No. 1/ 2017



Thammasat Institute of Area Studies

WORKING PAPER SERIES 2017

Stagnation or Recovery: Which Choice for the Thai Economy?

> *Mitsuhiro KAGAMI* January, 2017 THAMMASAT UNIVERSITY

PAPER NO. 1 / 2017

Thammasat Institute of Area Studies, Thammasat University Working Paper Series 2017

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This publication of Working Paper Series is part of Master of Arts in Asia-Pacific Studies Program, Thammasat Institute of Area Studies (TIARA), Thammasat University. The view expressed herein are those of the authors and do not necessarily reflect the view of the Institute.

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Abstract

This article explores the vitality of Thai economy at the current state based on the study and analysis of the Thai economy from 2001 – 2016. The author also provides the explanation of the current state of the economy and ways to get Thai economy back on track.

Keywords: Thai economy, stagnation, recovery, Thailand

1. Characteristics of the Thai Economy

In recent years, the Thai economy has slumped three times, in 2009, 2011 and 2014. The growth rate of GDP in real terms recorded a minus figure in 2009 (- 0.74%) due to the Lehman shock of the previous year. In 2011 Thailand suffered from massive floods due to torrential rain which resulted in many factories of manufacturing industries ceasing production. It created severe disruption of sensitive supply chains, which were all interconnected. The GDP growth fell to 0.83% from 7.51% in 2010. And again in 2014 it fell to 0.82% due to political turmoil, which ended in the military coup d'état as shown in Table 1. The growth rate has not yet recovered sufficiently, showing 2.82% in 2015 and 2.99% in 2016 according to IMF estimates. Per capita GDP also did not recover to the 2013 level (US\$6,148) for the three consecutive years of 2014, 2015 and 2016 (US\$5,940). So some say that the Thai economy is now facing stagnation (see Figure 1).

This can be clearly seen from the long-term trend of the GDP growth rate at constant prices. If we examine the growth rate from 1995 to 2016, there seems to be a declining tendency. Between 1985 and 1996, the average growth rate of GDP was 8.7%. If we ignore the years of the minus growth, i.e. 1997 (-2.75%), 1998 (-7.63%) and 2009 (-0.74%), it declined to 4.8% between 1999 and 2008. It further declined to 3.6% between 2010 and 2016 (see Figure 2). The Thai economy seems healthy from the point of low inflation rate and low unemployment ratio (see again Table 1) but the growth rate is no higher than any point in the past.

		2008	2009	2010	2011	2012	2013	2014	2015	2016	**
GDP growth rate	(%)	1.73	-0.74	7.51	0.83	7.23	2.70	0.82	2.82	2.99	2014
Per capita GDP	(US\$)	4,380	4,206	5,063	5,479	5,846	6,148	5,889	5,742	5,940	2014
Total investment	(% of GDP)	28.2	20.6	25.4	26.8	28	27.5	24.1	24.1	25.5	2014
Gross national savings	(% of GDP)	28.5	28	28.3	29.2	27.7	26.3	27.9	32.9	33.5	2014
Inflation *	(%)	5.5	-0.9	3.3	3.8	3	2.2	1.9	-0.9	0.2	2015
Imports of goods	(%)	12.5	-23.2	26.7	13.4	7.1	1.6	-6.8	-0.6	0.1	2015
Exports of goods	(%)	4.9	-14.2	16.4	8.3	2.5	0.2	0.7	-3.4	-2.4	2015
Current account balance	e										
	(% of GDP)	0.3	7.3	2.9	2.4	-0.4	-1.2	3.8	8.8	8	2014
Unemployment rate	(%)	1.4	1.5	1.1	0.7	0.7	0.7	0.8	0.9	0.8	2015

Table 1: MACRO ECONOMIC INDICATORS: THAILAND (2008 - 2016)

* Average consumer price index.

** IMF estimates from the following said year.

Source: IMF, World Economic Database, April 2016.

Thailand produces more than 40% of the world's production of hard disk drives. Thailand produced 2,460 thousand motor vehicles in 2013 and is called the "Detroit of Asia". The tourism industry occupies about 10% of GDP and 29,881 thousand tourists visited Thailand in 2015. This success can be mainly attributed to well-managed government policies such as (1) export-oriented policies, (2) inviting foreign direct investment and (3) well-organized infrastructure for industry and tourism.



Figure1: GDP PER CAPITA IN DOLLAR TERMS (2008-2016, US\$)

Source: IMF, World Economic Database, April 2016.



Figure 2: GDP GROWTH RATE (1985-2016, %)

Source: IMF, World Economic Database, April 2016.

1.1 Export-led economy

Thailand changed its import-substituted policies to export-oriented ones during the 1980s and tariff reduction policies were strengthened during the 1990s. The Thai export ratio (exports of goods and services divided by GDP) from *World Development Indicators* by the World Bank shows a tremendous increase from 34.1% in 1990 to a peak of 71.4% in 2008. It declined to 64.1% in 2009 due to the Lehman shock but maintains high ratios (69.3% in 2014). The Thai figures are splendidly high when compared with the average figures of East Asia and Pacific (37 countries) which showed the highest, 36.5% in 2007 (see Figure 3). For example, those who have normally high export ratios as shown in the last 26 years are South Korea (the highest figure 55.7% in 2011), Germany (ditto 46.9%, in 2015), China (ditto 35.7% in 2006) and New Zealand (ditto 35.7% in 2000). Japan's highest figure was 17.9% in 2015 and USA 13.6% in 2011 and 2012. Low ratios shown in Japan and USA explain that these countries depend for their growth mainly on domestic consumption. The average of the Thai ratio between 1990 and 2014 is 57.0% which shows that the Thai economy very much depends on exports. It means the domestic demand will increase in the future, when the middle-income class becomes larger and richer¹.

Another amazing factor regarding Thai exports is the fact that Thailand exports more electronics and motor vehicles than other products. It has gradually accelerated from the middle of 1990s. Computer/parts and integrated circuit exports spearheaded up to 2014 which reached US\$25,816 million. The second largest is motor vehicles/parts which have finally passed computer/parts in 2015 reaching US\$25,608 million. The top two occupies 23.8% of total exports in 2015. The third largest export item is natural rubber and its products in 2015 (US\$11,851 million) because of strong tire demand for vehicles (see Table

¹ In this respect, recent technological advances will completely change society, e.g. mobile shopping. Mobile online shopping is expanding rapidly in China due to a recent Government policy push, aimed at increasing domestic demand. This will lead China towards a different economic structure, from its current export oriented, to a domestic-demand oriented society (PwC Report 2016). People living in the countryside, far from urban areas, can participate in purchasing activities through their mobile phones. This might also be one of the solutions to overcoming the "trap of the middle-income countries" which maintains that some middle-income countries face no growth, or very slow growth, during a certain period, for a variety of reasons.

2 and Figure 8).

								(US\$	Million)
	2007	2008	2009	2010	2011	2012	2013	2014	2015
Computer/parts, and integrated circuits	25,750	25,626	22,462	26,903	24,974	25,746	24,951	25,809	25,373
Motor vehicles/parts	12,978	15,586	11,121	17,712	16,985	22,913	24,401	24,548	25,608
Jewel/jewellery	5,382	8,270	9,761	11,652	12,301	13,148	10,085	10,080	10,995
Refined fuels	4,097	7,913	5,428	7,797	10,092	12,881	12,729	11,310	8,061
Natural rubber/rubber products	9,294	4,550	8,794	14,330	21,090	17,156	16,745	14,028	11,851
Rice	3,467	6,204	5,047	5,341	*	*	*	*	*
Ethylene polymer and its products	5,212	5,520	4,457	6,344	8,803	8,532	8,956	9,681	8,261
Chemical products	*	4,309	4,466	5,778	8,293	8,516	9,106	8,602	6,407
Iron and steel	4,571	5,362	*	*	4,989	*	*	5,271	5,318
Machine /parts	*	*	*	*	*	6,240	6,787	7,217	7,067
Others	83,114	94,435	80,890	99,450	115,048	114,104	114,745	110,978	105,434
Export Total	153,865	177,775	152,426	195,307	222,575	229,236	228,505	227,524	214,375
* Others include this item (*)									

Table 2: PRINCIPAL EXPORT ITEMS IN THAILAND (FOB)

* Others include this item (*).

Source: JETRO, Report on the World Trade and Investment, from 2008 to 2016 editions and Ministry of Commerce.



Figure 3: EXPORTS OF GOODS AND SERVICES (% OF GDP)

*EAP: East Asia and Pacific includes 37 countries such as ASEAN 10 plus Australia, China, Japan.

New Zealand, South Korea and Pacific small island countries. Source: World Bank, World Development Indicators Database 2016.

One of the negative factors for Thailand is that the high-technology advantage is declining. Also middle class expansion seems to have ceased. Because per capita GDP reached a plateau in recent years (shown again in Figure 1), middle class demand does not expand. Figure 4 shows high-tech exports as a percent of manufacturing exports². From 1996 to 2003, the Thai percentage was higher than that of East Asia and Pacific. However, it was lower after that, because of the rise of Malaysia, South Korea and China.

A slow-down of middle-income expansion affects the domestic demand, especially cars. Car makers in Thailand are now shifting from domestic markets to foreign markets facing weak domestic demand and over-production. Exports of motor vehicles are increasing as shown in Table 2. These signify that Thailand may become not only a production base, but also an export base for cars in the world.



Figure 4: HIGH-TECH EXPORTS (% OF MANUFACTURING EXPORTS)

Source: IMF, World Economic Database, April 2016.

² High-technology exports are products with high R&D intensity such as in aerospace, computers, pharmaceuticals, scientific instruments, and electrical machinery.

1.2 Foreign Direct Investment Inflows

The Thai economy is vitalized by foreign direct investments (FDIs). FDIs were properly managed and accelerated by government promotion policies. The Board of Investment (BOI) to promote private investment was born in 1966 as the Board of Industrial Investment and the name was changed to BOI in 1972. BOI stimulates industrial investment for both domestic and foreign companies by providing tax as well as non-tax incentives. The Thai Government also promoted industrial development by constructing basic infrastructure and industrial estates.

FDIs have dramatically increased from the 1990s onward. FDI in net inflows from balance of payments data was US\$2,440 million in 1990 and reached a peak of US\$15,800 million in 2013. It was US\$7,060 million in 2015 (see Figure 5). It is observed that foreign companies are quite sensitive to the flood devastation in 2011 (US\$2,470 million) and the political turmoil in 2014 (US\$3,720 million).



Figure 5: FOREIGN DIRECT INVESTMENT (NET INFLOWS, US\$Million)

Source: IMF, World Economic Database, April 2016.

ALC: DIAMENT A

According to JETRO (JETRO 2008-2016), Japan was the largest investing country in Thailand in terms of BOI approval base. Japanese approved investments reached to the peak of Baht 348,430 million (around US\$9,955 million) in 2012. After that they decreased for 3 consecutive years, to Baht 148,964 million (US\$4,256 million) in 2015 which occupied 30.2% of total approval investment in 2015. The second was China including Hong Kong, Baht 55,753 million (US\$1,593 million) and its share was 11.3%; the third EU 27 countries Baht 47,181 million (US\$1,348 million) at 9.6%; the fourth Singapore Baht 40,838 million (US\$1,167 million) at 8.3%; and fifth USA Baht 32,232 million (US\$921 million) at 6.5% (see Figure 6 and Table 3).

_									(Unit: Bant Mill	ion)
		Japan	China*	Singapore	USA	Europe**	South Korea	Australia	Others	Total
	2006	115,200	12,487	18,750	71,407	21,174	4,025	514	23,086	266,643
	2007	164,323	25,981	34,466	101,107	60,535	5,985	1,557	111,658	505,612
	2008	106,155	8,777	25,334	8,698	49,749	9,273	3,195	139,961	351,142
	2009	58,905	8,010	14,699	25,591	16,210	6,278	676	11,708	142,077
	2010	100,305	30,324	19,170	6,204	74,512	2,573	6,081	40,064	279,233
	2011	158,968	21,440	25,176	9,238	17,717	7,024	1,196	37,688	278,447
	2012	348,430	20,765	19,418	17,890	27,076	3,988	12,452	98,935	548,954
	2013	290,491	43,601	20,039	9,400	40,634	3,631	1,249	69,882	478,927
	2014	181,932	57,126	16,345	50,158	74,575	14,860	7,907	80,608	483,511
	2015	148,964	55,753	40,838	32,232	47,181	3,942	1,142	163,638	493,690

Table 3: FOREIGN DIRECT INVESTMENT, BOI APPROVAL BASE (2006-2015)

* China includes Hong Kong.

** Europe means mainly EU 27 countries (especially from 2012).

Source: JETRO, Report on the World Trade and Investment, from 2008 to 2016 editions.



Figure 6: FOREIGN DIRECT INVESTMENTS TO THAILAND

Source: JETRO (Japan External Trade Organization)

Foreign companies brought about not only new technologies but also their methods of production to Thailand. To produce a product, raw materials and intermediate goods (such as parts and components) are needed. In the first stage, these necessary things were imported from the original foreign countries. However, soon these foreign parts producers also came to invest in Thailand. A typical case is automotive industries. Cars are produced from more than 30,000 parts and components. Usually car assembly companies have a relation with their own subcontracting parts and components companies in the form of tier systems, from the first tier to sometimes the fifth tier which covers more than 20,000 companies. Some of these parts companies also followed to invest in Thailand. This trend expanded to ASEAN neighboring countries. Gradually, a division of labor was established among ASEAN countries according to the different processes of production (this is

sometimes called "production fragmentation"). It means that intermediate goods are traded more than before among ASEAN countries. In the case of the automotive industry, for example, Thailand imported air-conditioning systems from Malaysia, transmissions from the Philippines, and cylinders from Indonesia. Engines and forged products come from Thailand. This industrial networking or supply chain formation among ASEAN countries is one of the essences of world FDIs. If you want to develop your country, you had better invite FDIs. Thailand seemed to have succeeded in its industrialization by doing so.

Now to discuss the danger of "Thailand plus one". This means the Thai economy will suffer if FDIs in Thailand move to neighboring countries where production costs, especially, wage rates are lower than that of Thailand. But it does not matter so long as supply chains are tightly kept over national boundaries. Thailand should produce more advanced, higher value added products.

1.3 Infrastructure Development

It is not necessary to repeat the importance of infrastructure, especially, basic infrastructure such as roads, bridges, ports, airplane and railroad systems, telecommunications (telephone, internet, wireless LAN system, T.V., etc.), mail service, water supply, electricity, gas, industrial estate, and hotels. It is easily understood you do not want to invest in a country where these infrastructural systems are lacking. If you cannot find a suitable industrial estate, you cannot construct your factory. If roads to famous historical sites are not well paved and modest but good hotels do not exist, you do not want to visit them.

Thailand has invested in basic infrastructure since 1960s. It emphasized infrastructure investment such as expressways from the 1960s, agricultural roads and irrigation dams from the 1970s, electrification in local areas from the 1980s. It helped a lot to invite FDIs and tourists. FDIs in net inflows reached US\$15,800 million in 2013 from US\$2,440 million in 1990 (6.5 fold) as shown Figure 5. Tourist arrivals increased more than 3 times from 9,579 thousand in 2000 to 29,881 thousand persons in 2015 (see Figure 7).

Let us examine in more detail in terms of government policies to accelerate development in the three typically successful industries, electronics, car manufacturing and tourism in Thailand.



Figure 7: TOURIST ARRIVALS (2000, 2010-2015, Thousand Persons)

Source: Ministry of Tourism & Sports.

2 Export oriented Development

2.1 Electronics

Many people do not know that Thailand is one of the largest electronics bases in the world. Thailand is now the second largest hard disk drives (HDDs) exporter and producer in the world. Well-known foreign electronics companies to invest in Thailand have factories, such as USA (Seagate and Western Digital), Japan (Sony and Fujitsu), and South Korea (Samsung and LG).

Thailand exported HDDs amounting US\$6,000 million, integrated circuits US\$7,730 million, and other computer related products US\$11,643 million in 2015 (these total US\$25,373

million which occupy 11.8% of the total exports, see Table 2 again). Primary customers were USA, China including Hong Kong, ASEAN countries and Japan.

According to the Board of Investment (BOI 2015), this sector employs over 600,000 persons in Thailand. BOI provides investment incentives. Tax-based incentives including exemptions or reductions of import duties on machinery and raw materials, and corporate income tax exemptions and reductions. Non-tax incentives cover permission to bring into Thailand skilled workers and experts to work in investment promoted activities, to own land and take or remit foreign currency abroad. Additionally, foreign businesses are entitled to 100% ownership for manufacturing and some service sectors, such as aircraft services and maintenance.

BOI presently emphasizes electronics design and embedded software fields as a top priority and gives incentives, such as uncapped 8-year corporate income tax exemption, exemption from import duties on machinery and raw materials used in manufacturing export products, regardless of location. Projects in these activities are also eligible to receive other non-tax incentives



Figure 8: EXPORTS OF MAIN PRODUCTS (2007 – 2015)

(Unit: US\$ million)

Source: JETRO and Ministry of Commerce

Recently, Thai comparative advantages in hard disk drives (HDDs) incurred a problem. Thailand is said to produce more than 40% of world production of HDDs. However, changes from desktop computers to smartphones will call for more demand for solid state drives (SSDs) using high-tech flash memory chips. Malaysia produces more SSDs than Thailand. Thailand needs further technological advances for SSDs and/or solid-state hybrid drives (SSHDs), a combination of old and new technology which can meet users' demand for both speed and large storage capacity.

2.2 Car manufacturing

Again many people do not know that Thailand is the biggest car producer in ASEAN and the 12th largest producer in the world (1 China, 2 USA, 3 Japan, 4 Germany, 5 South Korea, 6 India, 7 Mexico, 8 Brazil, 9 Spain, 10 Canada and 11 Russia). In 2013 its production reached the highest 2.46 million cars (see Figure 9). Thailand exported motor vehicles/parts worth US\$25,608 million in 2015 (the highest amount recorded in this category), surpassing computer/parts and integrated circuits and occupied 11.9% of the total goods exported (see again Figure 8 and Table 2). Their destinations were Australia, Indonesia, Malaysia, Japan, the Philippines, Saudi Arabia and USA.

According to BOI (BOI 2015), this sector occupies around 12% of GDP and employs over 550,000 persons. This sector has 709 first tier suppliers and 1,700 second and third tier suppliers, forming strong supply chains within the country. Thus, electronics and motor industries are the two most important key industries in Thailand and we realize that Thailand has succeeded in its industrialization very smoothly.

Major multinational automotive companies invested in Thailand such as Auto Alliance (Ford and Mazda), General Motors, BMW, Mercedes-Benz, Toyota, Honda, Nissan, Mitsubishi, Isuzu, Suzuki, Hino and Volvo. World parts and components giants also invested like Bosch, ZF Friedrichshafen, Lear, Continental, Magna International, Johnson Controls, Faurecia, DENSO, Aisin Seiki and Yazaki. Such industrial agglomeration in automotive industries is very rare in Asia and gives Thailand a unique position in ASEAN. The companies share in terms of total production (1.913 million units) in 2015 shows that Toyota 33%, Mitsubishi 17%, Isuzu 13%, Honda 9%, Nissan 7%, Ford 7%, Matsuda 6%, and GM 3%. Japanese car manufacturers are dominate but competition is quite intense among them.

Thai car industry had several stages to go to develop further. The most important one was the change from import substitution to export orientation or liberalization of the industry in 1991 under the Anan government. The import ban of CBU (Completely Built Unit) of passenger cars less than 2,300 cc was removed and substantial tariff reductions on imports of CBU and CKD (Completely Knocked Down) cars were implemented. The new construction of assembly plants was approved in 1993 and tax incentives were given to car exporting companies. However, local content rules were retained at 2,000 in order to raise domestic parts companies.

Thailand emphasized the production of 1-ton pickup trucks and their van type cars as a flagship product because the country has many damp areas and if it rains, roads are easily submerged. The government provided tax incentives such as tariffs and excise taxes for these cars. As a result, Thailand is in a unique position of producing lots of 1-ton pickup trucks. Their production share was said to be 53% in 2014 (Kuroiwa, Paritud and Yamada 2016).



(Million units)



Cars include passenger cars, 1-ton pickups, vans, buses and trucks. Source: Thailand Automotive Institute

Next flagship cars were set to become eco cars³ (compact vehicles with low pollution and low fuel consumption) in 2004. The name was changed to ACES car (Agile, Clean, Economical, and Safe) in 2005 and BOI provided incentives for these cars in 2007.

The Automotive Industry Master Plan (2012 – 2016) was set after the former Master Plan (2007 – 2011) to transform Thailand into a global center for green automotive production. This may be called Eco-car phase 2. In addition, Thailand has tried to mix alcohol from sugarcane into gasoline (gasohol). Biomass energy is carbon-free (CO₂ neutral) and renewable. The idea came from the late H.M. King Bhumibol Adulyadej. He constructed the

³ Eco car specification issued by the Ministry of Industry: (1) Energy consumption over 20 km./liter (Test method: UN ECE R101 Rev. 1); (2) Meet Euro 4 standard on Carbon dioxide emission which is below 120 gram/km. (Test method: UN ECE R83 Rev.2); (3) Meet the Frontal Collision Standard according to UN ECE R94 and Lateral Collision Standard according to UN ECE R95.

first gasohol station in the Palace in 1996 (Kagami 2013). Accordingly, Thailand established a 15-year Renewable Energy Development Plan 2008 – 2022. It is quite common now that people use gasohol (<E10>, <E20> and <E85>, 10%, 20% and even 85% ethanol content in gasoline) for cars in Thailand.

The third flagship discussion started in 2015, i.e. electric vehicles (EV). Like electronics Thailand is facing a challenge to introduce more advanced technologies in the present day 4 .

It seems that automotive industries may change course from the domestic market to the world market because their exports are expanding. From Table 2 again, motor vehicles/parts grew at an annual rate of 8.9% between 2007 and 2015 while total exports grew at the rate of 4.2% during the same period. Especially, the export of motor vehicles/parts jumped from 2012. Domestic sales reached maximum supply, so that assemblers now decided to use Thailand as an export base.

2.3 Tourism

A famous travel magazine *Travel & Leisure* in 2012 selected Bangkok as the world's best city. The ranking cities follow 2: Florence, 3: Istanbul, 4: Cape Town, and 5: Sydney. Thailand has many attractive tourist spots all over the country due to its history, culture, religion and natural attractions. Main roads are paved. Domestic transportation including railways, bus and airline services are well organized. Accommodations from modest to world-class hotels are always available. Thus, lots of foreign tourists visit Thailand. It was explained at the beginning that the tourism industry occupies about 10% of GDP and 29,881 thousand tourists visited Thailand in 2015.

⁴ Author thinks that EV does not reflect Thai comparative advantages. EV needs very high-quality batteries which need rare-earth metals. It is better to utilize biomass energies for Thailand. Instead, the author recommends that computerized automatic driving methods embedded in a car should be targeted.

											(Unit: Thou	sand persons)
Year	China	Malaysia	Japan	S. Korea	Lao PDR	India	U.K.	Russia	USA	Australia	Others	Total
2000	753.8	1,111.7	1,202.2	451.4	71.0	224.1	619.7	46.4	518.1	314.5	4,265.9	9,578.8
2010	1,122.2	2,059.0	993.7	805.4	715.3	760.4	810.7	644.7	611.8	698.0	6,715.2	15,936.4
2011	1,721.2	2,500.3	1,127.9	1,006.3	892.0	915.0	845.0	1,054.2	681.7	829.9	7,657.0	19,230.5
2012	2,786.9	2,554.4	1,373.7	1,163.6	976.0	1,013.3	873.1	1,316.6	768.6	930.2	8,597.5	22,353.9
2013	4,637.3	3,041.1	1,536.4	1,295.3	976.6	1,050.9	905.0	1,746.6	823.5	900.5	9,633.5	26,546.7
2014	4,636.3	2,613.4	1,267.9	1,122.6	1,054.0	932.6	907.9	1,606.4	763.5	831.9	9,073.2	24,809.7
2015	7,934.8	3,423.4	1,381.7	1,373.0	1,233.1	1,069.1	946.9	884.1	867.5	805.9	9,961.6	29,881.1

Table 4: TOURIST ARRIVALS BY NATIONALITY (2000, 2010-2015)

* China only, not including Hong Kong.

Source: Ministry of Tourism and Sports.

Tourist figures by country show a very interesting phenomenon. The number of Chinese tourists is sky-rocketing. Chinese became No. 1 overtaking Malaysian tourists in 2012 and reached 7.93 million in 2015 (see Figure 10). This is an astonishing figure. The average annual growth rate between 2000 and 2015 was 17%. Chinese share in 2015 was 26.6%. It means that Chinese comprised more than one fourth among all foreign tourists. In 2015 Malaysia became the second with 3.42 million, third Japan 1.38 million, fourth South Korea 1.37 million, fifth Lao PDR 1.23 million and sixth India 1.07 million (see Table 4). For Chinese the single visa for 15 days can be given at arrival Thai airports (on-arrival visa). This tendency will continue because the Chinese middle class is increasing and the proximity of the distance between the two countries. There is concern over the slow-down of tourism due to the demise of H.M. King Bhumibol Adulyadej in October 2016, however, it is estimated that 9.21 million Chinese tourists will visit Thailand in 2016.



Figure 10: TOURIST ARRIVALS BY NATIONALITY (2000, 2010-2015)

(Unit: Thousand persons)

To summarize the success of the Thai industrialization, the following factors contributed its achievement.

- (1) The government has played an important role in setting up policies and implementing them. Especially, export-led industrial policies gradually took off during the 1980s and its stance did not change with regard to its policies such as export orientation, inviting FDIs, and infrastructure investments.
- (2) From a foreign investor point of view, Thailand is situated in a very strategic position in Asia. Thailand is an air transportation hub for large demand countries such as Indonesia, India and China (three countries' population, approximately, 2,940 million persons in 2015). Thailand also plays a central role for CLMV (Cambodia, Lao PDR, Myanmar and Vietnam) development. If the Southern Economic Corridor (Vung Tau -Ho Chi Minh - Phnom Penh - Bangkok - Dawei) materializes, the related countries can

Source: Ministry of Tourism & Sports.

accelerate their development. Moreover, the Corridor connects this region to not only India but also to Africa and Europe.

- (3) The characteristics of Thai people fit well to foreign cultures. They are mild, gentle, acceptable, flexible, respectful, and thoughtful regarding foreign culture and way of thinking. They are keen to learn new things. Such characteristics come from their own history, religion and culture. They do not mind foreign ideas and that is why they do not feel any incompatibility towards foreign investments.
- (4) Why does Japan invest in Thailand? According to Dentsu research on "Japan Brand 2016" for 20 countries and areas (Dentsu 2016), the first country which likes Japan is Thailand (second Vietnam and third the Philippines). Many Japanese investors who invested in Thailand all agree that they like Thailand. Both countries have several common features such as Buddhism, beautiful Nature with many varieties, existing King or Emperor system, and innate courtesy. This is why Japan has invested in so much Thailand.
- (5) Thailand is a rare case in which growth and poverty reduction go hand in hand. World Development Indicators (World Bank) show that the GINI coefficients of Thailand went down from 45.3 in 1990 to 42.8 in 2000 and down further to 37.9 in 2013. It is usually said that income difference between rich and poor will expand when development continues. Thailand is an exception (this point was also specified by Yap 2013)⁵.
- (6) Thailand put stress on education by investing in universal education in the 1960s and expansion of secondary education in the early 1990s. Temple education is also very important to raise the literacy rate as a whole. This implies that a reliable and stable workforce exists in the Thai labor market.

⁵ Yap wrote that five countries (China, India, Indonesia, South Korea and Lao PDR) have significant increases in inequality, one (Thailand) has a significant decrease and the rest (Cambodia, Malaysia, the Philippines and Vietnam) have more or less the same level of inequality in comparison to the 1990s and the 2000s.

(7) The existence of supporting industries and supply chains in terms of parts and components industries are strong merits for Thailand. Accumulated technologies and knowledge can be utilized for further breakthroughs in manufacturing industries in Thailand.

On the other hand, some weak points or deficiencies can be pointed out as follows: (1) Natural disasters such as floods will affect industrial as well as agricultural production like in 2011. Especially, the disconnection of supply chains is problematic. (2) Political turmoil will also affect, especially, domestic and foreign investments. This also includes possible influences of the passing of H.M. King Bhumibol Adulyadej. (3) The Chinese economic slow-down will affect ASEAN countries including Thailand. (4) Exports of high-tech products are on a downward trend.

In order to overcome these problems, Thailand should restructure its economy.

- (1) In the manufacturing sector, more exports are emphasized because the Thai economy seems to have reached a landing or plateau of stairs. Thailand works as an export base for the world to sell cars, electronic products and other manufacturing products when domestic demand is slack.
- (2) In the service sector, Thailand should work as an integrated control function (or headquarters) for Asia in terms of sales and R&D which is usually played by Singapore.
- (3) Thailand will utilize an opportunity, what we call "Thailand plus one". Thailand should invest in the CLMV countries to absorb their development⁶. If CLMV can grow soundly, it will create new demand for Thai products.

[°] Already Japanese companies have invested in CLMV, for example, Toyota Boshoku and Nikon in the Savan-SENO SEZ (Special Economic Zone) in Lao PDR, DENSO and Sumitomo Wiring Systems in the Phnom Penh SEZ and Yazaki Corporation in the Koh Kong SEZ, Cambodia. Already 39 Japanese companies have entered in the Thilawa SEZ in Myanmar. Moreover, South Korea's investments are quite active in the CLMV countries.

(4) It is now a good time to emphasize and invest more on R&D, especially, more advanced technologies in the field of new varieties of seeds, biomass energies, fiber-optics, solar cells, wireless communications, SSDs, robotics and automatic driving.

Through these measures, Thailand can be an export base for Asia and the world and can overcome any temporary setbacks.

4. Progress or stagnation?

The author thinks that the present slowdown of the Thai economy is understood to have reached a plateau for a while. Thailand can soon grow together with the CLMV countries i.e. CLMV+T as follows:

- (1) Thailand is situated in the center of the CLMV countries.
- (2) Thailand can build strong supply chains with the CLMV countries, using their comparative advantages. Especially, in automotive and electronics industries, Thailand should keep its comparative advantage with the CLMV countries. Thailand can be an "innovation hub" (Kimura 2016) for neighboring countries.
- (3) The CLMV countries have the power to grow if they take as an example the success story of Thailand i.e. economic policies which Thailand took (export orientation, FDIs, and infrastructure investment).
- (4) They can form market demand by themselves due to their abundant population (236 million in CLMV+T in 2015, i.e. nearly Indonesian population of 258 million persons).
- (5) Thailand, plus CLMV can be a high-tech production center for China, India and Indonesia in the near future.

(6) Using AEC (ASEAN Economic Community), CLMV+T can export their products to other ASEAN countries without tariffs, so that Thailand especially can play a role as a headquarters and export base for ASEAN.

Finally, Japan is the No.1 investment country in Thailand. Thus, Japan should help Thailand and the CLMV countries by ODA (Official Development Assistance). The Southern Economic Corridor is very important, not only for CLMV+T countries, but also Japan. This expressway means a road which connects Japan to India, Africa and Europe. Japan should help this project to its early completion.

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Appendix

From May to November in 2016, the author visited 11 factories and offices of famous Thai companies through the IC (International College) program or other group projects. The author wants to introduce 5 companies among them, herewith.

1. NC Coconut Co., Ltd. (Ratchaburi) (May 27, 2016)

The company was established in 1996. Mr. Narongsak Chuensuchon, Managing Director of NC Coconut told the author that he tried strawberries before coconuts but it was not a good business. So he changed to Rachaburi Aromatic Coconuts (a little bit smaller in size to regular coconuts but more tasty). He emphasized the quality of coconuts and made endless efforts to improve them. One method is an irrigation system. The area is well endowed by water. Actually there are three reservoir dams nearby so that easily draws water from them. Both sides of the ridge where coconut trees are planted are covered by water ways (see Photo 1). This is amazing. The author has never seen such a coconut farm covered by water ways. The flood of 2011 in Thailand did not affect this area. This area is used to being flood free.



Photo 1: Coconut trees surrounded by water

Source: Author

One of the other characteristics is organic care. He uses only limited chemical fertilizers and synthetic pesticides. Consumers can safely eat this coconut without harm. From the same Photo we can see leaves of coconut trees are utilized as fertilizer to them. The company is

certified by GMP (Good Manufacturing Practices), HACCP (Hazard Analysis & Critical Control Points), HALAL (foods that are permissible for Muslims to eat or drink under Islamic law), and organic certificates.

Presently, the production is 40,000 coconuts per day which include over 1,600 acres of local plantation. The products are provided for the Thai as well as world markets.

2. Tilleke & Gibbins Law Office (July 26, 2016)

Intellectual property rights usually include the following four categories: copyright, trademark, patents and trade secrets. Authors' right of literary work, dramatic work, artistic work, musical work, audiovisual work, cinematographic work, sound recording, performer and broadcasting work are protected by the Copyright Act, 1994 in Thailand. Literary work means any kind of literary work such as books, pamphlets, writings, printed matter, lectures, sermons, addresses, speeches, including computer programs. The copyright exists for the lifetime of the author and for 50 years after his death.

Trademarks such as Apple icons and Coca-Cola bottle marks are protected by the Trademark Act, 1991 (amended in 2016) for 10 years from the date of registration. Trademark includes color and sound (not smell in the case of Thailand). It can be renewed every ten years.

Patents include invention patents, design patents and petty patents. They are protected by the Patent Act of 1979 (amended in 1992 and 1999). Invention patents have a term of 20 years from the date of filing of the application. Design patents have a term of 10 years and petty patents 8 years. The owner of a petty patent may request an extension for two periods, 2 years each.

Trade secrets relating to trade information are protected by the Trade Secrets Act of 2002. Trade information means any medium that conveys the meaning of a statement, facts, or other information irrespective of its method and forms. It also includes formulas, patterns, complications or assembled works, programs, methods, techniques, or processes, cooking recipes and client lists. A person guilty of infringement will be liable to imprisonment from five to ten years, or fine from one to two millions baht, or both.

This Office has the Tilleke & Gibbins Museum of Counterfeit Goods, which to date have collected more than 4,000 goods that infringed trademarks, patents and copyrights. The Museum has a collection covering 14 broad categories of goods, including clothing, footwear, watches and eyewear, accessories, cosmetics and perfumes, food and household products, drugs, alcohol and cigarettes, copyrighted works, stationery and office supplies, automotive parts, tools, electrical devices, and miscellaneous products.

Six years ago, the author remembers that small roadside vendors near the Pratunam market or along Sukhumvit Rd. near Nana used to sell faked famous brand t-shirts at very low prices. But in recent years we cannot see these shirts any more. It means the perception of the people has changed with strong enforcement of the above-mentioned laws by authorities. We can change.

3. Isuzu Motors Company (Thailand) Ltd. (IMCT) (August 31, 2016)

IMCT was established in 1966 as one of the overseas plants of Isuzu Motors Limited. IMCT has two plants: Samrong Plant (which was established in 1966) and Gateway Plant (in 2012). IMCT's paid-up capital is Baht 8,500 million (approximately US\$243 million) of which 71.37% is foreign and 28.63% Thai. Chairman of the Board is Mr. Prayad Boonsoong and President is Mr. Takashi Kikuchi. Production capacity of the two plants is: 331,000 units/year for pickups and 35,000 units/year for 2-ton up trucks (Samrong Plant: pickups 240,000 units/year; Gateway Plant: pickups 91,000 units/year and 2-ton up truck 35,000 units/year). Number of employees is 5,577 persons (Thai 5,506 and Japanese 71 persons) in 2016.

In 2012 the cumulative production of three million units was achieved from the start, in 1966 and it will reach four million units in 2016. The annual production in 2015 was 324,892 units. Only Toyota is a competitor in the field of light commercial vehicles (LCV) in Thailand. To produce Isuzu vehicles, 90% of parts come from ASEAN countries such as transmissions from the Philippines, cylinders from Indonesia, engines and forged products from Thailand. Only powertrain comes from Japan. IMCT has 195 firms of Isuzu Suppliers Group (ISG) which include Isuzu Engine Manufacturing Co., (Thailand) Ltd., IT Forging (Thailand) Co., Ltd. and Thai International Die Making Co., Ltd. Other cooperative companies are Isuzu Technical Center of Asia Co., Ltd., Isuzu Global CV Engineering Center Co., Ltd., Tri Petch Isuzu Sales Co., Ltd., and Thai International Die Making Co., Ltd.

Assembly process includes stamping, frame assembly, body assembly, axle mounting, engine manufacturing, engine testing, engine mounting, trim process, cab mounting, final inspection and dynamic & static test.

About 60% of the total products in 2015 were exported. This figure is growing due to (1) domestic demand is declining for a couple of years in Thailand, and (2) the company's policy is now towards export expansion.

All line-up of IMCT products are shown in Photo 2 as below.



Photo 2: Product line-up (heavy trucks are knockdown only.)

Source: Pamphlet from IMCT, 2016.

4. Thai Glico Co., Ltd. (September 13, 2016)

Thai Glico Co., Ltd. was established in 1970 at Bangkradi Industrial Estate (Pathumthani), later Rangsit Factory was built (Photo 3). Capital amount is Baht 20 million (US\$0.57 million) of which 49% is from Japan and 51% from Thailand. Bangkradi and Rangsit factories employ 950 persons (Bangkradi 686 and Rangsit 264 persons). They produce cookies like pocky and collon. Annual sales is Baht 4-5 billion (US\$114-143 million) and about 50% were exported to ASEAN countries and Australia. In the Thai market, Glico occupies the top position. Thai Glico Co., Ltd. is placed as an export base for neighboring countries in the Glico group.

Altogether Glico group sales reached 300 billion yen (US\$2,941 million) and employs 12,000 persons all over the world (Japan, Thailand, China, Canada and USA). In the world biscuit market Glico occupies the top position with 9.5 % in 2015. The Glico group now manufactures cookies, cold confectionery, processed food, sports food, dairy products, livestock cooking products, and food additives.

Thai Glico maintains food security and quality management to obtain such qualifications as FSSC 22000 (Food Safety System Certification), HALAL, C-TPAT (Customs-Trade Partnership against Terrorism), and MUI (Majelis Ulama Indonesia, and SNI, Indonesian National Standard). We were surprised to see that all products were checked by X-ray before packing whether they include any metals and/or any dangerous objects.

The floods in 2011 affected the Bangkradi factory. The ground floor was completely submerged under water halfway to the ceiling. So the wall of the dike was raised after the floods.



Photo 3: Glico's catchphrase: "300 meters with one grain of Gulico candy"

Source: Author

5. Siam Commercial Bank (Head Office) (October 7, 2016)

According to the prospectus of the bank, the Siam Commercial Bank PCL (SCB) was Thailand's first indigenous bank, established in 1906 under Royal Charter. SCB is Thailand's third largest commercial bank in terms of total assets in 2016. As of June 30, 2016, SCB has Baht 2,774 billion (US\$79 billion) in total assets, Baht 1,871 billion (US\$53 billion) in deposits and Baht 1,862 billion (US\$53 billion) in loans.

It was named at first as the "Book Club" in 1904 to disguise its activities in order not to be recognized by foreign Great Powers by the brother of King Rama V. At that time all banks in Thailand were branch offices of European banks. SCB's emblem is a Garuda (half person and half eagle icon, said to be the vehicle of the God Vishnu), meaning a royal warrant given by King Rama V.



Photo 4: Headquarters of Siam Commercial Bank

Source: Author

To summarize from these factory/office visits, the author emphasizes three points as follows:

- (1) Thai people are intelligent, quick to learn new things, innovative and follow rules. The author was very impressed by the irrigated coconut firm. The first bank in Thailand was called "Book Club". How smart it was! The author also welcomes the fact that counterfeit goods are gradually diminishing in Thailand.
- (2) Two Japanese firms showed their strong intention to export (Isuzu 60% of its products and Glico 50% in 2015). It means that the time has come for Thailand to become an export base for Asia and the world.
- (3) Related to (2), Thailand should exploit the present AEC (ASEAN Economic Community) and future RCEP (Regional Comprehensive Economic Partnership) and be a member of TPP (Trans-Pacific Partnership)⁷ in order to expand exports.

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(November 30, 2016)

⁴ Mr. Donald Trump won the US Presidential Election on November 8, 2016. We are not sure about TPP's future. Because of his negative statements regarding multi-lateral trade agreements, he is apparently a proponent of bilateral trade. But we also have FTAAP (Free Trade Area of the Asia-Pacific) backed by the APEC member countries.

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Our students will also have the chance to familiarise with the academic settings in a sense that through their thesis course, student will be exposed to all kinds of academic scrutiny such as thesis defend and comprehensive thesis writing course. Nearing to the end of the program, student will be given a chance to showcase their hard labour at an International Conference held specially to facilitate the students learning curve. In the end, the works that they put their heart and soul into will become the pride of the program as each one of them, despite their different backgrounds; can come up with a thorough and deep analysis of particular research program concentrated on Asia Pacific and finally contribute to the literature on Asia Pacific Studies.

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