IV. TRADE POLICIES BY SECTOR

(1) INTRODUCTION

1. During the period under review, overall sectoral policy has been aimed at raising export competitiveness and reducing anti-export bias. The form and extent of government intervention depends on the sector, but has remained virtually unchanged over the last four years, except when circumstances or multilateral commitments have required specific action.

2. Agriculture, where labour productivity is relatively low, remains an important component of the Thai economy, external trade and employment, as well as a tool for food sufficiency, and poverty reduction. Government policy has been geared not only towards raising productivity and per capita income in the sector, but also agricultural output and self-sufficiency in basic foodstuffs. Average applied MFN tariff protection for agricultural goods, at 25%, has remained unchanged at almost three times the average for non-agricultural goods. Domestic producers have benefited from product- and non-specific support, including market price intervention, soft loans, price controls for certain inputs, and subsidized electricity tariffs for agricultural pumping; such support is equivalent to about 1% of GDP and more than 6% of total government expenditure. Support has remained focused on non-specific measures (75% of total support expenditure). A paddy support scheme remains in place; and incentives have been available for shifting away from garlic production to other crops, including planned assistance for bio-fuel crops.

3. During the period under review, steps were taken to promote energy conservation and increase domestic energy production so as to, *inter alia*, reduce dependence on energy imports; several regulatory reforms are under way. State firms continue to dominate the oil and electricity sectors; privatization of the state monopoly Electricity Generating Authority of Thailand (EGAT), which was ruled out in 2006, has remained a contentious issue as well as a concern for power supply. To cope with recent fuel bill increases, the authorities subsidized retail gasoline and diesel prices temporarily, and cut the excise tax on diesel; retail price subsidies have been maintained for liquefied petroleum gas and bio-fuels. Electricity has also been subsidized, as the state-owned oil and electricity firms were instructed to absorb fuel costs in 2004; despite the restructuring of electricity tariffs in 2005, cross-subsidization among consumer groups remains in favour of certain low consumption residential categories and agricultural pumping. The new electricity tariff seems to be a market-based pricing structure that reflects actual costs.

4. Manufacturing's contribution to merchandise exports has risen slightly, with electronics maintaining its role as an important export earner. Overall average MFN tariff protection has been reduced, to 8.7%; reductions have been focussed on raw materials and semi-finished items, so as to reduce anti-export bias. Extensive tax and non-tax incentives are provided to, *inter alia*, encourage investment in promoted industries, remote areas, and SMEs. As a result of the expiry of the Agreement on Textiles and Clothing (ATC) and efforts to clamp down on re-exports aimed at circumventing or exploiting preferential treatment in third markets, the share of textiles and clothing in total exports dropped slightly, to 6.2% in 2005. High tariff protection and escalation favoured assembly activities in the rapidly growing automotive industry, which meets 95% of domestic demand for cars; imports of all used cars are prohibited. Furthermore, reductions in excise tax rates together with soft loans have assisted sales growth and promoted "clean" (natural gas) vehicles; a scheme to promote investment in eco-cars has been approved and the formulation of a promotion policy for eco-cars is under way.

5. Overall the services sector has benefited from progressive liberalization as well as reform efforts in line with Thailand's existing GATS commitments. State involvement persists to a varying

degree in certain financial services, basic telecommunications, and air transportation. In line with GATS undertakings, the maximum allowable foreign ownership in telecom operators was increased, from 25% to between 49% and 100%, depending on the type of business (effective in January 2006). Nevertheless, foreign-ownership limitations remain or are under consideration in several sectors (e.g. tourism); for instance, a three-stage foreign ownership liberalization plan for insurance, initiated in 1997, remains at its second stage, while the amendment of the current Life and Non-Life Insurance Acts is under way. The banking sector has been improving its balancesheet and non-performing loans portfolio, as the migration to more stringent Basel II capital adequacy rules is under way. The domestic maritime services industry remains protected by a cargo reservation requirement and cabotage restrictions; furthermore, it has benefited from promotional measures to attract Thai operators to fly the Thai flag. Privatization and divestment in Thai Airways and airports as well as the negotiation of and plans for "open skies" agreements with major countries from the region have increased competition in the industry. The distribution sector has experienced significant growth, but a number of measures have been introduced recently to regulate large store expansion; a retail law is being prepared.

(2) AGRICULTURE

(i) Features

6. Thailand was responsible for over 2% of world agricultural exports in 2005; it is the world's largest rice trader: in 2004 it accounted for 34.4% of world trade in rice.[1] The share of agriculture, forestry and fishing in GDP increased slightly from 9.4% in 2002 to 10.7% in 2006 (Table I.2) despite the impact of natural factors such as drought and the tsunami. The share of agricultural exports to total merchandise exports fell from 18.3% in 2002 to 16.2% in 2005[2], and the sectoral share in total employment decreased from 42.5% in 2002 to 39.7% in 2006. With the sector's contribution to GDP rising during the same period, labour productivity has improved from less than one-seventh to almost one-fifth of the level in the rest of the economy; according to the authorities, better technology as well as capital inputs have largely contributed to this improvement. This comparatively low labour productivity in agriculture is because most of the labour force in the sector consists of subsistence farmers in rural areas; as their small and medium-sized farms cannot achieve economies of scale, their production costs are high. The main crops produced in Thailand are rice, rubber, sugarcane, tapioca root, and maize.

(ii) Policy objectives and measures

7. Since 2003, there have been some policy changes in response to trade liberalization and economic developments. At present, the authorities' key priorities for agriculture are: the structural adjustment plan to, *inter alia*, mitigate the negative impact on garlic producers of the Thailand/China (FTA) (Chapter II); the introduction of the Sufficiency Economy Philosophy (Chapter II and below) to ensure sustainable development of the sector; the introduction of alternative energy crops; and the introduction of Thai standards for key domestic products in order to strengthen food safety and to enhance quality in both the domestic and the world markets.

8. Under its 2005-08 implementation plan of the agricultural development strategy, the Government aims to increase agriculture's contribution to GDP to US$22.5 billion by 2008 (from US$17.5 billion in 2005), and raise annual farm household income to US$1,000. To achieve these goals the Government plans to provide landless farmers with land, provide education and technical skills with regard to farming methods, adjusting the agricultural product mix so as to encourage

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[1] WTO (2006c).
[2] UNSD Comtrade data.

production of commodities with export potential, and the efficient management of water and other natural resources.[3]

9. In its policy statement in November 2006, the Government emphasized its support for implementing the Sufficiency Economy Philosophy (Chapter II) under the sustainable agricultural theory, which was introduced by His Majesty the King in 1998.[4] The essential part of this theory concerns the proper management of land use aiming to reduce farmers' risk from producing only one commercial agricultural product. The same theory suggests that farmers manage their land by dividing it into four parts: approximately 30% as rice field; 30% for pond; 30% for farm plants/crop; and the remaining 10% for housing and other buildings. Production diversity reduces the risk of single commodity dependence and enhances land fertility. No information on Thailand's self-sufficiency situation (from 2002 onwards) and targets set for main agricultural items was available from the authorities.

10. The Ministry of Agriculture and Cooperatives is in charge of sectoral policy formulation and implementation.

(a) Border measures

11. Tariff protection on agricultural goods remained unchanged during the period under review, at an average rate of 25% or almost three times the average tariff on non-agricultural goods (Table III.1). Thailand improved its tariff rate quotas, which apply on 23 agricultural commodities (Chapter III). Garlic and palm oil quotas are administered by the Public Warehouse Organisation (PWO); onion seeds by the Cooperative League of Onion Growers of Thailand; onion by the Market Organisation for Farmers; tobacco by the Thai Tobacco Monopoly; and the remaining TRQ products are imported through the Department of Foreign Trade. Foreign trade of certain agricultural and food products is subject to certain requirements such as import licences and permits, sanitary and phytosanitary (SPS) measures, labelling and food product registration, and export taxes (Chapter III). According to the authorities the Thai Tobacco Monopoly does not control the export of tobacco.

(b) Domestic support

12. Domestic producers receive support equivalent to about 1% of GDP and more than 6% of total government expenditure (Table IV.1). Between 2002 and 2004, domestic support remained focused in non-specific "Green Box" measures (75% of total support expenditure). Although both the absolute amount and the share of domestic support expenditure to GDP have dropped slightly, the share of product-specific support to the total value of production of maize, manioc, coffee, and mangosteen has increased significantly, while remaining below the 10% *de minimis* level. Product-specific support was provided mainly in the form of market price intervention; rice and onion producers benefit from soft/preferential loans.[5] Electricity tariffs for agricultural pumping are subsidized (section (3)(ii)). The Central Commission on Price of Goods and Services fixes the purchase and distribution prices of controlled goods or services (including most agricultural goods and agricultural inputs, such as fertilizer and pesticides) to prevent what are considered to be price

[3] Ministry of Agriculture and Cooperatives (undated). The authorities indicate that adopting the Sufficiency Economy Philosophy does not mean that Thailand is being closed to external trade. While agriculture is the main area of the country's exports, Thailand imports a lot of products such as maize, soybeans, and dairy products.

[4] Thailand Legislative Assembly (2006).

[5] The authorities indicate that the state-owned Bank of Agriculture and Agricultural Cooperative operates on a commercial basis; its loan rate is higher than the minimum retail rate (MRR). The MRR is the rate at which commercial lending banks charge most credit-worthy retail borrowers.

manipulation or other unfair business practices, where these may affect consumers directly (Chapter III).

Table IV.1
Domestic support to agriculture and livestock notified to the WTO, 2002-04
(Baht million and per cent)

	2002	2003	2004
Total domestic support (I+II+III)	60,818.18	62,550.53	60,602.02
Share of total domestic support to GDP (%)	1.12	1.06	0.93
Share of total domestic support to total tax revenue (%)	7.74	6.93	..
Share of total domestic support to total government expenditure (%)	6.69	6.55	6.08
I. Aggregate Measurement of Support (AMS)			
Current total AMS[a]	18,709.16	14,150.30	14,818.67
Product-specific AMS			
Rice	16,878.56	11,476.33	14,112.67
Longan	1,630.60	2,001.47	485.05[b] (8.80)
Lychee	200.00	0.00[b] (0.00)	220.00
Maize	209.32[b] (1.21)	225.41[b] (1.22)	959.85[b] (5.13)
Manioc	965.49[b] (5.51)	116.11[b] (0.67)	1,612.05[b] (8.45)
Coffee	18.55[b] (1.27)	21.31[b] (1.35)	83.50[b] (4.67)
Onions	0.00[b] (0.00)	0.00[b] (0.00)	486.00
Rambutan	250.00[b] (6.78)	672.50	0.00[b] (0.00)
Mangosteen	100.00[b] (4.23)	0.00[b] (0.00)	320.00[b] (9.30)
II. Measures exempt from the reduction commitment (Green Box)			
General services	42,043.02	45,346.30	45,188.85
Agricultural research and development plan	8,863.84	8,721.70	2,678.88
Pest and disease control project	239.47	547.55	1,257.33
National extension and advisory services	5,580.90	4,786.63	4,830.23
Agricultural training services	934.28	864.82	397.89
Infrastructural services	24,968.33	29,478.52	33,727.84
Environmental promotion programmes	..	..	..
Inspection services	9.72	547.55	1,718.55
Marketing and promotion of farmers' organization programme	1,446.48	399.53	578.13
III. Measures exempt from the reduction commitment – Special and Differential Treatment – (Development Programmes)			
Soft-loan for agricultural investment	..	..	..
Farming input assistance programme	66.00	3,053.93	594.50

.. Not available.

a Current total AMS excludes items under the *de minimis* clause.
b AMS is not subject to reduction nor to inclusion in the current total AMS because it is less than 10% of the value of production (*de minimis* exclusion).

Note: Figures in parenthesis indicate percentage of production value.

Source: WTO document G/AG/N/THA/59, 13 July 2006; and calculations by the Secretariat.

13. Thailand's rice policy consists, *inter alia*, of ensuring domestic price stability and supply (through control of the buffer stock), providing soft loans to farmers through the state-owned Bank for

Agriculture and Agricultural Cooperatives and the operation of a pledging scheme.[6] This support programme starts at the beginning of each harvest season in order to delay the selling decision of rice farmers. A Rice Policy Committee, under the chairmanship of the Deputy Prime Minister, sets the floor price, which seems to be always below market price for rice; the scheme is administered by the PWO. Since 2003, this arrangement has covered less than 5% of rice growers and less than 20% of total production. The authorities indicate that there is no government support for sugar producers, instead, the Government acts as a facilitator between sugar farmers and millers in setting the minimum farm gate price, which is below market price. Under this arrangement, 70% of the net revenue from sugar and molasses is paid to farmers and 30% to the mills.

14. Action has been taken to mitigate the possible negative impact of the Thailand/China FTA (effective since October 2003, Chapter II) on producers of certain fruit and vegetables.[7] In May 2005, a production-limiting programme was introduced to encourage garlic farmers to switch to other crops, such as potatoes and capsicum: more than 1,000 growers accepted a deal to sell garlic to state agencies at a set price, committing to reduce their plantation areas and to switch to crops other than those of onions, red onions, lychee, longan, and oranges. The programme was completed in 2005.

15. Bio-fuels such as bio-diesel and ethanol from palm oil and cassava are important alternative sources of energy for Thailand, and their pump prices have been subsidized (section (3) and Chapter III).[8] Reportedly, Thailand produces ethanol and bio-diesel from cassava and oil palm: target production of ethanol is 8.5 million litres per day. The Government plans to provide support, such as technical assistance, technology, seeds, and bio-fuel plants, for fuel-related crops.

(3) ENERGY

16. Thailand remains highly dependant on energy imports, especially oil; reportedly, energy conservation schemes have proved successful, and domestic energy production is increasing, thus reducing reliance on imports.[9] Thailand's Energy Conservation Programme has been implemented in three phases (phase 1: 1995-99, phase 2: 2000-04, phase 3: 2005-11 (revised: 2007-11). Its Energy Efficiency Improvement Plan, covering industry, transport, and equipment/appliance standards, is expected to reduce commercial energy utilization by 7,676 kiloton oil equivalents (ktoe) by 2011; on the other hand, its Renewable/Alternative Energy Development Plan, covering power generation and heat from renewable energy, bio-fuels and compressed natural gas, aims to replace commercial energy of the order of 11,310 ktoes.

17. Thailand's latest Energy Policy and Development Plan was announced in November 2006.[10] The thrust of the plan in the short term is to: restructure and improve the energy industry management; ensure sufficiency and security of energy supply; promote energy conservation and energy efficiency; promote alternative renewable energy suitable for Thailand; establish the energy price structure; establish measures pertaining to clean energy and safety with due consideration of the environment and communities; and promote the private sector and general public participation in policy-making. In the long run, it aims, *inter alia,* to promote competition in the energy business.

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[6] Rice producers continue to be eligible for a paddy pledging programme run by the Bank of Agriculture and Agricultural Cooperatives. Under this scheme, farmers can pledge up to 90% of their crop to the Bank in exchange for low interest loans.

[7] *Bangkok Post,* "Farmers Free Trade Pact Losers So Far", 5 August 2005. Viewed at: http://www.boi.go.th/english/how/sectors_detail.asp?id=46 [1 May 2007].

[8] Ministry of Agriculture and Cooperatives (undated).

[9] EIU (2006c).

[10] Thailand National Legislative Assembly (2006); and Ministry of Foreign Affairs (2006b).

18. A draft Energy Industry Act aimed at separating policy-making and regulatory functions in the electricity and natural gas sectors, is being developed.[11] The Act will establish the Energy Regulatory Board. The Ministry of Energy and the National Energy Policy Council will focus on the national energy policy-making function, and the Energy Regulatory Board will regulate the operation of the electricity and natural gas industry, as well as related interconnection networks. During the transitional period, four sub-committees have been appointed by the Committee on Energy Policy Administration, under the National Energy Policy Council (NEPC), to regulate important aspects in the electricity industry: power tariffs and service charges, load forecast, power system interconnection, and purchase of power from independent power producers. For the natural gas industry during the transitional period, the amendment to the Royal Decree Describing Powers, Rights and Benefits of the PTT Public Company Limited, B.E. 2544 (2001), is being carried out. The PTT Regulatory Board will be established to regulate the market power of PTT Pcl. Once the Energy Industry Act takes effect, the sub-committees and the PTT Regulatory Board will be dissolved.

(i) Hydrocarbons

19. In 2006, domestic crude oil production was 129 kbd (thousand barrels a day), accounting for 13.46% of the total crude supply (958 kbd); the remainder was imported. Although oil prices are expected to remain high, it is estimated that there will be a slight increase in gasoline and diesel consumption in 2007 (i.e. 2.9% and 3.9%, respectively) because consumers have alternative fuel options, such as liquefied petroleum gas (LPG), natural gas for vehicles (NGV) and bio-fuels. Reliance on gas imports is much lower, as 73% of domestic demand is met by local production and the rest imported from Myanmar.[12] Demand for gas has been growing strongly in recent years, partly because of high international oil prices, and because it is considered a cleaner fuel.[13] Natural gas demand in 2007 is forecast to increase by 7.6% along with increases in domestic production and imports from Myanmar. Most of the natural gas is used for electricity generation.

20. The oil sector is dominated by PTT Public Company Limited, which has exploration and production interests as well substantial shares in five (out of seven) refineries in Thailand. In December 2006, PTT accounted for 3.4% of the total refining capacity. PTT was partially privatized in November 2001 when a 32% stake was divested through the Bangkok Stock Exchange; at end 2006, 52.3% of PTT shares were in public sector hands (Ministry of Finance), and 32.1% were held by institutional and public investors.[14] Chevron Texaco is the largest natural gas producer in Thailand, with production of 1,600 mmscfd (million standard cubic feet per day) or about 66.6% of total domestic production. PTTEP is the second largest, with about 28.4%; Hess (Thailand) and Exxon Mobil have market shares of about 3.7% and 1.2%, respectively.

21. Thailand's oil intensity is high due to the low domestic price of petrol.[15] The price reflects the relatively lower taxes and fees levied on gasoline and diesel.[16] Prices are monitored by the NEPC and

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[11] As of 13 March 2007, the draft Act had been approved in principle by the cabinet, pending further consideration by the Council of State and the National Legislative Assembly, respectively.

[12] Domestic gas production has been expanding, reaching 836.6bn cu ft in 2005, up from 692.6bn cu ft in 2001 (EIU, 2006c; and APEC, 2006a).

[13] EIU (2006c).

[14] PTT Public Company Limited online information. Viewed at: http://www.pttplc.com/en/ptt_core.asp?page=ir_sh [2 August 2007].

[15] Oil intensity is defined as the number of barrels of oil required to generate US$1,000 of GDP. Oil intensity in Thailand in 2004 was roughly 6 more than six times that of Japan and roughly three times that of the United States (World Bank, 2006c).

[16] For example, in May 2006, these taxes and fees accounted for 30% of the price of gasoline in Thailand, compared with 60% in the EC (World Bank, 2006c).

the Energy Policy and Planning Office of the Ministry of Energy. Since early January 2004, the authorities have used the Oil Fund to subsidize retail prices of gasoline and diesel temporarily by capping retail prices. However, this practice ceased in October 2004 and July 2005 when gasoline and diesel prices, respectively, were allowed to float; in tandem the authorities lowered the excise tax on diesel to absorb the effect on consumers, resulting in a negligible effect on domestic retail prices. The budgetary cost of the subsidy has been B 92 billion (B 85 billion for diesel subsidies and B 7 billion for gasoline). The subsidy has been financed by two tranches of Oil Fund bonds and commercial-bank lending.[17] To repay the borrowings, the authorities levy a "contribution" on petrol; the ceiling amount was raised in October 2006 to B 4 per litre, up from B 2.5.[18] The retail price of liquefied petroleum gas (LPG) used for cooking has been "stabilized" (i.e. blanket price freeze) nationwide since 7 May 2004 at B 16.81 per kg, representing an estimated budgetary cost of B 360.09 million per month based on May 2007 figures.

22. The Government promotes the use of biofuels (gasohol and biodiesel) with the objective of environmental conservation. The Government approved the establishment of fuel ethanol production plants and distribution in December 2006. Moreover, the Government has introduced a new ethanol price formula between producers and distributors, based on the f.o.b. price on the São Paulo Commodities Exchange (BMSP) in Brazil. The Committee on Energy Policy Administration (CEPA) approved the improvement of high-speed diesel quality by allowing the voluntary blending of biodiesel (B100) at a maximum rate of 2% by volume (B2). The actual costs of bio-fuels are covered by the gas price. However, to motivate consumers to use bio-fuels, the Government has introduced a pricing measure via the Oil Fund Mechanism allowing for lower retail prices for bio-fuels; retail price variations from B 0.7 to B 3.3 per litre (May 2007) between bio-fuels (gasohol, biodiesel) and gasoline/diesel are due to different contribution rates to the Oil Fund (and the Energy Conservation Promotion Fund). This mechanism is temporary; when biofuels replace gasoline and high-speed diesel, the mechanism will be phased out.

23. The gas pricing structure depends on the consumer group; the authorities indicate that actual costs are covered by gas prices charged to consumers and that no direct or indirect subsidy is available. The price for power sector customers – EGAT, independent power producers (IPPs) and small power producers (SPPs) – is cost plus, which is equal to the average wellhead price of gas plus the pipeline tariff. For industrial customers, the retail price is based on two components, i.e. the commodity charge (price charged on the basis of alternative fuels) and the capacity charge (charge for using the gas pipeline). Gas prices are mostly agreed under long-term contracts and price volatility pass-through mechanisms to ensure stable returns. Contract periods are around 25-30 years or until depletion of gas fields or the expiry of concessions. The tariff rate will be reviewed every five years, and adjusted if there is any additional investment or expansion, or any material change in the gas volume or gas heating value. During the five-year interval between reviews, the Energy Policy and Planning Office (EPPO) of the Ministry of Energy reserves the right to review tariff calculations as well as the supply and distribution of gas in the event of any major economic or social changes. For NGV vehicles, the gas price is set to be competitive with diesel prices.

24. According to the 2006 Energy Policy and Development Plan, the authorities intend to establish a fair, market-based, and transparent energy pricing structure that would reflect actual costs.[19] They also aim to reduce the debt burden due to the Oil Fund's retail price stabilizing measures, and put in place guidelines for its future use. The stabilization measures had put the Oil Fund in a precarious financial position, running up B 83,147 million in debt in 2005. To increase the

[17] The Energy Fund Administration Institute sold B 26.4 billion in Oil Fund bonds in October 2005 and issued another B 20 billion worth of bonds in February 2006 (EIU, 2006a).

[18] EIU (2006a).

[19] Ministry of Foreign Affairs (2006b).

net cash inflow to the Oil Fund, the Government raised the ceiling of the Oil Fund levy on gasoline and diesel in November 2005 (from B 1.50 to B 2.50 per litre), and in October 2006 (from B 2.50 to B 4.00 per litre). The new levy scheme will allow the government to discharge the Oil Fund's debt by March/April 2008. The Government plans also to restructure/adjust the pricing and subsidy for LPG to better reflect costs and reduce the "distorted use" of LPG, and to revise the calculation method for the automatic adjustment mechanism and possibly the rate of return for the "pipeline" tariff (section (ii) below).[20]

25. In accordance with the provisions of the Foreign Business Act B.E. 2542 (1999) and the Petroleum Act B.E. 2514 (1971), a foreign business licence, issued by the Ministry of Commerce, is required for foreign participation in petroleum exploration, or production/distribution of petroleum products, or any company with foreign shareholding of 50% or more. Oil and gas exploration and production rights are granted by the Ministry of Energy with approval of the Cabinet.[21]

26. The Ministry of Energy announced the 19th Petroleum Concession Bidding Round in July 2005. The bidding round was open for one year (July 2005 to June 2006); 19 applications were submitted for 25 exploration blocks. Approvals (in batch, starting from January 2006 up to April 2007) were granted for 16 concessions for 21 exploration blocks: nine onshore blocks, nine offshore blocks in the Gulf of Thailand and three offshore blocks in Deep Andaman Sea. Such bidding is in compliance with the government policy of speeding up the exploration of additional domestic energy resources in order to increase the national petroleum reserve. This will eventually strengthen national energy security, particularly amidst the current world oil price hikes. On 23 May 2007, the 20th Bidding Round was announced by the Ministry of Energy, for 65 exploration blocks: 56 onshore blocks and 9 offshore blocks in the Gulf of Thailand. The round is open for one year (until 22 May 2008): bids are to be received and considered by the 15th of each calendar month (the first batch consideration was to be by 15 July 2007).

(ii) Electricity

27. In April 2007, total installed power capacity was 27,788.5 MW, including production from the state-owned electricity generator and distributor (15,794.6 MW or 56.8% of total production), private suppliers, and imported capacity. Around 66% of electricity generation is fuelled by gas. Electricity is provided by hydro power plants (13.6% of total capacity), thermal power plants (34.8%), "combined cycle" power plants (46%), gas turbine and diesel power plants (3.5%), renewable power plants[22] (1%), and the Thai-Malaysia interconnection (1.1%). Power generation is vulnerable to supply disruptions and price volatility.[23] Thailand also imports electricity from Myanmar, Lao PDR, and China. Total electricity consumption in 2006 was around 141,947 MWh; domestic generation accounted for 136,791 MWh (96.4%).[24]

28. Thailand's electricity is generated mainly by the SOE Electricity Generating Authority of Thailand (EGAT), which is responsible for generating and transmitting power across the whole country. EGAT has the monopoly in transmission. Private participation in electricity generation is in

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[20] According to the authorities, a major concern in considering the rate of return is pipeline investment.

[21] The royalty rate ranges from 5% to 15%, and the compulsory exploration period is six years. The concession is for 20 years, and the total exploration area of any single concessionaire may not exceed five blocks of 20,000 square kilometres. Concessionaires are allowed to sell or otherwise dispose of the petroleum produced insofar as they meet their royalty and tax obligations.

[22] Renewable power plants are solar cell, wind, and small power producers (SPPs) (biomass).

[23] EIU (2006c).

[24] EGAT (2007).

the form of independent power producers (IPPs), small power producers (SPPs) and very small power producers (VSPPs).[25]

29. Thailand's Power Development Plan (PDP) 2004-2015 was revised and a new PDP 2007-2021 completed in June 2007. The Plan serves as an investment framework for EGAT in the expansion of electricity generation and transmission systems. During 2007-10 new power projects are to remain under construction; during 2011-15, the new projects will cumulatively supply 10,541 MW; and during 2016-21, the proposed projects are to supply around 21,250 MW. These figures include purchases from neighbouring countries. The next bidding round for IPPs for an additional 3,200 MW generation capacity was planned to come online during 2012-14; the terms and conditions for proposals were to be announced by June 2007. Besides the investment in expanding generation capacity, EGAT will need to invest in transmission systems to provide additional generation capacity.

30. The objectives of the current electricity tariff structure are: (i) to reflect costs of electricity provision and promote efficient use of electricity; (ii) to allow the power utilities sufficient revenue to cover efficiently incurred operation costs and to finance further efficient investment; (iii) to be fair to consumers; and (iv) to provide greater flexibility in automatic tariff adjustment so that the tariffs reflect fluctuating fuel prices. Since October 2005, Thailand's electricity tariffs have been set in three different structures, to reflect production costs (marginal costs), load pattern (changing patterns of electricity consumption), revenue requirement, and social requirements.[26] In addition, according to the authorities, the electricity tariff structure is focused on promoting efficient use of electricity, and providing greater fairness for all power customer categories by reducing cross-subsidization. The "bulk supply tariff structure", is the EGAT tariff for electricity sold to the Metropolitan Electricity Authority (MEA) and Provincial Electricity Authority (PEA) at a wholesale rate based on the time of use (TOU rate), as classified by generation and transmission businesses; the "retail tariff structure" (Chapter III), is used by MEA and PEA to sell electricity to power customers in seven categories (residential; small general services; medium general services; large general services; specific business services; government institution and non-profit organization; and agricultural pumping services, including standby rate, and temporary power customers of the PEA). These two tariff structures comprise the base tariff, which is based on assumptions of fuel prices, inflation rates or the CPI, foreign exchange rate, and efficiency improvement in the transmission, distribution, and retail business. The third structure, the "electricity supply in accordance with the automatic adjustment mechanism (Ft)", was introduced to reflect actual costs and reduce the impact of fuel price volatility on the power utilities' financial status. The calculation of EGAT, MEA, and PEA electricity charges includes the derived Ft rate in the base tariff structures. Additionally, the Ft must be reviewed every four months.

31. According to 2005 estimates[27], the average retail electricity tariff is about the same as the marginal cost-based retail tariff, i.e. it is only 0.6% higher than the marginal cost.[28] Power consumers

[25] In December 2003, the Government approved the Enhanced Single Buyer (ESB) Model, which establishes EGAT's position as a single electricity buyer, transmitter, and wholesaler. In addition, EGAT is the operator of the country's power grid. However, to ensure transparency, generation and transmission accounts would be separated.

[26] The NEPC, at its meeting No. 4/2005 (102nd Meeting) on 17 October 2005, passed a resolution concurring with the electricity tariff restructuring (Ministry of Energy, 2005).

[27] Study by PricewaterhouseCoopers (PwC) for the Thai authorities (Ministry of Energy, 2005).

[28] The marginal costs of the generation, transmission, and distribution systems takes due account of different periods of consumption, losses in transmission, voltage levels and geographical locations, including the loss of load probability (LOLP), in order to determine the capacity costs of the generation, transmission and

under the following categories receive tariff subsidization: agricultural pumping (-43.8% of marginal cost), government institutions and non-profit making organizations (-10.3%), and residential (-13%); others have to pay a rate higher than the marginal costs: small general services (+6.6%), medium/large general services (+6.5%, +8.1%) and specific business services (+5.5%). Reportedly, EGAT and PTT Pcl were instructed to jointly absorb these fuel costs worth B 1.74 billion for electricity production in order to keep the energy cost adjustment charge (i.e. the Ft rate, for the January-October 2004 period) at 9.42 satang per unit (kilowatt/hour) below the actual cost.[29] The authorities indicate that actual fuel costs for the quarter are calculated later and passed on to customers through the Ft tariff in the next bill.

32. Privatizations, and especially the listing of EGAT, have been contentious and an issue of concern for power supply.[30] Despite a March 2004 call off of the planned privatization of EGAT due to protests by various interest groups, the company was "corporatized" in June 2005 and an initial public offering (IPO) was scheduled for November 2005. The IPO was suspended by the Supreme Administrative Court following the filing of a number of complaints, and in March 2006 the two Royal Decrees relating to the corporatization of EGAT were overturned, and EGAT reverted to a statutory corporation. Furthermore, according to the verdict of the Court, EGAT cannot be privatized and must remain a state-owned enterprise. EGAT currently operates as a state enterprise. Nevertheless, its development will continue under the 2003 electricity supply industry's Enhanced Single Buyer (ESB) model, where EGAT retains its roles as the largest wholesale producer to supply bulk electricity, and the sole purchaser or single buyer from IPPs, SPPs, and neighbouring power utilities. It also remains the national system operator, controlling system-wide generation and dispatch and serving as the State's mechanism in maintaining the balance in the power supply systems and electricity price.

33. Regulatory reforms are under consideration by the National Energy Policy Council (NEPC). An Energy Industry Act is being drafted to reflect government policy on restructuring the management of the energy industry; it aims to separate the functions of policy-making, regulating, and operating, through establishment of an Energy Regulatory Board. Furthermore, the Act is to enhance the participation and roles of the private sector, communities, and the general public.

(4) MANUFACTURING

(i) Features

34. The share of manufacturing in Thailand's GDP rose from 34.8% in 2003 to 35.1% in 2006 (Table I.2); the sector's participation in total merchandise exports also increased, from 74.8% to 76.6% (2005), consisting mainly of machinery and transport equipment.[31] Its share in total employment remained stable over the review period (15.4%, 2006).

(ii) Policy objectives and measures

35. No significant sectoral policy or regulatory changes have been undertaken in Thailand since 2003. Thailand places emphasis on structural reforms aimed at enhancing the country's

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distribution systems. The cost of service provision for each customer category are also calculated (Ministry of Energy, 2005).

[29] Bangkok Post (2004b).

[30] Reportedly, EGAT's power plants are too old to run at full capacity, and some are fuelled by expensive bunker oil. Persistent opposition from conservation, farming, and environmental groups to new power stations is also leading to slow progress on developing the power sector (EIU, 2006c).

[31] UNSD Comtrade data.

competitiveness, and advancing to a high-performance economy by making its production base more skill- and knowledge-intensive. Its current sectoral strategic plans classify industries into four groups: (i) potential industries (electronics, automotives, textiles, rubber, petrochemicals and plastics, and processed food); (ii) improving industries (electrical appliances, furniture, steel, and pharmaceuticals); (iii) survival industries (machinery and shipbuilding); and (iv) new wave industries (bio-fuel and bio-products).

36. Overall average applied MFN tariff protection for manufacturing declined from 11.0% in 2003 to 8.7% in 2006/07 (Table III.1). In particular, as from January 2005, under the so-called three-rate programme: import duties were cut to 1% on raw materials (from an average of 7%); to 5% on intermediate products (from 12.13%); and to 10% on finished products (from 20.30%).[32] Nevertheless, action has been taken to, *inter alia*, protect or promote a few sectors through import restrictions, anti-dumping or export duties, and preferential pricing for local bidders for public procurement contracts (Chapter III).

37. Thailand continues to use extensive tax incentives (e.g. duty and tax concessions, drawbacks) and non-tax incentives (e.g. concessional credit) to, *inter alia*, encourage investment in manufacturing in remote areas and SMEs (Chapter III). These are operated under Board of Investment (BOI), Industrial Estate Authority of Thailand (IEAT), EXIM Bank and other schemes (e.g. bonded warehouse, export processing zones, free zones).

(a) Textiles and clothing

38. Following the expiry of the Agreement on Textiles and Clothing (ATC) on 1 January 2005[33], Thailand's textiles and apparel exports to the United States and the EC markets decreased by 1% and 9%, respectively. The authorities expected fiercer competition from countries with lower labour costs, such as China, Indonesia, and Viet Nam, in major markets, such as the United States, the EC, and Canada.[34] As from September 2006, the authorities strengthened efforts to clamp down on re-exporting aimed at circumventing or benefiting from origin-related preferential treatment in third markets (Chapter III); garments are among the monitored products as ten Thai garment manufacturers were allegedly re-exporting garments made in China to the United States, where they are subject to anti-dumping duties. As a result, the share of textiles and clothing exports to total Thai exports dropped from 7.9% in 2002 to 6.2% in 2005[35]; employment also decreased slightly, from 1.08 million to 1.06 million persons. The share of the textiles sector in GDP fell slightly, from 5.9% to 5.4% over the same period and that of wearing apparel from 5.4% to 5.3%.

[32] EIU (2006b).

[33] Under the ATC, Thai exports of textiles and clothing were restricted by quotas in four major markets: the EC, the United States, Canada, and Norway. Thailand administered these quotas under two different methods. The first was the "basic quota", allocated to exporters based on shipments in the preceding years; the second was the "supplementary quota" derived mainly from: (i) the balance of quota remaining after the basic quota had been allocated, (ii) the surrendered quota, and (iii) the quota from those who failed to fully utilize their allocated quotas. This supplementary quota was available to all exporters and was allocated, in principle, according to demand. If the available quota was insufficient, allocation of supplementary quota was made pro rata or by other methods (WTO, 2003).

[34] Although the abolition of quotas opened up new opportunities by providing Thai exporters access to new markets, the termination of the ATC did not lead to the complete elimination of protection in the major world markets where relatively high tariff averages continue to apply for items of the sub-sector. The simple applied MFN tariff averages in textiles and clothing remain significantly higher than for total non-agricultural products (e.g. Canada 11.3% versus 4.0%; EC 7.9% versus 4.0%; and the United States 8.7% versus 3.3%) (WTO, 2006b).

[35] UNSD Comtrade.

39. In 2005, upstream production of synthetic fibre and spinning contracted by 9.49% and 8.36%, respectively, mainly due to a shortage of quality raw materials and a shift to imported raw materials instead of local supplies.[36] Meanwhile, downstream production, such as apparel, continued to expand despite increased competition in the world market; garment exports rose by 1.56%. U.S. and EC safeguard measures on Chinese textiles from July 2005 contributed to this expansion.

(b) Automotive

40. According to the authorities, the automotive industry generated the second highest level of export revenue in 2005, after computer and electronic parts; between 2002 and 2005, exports of motor vehicles and motorcycles[37] grew at an average 35.31%.[38] During the same period, the share of automotive products in total exports rose from 4.2% to 7.2%.[39] Average production growth in the industry was 21.71%; it manufactured 4,619,328 units (1,125,316 vehicles and 3,494,012 motorcycles) in 2005.[40] In November 2005, Thailand became the 14th country to achieve 1 million locally assembled units.[41] The automotive industry accounted for 5% of GDP in 2003; in 2005, it employed approximately 300,000 people. Locally assembled vehicles accounted for 95% of the domestic market in 2005, which is dominated by Japanese-made automobiles.

41. Several major auto manufacturers rely on their Thai operations to serve both domestic and regional demand, and while most export growth has come from Europe, Australia, and the Middle East, ASEAN is becoming a major market.[42] In 2005, the major car assemblers in Thailand ranked by production capacity, were Toyota (27.62%), Isuzu (15.75%), Mitsubishi (13.40%), Auto Alliance (10.63%), Honda (9.45%), General Motors (9.05%), and Siam Nissan (8.03%). The auto-part industry incorporated approximately 700 first-tier or original equipment manufacturers (OEMs), and 1,100 second and third tier manufacturers.[43] Since around 80% of auto assembling capacity belongs to Japanese makers, most of these OEMs are members of Japanese *keiretsu* groups supplying their own customer base. The majority of Thai companies are in the second and third tiers.

42. Tariff escalation remains particularly pronounced in automotive activities. Under the 2003 import tariff reforms, tariff rates are classified into three categories: raw materials at zero; semi-finished products at 5%; and, finished products at 10%[44]; nevertheless, these reforms have not yet been applied in the automotive industry. According to the authorities, duty rates on completely-knocked-down (CKD) automobiles range from 10% (chassis with engine under HS87.06) to 30% (most items), while rates on completely build-up (CBU) automobiles range from 20% (truck tractor) to 80% (motor vehicles under HS87.01) depending on the type of vehicle[45] (Chapter III); this information does not appear in the version of the 2006 Customs tariff available to the WTO Secretariat for the preparation of this report, but the authorities state that it may be found under HS code 8708.99. A 60% duty is levied on CBU motorcycles, as no CKD exists.[46]

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[36] Bank of Thailand (2006).
[37] In 2005, motorcycles represented 75% of the exported units.
[38] Ministry of Industry (2006).
[39] UNSD Comtrade.
[40] Ministry of Industry (2006).
[41] Thailand was poised to move ahead of the Russian Federation (about 1.3 million units) in 2006 (Board of Investment, undated (a)).
[42] Board of Investment (2005).
[43] In recent years, many new investments from non-Japanese first tier suppliers have entered Thailand.
[44] Ministry of Industry (2006).
[45] Ministry of Industry (2006).
[46] USTR (2006).

43. Excise duties on motor vehicles have ranged from 3% to 50% since 2005, depending on their engine capacity.[47] The strong domestic demand for automobiles in 2005, was partly due to excise tax reductions, from 35% to 30% on passenger cars with engine capacities of two litres or less, estimated to represent about 70% of cars on the market.[48] In 2004, the Cabinet revised the automotive excise tax, adding two new classifications for passenger cars: (i) alternative fuel vehicles, natural gas vehicles (NGV) or ethanol (E-20) (20% rate)[49]; and (ii) energy saving vehicles with hybrid engine, electric or fuel cell (10% rate).[50] The main emphasis for NGV application, which has been promoted over the past 20 years, is placed on large vehicles, such as trucks, trailer tractors and transport vehicles. The state oil firm PTT is playing an important role in promoting the use of NGV; and cheap loans are provided for vehicle owners willing to switch to NGV-powered engines.[51] Loans with instalment payments for as long as 36 months offer zero-interest if the vehicle owner applied before March 2007; 25,000 applications were expected for such loans. As of January 2007, there were approximately 30,000 NGV cars and about 102 NGV stations in Thailand.

44. Quantitative import restrictions in the form of non-automatic licensing remain in place on certain used diesel engines (331-1,100 cc).[52] Imports of used motorcycle engines (except for those of 50 cc) are absolutely prohibited.[53] Imports of used passenger cars are also prohibited. No local-content requirements have been in force since 1 January 2000.[54] No automobiles have been exported to Chinese Taipei under the bilateral voluntary export restraint arrangement (still in place) since its accession to the WTO in 2004 (Chapter III).

45. In November 2006, the BOI approved a scheme to promote investment in eco-cars and is now in the process of formulating a promotion policy (Chapter III).[55] Thailand's International Car Policy, which seems to offer fair and equitable opportunities to local and foreign investors, has helped turn the domestic automotive manufacturing base into one of the world's leading producers, especially for 1-ton pick-up trucks. The quality of Thai automotive products seems to be internationally recognized because domestic regulations on the sector follow the United Nations Economic Commission for Europe motor vehicles standards.[56]

46. Under a B 8.7 billion (US$217.5 million) Master Plan for Thai Automotive Industry 2002-2006, proposed by the Thailand Automotive Institute (TAI), Thailand was to achieve a 1.8 million production goal and fulfil its "Detroit of Asia" aspiration (Vision 2011).[57] The proposed plan, which apparently has never been endorsed, consisted of five key projects: a B 1.5 billion (US$37.5 million) human resources development programme; a B 500 million (US$12.5 million) automotive experts dispatching programme to establish clusters and upgrade auto parts manufacturing

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[47] Ministry of Industry (2006).

[48] This change resulted in vehicle price reductions ranging from B 14,000 (US$350) to B 100,000 (US$2,500). More widespread credit availability also helped to boost demand (Board of Investment, 2005).

[49] Thailand expects 260,000 NGV cars to be in use by the end of 2008. Asia Pacific Energy Research Centre (2007).

[50] Ministry of Industry (2006).

[51] Asia Pacific Energy Research Centre (2007).

[52] WTO (2003).

[53] U.S. & Foreign Commercial Service and U.S. Department of State (2006).

[54] Local-content requirements comprised: not less than 54% of local parts for passenger cars; a compulsory parts list amounting to 60-70% for small trucks; incorporation of seven specified locally produced parts and at least 40% domestic content for trucks and buses; and motorcycles were required to incorporate a local engine (Ministry of Industry, 2006).

[55] EIU (2006b).

[56] Thailand has been a contracting party to the1958 UNECE WP.29 agreement since May 2006.

[57] This Plan was proposed to the Office of Industrial Economics of the Ministry of Industry in September 2002 (Thailand Automotive Institute, 2002; and Board of Investment, 2005).

technology; a B 6 billion (US$150 million) fund for the establishment of research and development centres (auto parts and car testing centres); a B 500 million (US$12.5 million) information technology centre to analyze industry trends; and a B 200 million (US$5 million) automobile export promotion centre. If fully implemented, the automotive and auto parts industry could be worth B 1.3 trillion (US$32.5 billion) by 2010. No information was available from the authorities on this Plan.

(c) Electronics

47. The electronics industry has maintained its significant role in Thailand's economy as an important export earner, aiding overall development.[58] Nevertheless, the industry's share of total merchandise exports declined progressively from 24.9% (2002) to 21.7% (2005).[59] During the period under review, the industry has benefited from substantive tariff reductions in raw materials, components, and finished goods (e.g. televisions, fibre optics) under multilateral and ASEAN Free Trade Area commitments (Chapter III). On top of other incentives, in December 2005, the BOI announced extended tax breaks for the electronics sector, which went into effect in January 2006.[60] Furthermore, the EC's GSP regime, in force as of 1 January 2006, restored GSP benefits for Thailand in several sectors including consumer electronics.

(5) SERVICES

(i) Features

48. Services make up a large part of the Thai economy. Despite a slight drop in share of GDP, from 46% in 2003 to 44.7% in 2006, their contribution to total employment (mainly in trade, hotels and restaurants) rose slightly from 37.4% to 38.4% (Table I.2). The sector remains dominated by wholesale and retail trade, followed by transport and communication, hotels and restaurants, and financial intermediation.

49. Between 2003 and 2006, exports of non-factor services rose by 51.8% to approximately US$24 billion, which is around 19% of merchandise exports (Table I.3). However services imports over the same period grew more than 80% resulting in the services balance declining from US$5.1 billion to US$4.7 billion.

(ii) Overall commitments under the GATS

50. Thailand has not changed its GATS commitments since its previous Review. In the ongoing negotiations, Thailand submitted initial and revised offers, to further liberalize trade in services, in August 2003 and October 2005, respectively.[61] Thailand offered to widen the scope of specific commitments by including a new category of mode 4 in its horizontal section and improved its

[58] Royal Danish Embassy Bangkok (2006).

[59] UNSD Comtrade data covering: storage units for data processing, electronic integrated circuits and micro assemblies, parts and accessories, colour television receivers, data processing equipment, and input or output units for automatic data processing machines.

[60] Investors in electronics in Zone 1 (Bangkok and its neighbouring provinces) are now offered a corporate income tax holiday of up to five years. Previously, projects in this zone could receive only a three-year tax holiday if they were on an industrial estate. Investments in Zone 2, but outside industrial estates, receive a six-year tax holiday (up from three years); investment within an estate benefit from a seven-year tax holiday (unchanged from before). The eight-year tax holiday for projects in Zone 3, covering 60 less-developed provinces, remains unchanged (EIU, 2006b).

[61] WTO documents TN/S/O/THA, 15 September 2003; and TN/S/O/THA/Rev.1, 8 November 2005.

sector-specific section in: business services, distribution, education, tourism, recreational, maritime, and air transport services.

51. Thailand's Schedule covers almost half of the 160-odd services sectors falling under the GATS.[62] Foreign equity limitations of 49% on commercial presence are scheduled for a range of professional services, such as legal, accounting, and architecture, as well as for certain construction, education, environmental, tourism, recreational, cultural and sporting, and maritime, rail, and road transport services. In other sectors, foreign equity limitations range from 20% to 49% for telecommunication services, and 25% to 49% for most banking and non-banking financial services (including insurance). In financial services, although new branches are subject to discretionary licensing, as from 2004 the Financial Sector Master Plan (section (iii)(a)) has allowed qualified financial institutions to upgrade and created new types of licence.[63] At present, there are two types of Thai financial institution (commercial banks and retail banks), and two types of foreign financial institution (foreign bank branch and foreign bank subsidiary). Access through locally incorporated banks is limited to the acquisition of shares of existing banks, and foreign equity participation is limited to 25%. Thailand has also listed MFN exemptions on computer reservation services as well as certain transport and business services.

(iii) Banking, finance, and insurance

(a) Banking and finance

52. Since the Asian financial crisis, Thailand has maintained a process of financial sector reform. The number of financial institutions was reduced to 48 in December 2006 from 58 in December 2003. There are now 34 commercial banks and 14 finance companies, credit foncier companies, and state-owned specialized financial institutions (Chapter III).[64] The changing landscape of the sector is due to consolidation and to the issuance of new banking licences.

53. In 2006, Thai banks accounted for more than 70% of the banking sector's assets and 71% of liabilities, while foreign banks account for 10.5% of assets and 9.4% of liabilities. Furthermore the four largest banks (Bangkok Bank, Kasikorn Bank, Siam Commercial Bank, and Krung Thai Bank (KTB)) account for over 43% of the sectors assets and 43.3% of liabilities; public sector banks account for 17.1% of assets and 17.6% of liabilities.

54. There are three public sector banks, Krung Thai Bank, Siam City Bank, and BankThai Bank (Bangkok Metropolitan Bank, merged with Siam City Bank in 2002). The Government divested some of its shares in KTB in 2003, while still maintaining a controlling stake of 57% (as of June 2007).[65] Additionally, the Bank for Agriculture and Agricultural Cooperatives (BAAC) was transformed into a rural bank on 16 March 2006, through an amendment to the BAAC Act.[66] This was in line with the Government's objective of improving access to financial services in rural areas, including through micro-credit operations. Currently, the BAAC provides credit not only to farmers for agricultural purposes, but also to rural people for various purposes. Interest rates charged vary according to each borrower's risk profile. The interest rates quoted are based on the minimum retail

[62] WTO (2006a); and WTO (2003).
[63] WTO document GATS/SC/85/Suppl.3, 26 February 1998.
[64] World Bank (2006c).
[65] Krung Thai Bank is the largest public sector bank, accounting for 16% of both bank assets and liabilities. On the same basis, Siam City Bank and BankThai Bank account for 5.5% and 3% of the banking sector, respectively. Percentage of KTB's shareholding for the First Quarter as at 9 April 2007, viewed at: http://www.ktb.co.th/PublicApp/ktbweb/en/pid/0700001452 [9 April 2007].
[66] World Bank (2006b).

rate (MRR), such as MRR+1% or MRR+2%. The calculation of MRR is based on the bank's operating cost. The total amount outstanding on micro-credit loans has increased from B 287 billion in 2003 to B 426 billion in 2007.

55. Non-performing loans (NPLs), which were a serious problem and had reached highs of over 40% of total loans in 1998, have fallen significantly. The Bank of Thailand (BOT) target was for NPLs of Thai banks to fall to less than 5% of total loans by 2006; in June 2006, financial institutions' NPLs were 8.2% of total loans, down from 15.7% in December 2002.[67] The reduction in NPLs could be attributed to BOT measures to expedite NPL resolution; these included, *inter alia*, the tightening of the provisioning requirement on long-standing NPLs, and encouraging Thai private banks to voluntarily sell their distressed loans to asset management companies (AMCs).[68] The authorities indicate that the transfer prices of these loans are negotiated on commercial terms. There are 14 AMCs, excluding the Thai Asset Management Corporation (see below), 12 of which are private and 2 are owned by the Financial Institutions Development Fund (FIDF). The amendment of the AMC Act, in March 2007, allows AMCs to buy loans from private banks, private AMCs, and companies.

56. The key government agencies responsible for expediting the process of debt restructuring are the Corporate Debt Restructuring Advisory Committee (CDRAC) and the Thai Asset Management Corporation (TAMC). Since its inception in June 1998, CDRAC has facilitated and expedited private debt restructuring negotiations, while TAMC, established in September 2001, has the mandate to manage impaired assets transferred from both state-owned and private financial institutions as well as AMCs. Since their establishment, CDRAC and TAMC have restructured loans worth B 2,279 billion. The CDRAC ceased operations in October 2006 in line with the relevant provision of the Thai Asset Management Corporation Emergency Decree B.E. 2544 (2001) stipulating its closure within five years.[69]

57. Currently, commercial banks and finance companies are subject to two principal laws and numerous regulations and notifications: Commercial Banking Act, B.E. 2505 (1962), last amended by Emergency Decree Amending the Commercial Banking Act (No. 4), B.E. 2541 (1998); and Act on the Operation of Finance, Securities and Credit Foncier Businesses (1979), last amended by Emergency Decree Amending the Act (No. 5), B.E. 2541 (1998). The BOT, in conjunction with the Ministry of Finance, oversees the administration of these two Acts.

58. The BOT is responsible for overall supervision of the financial sector as well as policy formulation for the sector.[70] The Minister of Finance has the mandate to grant, refuse, suspend or revoke commercial banking licences. The Minister has fully entrusted the examination and overall supervision of commercial banks to the BOT, and consults the BOT on matters under its sole purview. The Commercial Banking Act (CBA) provides an adequate framework for the BOT to supervise financial institutions at a minimum prudential standard. The Minister, upon recommendation by the BOT, is empowered by the CBA to order a "problematic" bank to promptly rectify its "(financial) conditions".

59. Under its 2004 Financial Sector Master Plan (FSMP), Thailand aims to develop an efficient, stable, and competitive financial sector with greater balance between the banking sector and the capital market, as well as ensuring consumer protection and universal access to financial services. The licensing regime was rationalized in order to clarify the overlap in scope of business for different

[67] World Bank (2006c).
[68] For more information about AMCs, see WTO (2003).
[69] Bank of Thailand (2005).
[70] Chandler and Thong-Ek (2006).

types of financial institution.[71] Also competition between foreign and domestic banks appears to have improved. A foreign bank is now allowed to establish a subsidiary, which can engage in the same range of businesses as a Thai commercial bank and can open up to four branches in addition to its head office. Alternatively, a foreign bank can maintain a single branch status with similar business scope as a Thai bank, but is not permitted to open an additional branch.[72] The expansion of the foreign ownership limit from 25% to 49% is included in the new commercial bank law, the Financial Institutions Businesses Act (FIBA), which in June 2007 was being debated in the Council of State. The revised foreign ownership limit will take effect once the FIBA passes all remaining legislative procedures. The FSMP II is at the drafting stage (to be completed in early 2008); the FSMP II is to continue with the aim of enhancing competition and efficiency through further deregulation of the banking industry's scope of business and its liberalization.

60. To curb excessive consumer indebtedness and to protect public interest, the BOT issued a regulation, effective July 2005, that places a ceiling on loan amounts, dependant upon the borrower's income, as well as a limit on total effective costs (including 15% interest rate, penalty fee, service fee and other) at 28% per annum.[73]

61. According to the BOT, consolidated supervision is being introduced to deal effectively with the trend towards universal banking.[74] The BOT draft guideline on consolidated supervision was issued in September 2005 and April 2006, based on the study of international standards, structures of five large commercial banks in Thailand, and industry feedback. In July 2006, the BOT issued the policy statement on consolidated supervision, which defines the scope of a banking group, whose operations – together with subsidiaries, affiliates, and other entities in which the group has substantive holdings – are subject to consolidated supervision. The statement also specified prudential regulations on intra-group transactions, capital adequacy (see below), and large exposure on a consolidated basis. Banks were to submit applications to the BOT for approval of their financial group by September 2006. They were also required to prepare and submit their 2005 consolidated financial statement by the end of 2006. In October 2006, all 14 commercial banks registered in Thailand submitted applications to the BOT for the set-up of their financial groups as prescribed in the "Guideline". All applications were approved by December 2006. Upon their approval, the BOT had also imposed prudential conditions for commercial banks and the financial groups in addition to those prescribed in the "Guideline". From 2007, all financial groups have to comply with all requirements set out in the "Guideline". Moreover, on-site and off-site supervision is to be conducted on a consolidated basis in accordance with the policy statement by the Supervision Group.

62. In 1997, the Government announced explicit full guarantees for depositors and creditors of commercial banks, foreign bank branches, financial companies, and credit foncier companies. Later, in 2003, the guarantee for creditors was abolished owing to economic recovery. A deposit insurance agency is to be established as a legally separate entity with initial capital of B 1 billion. Annual premiums collected from members should not exceed 1%. The existing blanket guarantee will be replaced by a limited insurance with coverage of B 1 million. The authorities plan to reduce coverage gradually from full guarantee to the targeted amount, tentatively within four years. The full coverage will remain for the first year, and will be reduced each year to B 50 million, B 25 million,

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[71] Licensing for domestic deposit taking financial institutions has been reduced from four types – commercial bank, restricted bank, finance company, and credit foncier company – to two, i.e. commercial bank and retail bank. Minimum tier 1 capital requirements are B 5 billion for a commercial bank, B 250 million for a retail bank (World Bank, 2004).

[72] Minimum paid up capital requirements for a full branch or a subsidiary are B 4 billion and B 3 billion, respectively.

[73] World Bank (2005b).

[74] BOT (2005).

B 10 million and B 1 million, respectively. In June 2007, the draft Deposit Insurance Act was being reviewed by the Council of State; it will subsequently be proposed to the Parliament for approval.

63. Since January 2005, the BOT has been publishing a reference rate for short-term interest rates, called the Bangkok Interbank Offered Rate (BIBOR) so that banks and companies can have a benchmark rate for short-term funding.[75] BIBOR is intended to promote longer-term lending in addition to the overnight and on-call loans that are prevalent in the market. Reforms of the monetary operation framework (Chapter I), effective 17 January 2007, include: (i) changing the monetary policy operating target (policy rate) from the 14-day repo to the 1-day repo; (ii) synchronizing reserve maintenance periods with Monetary Policy Committee meetings for all types of financial institution required to hold reserves; and (iii) establishing and End-of-Day Liquidity Adjustment Window whereby the BOT offers both overnight lending and borrowing to financial institutions at the policy rate +/-50 basis points to limit interest rate volatility.

64. As regards prudential regulations, the minimum capital adequacy ratio (CAR) is 8.5% for locally incorporated banks, 7.5% for branches of foreign banks, 8% for finance companies, and 6% for credit foncier companies. During the period under review, banks maintained CARs in excess of minimum requirements: the CAR rose from 12.9% in December 2002 to 14.3% in April 2007 and tier 1 capital rose from 8.9% to 11.4% over the same period. This development was, *inter alia*, due to continued improvement in operations of financial institutions, the recapitalization of certain banks, and the raising of new capital through the issuance of subordinated debt instruments, common stocks, as well as hybrid tier 1 capital instrument. Capital injection into foreign branches from head offices in preparation for upgrading and loan expansion also played a role.[76] The authorities indicate that all financial institutions are able to meet their CAR requirement.

65. A Market Risk Supervision Policy, issued in 2003, aims to offer comprehensive supervisory guidelines for all elements of market risk: interest rate, equity price, exchange rate, and commodity price, and incorporates both quantitative measures, with respect to capital charge, and qualitative measures with respect to internal control and trading book policy guidelines. The policy was fully implemented at the end of June 2005. In December 2006, the banks' BIS capital/asset ratio (as set by the BIS, Bank for International Settlements) decreased slightly, from 13.85% to 13.66% as a result of the implementation of market risk capital requirement. Policy guidelines on liquidity risk, credit risk, operational risk management, and corporate governance were also issued.[77]

66. Full implementation of the Basel II Accord by Thai banks is planned for late 2008. The BOT announced that it would initially require Thai banks to comply at least with the Standardized Approach (SA), but they can choose to implement the Internal Ratings Based Approach (IRB). Before full implementation, banks will have to run risk-weighting under Basel I in parallel with Basel II, starting from end 2007: the BOT would review a bank's risk management system and process; and banks would be required to make sufficient disclosure, especially about their capital adequacy and risk profile. The BOT has also developed specific measures for each of the three pillars (under Basel II): minimum capital requirement, supervisory review, and market discipline. All banks were required to submit their Basel II implementation timeframe by June 2006[78], indicating the approaches that they intend to adopt for capital calculation, as well as completing self-assessment forms. Based on the submitted preliminary applications, the authorities indicated that most Thai banks plan to adopt SAs for credit risk and for operational risk (TSA) capital calculation. After the

[75] BIBOR is the rate of interest at which banks can borrow funds from other banks in the Bangkok interbank market (Chandler and Thong-Ek, 2006).

[76] World Bank (2006c).

[77] Bank of Thailand (2003).

[78] World Bank (2006c).

preliminary assessment by the BOT, banks had to submit their final applications by September 2007; the final approval process will take place during 2008. Following close consultations with the industry, the BOT has issued a series of policy guidelines on all pillars since 2006.

67. Due to the alleged complexity and the continuing revision of the International Accounting Standard 39 (IAS 39), the Federation of Accounting Professions (FAP), the accounting standards-setter in Thailand, has taken a step-by-step approach in analysing each part of the IAS 39. The FAP plans to issue a Thai Accounting Standard that complies fully with IAS 39 by the end of 2007. However, the implementation date will be determined as appropriate after the industry hearing and impact assessment. In the meantime, the BOT has partially implemented IAS 39 with respect to loan loss provisioning since December 2006. In this regard, banks need to calculate loan reserves based on the difference between the book value of loans and the present value of expected cash flows from the sale of collateral, or the difference between the book value of loans and the present value of expected cash flows from debtors. According to the authorities, the IAS 39 is unlikely to significantly or abruptly affect banks' performance because the BOT has been enforcing the new standards gradually.

68. From 2003 to mid 2006, interest rates have moved in response to the monetary policy stance (Chart IV.1). Since 2007, the authorities have adopted an accommodative stance to support growth, with the cut in policy rate.[79] However, in 2005, several commercial banks increased their deposit and lending rates despite ample liquidity in the banking system. When small and medium-sized banks started to compete for deposits by increasing their deposit rates, large private banks were pressured to raise their interest rates to maintain their market shares although their liquidity was not tight (Chart IV.1).[80] Spreads between lending and deposit rates remain wide, reflecting weak competition in the banking sector (Chart IV.1). During the period under review the interest rate spread fell from 4.75 to 2.75 percentage points before rising to 4.5 points in May 2007.

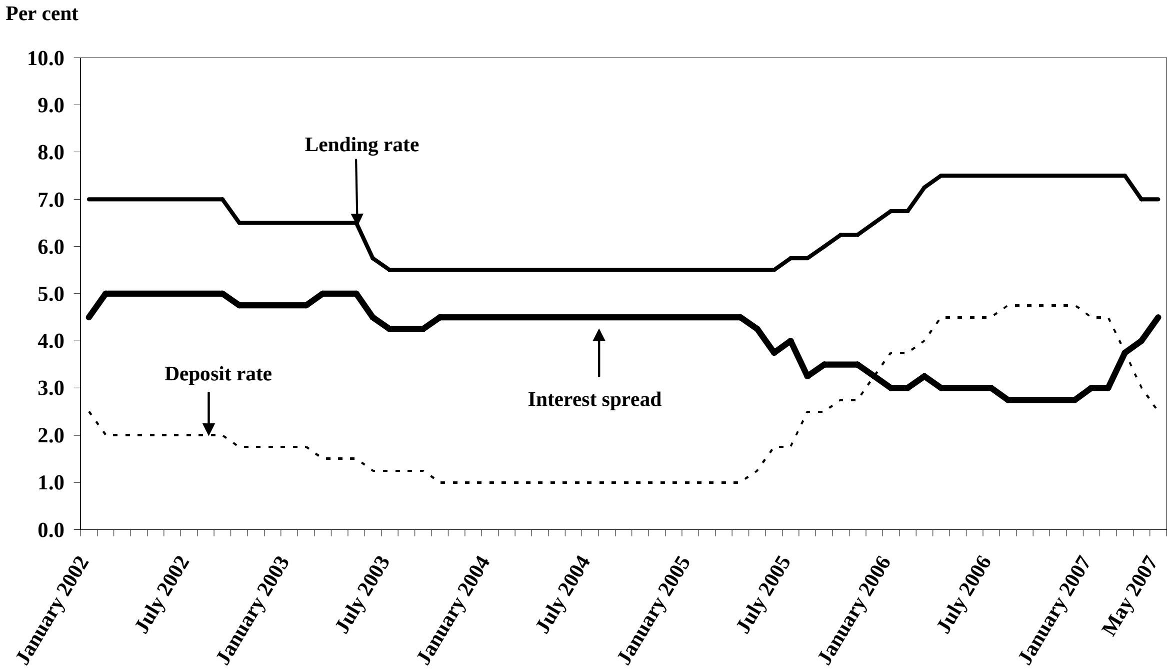
(b) Capital markets

69. During the period under review the Thai capital markets have expanded with foreign investors strengthening their presence. The SET's (Stock Exchange of Thailand) capitalized value in 2006 was B 5,080 billion (B 4,790 billion in 2003).[81] The market capitalization of the Market for Alternative Investment (MAI), established in 2001 for small and medium-sized enterprises, was B 21.8 billion in 2006 (B 13.7 billion in 2003). Local retail investors accounted for 55% of total transactions for the SET and the MAI in 2006 (76% in 2003), while foreign investors and institutions accounted for 34% (18% in 2003) and 11% (6% in 2003), respectively.

70. The Securities and Exchange Commission (SEC) is responsible for regulating securities businesses in Thailand. Under the Securities Exchange Act 1992, the SEC is empowered to supervise and develop the primary and secondary markets of the country's capital market system as well as finance- or securities-related participants and institutions. Under the Derivatives Act 2003, which entered into force in January 2004, the SEC is authorized to formulate policies, promote, develop, and regulate markets for derivatives based on securities, securities indices, exchange rates, interest rates, financial indices, gold, and crude oil.

[79] Bank of Thailand (2003).
[80] World Bank (2005b).
[81] SET (2007) and SET (2005).

Chart IV.1
Interest rate spread, 2002-07



Source: IMF, *International Financial Statistics*.

71. A Thai Capital Market Master Plan II (2006-2010), approved in July 2006, was initiated by the Federation of Thai Capital Market Organizations (FeTCO) and government bodies, to provide strategies to further develop and strengthen the capital market.[82] The SEC's three-year Strategic Plan implemented in January 2007, incorporates the objectives of the Capital Markets Master Plan II.[83] At present, the SEC Plan aims to: (i) strengthen the competitiveness of securities businesses and reduce their dependence on brokerage fee revenues through service diversification; (ii) promote an active role for the Thai capital market at the regional level; (iii) further diversify investment options; (iv) expand bond markets; (v) raise the standards of the Thai capital market; and (vi) enhance the SEC's image as an efficient and reliable organization. The SEC Plan discussed in Chapter III is part of this Plan.

72. The Foreign Business Act (1999) covers foreign equity in securities companies.[84] Foreign-owned securities firms (up to 100%) may engage in brokerage business. However, non-brokerage securities activities, such as underwriting, dealing, investment advisory, and fund management, are List 3 businesses, i.e. closed to firms with majority foreign equity unless permitted by the Director-General of the Department of Business Development under the Ministry of Commerce. Since the Ministry of Finance does not issue new broker or dealer licences, new entry is only possible by buying equity in existing securities firms. The SEC applies its licensing rules uniformly irrespective of foreign equity holdings.

[82] The first Capital Market Master Plan, issued in 2002, emphasized corporatization of the SET, better corporate governance in securities businesses, and the restructuring of the SEC with a view to improving efficiency and accountability of capital markets (WTO, 2003).
[83] EIU (2007a); and World Bank (2007).
[84] WTO (2003).

73. Investment management businesses under the SEC Act (e.g. mutual fund management, private fund management, and venture capital management) are categorized as List 3 businesses under the Foreign Business Act (1999). There are currently two investment management companies exempted from the majority shareholding clause. In February 2007, the Cabinet approved a draft amendment to the Securities and Exchange Act.[85] The proposed amendments cover key issues such as: (i) restructuring of the SEC Board; (ii) enhancement of listed companies' corporate governance so as to better protect shareholders' interests; (iii) development of the bond market; (iv) enhancement of the SEC's oversight power over the Stock Exchange; (v) extension of the reporting requirement coverage for securities acquisition at business takeover; and (vi) strengthening the auditor duties in relation to corporate frauds. The draft is being considered by the Office of the Council of State before submission to the National Legislative Assembly.

74. As of 2006, there were 39 active brokerage companies operating as members of the SET.[86] Brokerage fees, which were deregulated in October 2000, were re-introduced by SEC in January 2002 for at least three years; in May 2006, they were extended by the SET's Board of Governors for three more years, starting 14 January 2007. Minimum brokerage fees are set at 0.25% of trading turnover for non-internet trading, and since January 2007, online trading fees have been at 60% of this rate or 0.15%.[87] As from 1 January 2010, a sliding scale of brokerage fees will be introduced, beginning with a minimum rate of 0.25% and decreasing as the trading amount grows. Also at that time, when the daily trading turnover are over B 20 million, fees will be negotiable; the internet trading rate will be 60% of the sliding scale. As from 2012, all brokerage fees will be fully negotiable.[88]

(c) Insurance

75. The insurance industry has continued to grow. Between 1999 and 2006, the average annual growth rate of total direct premiums was 11.05%; in 2006, they amounted to US$7.44 billion. Life insurance premiums increased by 1.52% to US$4.81 billion; and non-life premiums by 9.32% to US$2.62 billion in 2006. Apart from the generally low rates of return in the financial market, continued economic growth, increased exports, and the rise in sales of motor vehicles, growth in life insurance premiums was, *inter alia*, fuelled by the increase in the annual tax-deductible limit on premiums paid to life insurance policies issued by locally incorporated insurers from B 10,000 to B 50,000 on new policies from 1 January 2002 (see below).[89]

76. At present, there are 99 insurance companies, comprising 25 life insurance companies (including 1 foreign branch and 1 life re-insurer) and 74 non-life insurance companies (including 5 foreign branches, 5 specialized health insurers, and 1 non-life re-insurer). Most insurance companies have foreign shareholdings.[90] At end-December 2006, the life insurance market was dominated by three companies: A.I.A. (42.27% of total premiums), Thai Life Insurance (13.96%), and Ayudhya Allianz C.P Life (10.55%). The non-life insurance market shares were more widely spread; the major player was the Viriyah Insurance, which accounted for 14.35% of total annual premiums.

[85] World Bank (2007).
[86] Bangkok Post (2006c).
[87] SET (2007).
[88] Bangkok Post (2006c).
[89] WTO (2003).
[90] For example, New York Life International (U.S.) owns 25% of Siam Commercial Life Assurance; Allianz (Germany), 25% of Charoen Pokphand Life Assurance; and Zurich Insurance (Switzerland), 25% of National Life Assurance (AAR, 2003).

77. A three-stage liberalization plan for insurance was initiated in 1995 to allow greater foreign participation; the first stage was completed and the plan has remained in its second stage since the previous TPR of Thailand in 2003. During the first stage, Thailand started to open up its insurance market by creating a more competitive environment and a better standard of services by inviting applications for new insurance licences for the first time since 1983: 12 new life insurers and 13 non-life insurers were approved. The Government is in the process of amending the current Life and Non-life Insurance Acts. A key area is to propose foreign ownership of up to 49% (from 25% currently). In March 2004, the Cabinet approved the proposed draft amendments of Life Insurance Act B.E. 2535 (1992) and Non-Life Insurance Act B.E. 2535 (1992). In June 2007, the Acts were under consideration by the Council of State before being submitted to the National Legislative Assembly. The final stage of the liberalization plan, aiming to open market access for foreign insurers, will consist of full market liberalization, where domestic and foreign insurance business entities operate in level playing field.

78. The Department of Insurance (DOI) of the Ministry of Commerce supervises insurers. Improved supervisory measures have been adopted on solvency margins, technical reserves, investments, and disclosure requirements. Minimum capital requirements are set at B 50 million (or not less than 2% of policy reserves, whichever is higher) for life insurers, and B 30 million (or not less than 10% of net premiums in the preceding year, whichever is higher) for non-life insurers. For supervisory purposes, insurers' financial performance is subject to inspection and examination; the frequency of inspection depends on their performance and operational risks.

79. In February 2007, the Cabinet approved the draft Office of the Insurance Supervision and Promotion Commission Act[91], which would establish the Office, an independent regulatory agency for insurance business. The draft Act is being inspected by the Office of the Council of State before submission to the National Legislative Assembly for consideration.

80. As from 1 January 2002, annual life insurance premiums of up to B 50,000 (previously B 10,000) have been tax deductible for holders of policies issued by locally licensed companies (not by companies licensed abroad).

81. The DOI supervises re-insurance because it is one of the risk transfer techniques that can affect insurers' operation and financial position. Non-life insurers must not assume "risks of each specific type of more than 10% of their capital funds" (Non-Life Insurance Act Section 31). While no specific requirements cover the choice of re-insurer, insurers must submit their reinsurance agreements to the DOI within 30 days of signing. The DOI encourages "domestic retention" in the market segments where local companies have capacity and potential to assume the risks. Minimum domestic retention levels apply, for example 30% for all-risk property policies exceeding insured sums of B 300 million, where an insurance firm wishes to apply "special premium rates". Although not a legal requirement, according to the authorities, at least 10% of premiums on fire policies exceeding sums insured of B 30 million must be re-insured with the Thailand Fire Pool (set up by DOI and the General Insurance Association, and managed by Thai Reinsurance).

82. Premium rates must be approved or fixed by the Insurance Commissioner. According to the authorities, this is to help protect the insurer and the insured by ensuring that premiums are fair and adequately reflect the degree of risk. Currently, the compulsory motor premiums are fixed at the rates effective as of 1 April 2002.

[91] World Bank (2007).

(iv) Telecommunications

83. Thailand's telecommunications market has expanded during the period under review, especially for mobile services; the market remains characterized by a poor fixed-line infrastructure providing minimal growth potential and a mature mobile market.[92] Fixed-line penetration has fallen from 11.56 in 2002 to 10.7% in 2006[93], while mobile-phone penetration has risen from 27% in 2002 to over 64% in 2006.

84. The telecommunications sector in Thailand remains a de facto duopoly consisting of the state-owned "corporatized" enterprises Telephone Organization of Thailand (TOT) now TOT Public Company Limited, and the Communications Authority of Thailand (CAT), now CAT Telecom Public Company Limited.[94] TOT is responsible for providing domestic fixed-line telephone services, public payphone services, mobile services, wireless communication services, international telephone services, data services, multimedia and broadband services, network access and other value-added services, such as card phones. Prior to its "corporatization", CAT was responsible for providing postal services, which are now under the responsibility of Thailand Post Co. Ltd. Currently, CAT is responsible for providing international telephone/fax services, leased circuits, microwave radio networks in rural areas, and mobile phones and international internet gateway.

85. Fixed-line services are still largely dominated by TOT, but it has been losing ground to the mobile sector in recent years.[95] All mobile telephony companies in Thailand operate under build-transfer-operate (BTO) revenue-sharing agreements.[96] The BTO agreements can be granted only by the State whose rights were given to CAT Telecom and TOT. Since the two cannot "sub-let" their concessions, private-sector investment takes the form of an agreement: i.e. the mobile firms' networks are owned by TOT and CAT. At present, there are six mobile operators in Thailand with various degrees of foreign ownership.[97]

86. No date has been set for the privatization of TOT and CAT; in addition, there is no policy to list the companies on the SET. Both companies were corporatized in August 2003. TOT has been considering the acquisition of CAT's stake in Thai Mobile, which will be repositioned as Thailand's first third-generation (3G) mobile services operator with Wideband Code Division Multiple Access technology.[98]

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[92] Business Monitor International (2006).

[93] Industry Canada (2003); and Bangkok Post (2006a).

[94] TOT was transformed and corporatized into the TOT Corporation Public Company Limited on 23 July 2002. The company changed its logo and name into TOT Public Company Limited on 31 July 2005. CAT became CAT Telecom and Thailand Post in August 2003. Neither company has been privatized yet.

[95] As TOT owns nationwide telecommunications networks it has entered into revenue sharing arrangements to jointly provide fixed-line telephone services; these are build-transfer-operate (BTO) arrangements with True Corporation Public Company Limited and TT&T Public Company Limited to provide domestic fixed-line services in metropolitan and provincial areas.

[96] Under build-transfer-operate schemes, private companies develop telecommunication infrastructure and then transfer ownership to the Government in return for concessions to operate services while paying a percentage of revenue as a royalty fee (Morse, 2003).

[97] TOT and CAT Telecom have obtained licences to provide for mobile services with revenue-sharing arrangements with private mobile service operators. Advance Info Services (AIS) operates a concession under ToT; and True Move, Hutch, and DTAC operate under CAT Telecom. The operational mobile companies are: AIS, DTAC, True, Hutch, DPC, and Thai Mobile (AIS and DPC are considered as the same company); their respective market shares are 48.6%, 30.4%, 18.8%, 1.8%, and 0.2%.

[98] International Telecoms Intelligence (2006).

87. In line with its GATS commitments to liberalize the telecommunications sector by 2006[99], Thailand amended the Thai Telecommunications Business Act in November 2005; the maximum allowable foreign ownership in telecommunication operators was changed from 25% to between 49% and 100%, depending on the type of business. An independent regulator, the National Telecommunications Commission (NTC), was established in October 2004. The NTC is responsible for formulating the telecommunication Master Plan, monitoring and promoting the telecommunication industry in Thailand under fair and free competition, issuing licences, spectrum management, and formulating the universal service obligation (USO) policy.

88. Under the licences granted by NTC, new licence holders and new entrants to the Thai market must comply with the NTC rules and regulations, and pay a licence fee to the NTC; existing players (prior to NTC's establishment) continue to operate under the existing BTO revenue-sharing agreements.[100] At end-December 2006, NTC had issued 51 licences to internet service providers (ISPs), and 25 licences to telecom firms, including TOT and CAT Telecom, to provide other telecom services, such as international direct dialling, calling card, network provider, and IIG.[101] Under the new licences, TOT and CAT are responsible for promoting USO, which may involve investments equal to 4% of their annual revenue. In addition, they must pay 3% of their revenue as a licence fee, and B 12 per year per number as a numbering fee, along with a spectrum fee to be determined; however, TOT and CAT Telecom both claim that these do not reflect commercial reality.[102]

89. Reportedly, a major impediment to the growth in the sector is the non-availability of 3G technologies and services.[103] Because 3G is seen as having both communication and broadcast applications, it involves radio spectrum, and the Frequency Allocation Act requires a Joint-Committee panel (involving the National Broadcasting Commission and NTC)[104], to allocate spectrum. The NTC is in the process of studying and developing the 3G policy.

90. Interconnection and access charges are also a concern for certain mobile telephony operators.[105] Those who have an agreement with CAT have to pay access charges (e.g. B 200 per subscriber per month) to TOT, while those who have agreements with TOT pay no access charges. Reportedly, this creates an uneven playing field. However, operators that have an agreement with TOT claim that the access charges have been built into their agreements. With regard to interconnection charges, the NTC Notification on Access and Interconnection B.E. 2549 (2006) requires all operators with network to issue reference interconnection offers (RIOs) and reference access offers (RAOs), on which access and interconnection agreements are to be based. In May 2007, NTC issued a rule for interconnecting between different networks including the interconnection charge regime; this mechanism will allow the seamless integration of different operators' networks and introduce fairness among all mobile operators regardless of whom their concession agreement. Some operators have already arranged interconnection agreements.

91. The Internet penetration level has risen sharply, to around 13.3 users per 100 people in 2005, on account of, *inter alia*, ongoing communication cost reductions; however, these are still high as

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[99] WTO document GATS/SC/85/Suppl.2, 11 April 1997.
[100] Board of Investment (undated (b)).
[101] EIU (2006b).
[102] Bangkok Post (2005).
[103] Bangkok Post (2005).
[104] The creation of a new independent regulator for the broadcast industry, the National Broadcasting Commission (NBC) is still pending. Once established, it will assume regulatory functions, which would include the regulation and frequency management of the Post and Telegraph Department under the Radio Communication Act B.E. 2498 (EIU, 2006c; and U.S. Department of Commerce, 2006).
[105] Bangkok Post (2006a).

compared with neighbouring countries.[106] Difficulties appear to remain in the form of regulatory constraints, unfamiliarity with computer technology, and the limited number of websites in the Thai language. The NTC announced in late 2005 that it was planning to liberalize International Internet Gateway (IIG) services.[107] Licences would be issued to qualified operators for provision of IIG services, which would, in turn, allow the private ISPs flexibility to access the gateway of other operators and not to depend only on that of the CAT. This would break the monopoly by CAT, which currently provides the sole gateway for international connections, and will enable private internet service providers (ISPs) to build direct links with overseas networks. The move should reduce broadband internet tariffs. The first ISP was issued June 2005; all ISPs were granted the right to offer voice over IP (VOIP) service. In December 2006, 51 ISPs were operating; there were also four non-commercial internet hubs; UniNet, ThaiSarn, SchoolNet, and Pubnet.

92. The National Electronic and Computer Technology Centre (NECTEC) has been assigned to draft six information and communication laws: Universal Access Law, Computer Crime Law, Data Protection Law, Electronic Signature Law, Electronic Transactions Law, and Electronic Fund Transfer Law. All are at different drafting and legislative approval stages. The Computer Crime Act should be in effect by August 2007. The offences covered by the Act include any action that causes computer malfunctioning or failure to perform as per its established program and instruction. Other offences are illegal access that compromises, alters or destroys data that belongs to another person in the computer system; spamming; and dissemination of false or pornographic computer data, which causes damage and adverse effects to the society, economy, and national security.

(v) Transport

(a) Road and railway

93. The national highway network in Thailand has an important role with regard to domestic freight and passenger transport. It measures some 51,400 km (64,000 kilometers per two-lane); about 99.6% of which is asphalt road. The Department of Highways is responsible for proposing development plans, setting design and construction standards, carrying out construction, and maintenance of the national highways. However, budgetary constraints and lack of foreign investor interest have meant that the upgrading of national highways has been slow.[108]

94. International road transport is subject to the Land Transport Act B.E. 2522 (1979), under which an operator must be either a registered ordinary partnership, a limited company or limited public company. If the corporate headquarters of an applicant is located outside Thailand, the applicant must have a branch office or agency registered under Thai laws and located in Thailand. Domestic road transport is also subject to the Land Transport Act. Furthermore, domestic transport of both passengers and cargo must be provided by a person of Thai nationality or a company incorporated under Thai laws.[109] The Land Transport Department has amended Ministerial Regulations No. 29 (12 September 2006), to allow a natural person to act as an international transport operator; previously, only registered ordinary partnerships, limited partnerships, limited companies or limited public companies were permitted.

95. The State Railway of Thailand (SRT) operates and maintains Thailand's rail services. The SRT has initiated a 30-year development plan, under which it has undertaken 249 km of double tracking and completed 791 km of track rehabilitation. Construction of track doubling in the eastern

[106] EIU (2006c).
[107] EIU (2006c).
[108] EIU (2006c).
[109] APEC (2006b).

seaboard area (78 km from Chachoengsao to Laem Chabang), will begin in 2007. The SRT also plans to further extend track doubling from Chachoengsao to Kang Khoi (106 km) and track rehabilitation phase 5 and 6 for another 586 km in a near future. The Government tries to implement policies to increase efficiency of rail services and to reduce its financial losses, *inter alia*, from track rehabilitation work, yearly maintenance costs, and social service provisions.[110] Despite legal provisions requiring the Government to reimburse SRT for its annual losses, it does not normally allocate the full amount, which causes cash flow shortages for the SRT.

96. The SRT applies two basic types of cargo traffic charges, freight charges and fuel surcharges. Freight charges are fixed by type of goods transported; fuel surcharges may change to accommodate fluctuations in fuel prices. Freight charges are the same for import, export, and domestic cargoes and are classified by type of industry. No further information in this regard was available from the authorities.

(b) Maritime transport

97. Maritime transport carries approximately 95% of Thailand's international merchandise trade. Thailand's maritime fleet consists of 318 ships with total tonnage of 3.2 million deadweight tonnes (January 2006); Thai-flagged vessels account for around 11% of total income from freight charges.[111] A Thai State-private joint-venture shipping company (70% private-sector owned) plans to order some sea-going vessels to add to its fleet; the rest of the Thai merchant fleet is privately owned. No further information on this matter was available from the authorities.

98. International shipping is open to Thai and foreign operators. However, operators of Thai-flagged vessels providing international services are subject to the Thai Vessels Act B.E. 2481 (as amended by the Act B.E.2540), under which the operator must: be majority Thai-owned; meet national safety and marine environmental requirements; operate vessels registered with the Marine Department to fly the national flag; and be a registered maritime transport operator with the Marine Department.[112]

99. Although the Thai fleet is among the smallest among ASEAN countries, it has increased significantly during the last decade through promotional measures.[113] While official policy provides for free market access for international shipping, the national shipping industry is protected through a cargo reservation policy. Goods imported directly or indirectly by government agencies or public enterprises are reserved for Thai-flagged vessels. Despite the lack of relevant information, the authorities estimate that imported government cargo carried by Thai flag vessels accounts for less than 1% of total imported maritime cargo. In addition, a considerable amount of such cargo has been carried by foreign vessels due to the unavailability of Thai-flag vessels. Many promotional measures are in place to attract Thai operators to fly the Thai flag, these include administrative, tax relief, and funding measures.[114] A stated objective is to reduce of the required proportion of Thai seafarers on Thai vessels involved in international shipping from 75% to 50%; in certain cases, this can be

[110] Thailand Outlook online information, *Transport*. Viewed at: http://www.thailandoutlook.com/thailandoutlook1/about+thailand/transport/ [25 March 2007].

[111] Bangkok Bank (undated).

[112] Transport operators who buy vessels from other countries can register them without bringing them into Thai territory.

[113] APEC (2000).

[114] The authorities indicate that details on these promotional measures are available in the Maritime Department online information (www.md.go.th), but no such information was available in the English version of this site.

reduced by a further 10% subject to ministerial approval.[115] The objective is to provide more flexibility to Thai ship owners due to the shortage of Thai seafarers.

100. Cabotage restrictions reserve domestic shipping for national security reasons to Thai-flagged vessels that are owned by Thai nationals or companies with at least 70% Thai equity. Under the Foreign Business Act, a company registered under Thai law with foreign equity not exceeding 49% may operate domestic transport, including domestic shipping. Thus, a company with less than 70% Thai equity may hire a "Thai flagged" vessel to provide domestic shipping services. Under certain conditions, e.g. when domestic shipping capacity is inadequate, foreign vessels may be allowed to provide domestic services, this is subject to ministerial approval on a case-by-case basis; the number of foreign vessels authorized to provide domestic services dropped from 14 (September 2003) to 12 (May 2007). The Thai Vessels Act B.E. 2481 requires that Thai domestic vessels have at least 50% Thai crew.

101. Thailand's five public sector ports are managed by the Port Authority of Thailand (PAT), a state enterprise under the supervision of the Ministry of Transport, under the ambit of The Port Authority of Thailand Act B.E.2494 (1951) as amended by the Act B.E.2543 (2000).[116] PAT is responsible for the management and operation of the ports under its control.[117] It provides services and facilities to vessels and cargoes including: dredging and maintenance of the bar channels and basins; supervising stevedoring, handling, moving, storage, and delivery of cargoes to consignee; and coordination and cooperation with relevant government agencies and international ports. Foreign ships receive MFN treatment, and obtain port access on a first-come-first-served basis.

102. In order to promote exports, several port charges for export cargo (cargo wharfage, wharf handling, cargo storage, container wharfage, lift on/lift off, rail transfer) are collected at lower rates than on import cargo; for example, the container wharfage charge (at berth to yard) for 40' is 33% higher for an inward container than for an outward container (export).[118] No charges seem to be set on an *ad valorem* basis. Charges for use of the channel, navigation aids, and other facilities to ensure safety in entering and leaving the port areas, and the use of berths are collected at the same rates for domestic and foreign-flagged vessels.

103. In principle, private domestic and foreign investment participation is permitted in port services either by operating the existing facilities in such ports or funding the development of and operating new or additional facilities. PAT's policy is to encourage private sector participation in the port activities on a commercially oriented basis. So far, more than 100 private operators have been authorized to develop and operate ports; most of the terminals at the Laem Chabang Port have been contracted to private-sector operators. The privatization policy relating to maritime transport services has concentrated on PAT, but there has been little progress during the review period.[119] The third phase of Laem Chabang Port is expected to be ready and open for international bidding in 2010, provided that a joint-venture company with at least 51% of Thai equity operates the terminal.[120]

(c) Air transport

104. At present, there are ten international and domestic scheduled Thai airlines. Thailand, liberalized domestic air services in 2001, which allowed private operators to compete on all domestic

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[115] APEC (2000).

[116] The five public ports under the supervision of PAT are: Bangkok Port, Laem Chabang Port, Ranong Port, Chiang Saen Port, and Chiang Khong Port.

[117] APEC (2006b).

[118] PAT brochure, *Laem Chabang Port Tariff*, pp. 29-30.

[119] Ministry of Transport (undated).

[120] Ministry of Transport (undated).

routes operated by the state-owned national carrier Thai Airways. Private airlines operating domestic routes in Thailand are Bangkok Airways; Thai AirAsia; Nok Air (subsidiary of Thai Airways, which holds a 39% stake in it), PB Air; Phuket Airlines; Orient Thai Airlines; One-Two-Go Airlines (a subsidiary of Orient Thai Airlines); and Siam General Aviation.[121] Of the 48 licences issued by the Ministry of Transport for scheduled and charter-service companies only 31 are in active use.[122]

105. Since January 2004, Thai AirAsia, a Thai-Malaysian joint-venture low-cost airline, has benefited from BOI investment privileges such as tax exemptions for eight years, including taxes on machinery imports.[123] These incentives are available to all airlines requesting investment promotion within the air transport service category under BOI Announcement No. 2/2543 (2000), which provides for incentives, such as import duty exemption on machinery regardless of zones, corporate income tax exemptions, and other incentives according to zones, to all "priority activities" (Chapter III).

106. During the period under review, privatization and divestment have taken place with regard to Thai Airways and Airports of Thailand. The Government's stake in Thai Airways was reduced from 93% to 54% through a public offering and a share issue to its employees; the company does not plan to issue more shares in the near future. Thai Airways International benefits from regulations that require civil servants and officers of government-related agencies to use its services. The Airports Authority of Thailand (AAT), a state enterprise under the supervision of Ministry of Transport, was corporatized and registered as a public company called Airports of Thailand Public Company Limited (AOT), on 30 September 2002. In March 2004, the Government reduced by 30 percentage points its stake in AOT through a public offering; at present, its stake is 70% and there is no plan for further privatization. AOT's six international airports are responsible for 90% of Thailand's air traffic.[124]

107. Licensed air carriers must meet the rules set by the Ministry of Transport. Applicants must: have minimum capital of B 25 million (non-scheduled fixed-wing services) or B 200 million (scheduled fixed-wing services); have no transferable shares, and maximum foreign equity of 49%; have a majority of Thai nationality board members; meet minimum insurance requirements; and submit a feasibility study for the proposed services showing that they will benefit the public and respond to market demand. Additionally, under the Foreign Business Act, foreigners are prohibited from operating domestic routes, while, under the Air Navigation Act, no aircraft other than foreign aircraft shall fly outside the Kingdom.[125] Foreign international carriers operate under 98 bilateral air services agreements, which cover mainly flight capacity and frequency, route schedule, airline designation, and traffic rights.

108. Traffic rights regimes are being liberalized. Thailand and China have had an open skies policy, since early 2004 that allows unrestricted flights between the two countries. In addition, in December 2004, Singapore, Thailand, and Brunei Darussalam signed an open skies agreement that would allow airlines from the three parties to operate any number of passenger flights among them.

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[121] Bangkok Airways has the advantage of operating self-owned airports, which means that it can fly those routes and a cost advantage, while PB Air has taken over loss-making routes of Thai and operates them as code-share with Thai (*Travel Daily News*, "Thailand: Aviation- open skies now the order of the day". Viewed at: http://www.traveldailynews.com/new.asp?newid=18609&subcategory_id=53 [25 March 2007].

[122] Bangkok Post (2004a).

[123] EIU (2006b).

[124] These are: Don Muang International Airport, Chiang Mai International Airport, Hat Yai International Airport, Phuket International Airport, Chiang Rai International Airport, and Suvarnabhumi Airport (Airports of Thailand online information. Viewed at: http://www.airportthai.co.th [14 June 2007]; and Radio Singapore International, 2005).

[125] However, these conditions can be waived through a ministerial directive, cabinet resolution or written permission from competent officials (APEC, 2006b).

Thailand and the other ASEAN members are drafting an agreement targeting full liberalization of air freight services by December 2008 and an agreement on air services that will allow unrestricted flights among the ASEAN members on air freight and all types of air transport services by December 2010.

(vi) Tourism

109. During the period under review, several factors could have contributed to the slowdown of tourism growth in Thailand, including the Severe Acute Respiratory Syndrome threat in 2003, ongoing unrest in three southernmost provinces, the impact of the tsunami in 2004, and the Thai Government developments in 2006.[126] The share of tourism to GDP registered a slight drop in 2005, before returning to its 5% level in 2006 (Table I.2). The number of tourist arrivals at the end of 2006 was estimated at 13.82 million (10 million in 2003), generating B 481 billion (B 309 billion in 2003); most tourists were from East Asia.[127] Average hotel room occupancy rate was 53.78% in 2006.

110. A Committee for National Tourism Policies (Committee for National Tourism Development until 2005), chaired by the Prime Minister, is responsible for preparing tourism plans and policies. According to the authorities, a Tourism Master Plan aims to promote foreign tourists arrivals targeting an increase of not less than 6% per year and revenue growth of not less than 10% per year; the annual targets for Thai tourists travelling within the country, are 3% and 7%, respectively. The Board of Investment offers tax and other investment incentives for hotels with more than 100 rooms (zone 1 and 2 receive non-tax incentives, zone 3 receives import duty exemption on machinery, being in a remote area (Chapter III)), and in 2003 was considering granting incentives to both domestic and foreign investors in certain types of accommodation, such as retirement homes (Chapter III).

111. The Tourism Authority of Thailand (TAT), a state agency, handles tourism promotion.[128] Its Thailand Tourism Promotion Policies for 2003-2006 include five main objectives: to promote tourism as a major instrument for improving the economy; to promote and develop proactive marketing operations; to promote cooperation with all parties both domestic and international in tourist market promotion and development; to strive for organizational, management, and personnel skills; and to accelerate the development of an information technology system that facilitates e-tourism.[129]

112. The Hotel Act B.E. 2478 (1935) was replaced with the Hotel Act B.E. 2547 (2004) introducing a hotel grading system in order to establish a consistent standard for hotels and resorts in Thailand. To increase Thailand's competitive potential on the international stage, the Thai hotel industry considers it important to raise overall standards by adopting internationally recognized practices, such as the introduction of a 'precise, accurate and reliable' hotel standard and certification process that would enable Thai hotels to compete with world-class hotel properties on an equal footing. As of September 2005, 116 hotel and resort properties were participating in the voluntary star rating certification programme.

113. Majority foreign ownership in hotels, including accommodation and restaurant activities, and guided tour and travel services (Travel Business and Guide Act of 1992), requires approval under the

[126] Bangkok Post (2006b); and Bank of Thailand (2006b).
[127] Bangkok Post (2006c); and Tourism Authority of Thailand (2006).
[128] WTO (2003).
[129] Tourism Authority of Thailand (2006).

Foreign Business Act (1999).[130] At present, foreign equity participation in the sector is set at no more than 49%.

114. Tourist guides must be Thai nationals and meet qualification standards set under the Tourism Business and Guide Registration Act. The Immigration Bureau issues a one-year work permit to only one employee for each foreign operator with registered capital of B 2 million, and three staff for companies with registered capital of more than B 5 million. Due to the lack of sufficient guides speaking foreign languages, many foreign tour operators, particularly from Scandinavian countries, send staff to accompany their clients to Thailand.[131] These foreign guides and tour leaders cannot stay in the country longer than 90 days.

115. According to the Association of Thai Travel Agents (ATTA) the current work permit rule is not realistic because each operator brings 40,000 to 50,000 tourists to Thailand and most of the foreign guides have to stay in the country for 3 to 5 months.[132] The ATTA has already proposed to the Immigration Bureau and Labour Ministry that temporary work permits of 3 to 5 months be granted to foreign guides and tour operators, but no action has been taken so far. The authorities indicate that under Royal Decree on Prescribing Works prohibited to a foreigner (B.E. 2522), temporary work permits for foreign guides are not allowed, however in case of need or urgency, a foreigner can submit an application to work in collaboration with locals.

116. The recent Royal Thai Police Orders regarding permission to stay for Aliens B.E. 2549 (2006), effective 1 October 2006, have tightened regulations on Thailand's Tourist Visa Exemption Scheme. Under the revised scheme, nationals from 41 designated countries or territories may travel to Thailand for the purpose of tourism as frequently as they wish without visa and will be permitted to stay for a period not exceeding 30 days on each visit.[133] They may, however, re-enter and stay in Thailand for a cumulative stay not exceeding 90 days within any six-month period from the date of first entry. This is to prevent abuses of the privileges provided to such nationals and curb the rising number of illegal entries to Thailand.

(vii) Distribution services

117. The distribution sector has grown significantly in recent years and continues to play an important role in the Thai economy. Distribution is second only to manufacturing in terms of contribution to GDP; according to Thai authorities, the sector contributed 14.26% to GDP (2005).[134]

118. Retail trade in Thailand has been liberalized gradually since the late 1980s, although a number of measures have been introduced recently to regulate large store expansion. Due to the benefits of modern distribution to consumers (e.g. lower prices and better choice, more employment in the economy, transfer of modern managerial and marketing techniques), the number of stores of the top distributors increased from 1,825 outlets in 2001 to 3,712 outlets in 2005, according to Thai

[130] WTO (2003).

[131] Bangkok Post (2006c). The authorities indicate that Thai guides can cope with English, which is the most common language.

[132] Bangkok Post (2006c).

[133] These are: Australia; Austria; Belgium; Brazil; Bahrain; Brunei; Canada; Denmark; Finland; France; Germany; Greece; Qatar; Hong Kong, China; Iceland; Indonesia; Ireland; Israel; Italy; Japan; Republic of Korea; Kuwait; Luxembourg; Malaysia; the Netherlands; New Zealand; Norway; Oman; Peru; the Philippines; Portugal; Singapore; Spain; South Africa; Sweden; Switzerland; Turkey; United Arab Emirates; the United Kingdom; the United States; and Viet Nam.

[134] WTO document TN/S/W/4, 22 July 2002.

authorities.[135] The number of shops in the traditional distribution sector has decreased, although the Thai market remains relatively fragmented overall, as traditional small shops still occupy a large share of the market. Thailand is estimated to have one of the world's highest ratios of retail outlets per inhabitant, i.e. 11,580 per million habitants in 2005.[136] Hypermarkets have been the major growth format in the retail sector, and the one preferred by foreign grocers that have entered the market in the last decade.[137]

119. Wholesale trade and retailing services are currently classified under List 3 of the Foreign Business Act, in which majority foreign ownership and control is allowed if permission is granted by the Ministry of Commerce.

120. Thailand does not have any specific retail law to regulate the establishment and expansion of new retail stores. However, the Town Planning Law and the Building Control Law have been used to control the expansion and limit the construction of new retail stores. These laws provide that large retail stores (more than 1,000 sq. meters) have to be located at least 15 kilometres from the commercial centres of provincial towns. The laws also apply to all provinces outside of Bangkok.

121. In 2006, the Government requested major retailers to voluntarily freeze their expansion plans while a retail law was being prepared. In 2007, the Government endorsed a draft Retail and Wholesale Business Law aimed at regulating the expansion of retail stores. According to authorities, the law would apply without discrimination. Local governments would assess and approve any proposed new retail stores in their province. In addition, the draft law set the criteria for establishing new stores, such as zoning, distance between stores, size of sales area, and land use.[138]

122. In recent years, the Department of Business Development of the Ministry of Commerce has also taken steps to help small retailers run their business more competitively by providing them with training and operation plans, for example with respect to logistics and supply chain management and the establishment of networks among manufacturers, wholesalers, and small retailers. A state-backed firm, Allied Retail Trade, was set up to help small retailers through such means as financial aid and the building up of bargaining power.

123. Thailand's GATS commitments on distribution services are limited to commission agents' services and therefore exclude wholesale trade, retailing, and franchising services.

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[135] The top five suppliers accounted in 2005 for 35.5% of retail sales by modern grocery distribution formats, i.e. modern retail formats predominantly selling food (e.g. hypermarkets, supermarkets, convenience stores, warehouse clubs, but excluding specialist food outlets and open markets). They are mostly foreign-owned. Tesco (UK) is the main supplier, operating hypermarkets and superstores as well as smaller formats. The second supplier is a domestic player, Central Retail; followed by 7-Eleven (Japan), which operates convenience stores; Casino (France), which also operates hypermarkets; and SHV Makro (Netherlands), which focuses on cash & carries. Other important retailers include Carrefour (France), AS Watson (Hong Kong, China), Family Mart (Japan), as well as local suppliers such as PTT, Foodland, and Villa Market (Planet Retail online information. Viewed at: www.planetretail.net).

[136] Euromonitor (2006).

[137] The number of hypermarkets almost doubled between 2000 and 2002, reaching close to 100, and counted close to 150 by 2006 (Planet Retail online information. Viewed at: www.planetretail.net).

[138] Planet Retail online information. Viewed at: www.planetretail.net; and *Agence France Presse*, "Thailand Moves to Rein in Foreign Retailers", 8 May 2007. Viewed at: http://asia.news.yahoo.com/070508/afp/070508150214business.html [5 June 2007].

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