TDRI (1995).

\* In 1994 1USD = 25THB

**Table 9: Net inflow of FDI in Thailand (mio THB), 1985-1994\***

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
<b>Financial inst.</b>	-1240	510	443	2576	2843	4531	6813	6555	2944	-11561
<b>Trade</b>	1082	1783	853	3882	6822	12928	7637	7096	5380	8561
<b>Construction</b>	1585	1235	1349	1841	3926	3301	3351	14534	3483	1752
<b>Mining &amp; quarrying</b>	516	240	192	473	575	1139	2066	3126	2889	1310
<b>Agriculture</b>	77	202	286	315	603	763	598	-151	329	-158
<b>Manufacturing</b>	1358	2124	4749	16162	21866	31003	23350	17467	19088	12872
Food	395	287	437	1065	1962	1757	1683	1284	965	1153
Textiles	60	86	996	1111	686	1777	1124	1462	-104	869
Met.&non-met.Prod.	-126	-23	365	2113	2762	2886	2196	1696	2397	1133
Electrical appliances	280	617	6317	8865	10677	8981	5907	5907	3585	1494
Machinery transp. eqt.	32	-15	160	631	1103	2475	2183	1084	1566	299
Chemicals	488	484	868	1060	2819	4318	3834	1624	4664	838
Petroleum prod.	0	8	-16	770	-1190	3029	-374	1279	4843	4681
Construction materials	38	5	6	26	85	12	146	375	111	129
Others	190	674	797	3070	4773	4073	3625	2757	1060	2275
<b>Services</b>	535	670	749	1109	1594	2054	1776	2150	485	1404
<b>Real estate</b>	528	143	423	1419	7108	8421	3636	1561	4614	-2963
<b>Other</b>				186	361	554	2163	1426	-225	3738
<b>TOTAL</b>	4442	6908	9044	27964	45698	64695	51389	53764	38988	14954

Source: TDRI (1993:18;1994:16, 1995)

\* In 1994 1USD = 25THB

Recently, the inflow of foreign capital consisted for a greater share of portfolio investment and deposits. This was encouraged by interest rates which were higher than interest rates in the US and Japan. In 1993, investment from the US, Singapore, and Hong-Kong declined significantly and Japan became the first investor (Bank of Thailand, 1994:93), maintaining this position until now.

During the period 1988-92 Thailand was the sixth most important host of FDI among the developing economies (9.5 bn USD) after Singapore (21.7 bn USD) and Malaysia (13.2 bn USD), but before Indonesia (5.6 bn USD) (World Investment Report 1994).

### 3.3 Financial support policies

In February 1994, the EXIMBank of Thailand started its operations under the supervision of the Minister of Finance.<sup>13</sup> It is the specialised financial institution of the government mandated to promote Thailand's exports and investment abroad by providing credit, guarantees, insurance, or other financial services (Bank of Thailand, 1994:59). The operation of the EXIMBank includes (Export - Import Bank of Thailand, 1995):

- the export refinancing service formerly under the Bank of Thailand (the Packing Credit Facility), at a maximum rate of about 10%. Since mid 1996 USD denominated packing credits are also offered (Bangkok Post, 1996b)
- a short-term revolving credit facility (the Pre-shipment Facility) designed for exporters with purchase orders but no access to the commercial bank credit lines. Attached to the Pre-shipment Facility is the post-shipment service which allows exporters to negotiate their export bills and use the proceeds to settle the outstanding debt under the pre-shipment facility.
- a medium-term Credit for Business Expansion to support exporters who are expanding production capacity.
- a long-term financing facility to support the export of capital goods and services from Thailand, and the Financial Services for Thai Investment Overseas. The former provides credits to buyers or their banks (including the financing of construction projects abroad with Thai participation), the latter includes e.g., equity participation.
- an Export Insurance Scheme against commercial and political risks.

The establishment of the Export-Import Bank is expected to facilitate especially trade with neighbouring countries (Bangkok Bank, 1994:17).

Exemptions from taxes on purchases of raw materials are sometimes granted. These exemptions can be restricted to exporters. In 1993, tax exemptions for rubber exporters have been extended. No VAT has to be paid on exports. Exporters have to deposit a bond of 7% VAT on imported raw materials. However, the returning of these VAT-bonds after exports can take a long time, causing cashflow problems for some small exporters (Bangkok Post, 1996a).

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<sup>13</sup> Following the promulgation of the Export-Import Bank of Thailand Act B.E. 2536 (Royal Gazette, 6 September 1993).

Finally, there is some modulation of excise duties, affecting imports in much the same way as tariffs do. In 1993 e.g., a number of raw materials used in oil refining were exempted from excise duties (Bank of Thailand,1994:117).

### 3.4 Tariff policies

#### 3.4.1 Nominal tariffs and effective protection

Thailand presents a rather curious tariff policies record. Paradoxically, when policies changed towards greater export orientation of the economy in the 1970s, both tariff and non-tariff barriers were raised substantially.

During the 1950s and 60s, and until the 1970s, tariff protection in Thailand compared to other developing countries, was relatively low ranging from 15 to 30% (Herderschee,1993:353).<sup>14</sup> In the 80s (weighted and unweighted) average nominal tariffs have slowly risen, however (Table 14 below).<sup>15</sup> Two reasons can be listed: (a) surcharges (of 10%) have been introduced in 1982 and raised later (to 20%), (b) tariff rates on raw materials and intermediate goods have been raised by 5% and those for finished products with 10% in 1985. These rises have mainly been carried out for revenue reasons. They never became excessive, however, and can still be considered as mild (Hill & Suphachalalai,1992:321).

According to Robinson e.a. (1991:27), the average rate of effective protection has doubled in the 1970s<sup>16</sup>. Thailand's effective rate of protection (ERP) rose from 16% in 1969 (which was relatively low), over 27% in 1973 to 54% in 1978 (Greenaway & Milner,1993:17,23). During the 1980s, the ERP slightly rose further, only to stabilise at the end of the decade.<sup>17</sup>

Thailand acted against the IMF and World Bank prescription of "low uniform tariffs"<sup>18</sup>, but by moving towards uniform tariffs some progress, although limited, has been achieved. Thailand entered the 1980s with a complex tariff structure (with tariff rates ranging from 0-200%), but in 1982 the first attempts were made to reduce tariff dispersion: the maximum rate was reduced to 60%, with the exception of a limited number of luxury items like automobiles.<sup>19</sup> From Table 10 it appears that the standard

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<sup>14</sup> Average nominal protection weighted by export value declined from 26% to 6% in 1975-85 because of the rapid expansion of exports with low nominal protection (Herderschee,1993:353).

<sup>15</sup> Not completely comparable figures from Akrasanee e.a. (1991:16) indicate that the simple average import duty further rose from 36.2% in 1984 to 39.4% in 1987.

<sup>16</sup> Taking both negative (i.e. raising the domestic cost of intermediary inputs) and positive protection (i.e. raising the prices of final goods), and surcharges and exemptions into account.

<sup>17</sup> For an overview of empirical studies of ERPs, we refer to Warr (1993:39-42). The results are usually not comparable, due to the use of different data sets, product definitions and computation methodologies. In all studies, however, the protection system was shown to be against agro-based industries and in favour of the manufacturing sector.

<sup>18</sup> The case for "low uniform tariffs", i.e. applying low uniform nominal tariffs with the intention of gradually implementing a low uniform effective protection, relies on the following considerations: (a) avoidance of misallocations of resources, (b) minimisation or neutralisation of the anti-export bias, (c) reduction of the possibility of misclassifying products, (d) reduction of the administrative burden, (e) dissuasion of interest groups to lobby for more protection, (f) avoidance of the problem of selecting industries to be protected, and (g) avoidance of the problem of ending infant industry protection (Subramanian,1994:33).

<sup>19</sup> Lowered to 150% by 1987.

deviation of tariffs slightly decreased over the period under consideration. On 1 January 1995, the maximum tariff rate was again reduced to 30% (Bank of Thailand, 1995: 120).

**Table 10: Tariff rates and effective protection**

	Sept. 1981	March 1983	Oct. 1984	Nov 1984	April 1985	Jan. 1988
<b>Nominal tariffs</b>						
Unweighted	31.0	32.6	32.8	29.9	33.8	..
Stand.deviation	(30.1)	(28.6)	(28.7)	(26.3)	(27.3)	..
Weighted*	14.3	16.2	16.6	15.3	18.5	..
<b>Effective protection</b>						
Unweighted	66.7	66.4	65.3	59.0	65.9	64.6
Stand.deviation	(140.2)	(140.4)	(136.7)	(131.3)	(132.0)	(131.4)
Weighted**	27.9	27.9	28.5	25.5	30.0	29.7

\* By 1985 import values. \*\* By 1980 value added at world prices.

Source: World Bank Estimates, cited in: Pupphavesa (1992:Table 7).

However, despite of this reduction in the tariff dispersion, the basic *cascading structure* (i.e. tariffs as a positive function of the processing stage of the product) has not been affected, as can be seen in Table 11. This finding corresponds with tariff policies in other developing countries with more drastic tariff reforms in the direction of low uniform tariffs (Subramanian, 1994:34).

**Table 11: Structure of Effective Protection Rates**

Industrial sector	APRIL 1981	JANUARY 1988
<b>Agriculture</b>	10.9	13.1
<b>Other primary products</b>	5.7	11.3
<b>Agroprocessing</b>	24.7	32.9
<b>Other manufactures</b>	53.6	51.2
Textiles	(110.4)	(59.9)
Chemicals	(49.3)	(9.5)
Machinery	(18.9)	(35.2)
Consum.goods	(51.5)	(68.7)
<b>OVERALL AVERAGE</b>	29.7	...

Effective protection rates are weighted by the share in 1980 value added at world prices. Figures between brackets indicate subsectors.

Source: World Bank Staff estimates, cited in: Robinson e.a. (1991).

Distinguishing between export-oriented industries and import-substituting industries, the relatively strong anti-export bias of tariff policies becomes evident (Table 12). Moreover, the degree of the bias seems to have increased during the 1980s. This illustrates very well the already mentioned paradox of Thailand's export successes. Part of the explanation of this paradox resides in the existence of a rather elaborated framework of protection offsets, factor-cost policies and other investment promotion measures.

**Table 12: Effective Rates of Protection by Industry Group**

Industry group	Tariff rate			Effective rate of protection		
	1981	1984	1987	1981	1984	1987
Export-oriented	3.57	4.00	4.07	9.40	9.50	11.00
Import-competing	31.30	30.28	40.36	18.00	19.70	26.30
Other industries	11.50	13.35	14.39	18.30	32.50	36.30
<b>Total</b>	19.20	19.30	24.50	15.20	20.60	24.50

Source: Akrasanee & Wiboonchutikula (1992)



Recently, a tariff restructuring has started aiming at decreasing the tax burden on exporters (e.g. tax reductions on electronic and electrical goods) and a new trend has been set towards lower average tariff rates has started. On 1 January 1995, the Ministry of Finance issued a notification to lower and streamline tariff rates from 39 rates to only 6:

0% tariff	exempted goods (e.g. medical eqt.)
1% tariff	raw materials (e.g. electronic parts and vehicles for international transportation)
5% tariff	primary and capital goods (e.g. machinery, tools and computers)
10% tariff	intermediate goods
20% tariff	finished goods
30% tariff	goods needing extra protection

For goods which need time to adjust, the restructuring will take place in 2 phases:

- 50% cut in the tariff differentials between the current rates and the new rates on 1 January 1995
- further cut till new rates on 1 January 1997 (Bank of Thailand, 1995: 120-21).

Apart from industry and Customs Department lobbying, some downward rigidity of tariffs also follows from the fact that taxes on international trade still count for an important part of government income in Thailand. In 1994, custom duties accounted for more than 17% of total government revenues (Bank of Thailand, 1995:65). In NICs like Korea and Singapore this proportion is much lower (4.6 and 1.5% respectively, for 1986-90) (ADB,1993:32).

One should be aware of the fact that the mentioned trend of import tariffs is not uniformly downward. Tariff policies should still be seen as an instrument that might raise protection for particular industries if deemed necessary.<sup>20</sup>

Finally, it should be added that, although in most cases tariff rates are dependent on domestic considerations, tariff reductions sometimes have a strategic character. This was the case e.g., with the 1993 reduction of tariffs on films of foreign movies in order to lower trade policy pressure from the US, and also (but for other reasons) with the reduction of duties for imports of wood products from Laos (including plywood, parquet flooring, door frames and furniture) (Bank of Thailand,1994:118).

No data exist on effective protection in Thailand during the 1990s, as the recent input-output tables have not been made public. Normal protection rates can be calculated using import duties and imports as recorded by the Bank of Thailand. Some nominal protection rates for the period 1990-1994 can be found in Table 13.

**Tables 13: Nominal protection, 1990-1994 (%)**

	1990	1991	1992	1993	1994
All products	11.04	8.64	8.69	8.92	8.67
Mineral fuels & lubricants	1.54	1.49	1.93	2.30	...
Chemicals	16.19	15.09	14.61	12.95	...
Machinery	15.10	10.73	9.75	9.84	...
Manufacturing goods	9.19	7.81	9.10	9.74	...

Source: calculated on the basis of Bank of Thailand, Quarterly review, vol 35, No. 2, June 1995.

<sup>20</sup> As an example we mention live swine and chilled or frozen meat of swine for which tariffs have been raised in 1993 (Bank of Thailand,1994:117).

### 3.4.2 Discriminatory Import Tariff Reductions

#### ***The ASEAN PTA***

The first attempt at reducing tariffs to expand trade within ASEAN was the agreement on ASEAN Preferential Trading Arrangements (PTA) which was signed in 1977. At the same time the ASEAN Committee on Trade and Tourism (COTT), a negotiation forum and supervisory body, was established.

Rather surprisingly, the PTA had no specified targets and provided only a mechanism for trade liberalisation. During the 1977-80 period, trade liberalization via trade preferences was carried out on a product-by-product basis and followed the matrix and voluntary approaches. First, voluntary offers for trade preferences were made for 20 products; this number has later been increased to 71 items (21 via the matrix approach and 50 via the voluntary approach) at the 6-digit BTN classification level). Less than 2% of total intra-ASEAN trade was covered by the preferential regime (Imada,1993:5). The items involved corresponded to 12% of total ASEAN imports.

In 1980, decision-making shifted to the across-the-board approach. For 6000 items with intra-ASEAN trade value of less than 50000 USD (1978 trade statistics), tariff cuts of 20% were approved. The ceiling was gradually raised to 10 million USD in 1982. Each country maintained, however, a national exclusion list for sensitive products. In 1984, 20-25% tariff cuts were agreed upon for all product items with an import value above 10 million USD. In 1986, 12647 products were covered by the PTA, half of which with preferential margins of 20-25%

Generally speaking, the impact of the PTA was very limited; it covered less than 5% of intra-ASEAN trade. As pointed out by Imada (1993:6), one of the underlying reasons was the tendency for the percentage of excluded items to increase with the import value range. According to the same author, not much evidence exists in fact to attribute or even relate the increases in intra-ASEAN trade in the 1970s to the functioning of the PTA, as these basically reflected oil trade, with Singapore acting as a refiner for Brunei, Indonesia and Malaysia.

Other reasons for the poor results of the PTA include: (a) preferences were sometimes granted for non-traded goods (e.g. wood imports in Thailand), (b) preferences were often not granted for imports for which other ASEAN countries had comparative advantages, and (c) PTA products mostly showed low or medium price elasticities so that (small) tariff preferences had marginal effects (Imada,1993:6,7).

A last ditch effort to save the PTA was made at the ASEAN Summit in 1989, when for the first time a clear objective was agreed upon: the PTA had to cover 90% of all items or 50% of intra-ASEAN trade value in 1995. In addition, the preferential margins had to range from 25 to 50% and the exception lists could not include more than 10% of all items. At the beginning of 1989, 1679 items were removed from the exclusion lists and the minimum preferential margins were raised to 25%. Some further attempts followed but without much effect.

### ***The AFTA Project***

In 1992, at the summit of the ASEAN heads of government in Singapore, the ASEAN member states launched the ASEAN Free Trade Agreement (AFTA) Project. Initially, the dismantling of trade barriers was scheduled over a 15-year period, starting on January 1st 1993.

The following measures were envisaged:

- a progressive reduction of tariffs to a maximum of 20% within 5 to 8 years through the *Common Effective Preferential Tariff* (CEPT), and to 0 to 5% over the subsequent period for all manufactured products with an ASEAN component of 40% or more (according to an agreed scheme<sup>21</sup>);
- the application of an accelerated CEPT scheme (the so-called *fast-track*) to 15 commodity groups: vegetables oils, cement, chemicals, pharmaceuticals, fertilizer, plastic, rubber products, leather products, paper pulp, textiles, ceramics and glass products, gems and jewellery, copper cathodes, electronics, and wooden and rattan furniture. For these product groups tariffs would be reduced to 20% or less by January 1st 1993, and further to 5% or less by January 1st 2000;
- provision of an exclusion list for the above tariff reduction schemes;
- a gradual elimination of all non-tariff barriers (incl. all quantitative restrictions);
- cooperation in areas such as: development of common rules to ensure fair competition, removal of technical barriers to trade<sup>22</sup>, regular macroeconomic consultations, promotion of venture capital and other forms of industrial cooperation (Kondo,1992:30).

At the XXVI Meeting of the ASEAN Economic Ministers in Chiang Mai in 1994, the decision was taken to speed up the completion of AFTA. It is now due to be completed in 2003 - 2006 for Vietnam - (see Cuyvers & Puppavesa, 1996a) and the exclusion lists should be abandoned by 2000. In addition, it has been decided in principle to bring agriculture into the programme<sup>23</sup>, to start discussions on services and intellectual property rights, and to negotiate with NAFTA and the Australian-New Zealand Closer Economic Relations initiative.

The establishment of AFTA is very important for Thailand, as ASEAN has since 1995 become its most important export market with a total of 268 billion THB (Business Econ. Dept.).

The impact of the CEPT was already felt in 1994. The ASEAN secretariat in Jakarta estimated that 26% of the increase in intra-ASEAN trade in that year could be attributed to tariff reductions under AFTA (ASEAN Secretariat, 1996b). The Malaysian Ministry of Trade and Industry predicted that by the year 2000, 88% of the tariff lines of the ASEAN member states would fall to levels between 0 and 5%. These percentages would differ, however, among the different ASEAN countries, with Thailand expected to have reached an average CEPT-tariff of 7%, whereas Singapore, Brunei, Malaysia, Indonesia and the Philippines would have average tariffs of 0%, 1.3%, 2.9%, 5.01% and 5.42% respectively (ASEAN Secretariat, 1996a).

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<sup>21</sup> See: Akrasanee & Stifel (1993:20-22) for the general formulas of the tariff reductions.

<sup>22</sup> Harmonisation of standards, reciprocal recognition of tests, and certification of products.

### 3.4.3 Export taxes

Export taxes on rice and rubber were reduced in the early 1980s. They encouraged diversification into several tree crops, cassava and corn and were partly offset by public investment and subsidies (Akra-sanee e.a.,1991:3). Other export taxes are levied on teak and other forms of wood, dried fish in powdered form, raw hides, scrap iron and raw silk (Economist Intelligence Unit, 1993:42).

## 3.5 Non-tariff measures

A limited number of non-tariff restrictions exist, in addition to the above mentioned tariff barriers. They are administered by the Ministry of Commerce.

Although in the beginning of the 1960s quantitative restrictions were more important than tariffs, their importance became marginal since the 1970s. In 1989 only 75 out of 4000 import items, and mainly from agriculture, were protected by non-tariff measures (Akra-sanee e.a.,1991:15). In 1993, non-tariff import restrictions included bans on 18 commodities, and also 30 commodities were subject to special permissions. Products with restrictions on imports included: products from socialist countries, weaponry, rice and sugar. Restrictions on the latter two are to prevent re-importation.

Since the 1970s, local content requirements (LCRs) have been imposed on milk products (100%), steel and copper wire (100%), motorcycles (70%), diesel engines (50%), and automobiles (54%) (Herderschee,1993:353). In 1994, 54% local content was required for cars were 54%, 60-70% for small trucks, and 40-50% for trucks and buses (Jitsmarnkul,1994). In order to comply with WTO-requirements relating to TRIMs, LCRs will have to be abolished by the year 2000. The Ministry of Industry has agreed to remove the LCR for cars already by mid- 1998, as a response to one of the requests of General Motors to invest in an assembling plant in Thailand (Cuyvers e.a., 1996b).

Thailand will also have to change its valuation system of imports in accordance with the GATT-system by the year 1999. Until now, the Customs Department assesses the price of imported goods by comparing similar goods and by using the highest price during the last 3 months as a basis for taxation. This may lead to high taxes on imported goods that are also produced by local industries. (Bangkok Post , 1995).

In a number of cases, temporary measures have been used, e.g. for synthetic fibres and paper and pulp industries (Herderschee,1993:353). It has been argued that the lack of an anti-dumping code made these measures necessary.

In a comparative perspective, Thailand's NTBs are not excessive. Compared to a sample of Southeast Asian countries<sup>24</sup>, the number of banned products and local content requirements are more or less

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<sup>23</sup> Agricultural products will be put on a two-tier temporary exclusion list. Sensitive products like tobacco, timber, clovers and garlic will stay protected until 2001-2003. Highly sensitive products like rice and sugar will keep protection until 2010 (ASEAN Secretariat, 1996c).

<sup>24</sup> Indonesia, South-Korea, Malaysia, Philippines.

comparable, the degree of the use made of import licensing is low, and Thailand is the only country without import quotas (Greenaway & Milner, 1993:76).

Export controls to ensure low-price domestic supply include bans on 16 commodities and 22 other controls, e.g. paper, pesticides, flat iron sheets, polyfibre and cement.

### 3.6 Protection offsets

Since the late 1950s, protection offsets (i.e. measures offsetting the cost-increasing effect of tariffs on the price of intermediary inputs entering into the production of exportables) have been introduced by the Thai authorities. Full exemptions from business taxes and tariffs on imported inputs have been granted since 1972. Different offsetting schemes co-exist and were initiated by various government agencies such as the Board of Investment, the Fiscal Policy Office, and the Customs Department (Table 14). However, all schemes are administered by the Customs Department.

**Table 14: Protection offsetting schemes in Thailand**

<b>BENEFICIAL TO:</b>	<b>PROVIDED BY:</b>				
	<b>Bol</b>			<b>Fiscal PO</b>	<b>Customs D</b>
Bol Supported Firms	Tax/tariff exempts	Standard drawback rts	Case-by-case drawback		
Non-Bol Supp. Firms			Standard drawback rts	Case-by-case drawback	
Bonded Factories					Tariff exemptions
Export processing zones				Tariff exemptions	

The Bol schemes, by which privileges are granted under the *Investment Promotion Act* of 1977 (see also Section 3.2.3.3), have traditionally been the most important in terms of utilisation. In 1994, imports of raw materials were (partially) exempted from duties for a total amount of about 60 billion THB (Committee on Subsidies and Countervailing Measures, 1995: 7).

The import protection offsets which are provided by the Bol have an indirect export promoting effect (via the reduced cost of the import content of exported goods). Table 15 shows the BOI approved applications for projects according to their export orientation and according to the ownership of the planned investments. It will appear the share of the highly export oriented investments has decreased sharply since 1993, in favour of the applications which will generate less exports.

**Table 15: BOI approved applications by export orientation and by ownership, 1990-95**

	1990 (%)	1991 (%)	1992 (%)	1993 (%)	1994 (%)	1995 (%)
<b>BOI approved applications by export orientation</b>						
Exports 80-100%	545 (60.0)	334 (56.2)	219 (57.2)	267 (37.0)	305 (26.0)	303 (25.3)
Exports 30-79%	24 (2.6)	33 (5.6)	27 (7.0)	134 (18.6)	211 (18.0)	213 (17.8)
Exports 0-29%	340 (37.4)	227 (38.2)	137 (35.8)	320 (44.4)	657 (56.0)	681 (56.9)
Total projects	909 (100)	594 (100)	383 (100)	721 (100)	1173 (100)	1197 (100)
<b>BOI approved applications by ownership (number of projects)</b>						
100% Thai owned	292 (32.1)	204 (34.3)	128 (33.4)	402 (55.8)	665 (56.7)	582 (48.6)
100% Foreign owned	144 (15.8)	93 (15.7)	67 (17.5)	79 (10.9)	105 (8.9)	133 (11.1)
Joint-ventures	473 (52.0)	297 (50.0)	188 (49.1)	240 (33.3)	403 (34.3)	482 (40.3)
Total projects	909 (100)	594 (100)	383 (100)	721 (100)	1173 (100)	1197 (100)

In addition, other measures from the BoI are sometimes modulated according to minimum export shares of sales, which implies a direct export promoting effect (see Table 16).<sup>25</sup> Before 1993, the BOI linked export requirements to incentives for products from particular industries such as rubber, leather, chemical industries, electronics etc., resulting in a high percentage of exports-oriented BOI approved projects. All requirements are abolished, however, by BOI Announcement No. 1/1993 (Cuyvers e.a., 1996b: 13). This led to a sudden drop of export oriented BOI projects.

**Table 16: Criteria for granting trade-related investment privileges**

Trade related criteria for granting privileges	Trade related privileges
No export requirements <sup>26</sup>	50% of import duty reduction on machinery which is not included in the tariff reduction notification of the Ministry of Finance (Notif. No. C13/2533), subject to import duty greater than or equal to 10% in Zone I & II (for Zone I: provided projects are in priority activities)
	Exemption of import duties on machinery in Zone III and in industrial estates.
	75% reduction of import duty on raw and essential materials used in production for domestic sales for 5 years, renewable on an annual basis, provided that raw or essential materials comparable in quality are not being produced or are not originating within the Kingdom in sufficient quantity to be acquired for use in such activity
	8 year import duty exemption for machinery and equipment for approved R&D.
Exports min. 30% of total sales	One year exemption of import duties on raw or essential materials used in export products in projects in Zone I and Zone II.
	Five year exemption of import duties on raw or essential materials used in export products in projects in Zone III.
Exports min. 50% of total sales	Foreign investors may hold a majority of shares of promoted joint-ventures in Zone I and II.
Exports min. 80% of total sales	Exemption of minimum value added creation requirement (20% of sales revenue) for promoted investment.
	Foreign investors may hold all the shares of promoted joint-ventures in Zone I and II.
	50% import duty reduction on machinery which is not included in the tariff reduction notification of the Ministry of Finance (Notification No. C13/2533), subject to import duty greater than or equal to 10%, for projects located in Zone I (outside industrial estates or promoted industrial zones).
	Three year exemption of corporate income tax for projects in industrial estates or promoted industrial zones in Zone I.
	Eligible activities for investment promotion, required to locate in Zone III or industrial estates (according to Announcement 2/1993), can locate in Zone II (if application submitted before end of year 2001).
Exports 100% of total sales	Exemption of business tax (i.e. tax on gross revenues) and import duties on machines, components, raw materials, construction materials, etc. if project located in EPZ.
	Exemption of export taxes and business tax on imported goods and all derived products if project located in EPZ
	Bonded warehouse system with low administrative burden in EPZ.

Source: BoI (1993a).

One obvious effect of this system of tax exemptions on imports of raw materials, intermediate inputs and capital goods is that tax revenues are substantially lower than the nominal weighted average rate would suggest. In spite of this, custom duties still accounted for more than 17% of total revenues (BOI, 1995: 65).

<sup>25</sup> For a comparison of Thailand's incentives with these in Malaysia, the Philippines and South-Korea, a general discussion, and a distinction between input- and output-related incentives, see: Falvey & Gemmill (1990:111-116) and Greenaway & Milner (1993:28-34).

<sup>26</sup> Foreign investors may hold all or majority of the promoted joint-venture in zone III.

### 3.7 Specific export promotion activities

The Department of Export Promotion (DEP) of the Ministry of Commerce is responsible for additional export promotion activities. Through its 19 Thai Trade Centres abroad it offers information and match-making services.<sup>27</sup> As part of the regionalisation policy, five Regional Trade Centres have been established in Chang Hai, Khon Kaen, Songkla, Chantaburi and Surat Thani (DEP, 1995). In addition, economic missions and participations in trade fairs abroad are organised (Table 17). In Thailand, the Department of Export Promotion organizes expositions, provides potential buyers with information on Thai products and producers, and provides Thai exporters with information on foreign markets (regulations, market surveys, market trends, statistics, etc.). A Permanent Exhibition Hall at the premises of the DEP, with sample products of over 450 exporters, is open for foreign buyers. To assist Thai exporters in upgrading the quality of their products, a Trade Training Centre has been set up under the DEP.

**Table 17: Department of Export Promotion: Participation in trade fairs abroad\***

PRODUCT	1988	1989	1990	1991	1992	1993	1994	1995	1996
Fresh fruit & vegetables	France	France	Japan	France	Australia-J	Canada-J	Netherl.-J		
Processed food	France	Japan FRG	USA Japan France	USA Japan UAE	USA Japan FRG FRG-J France CzeckR. Spain Kuwait Malaysia	USA-J2 Japan FRG UK-J Canada-J2 Australia Australia-J Hong-Kong-J UAE Malaysia	USA USA-J Japan UK-J Spain France-J Canada-J Australia-J New-Zeal-J	Japan USA Germany Vietnam	USA Japan Belgium France Vietnam
Beverages						Japan Spain			
Textiles (incl. garments)	Chile	FRG-3	Japan-2 FRG-2	FRG	Japan FRG-6 UK CzeckR. SlovakR S-Arabia	FRG-4	FRG-2	Germany USA	USA
Leather products		FRG				H-Kong New-Zeal-J		Italy	USA Italy
Footwear		FRG	FRG		FRG CzechR. SlovakR S-Arabia	FRG	FRG		Germany
Furniture	USA		Singap.	Japan-2	Japan Singapore Kuwait S-Arabia Vietnam	FRG FRG Greece-D Singapore	UAE	USA Japan	UAE Japan
Household utensils	USA	USA Japan	USA Australia	USA FRG Japan	USA-2 Japan-2 FRG S-Arabia Italy UK-J	USA Japan Japan-J Japan-D UAE	UK UK-J Italy		USA
Toys		FRG	FRG	FRG	FRG	USA	FRG	Germany	UAE
Handicrafts & ceramics	S-Korea	FRG-2	USA		USA	USA-2	USA		
Gift & decorative	Switzerl.	Japan France	FRG	FRG-3	Japan UK	Japan Japan-D	Italy	USA-2 Germany-3	Germany-3 UK

<sup>27</sup> Thai Trade Centres (TTC) abroad are located as follows: 4 in Australasia (Sydney-Australia, Osaka and Fukuoka-Japan, Ho Chi Minh City, Vietnam), 1 in the Middle East (Dubai-United Arab Emirates), 8 in Europe (Lyon-France, Berlin, Frankfurt and Hamburg-Germany, Milan-Italy, Rotterdam-The Netherlands, Barcelona-Spain, Manchester-UK), and 6 in North-America (Vancouver-Canada, Atlanta, Chicago, Los Angeles and New York-USA, and Guadalajara-Mexico) (DEP, 1993).

PRODUCT	1988	1989	1990	1991	1992	1993	1994	1995	1996
items		Australia			Italy UK-J Senegal-D	UK UAE		UK Italy Singapore Japan	Italy USA Japan
Jewellery & gemstones	Chile	Japan Switzerl.		Netherl.	Italy	Italy-2	Italy	Swizerl.	
Plastic products	S-Korea	FRG-2	France	USA	S-Arabia		USA		
Artificial flowers	Chile	Japan FRG-2 Australia			Japan FRG-3				
Electrical & Electronic Products & Components				FRG-D	Japan	FRG			
Vehicles & parts						FRG			Germany
Office supplies					USA				
Industrial Products		Switzerl.							
Construction materials	S-Korea	Austral	Australia	Malaysia					
Printing	FRG	FRG	FRG	UK		Senegal-D	USA-D		
Books		FRG	UK			FRG			
Travel products						H-Kong N-Zea-J			
General products		FRG Indonesia Iraq	Japan FRG-3 CSR GDR UK Canada Taiwan S-Korea Laos	FRG-3 USSR UK Hungary Switzerl. Poland Slovak R. Czech R. Vietnam PRChina UAE	FRG-J GreeceJ Seneg-D Hungary FRG-D UK-D Hungary Kuwait UAE-2 Vietnam-2 South-Afr.	USA Japan-4 Japan-D2 FRG-2 FRG-D UK Belgium-J CIS-2 Belgium-J Latin America Hong-Kong-J Panama UAE Vietnam S-Africa	Japan-6 Japan-J2 Japan-D FRG-3 UK-D Colombia Mexico Mexico-J	Russia Panama Vietnam Japan-2 S-Africa UAE Lao PDR.	Philippines Russia UAE-2 Panama Vietnam S-Africa
Telecomm. products									Singapore

\* Suffixes indicate *joint fairs* (J), *product displays* (D), or multiple fairs. Data for 1988 cover only the last trimester of the year.

Source: Department of Export Promotion

## 4. An evaluation of Thailand's export policies

In this evaluation of Thailand's export policies we aim at giving a tentative assessment of their effectiveness.

### 4.1 Growth versus competitiveness effects

An obvious question to answer when evaluating the impact of Thailand's trade policies on the country's trade performance relates to the relative contribution of foreign demand and competitiveness gains to trade growth. If economic growth would be completely the result of external growth effects, it should be labeled 'export-led' (Bhagwati, 1990:20). If not, export incentives are likely to have played a role.



A tool suited for a disaggregation of both effects is shift-share analysis of export growth rates. Akrasanee e.a. (1991:20) reported shift-share computations related to Thailand's exports using data of 1982-87 (Table 18). These computations show that although the growth of world markets has been important, Thailand's export growth is substantially in excess. This is especially true for manufactured exports, which are the main source of export growth. Almost half of the registered growth in manufactured exports could be attributed to increased market shares. The situation in the important sectors of machinery and transportation equipment and miscellaneous manufacturing is particularly striking: the competitiveness effects (market share gains) are substantially outperforming the demand growth effects. The loss of market shares in the sector of other primary products indicates structural changes of Thailand's exports.

**Table 18: Shift-share analysis of Thailand's export growth (%), 1982-87**

Sector	Growth effect	Competitiveness effect	Total export growth
<b>3-Sector Disaggregation</b>			
Minerals & Fuels	-0.3	1.5	1.2
Other Primary Products	28.5	-5.0	23.5
Manufacturing Sector	40.1	34.9	75.0
<b>8-Sector Disaggregation</b>			
0 Food & Live Animals	26.0	-9.0	17.0
1 Beverages & Tobacco	0.9	-1.6	-0.6
2 Non Food/Fuel Crude Mat	4.4	2.6	7.1
3 Minerals, Fuel, Etc.	0.0	1.5	1.5
4 Animal, Vegetable Oil, Etc.	0.1	-0.1	0.1
5 Chemicals, Etc.	1.4	0.2	0.1
6 Mfg, classified by material	15.1	-3.1	12.1
7 Machinery & Transp. Equipm.	7.7	18.2	25.9
8 Misc. Manufacturing	12.1	22.9	34.9
9 Commodities n.e.c.	0.5	0.0	0.5

Source: Akrasanee e.a. (1991:21).

As Akrasanee e.a. added, calculations with more recent data would have revealed a greater gap between demand growth and actual export growth, a rising share of manufacturing in total exports, and relatively higher competitiveness effects.

Calculations from Chirathivat and Wahawisan (1990:3) also indicated that, whereas the expansion of the world markets was the major factor explaining Thailand's export success in the early 1980s, competitiveness gains were predominant in the second half of that decade. Econometric estimations of export demand functions seem to point in the same direction (Akrasanee e.a., 1991:19-20). Export growth in the late 1980s and early 1990s is only partly to be attributed to world demand growth; the cost-competitiveness of the Thai industry and the structural changes in the product-mix offered, resulting in market share gains, are at least as important an explanatory factor.

## 4.2 Macro-economic and factor price policies

It is generally acknowledged that the stability of macro-economic policies in Thailand have been beneficial to economic growth in general and export success in particular. Monetary policies of the Bank of Thailand have been aimed at stability, and have contributed to controlling the price level. It is clear, however, that this relatively strict policy has been interrupted by short periods of expansionary policy

when conditions urged (and allowed) this. The discount rate was the principal policy instrument and interest rate ceilings and credit controls played a lesser role. Other policy instruments were not important. The attempts at fine-tuning were not always effective, however, because of lag-effects (making the decision on the time of implementation difficult), the limited controllability of the monetary base, the low quality of forecasts of key economic variables and the risk of overreaction (e.g., the credit control up to 18% in 1984) (Nidhiprabha,1993:197,198). Exchange rate policies have also contributed to macro-economic and price stability. It has been characterised by a relatively stable exchange rate with the USD, and further by systematical corrections for overvaluations.

As far as factor price policies are concerned, the government has followed a moderate low-price policy for energy, infrastructure, capital and labour. Many of these policies have no direct impact on exports, but they defend the competitiveness of Thailand's exports and sometimes the measures depend on export requirements. However, cheap credit and energy policies have completely lost their significance today. Apart from the significant contribution of infrastructural investment in general, we mentioned in particular investment in infrastructure in rural areas which occasionally made transportation of low-value crops such as tapioca economical, transforming these into exportables, (Akrasanee e.a.,1991:4).

The incentives of the Board of Investment can be considered as quite successful in attracting foreign direct investment and they have certainly contributed to the development of Thailand's exports. The degree to which this was the case will be discussed in the next section. A critical note should be added, however. The functioning of the BoI could probably be optimised. According to Warr (1993:38), there is a lack of continuity in the BoI's policies and the granting of privileges (and the extent of the privileges) is a result of exercising discretionary power. Incentives offered differ within the same industry. A careful study of the political economy of the BoI's implicit industrial policy would probably offer interesting observations.

A major factor to explain Thailand's competitiveness is the relatively low labour cost. The country's specialisation in labour-intensive goods is directly related to this. Although this policy has been very successful and in agreement with Thailand's comparative advantage, one might question the sustainability of low-wage policies. A first problem is the opening to the world markets of other countries in the region with still lower labour costs, especially China and Vietnam. Minimum wages in Thailand are about five times higher (5 USD/day compared to 1 USD/day) (Chanjindamane, 1994). A second problem can be found in the domestic pressures for higher wages because of a relatively skewed income distribution in Thailand. A long-run comparison of Gini-coefficients indicates that a substantial and long-run increase in income inequality has taken place since the beginning of the 1960s until the beginning of the 1980s.<sup>28</sup> Moreover, more recent data indicate that income distribution became particularly skewed during the first half of the 1980s, if we consider the income shares of the

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<sup>28</sup> The Gini-coefficient for Thailand moved from 0.414 in 1962-63 to 0.446 in 1981 (Krongkaew,1993:415). A recent comparative study by Deininger and Squire (1996) showed a maximum Gini-coefficient in the 1962-1992 period of 0.515.

lowest and highest income quintiles.<sup>29</sup> Looking at the situation in more detail, increasing inequality in income distribution during the first half of the 1980s is to a large extent attributable to a relative retrogression of agricultural incomes. The population living in poverty increased from 23% in 1980 to 29.5% in 1986. There is no complete consensus opinion on the current trend and the situation in the near future. Some commentators expect a stabilisation (at a high inequality level), others expect a deterioration.<sup>30</sup> A consensus does exist, however, on the fact that the income distribution is "relatively skew". This is confirmed by a comparison of the income distribution (measured by percentage shares in income per fractile) of Thailand with that of countries within the same per capita income range (World Bank, 1994:162,163,220,221).

### 4.3 The export effect of inward FDI in Thailand

The record of economic and export successes in Southeast Asia has coincided with national economic policies showing different degrees of outward orientation, and of external trade and investment promotion. Japan e.g., was significantly more restrictive and selective regarding FDI than Singapore or Hong-Kong (Bhagwati,1990:20). Thailand seems to have opted for a relatively liberal policy towards FDI, partly offsetting its relative protective trade policies (cfr. infra).

It is often taken for granted that Thailand's export successes are completely attributable to the FDI boom. In our opinion, this is only partly true. As Akrasanee e.a. (1991:22-) have rightly pointed out the investment boom did not precede the accelerating export growth, taking due account of the usual start-up periods. The first signs of export breakthrough could be observed as soon as 1985, whereas investments took off only in 1987, resulting in a substantial inflow of FDI in 1988 and therefore probably pushing up exports not before 1988. Hence, the first of the more recent export successes was achieved mainly with domestic capital and was partly induced by excess capacities of protected industries. This excess capacity effect was the combined result of investment policies and import protection (Akrasanee e.a.,1991:17), and its effect has probably been strengthened by anticipating behaviour of companies faced with capacity controls by the Ministry of Commerce (Herderschee,1993:353).<sup>31</sup> The excess capacity effect is probably able to explain some export entries, but to our knowledge, it has not been studied systematically until now.

The above argument evidently does not imply that inward FDI has not been extremely important in strengthening Thailand's export capacity. Although FDI at first did not precede the development of Thailand's exports, there is a remarkable association in time between both, and a causality between FDI and exports can, therefore, safely be assumed. This in turn implies that *ceteris paribus* (incl.

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<sup>29</sup> The share of the lower-end quintile of the income earners in the total income decreased from 7.9% in 1962-63 over 5.4% in 1980-81 to 4.5% in 1988-89; the share of the upper-end quintile increased from 49.8% over 51.5% to 55.0% in the same period (Rabibhabana, 1993:62).

<sup>30</sup> Krongkaew (1993) forecasts an increasing inequality at an increasing speed. Somchai expects a stabilisation from 1992 onward (Somchai,1987). Using the TDRI-CGE model, Akrasanee e.a. (1993:29-30) showed that economic growth caused by exogenously increased export demand for manufactures leads *ceteris paribus* to more income inequality. Still, the authors are convinced that given the association of current growth with growth in investment, technological progress, growth of other activities like tourism, spatial distribution of industrial activities, etc., income distribution will not necessarily become skewer in the near future. The decrease of poverty incidence could, however, be hindered by the congestion in Bangkok.

<sup>31</sup> We refer to e.g., Supachalasai (1992) for an overview of capacity controls in the textiles industry.

given investment levels) exports growth and industry performance are at least partly dependent on the source of investment (i.e., foreign or domestic). Differences can be expected if foreign business on average differ from domestic business operations, e.g., because the former belong to multinational groups with likely company-specific advantages, such as investment resources, technology, marketing know-how, etc.. The assumption further implies that aggregate or net macro-economic effects will also be positive.

Analytically, the following effects of FDI in Thailand can be distinguished: (a) displacement of Thai domestic sales and exports (+ indirect effects through input-output relationships), (b) generation of demand for Thai and foreign investment goods and for inputs for continuing operations (+ indirect effects, especially indirect import effects of local procurement of manufactured inputs), and (c) factor market effects (factor market tightening, upgrading, etc.). It will be clear that the dynamic effects have to be studied, with due regard of differences in the time-patterns of this demand generation and displacement.

Effects (a) and (b) have been studied in detail by Petri (1992), who developed a general equilibrium analytical framework based on Thailand's input-output tables, and endeavoured to trace direct as well as indirect output and trade effects of inward FDI. He investigated whether equilibrium "with investment" differs from the counter-factual equilibrium, all other inputs being equal. The data used were on Japanese FDI in Thailand, but for some relevant aspects extrapolations have been calculated.

Focussing on the affiliate first, we can observe the impact of the start-up phase. Output reaches its capacity level associated with 1 USD of investment in the third year and grows at 10% annually thereafter. Imports first take the form of the imports of capital goods (especially in year 0) and are gradually replaced by imports of intermediate goods. Exports are proportional with output (but the market distribution will differ from Thai exporters), but they are not able to pull the trade balance out of the red. Looking at the effects for Thailand's economy, the net displacement and procurement effects of the FDI are initially positive, so that the output of the other Thai companies shows a net increase and the output effect for the country is larger than the output effect for the affiliate. After completion of the investment phase (year 4), the output effects are converging, which indicates an offsetting of sales displacement and input demand effects (Petri, 1992: 190, 191). Because exports created and imports displaced by the affiliate outweigh imports, directly and indirectly caused by its input procurement, the Thai trade balance shows a kind of J-curve effect and becomes positive from year 4 onwards

After the initial investment phase, the trade balance and output levels of the Rest of the World, excluding the investing country (here: Japan), are adversely affected. Displacement effects seem to outweigh procurement effects. For Japan, however, both output and trade balance effects are positive, even after the initial investment phase, with obvious positive effects because of the supply of capital goods. Petri (1992:191) thus confirms the so-called *triangular trade patterns* generated by FDI in the recent past.<sup>32</sup> Applying the same methodology using 1983 data, Petri found that Japanese FDI be-

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<sup>32</sup> This pattern has been confirmed in a recent empirical study on foreign FDI in Thailand (Pupphavesa & Pusarungsri, 1994): investment for exporting to the home market and cost reduction were found to be the primary reasons for investing.

came more and more export-oriented over time, and therefore the negative direct balance-of-trade effect for Thailand became smaller. However, the net trade balance effect (including indirect effects) appeared to be only marginal since the import displacement effect also decreased over time.

It thus can be concluded that in general Thailand's economy has benefited greatly from industrial promotion policies and that these policies contributed to Thailand's export performance in particular.

#### 4.4 The trade bias of the tariff regime and protection offsets

It is rather doubtful whether Thailand's export success has been preceded or accompanied by industry protection, casting doubt on the infant industry argument. As Warr (1993:42) pointed out, the most successful export products (rice milling, frozen seafood, canned fruit from the 1970s onwards, canned fish and crustaceans, garments, rubber sheets and rubber products, wood products, jewellery and footwear from the 1980s onwards) by and large have not been these favoured by the protection system. On the contrary, using recent data, Pupphavesa & Pussarungsri (1994) found that relatively high tariffs on intermediary inputs and capital equipment are probably hampering FDI to some extent, in spite of the protection offsets offered.

Regarding protection offsets, calculations by Herderschee (1993:355-) with data for 1980 indicated that: (a) the overall importance of offsets was still moderate at that time (leaving transaction costs out of consideration), (b) for only 4% of total exports protection offsets exceeded the domestic value added of exports (pointing to exports which would not have taken place without offsets), and (c) industries with a large share of offsets in the domestic value added of exports, tended to contribute proportionally less to the domestic value added of exports than to the total value of exports. With the increase in nominal protection, however, the importance of protection offsets (as a share of export value) was rapidly growing during the 1980s (Herderschee,1993:353). This also becomes evident when expressed as a share of the real effective exchange rate (see Table 19).

**Table 19: Protection offsets and credit subsidies as a share of Thailand's real effective exchange rate, 1972-87**

	Real effective exchange rate including export incentives (1972 = 100)	As a share of the real effective exchange rate(%)	
		Protection offsets	Credit subsidies
1972	100	3.3	1.7
1973	91	2.6	1.7
1974	86	1.7	1.7
1975	84	1.7	1.7
1976	86	1.9	1.7
1977	84	2.2	1.7
1978	80	2.5	1.7
1979	80	2.4	1.7
1980	77	2.5	2.7
1981	...	...	...
1982	...	...	...
1983	85	3.4	2.1
1984	93	4.7	2.0
1985	108	6.1	1.9
1986	98	5.8	1.7
1987	100	6.1	1.2

Source: Herderschee (1993:359).

A consequence of the increasing (relative) importance of protection offsets in Thailand's trade policy is that until the creation of the EXIM Bank the importance of credit assistance, available through credit and interest subsidies, looked rather marginal (Hill & Supachalasai, 1992:322. Table 19 gives evidence of the importance of protection offsets and credit subsidies (as a share of the real effective exchange rate), especially in the second half of the 1980s. The figures are of course aggregate percentages. In the textiles and garments sectors e.g., credit assistance is considered to be the most important incentive (Hall & Supachalasai, 1992:322).

Researchers are not in agreement on the impact of the drawback or duty-free import schemes in Thailand. Henderschee (1993: 354) considered these as highly ineffective, especially in the early stages, mainly because of poor administration, although gradually improving later. Hill and Supachalasai (1992: 321), however, have expressed the opinion that these schemes are fast and effective.

In general it can be stated that Thailand shifted from being *moderately outward oriented* to *moderately inward oriented* in the 1970s. This is evidenced by Greenaway and Milner (1993: 17-25) who used a multiple criteria approach including criteria such as the average ERP, the ERP range, the use of direct controls, export incentives, the trade orientation bias, and exchange rate re-alignments. Also Bhagwati (1990: 17-18) has labelled Thailand's export promotion strategy as being of the import substitution type. Unfortunately, lacking detailed evidence on effective exchange rates (EER) of exports and imports is inhibiting an assessment of Thailand's trade strategy in this respect. According to Table 20 rising EERs for exports can be observed, which would indicate a trend towards export orientation (for given EER for imports). This rising trend has not been continued, however which *ceteris paribus* indicates again a departure from export orientation.

**Table 20: The real effective Exchange rate for Thai exports, 1972-87**

	Nominal exchange rate		Real effective exchange rate		
	Export incentives excluded (THB/USD)	Export incentives included (1972=100)	PPP Index (1972=100)	Export incentives excluded (1972=100)	Export incentives included (1972=100)
1972	20.80	100	100	100	100
1973	20.62	98	92	92	91
1974	20.83	96	89	87	86
1975	20.40	96	87	85	84
1976	20.40	97	89	87	86
1977	20.40	97	87	85	84
1978	20.34	97	82	80	80
1979	20.42	97	82	80	80
1980	20.48	99	78	77	77
1981	21.82	..	76	80	..
1982	23.00	..	78	86	..
1983	23.00	111	76	85	85
1984	23.64	115	81	92	93
1985	27.16	134	80	105	108
1986	26.29	129	76	96	98
1987	25.60	126	72	89	100

Source: Henderschee (1993:352)

#### 4.5 The effect of discriminatory tariff reductions

As mentioned earlier, Thailand entered its first agreement on regional trade liberalization in 1977 with the adoption of the ASEAN Preferential Trading Arrangement (PTA). We already pointed to its limited coverage of traded products, resulting in marginal trade and production effects. In addition Thailand systematically seemed to occupy the most conservative position within the PTA, having in 1986 the largest percentage of products on the exclusion list (63%) (Imada,1993:6). Whereas the overall share of intra-ASEAN trade covered by the PTA was close to 5%, Thailand's preferential intra-ASEAN imports only amounted to 1% (Devan,1987, cited in Imada,1993:6).

Some studies contain estimates of the *ex ante* impact of the completion of AFTA on the Thai economy.<sup>33</sup> When the price-elasticity approach was used, small to negligible trade creation effects and in many cases trade diversion even outweighing trade creation effects. Imada (1993), who applied a revised Armington model, allowing supply effects<sup>34</sup>, simulated total trade liberalization of intra-ASEAN trade over a 10 year period. Because of existing exclusion provisions in AFTA, Imada's simulations will lead to overestimations, although indicating the magnitude and direction of potential effects.

Imada's simulation results are summarised in Tables 21 and 22. Compared to the base scenario, total ASEAN imports would be 2-5% higher. Intra-ASEAN trade would increase with 25%, partly at the expense of falling imports from the Rest of the World. Total ASEAN exports are expected to grow with about 7%, not at the expense of other exports (Imada,1993:12,13). Of all ASEAN members Thailand's intra-ASEAN imports would increase most (with 70%). The increase in total imports is also above average (2.8%). Increases in Thai intra-ASEAN and total exports are respectively above (31%) and below the ASEAN average (5%) (see Table 21). These results point to the relatively low degree of integration of the Thai economy in ASEAN. Therefore, AFTA would have significant results on Thailand's external trade situation. Also a small but positive net effect on production might be left.

**Table 21: Simulation of production, export and import effects of AFTA for Thailand**

	Absolute change mio USD	Relative change %
<b>Production for exports (to:)</b>		
Indonesia	97.5	86.4
Malaysia	99.6	42.5
Philippines	13.8	68.5
Singapore	9.0	2.7
Intra-ASEAN	220.0	31.1
Total Exports	224.2	5.0
<b>Total Production</b>	122.8	0.4
<b>Production for domestic consumption</b>		
	-101.3	-0.4
<b>Imports (from:)</b>		
Indonesia	15.2	61.2
Malaysia	83.9	87.0
Philippines	10.1	73.4
Singapore	96.8	60.8
Intra-ASEAN	206.1	70.0
Total Imports	188.0	2.8

Source: Imada (1993:12).

<sup>33</sup> A descriptive Porter diamond type of approach pointed to generally positive effects for Thailand, given its comparative strengths (Kondo,1992:30).

<sup>34</sup> No dynamic effects (learning effects, scale effects) are taken into account, however, leading to likely underestimations in the simulations.

Looking at the simulation results at the industry level (Table 22), production in food products (ISIC 311/312) would benefit substantially from trade liberalization. Moderate positive effects could further be expected in industries like electrical machinery, leather products, and metal and non-metal products. Production would be negatively affected in wood products, non-electrical machinery, and industrial chemicals.<sup>35</sup>

**Table 22: Summary of industry effects of AFTA in Thailand (percentage/change)**

ISIC	Industry	Prod.	Cons.	Imports from		Exports to	
				ASEAN	World	ASEAN	World
312	Food manufacturing	1.9	0.8	162.1	23.0	42.1	7.5
313	Beverage industries	0.1	0.2	187.9	6.6	561.8	44.4
314	Tobacco manufacturers	-1.5	-1.4	80.8	19.9	264.5	1.3
321	Manufacture of textile	-0.1	0.0	117.6	2.9	16.0	1.6
322	Manufacture of wearing apparel, except footwear	0.2	0.0	161.9	4.8	19.4	1.0
323	Manufacture of leather, etc., except footwear and wearing apparel	0.5	0.0	117.3	-0.1	11.4	0.8
324	Manufacture of footwear	0.0	0.0	120.9	0.1	0.6	0.1
331	Manufacture of wood, etc., except furniture	-2.6	4.4	49.0	44.2	12.8	-0.1
332	Manufacture of furniture	0.2	0.0	104.0	0.1	13.0	1.4
341	Manufacture of paper and paper products	0.1	0.1	72.8	1.9	38.5	22.6
342	Printing, publishing and allied industries	-0.1	0.1	40.7	2.0	9.5	3.6
351	Manufacture of industrial chemicals	-0.2	0.3	60.6	1.2	33.9	11.2
352	Manufacture of other chemical products	-0.2	0.2	83.9	2.7	13.8	7.1
355	Manufacture of rubber products	0.1	0.2	92.6	2.7	12.5	2.4
356	Manufacture of plastic products n.e.s.	-0.3	0.3	128.2	7.7	18.5	1.4
361	Manufacture of pottery, china and earthenware	0.0	0.0	172.6	0.0	0.2	0.0
362	Manufacture of glass and glass products	0.0	0.3	97.1	6.5	26.7	6.9
369	Manufacture of other non-metallic mineral products	0.6	0.0	93.2	1.2	44.0	16.4
371	Iron and steel basic industries	0.0	0.0	38.0	0.0	3.7	0.7
381	Manufacture of fabricated metal products, machinery and equipment	0.2	0.2	63.7	1.7	31.2	7.0
382	Manufacture of machinery, except electrical	-0.8	-0.1	37.2	0.6	9.9	2.3
383	Manufacture of electrical machinery, etc.	0.3	1.0	50.7	3.4	12.0	3.6
384	Manufacture of transport equipment	-0.1	0.1	62.5	0.8	36.3	5.8
385	Manufacture of professional and scientific equipment, etc.	-1.2	0.1	50.5	1.1	5.3	0.1
390	Other manufacturing industries	-0.3	-0.3	71.9	-0.8	19.7	-0.4

Source: Imada (1993:17)

Generally speaking, it can be argued that the participation of Thailand in AFTA is likely to boost its exports substantially. This is further supported by the fact that, apart from Singapore, Thailand has the shortest AFTA exclusion list (Akraane & Stifel, 1993:22-24), which is a strikingly different external trade policy compared to the PTA experience we discussed earlier.<sup>36</sup>

Regarding the impact of AFTA on inward FDI in Thailand, no estimates seem to be available. Many observers, however, expect the effects to be substantial because of the access offered to a wide

<sup>35</sup> Kondo (1992:32) identified the following Thai winners and losers from AFTA. Winners: food, leather, metal & non-metal, electrical machinery, cement, fertilizer, gems & jewellery, and textiles. Losers: palm-oil, wood products, machinery, professional goods, glass, copper cathodes, plastics, paper & pulp.

<sup>36</sup> Thailand excluded 117 items (of which 57 automobile-related), against 1708 for Indonesia, 648 for Malaysia, 1179 for the Philippines (Pupphavesa & Grewe, 1994:10).



market and the liberalization of trade in production inputs (see e.g., Akrasanee & Stifel, 1993:27; Pupphavesa & Grewe, 1994:9,10). It can further be argued that the negative impact of the exclusion lists will be rather small, except for the automobile industry for which FDI is practically not becoming more attractive. Moreover, as suggested by Kondo (1992:30), tariff reduction schemes with a fixed deadline like AFTA, are likely to produce an *announcement effect*, leading to accelerated adjustment from the private sector to future liberalization.

## 5. Conclusions

Thailand has experienced remarkably high economic growth rates during the last decade and near future growth expectations continue to be high. Thailand's outstanding economic growth performance is clearly related to its export successes, especially in the markets of foodstuffs and manufactures. At the industry level, there is an apparent association between export-orientation and growth performance. Growing export orientation has further contributed to the structural transformation of the economy, although the integration of the export-oriented activities in the economy remains rather limited.

Thailand's economic growth is not *export-led*, however. External demand can only partly explain Thailand's export growth. Policies and domestic conditions have largely contributed to the promotion of the country's exports. Paradoxically, the tariff regime in Thailand has had an anti-export bias.

Thailand's export success can be explained by a number of factors. First, export-oriented activities and investment greatly benefited from macro-economic stability, which facilitated the micro-economic calculus of companies, reduced risks, made factor costs more stable and predictable, etc.. The liberalization of the non-labour factor prices lead to a more efficient allocation of capital and material inputs across industries. Monetary policies, by abandoning interest rate ceilings, stimulated domestic savings, and exchange rate adjustments eliminated overvaluations of the Baht, thus also supporting competitiveness on the world markets. Second, although protective policies were strengthened in the 1980s, Thailand had relatively low nominal tariffs, and the degree of effective protection always remained moderate. Third, at a certain time, excess capacities in protected industries acted as a powerful export-stimulating factor. Fourth, although protective levels gradually rose and the cascading structure of protection was still in place, the smaller variation in the tariff rates reduced some of the negative effects of protection. Fifth, although rather limited, financial policies like credit subsidies have also played a role in Thailand's export performance. Last but not least, the system of protection offsets and investment incentives has had an important impact in compensating for the anti-export bias of the tariff regime. The cost-increasing effect of protection on the production of exportables has largely been offset, and exports have been stimulated indirectly through the modulation of the benefits according to export performance. It has further been demonstrated that the high volume of FDI, attracted by the relatively liberal investment policies, has significantly contributed to the growth of exports, as it involved increasing export know-how, marketing skills and organisational backing. Because of differences in timing between export take-off and investment take-off, however, any contention that the latter completely explains the former cannot be vindicated.

Currently, Thailand follows a multi-track trade policy. The country is involved in trade liberalization schemes, but these are modulated across industries and at least partly on a discriminatory basis (e.g. AFTA, APEC).

On the basis of the above, the following recommendations towards the economic policy-makers can be made:

- Restructuring of the import tariffs system, leading to low and uniform tariffs, is needed and preferred to the current complex combination of import protection and protection offsets.
- Thailand's engagements in regional trade liberalization schemes should be encouraged and should have a wide product coverage. Industry-specific support might well be needed to assist the resulting industrial restructuring process.
- During the process of gradual tariff reductions, the government will have to pay attention to the fact that the combination of import protection and support of export-oriented investment has led to conflicting interests of the parties involved and to distortions in the industrial structure. Political-economy obstacles will have to be overcome.
- Selectivity is needed, especially in the case of domestic market-oriented industries, if employment creation and industrial linkage goals are pursued by industrial and trade policies.
- If the creation of industrial linkages is the objective of Thailand's industrial policy, additional stimulating measures might be necessary in the case of non-natural resource based activities operating in an EPZ type of environment.
- If no additional efforts are made, infrastructural deficiencies will become bottlenecks. There are already clear indications that these problems are negatively affecting FDI and are creating cost increases and delays in delivery times.
- Because Thailand's profile as a low-wage country will gradually erode and is not sustainable in the long-run, attention should be paid to the up-grading of labour skills and training, which implies more investment in education, so that an industrial reorientation can be pursued.
- Attention will have to be paid to up-grading sanitary standards in production and packaging.

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## REFERENCES

- AIRRIES, C. (1993), 'Export-Oriented Manufacturing and Container Transport in ASEAN', *Geography*, 78:31-42.
- AKRASANEE, N., D.DAPICE & F.FLATTERS (1991), **Thailand's Export-Led Growth: Retrospect and Prospects**, The Thailand Development Research Institute Foundation, Bangkok.
- AKRASANEE, N. & P.WIBOONCHUTIKULA (1992), **Thailand's Trade and Industrialization Policy and Productivity Growth**, TDRI, Bangkok.
- AKRASANEE, N. & D.STIFEL (1993), 'AFTA and Foreign Direct Investment', *TDRI Quarterly Review*, 8(3):18-27.
- ASIAN DEVELOPMENT BANK (1993), **Asian Development Outlook 1993**, Asian Development Bank, Manila & Oxford University Press, Oxford.
- ASIAN DEVELOPMENT BANK (1996), **Asian Development Outlook 1996 and 1997**, Asian Development Bank - Oxford University press, Hong Kong.
- ASAWACHINTACHIT, D. (1994), 'Exports: Renewable Growth in a Tough League', *Bol Investment Review*, 3(3):5.
- ASEAN Secretariat (1996a), **AFTA Monitor**, 4(1), January 1996
- ASEAN Secretariat (1996b), **AFTA Monitor**, 4(5), May 1996
- ASEAN Secretariat (1996c), **AFTA Monitor**, 4(6), June 1996
- AUNGSUMALIN, S. (1990), Finance, Credit and Provincial Industrialization, *TDRI Paper*, (R13).
- BANGKOK BANK (1993a), 'The Thai Economy in 1993 and Trends for 1994', *Bangkok Bank Monthly Review*, (October):13-14.

- BANGKOK BANK (1993b), 'Economic Indicators of Thailand', *Bangkok Bank Monthly Review*, (October):32.
- BANGKOK BANK (1994), 'The Thai Economy in 1993 and Trends for 1994', *Bangkok Bank Monthly Review*, 35(1):9-18.
- BANK OF THAILAND (1994), **Annual Economic Report 1993**, Bank of Thailand, Bangkok.
- BANK OF THAILAND (1995), **Annual Economic Report 1994**, Bank of Thailand, Bangkok.
- BANK OF THAILAND (1996), **Key Economic Indicators**, Economic Research Dept., Bank of Thailand, Bangkok.
- BANGKOK POST (1995), 'FTI to adopt GATT Valuation System', 24 July 1995.
- BANGKOK POST (1996a), 'Exports and Tourism need 'urgent' tonic', 24 June 1996.
- BANGKOK POST (1996b), 'Packing Credits planned in US Dollars for exports', 6 August 1996.
- BHAGWATI, J.N. (1990), 'Export-Promoting Trade Strategy: Issues and Evidence', in: C.MILNER (Ed.), **'Export Promotion Strategy: Theory and Evidence from Developing Countries**, Harvester Wheatsheaf, London: 11-39.
- BHATTACHARYA, A. & J.LIN (1988), 'Trade and Industrial Policies in the Developing Countries of East Asia', *World Bank Discussion Paper*, The World Bank, Washington, (27).
- BOI (1993a), **Board of Investment Announcement No.1/1993 and 2/1993**, Office of the Board of Investment, Bangkok.
- BOI (1993b), **Key Investment Indicators in Thailand**, Office of the Board of Investment & Office of the Prime Minister, Bangkok.
- BOI (1994), **Activity Report August 1994**, Office of the Board of Investment, Bangkok.
- BOI (1995), **Board of Investment Announcement No.3/1994 on Conditions for Supporting Industries**, Office of the Board of Investment, Bangkok.
- BOI (1995a), **A guide to the Board of Investment**, Office of the Board of Investment, Bangkok.
- BOI (1996), **BOI Investment Review**, vol. 5, No. 1.
- CELLA, G. (1984), 'The Input-Output Measurement and Interindustry Linkages', *Oxford Bulletin of Economics and Statistics*, 46(1).
- CHANJINDAMANE, S. (1994), 'Negative Results Show State of Textile, Garment Industry', *The Nation*, 7 March 1994.
- CHIA SIOW YUE (1993), 'Foreign Direct Investment in ASEAN Economies', *Asian Development Review*, (1):60-102.
- CHIASAKUL, S. (1990), 'Trade Conflicts and Industrial Promotion Policy', in: S.CHIASAKUL & M.YOSHIDA (Eds.), **Thai Economy in the Changing Decade and Industrial Promotion Policy**, Institute of Developing Economies, Tokyo:85-127.
- CHIRATHIVAT, S. & T.WAHAWISAN (1990), **The Trade Development Strategy for Thailand During the Seventh Plan 1992-1996**, The Thailand Development Research Institute, Bangkok.
- CHRISTENSEN, S.R. (1994), 'Muddling Toward a Miracle: Thailand and East Asian Growth', *TDR Quarterly Review*, 9(2):13-19.
- COMMITTEE ON SUBSIDIES & COUNTERMEASURES (1995), **Notifications Pursuant to Article XVI: 1 of the GATT 1994 and Article 25 of the Agreement on Subsidies and Countervailing Measures. Thailand**, WTO, Geneva.
- CUYVERS, L. (1990), 'International Trade and Revealed Comparative Advantage of ASEAN Countries in Technology-Intensive Goods', *Working Paper*, University of Antwerp (RUCA), (90/10).
- CUYVERS, L. and W. PUPPHAVESA (1996a), 'From ASEAN to AFTA', **CAS Discussion paper Nr.6**, Centre for ASEAN Studies, University of Antwerp, September 1996 .
- CUYVERS, L. , P. DE LOMBAERDE , B. DEWULF and D. VAN DEN BULCKE (1996b), TRIMs and Export Subsidies and its Impact on Investment Policies in Thailand, **CAS Discussion paper Nr. 7**, Centre for ASEAN Studies, University of Antwerp, September 1996.
- DEININGER, K and L. SQUIRE (1996), 'A New Data Set Measuring Income Inequality', *The World Bank Economic Review*, 10(3).
- DEP (1993), **DEP: The Worldwide Network of Thailand**, Department of Export Promotion, Ministry of Commerce, Bangkok.
- DEP (1995), **Thailand's Exporters Selected List 1995**, Fifth Ed., Department of Export Promotion, Ministry of Commerce, Bangkok.
- DEVAN, J. (1987), 'The ASEAN Preferential Trading Arrangement: Some Problems, Exante Results, and a Multipronged Approach to Future Intra-ASEAN Trade Development', *ASEAN Economic Bulletin*, 4(2).
- DEVARAJAN, S. & C.SUSSANGKARN (1992), 'Effective Rates of Protection when Domestic and Foreign Goods are Imperfect Substitutes: The Case of Thailand', *The Review of Economics and Statistics*, LXXIV(4):701-711.
- ECONOMIST INTELLIGENCE UNIT (1993), **Investing, Licensing and Trading Conditions abroad Thailand**, EIU, London.
- EXPORT-IMPORT BANK OF THAILAND (1995), **Annual Report 1994**.
- FALVEY, R.E. & N.GEMMELL (1990), 'Compensatory Financial and Fiscal Incentives to Exports', in: C.MILNER (Ed.), **Export Promotion Strategies: Theory and Evidence from Developing Countries**, Harvester Wheatsheaf, London: 109-129.
- GREENAWAY, D. & C.MILNER (1993), **Trade and Industrial Policy in Developing Countries. A Manual of Policy Analysis**, MacMillan, Basingstoke.
- HERDESCHEE, H. (1993), 'Incentives for Exports: The Case of Thailand', *ASEAN Economic Bulletin*, 9(3):348-363.

- HILL, H. & S.SUPHACHALASAI (1992), 'The Myth of Export Pessimism (even) under the MFA: Evidence from Indonesia and Thailand', *Weltwirtschaftliches Archiv*, 128(2):310-329.
  - IEAT (1979), **The Industrial Estate Authority of Thailand Act B.E. 2525**, The Industrial Estate Authority of Thailand, Bangkok.
  - IMADA, P. (1993), 'Production and Trade Effects of an ASEAN Free Trade Area', *The Developing Economies*, XXXI(1):3-23.
  - IMF (1993), **International Financial Statistics Yearbook 1993**, International Monetary Fund, Washington.
  - JITSARNKUL, M. (1994), 'FTI Expects Imminent End to Local Content Rule', *The Nation*, 7 October 1994.
  - JPPCC (1994), 'Economic Growth Right on Target, Says NESDB', *Thailand Update*, Joint Public-Private Consultative Committee, (35).
  - KONDO, M. (1992), 'Competitive Advantage... AFTA: A Win-Win Game', *The Asian Manager*, (Nov./Dec.):28-32.
  - KRONGKAEW, M. (1993), 'Poverty and Income Distribution', in: P.WARR (1993), **The Thai Economy in Transition**, Cambridge University Press, Cambridge: 401-437.
  - KUNNOOT, S. & A.CHOWDHURY (1992), 'Export-Oriented Industrialization and Industrial Deepening in Thailand: An Input-Output Perspective', *Economic Bulletin for Asia and the Pacific*, XLIII(1):52-62.
  - MILNER, C. (Ed.) (1990), **Export Promotion Strategies: Theory and Evidence from Developing Countries**, Harvester Wheatsheaf, London.
  - MONTIEL, P. (1990), 'The Role of the Exchange Rate and Other Macroeconomic Instruments in Encouraging Exports', in: C. MILNER (Ed.), **Export Promotion Strategies. Theory and Evidence from Developing Countries**, Harvester Wheatsheaf, London: 99-108.
  - NIDHIPRABHA, B. (1993), "Monetary Policy", in: P. WARR, **The Thai Economy in Transition**, Cambridge University Press, Cambridge: 172-198.
  - PETRI, P.A. (1992), 'Platforms in the Pacific: Trade Effects of Direct Investment in Thailand', *Journal of Asian Economics*, 3(2):173-196.
  - PUPPHAVESA, W. (1992), 'Promotion of International Competitiveness and Exports of Manufactured Goods: Thailand's Experience in the 1980s', Paper prepared for the "**Regional Symposium on Trade and International Competitiveness in Manufactured Goods**", ESCAP/Export-Import Bank of India, Bombay, India, July 29-31, 1992.
  - PUPPHAVESA, W. & B.PUSSARUNGSRI (1994), **FDI in Thailand**, AT9 Researchers Meeting, Tokyo Club Foundation, Tokyo.
  - PUPPHAVESA, W. & M.GREWE (1994), 'Enhancing Thailand's Trade Policy Through AFTA', *TDR Quarterly Review*, 9(2):7-12.
  - RABIBHADANA, A. (1993), **Social Inequity: A Source of Conflict in the Future?**, Synthesis Report IV of the 1993 Year-End Conference, TDRI, Jomtien.
  - RASMUSSEN, P.N. (1956), **Studies in Inter-Sectoral Relations**, North-Holland, Amsterdam.
  - ROBINSON, D., Y.BYEON, R.TEJA & W.SENG (1991), 'Thailand: Adjusting to Success; Current Policy Issues', *IMF Occasional Paper*, International Monetary Fund, Washington, (85).
  - SACHS, J. (1985), 'External Debt and Macroeconomic Performance in Latin America and East Asia', *Brookings Papers on Economic Activity*, (2):523-575
  - SOMCHAI, J. (1987), **Sources and Trend of Income Inequality: Thailand 1975/76 and 1981**, MA Thesis, Thammasat University, Bangkok.
  - SRIPAIPAN, C. (1991), 'Technology Upgrading in Thailand: A Strategic Perspective', *TDR Quarterly Review*, 6(4):3-
  - SUBRAMANIAN, A. (1994), 'The Case for Low Uniform Tariffs', *Finance & Development*, 31(2):33-35.
  - SUNDARAJAN, S. (1992), 'Effects of Monetary and Import Price Changes on the Dynamics of Inflation in Six Asian Countries', *Economia Internazionale*, XLV(3-4):351-363.
  - SUSSANGKARN, C. and J. CHALAMWONG (1994), **Development Strategies and Their Impacts on Labour Market and Migration: Thai-Case Study**, OECD Development Centre, Workshop on Development Strategy. Employment on Migration, 11-13 July, Paris, France.
  - TAMBUNLERTCHAI, S. (1993), 'Manufacturing', in: P.WARR, **The Thai Economy in Transition**, Cambridge University Press, Cambridge:118-150.
  - TDRI (1992), **Thailand's Macroeconomic Outlook: 1992-96**, Thailand Development Research Institute Foundation, Bangkok.
  - TDRI (1993-94), **Thailand Economic Information Kit**, The Thailand Development Research Institute, Bangkok.
  - THAMMAVIT, T. (1996), 'Right time to tighten belts', **Bangkok Post Economic Review**, Mid-year 1996: 6-7.
  - THAPANACHAI, S., W.SIRITHAVEEPORN & P.M.UNGPHAKORN (1994), 'Sensitive Products Could Delay AFTA', *Bangkok Post*, 21 September 1994.
  - UNGPHAKORN P., (1996), 'Regions grow in importance', **Bangkok Post Economic Review**, Mid-year 1996: 8-9.
  - WARR, P. (1993), **The Thai Economy in Transition**, Cambridge University Press, Cambridge.
  - WATTANAPANOM, N., P.DE LOMBAERDE, P.WITHISUPHAKORN & P.WANARAT (1997), 'The Relocation of the Garment Industry as an Instrument for Regional Development in the Northeastern Region of Thailand', **CAS Discussion Paper Nr. 11**, Centre for ASEAN Studies, University of Antwerp, March 1997.
  - WOODALL, P. (1994), 'War of the Worlds. A Survey of the World Economy', *The Economist*, 333(7883).
  - WORLD BANK (1991), **World Tables**, The Johns Hopkins University Press, London.
  - WORLD BANK (1994), **World Development Report**, World Bank, Washington.
-