

EE460: Textile and Garment Industry

Lecture 14
bhanupong

Outline

- The importance of textiles and clothing industry
- Competitive characteristics
- Specialization index
- Integrated and export-oriented
- The role of FDI
- Cost disadvantages
- FDI outflows
- Japan and the Thai textile industry

Share in the world market

	2006	2007	2008	2009
Textile	1.41	1.50	1.40	1.56
Clothing	1.33	1.19	1.10	1.07

Apparel Exports: 2011

Source: UNCTAD/intracen.org

	Exports as a share of total exports (%)	Exports as a share of world exports (%)	Number of exported products	Share of top 3 exported products (%)	Share of top 3 export markets (%)	RCA Index
World	100	1.17	111	33.7	36.7	
China	4.22	37.55	103	28.3	36.6	3.6
Hong Kong						
China	2.72	5.8	103	44.7	53.3	2.3
Bangladesh	45.25	5.6	104	65.3	41.8	38.7
Italy	1.55	3.8	103	30.9	33.3	1.3
Viet Nam	6.38	2.92	103	39	76.7	5.5

Apparel Exports: 2011

	<u>Exports as a share of total exports (%)</u>	<u>Exports as a share of world exports (%)</u>	<u>Number of exported products</u>	<u>Share of top 3 exported products (%)</u>	<u>Share of top 3 export markets (%)</u>	<u>RCA Index</u>
India	1.93	2.72	103	45.6	45	1.6
France	0.73	2	103	28.7	44.1	0.6
Cambodia	57.33	1.8	70	40.7	67.6	49
Sri Lanka	21.08	0.99	97	31.3	72.7	18
Thailand	0.9	0.97	102	29.8	54	0.8

General Profile of the Industry in 2009

Textiles	Textiles		Clothing	Clothing
	(Value)	(Rank)	(Value)	(Rank)
Number of exporting countries for the ranking in the sector	131		126	
Value of exports (in thousand US\$)	3,002,377		3,724,238	
Export growth in value, p.a. (%)	2%	55	-2%	67
Share in national exports (%)	1%		2%	
Share in national imports (%)	1%		0%	
Relative trade balance (%)	22%		81%	
Relative unit value (world average = 1)	1		1.4	

Position in 2009

	Textiles	Textiles	Clothing	Clothing
	(Value)	(Rank)	(Value)	(Rank)
Net exports (in thousand US\$)	1,089,672	10	3,352,351	8
Per capita exports US\$/inhabitant)	44.6	40	55.3	54
Share in world market (%)	1.47%	17	1.19%	16
Product diversification (N° of equivalent products)	81	5	20	54
Market diversification (N° of equivalent markets)	28	1	5	55

Change index (2005-2009)

	Textiles	Textiles	Clothing	Clothing
	(Value)	(Rank)	(Value)	(Rank)
Competitiveness effect, p.a. (%)				
Initial geographic specialization, p.a. (%)	2.31%	43	-1.03%	91
Initial product specialization, p.a. (%)	-0.02%	72	1.33%	33
Adaptation effect, p.a. (%)	-0.85%	75	-1.12%	80
Matching with dynamics of world demand		87		85
Absolute change of world market share (% points p.a)	0.02%	12	-0.07%	116

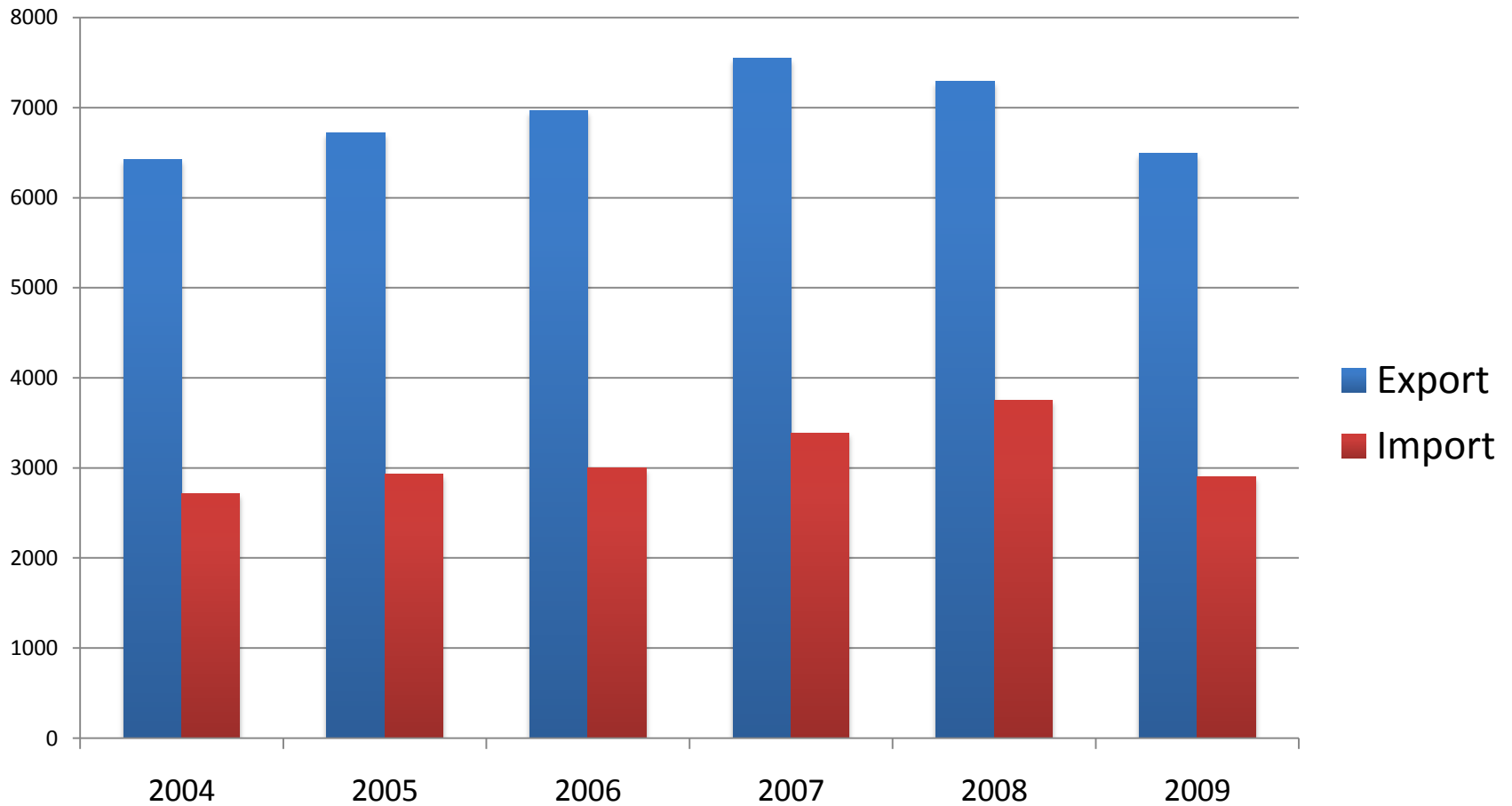
Average index (ranks among 131 and 126 exporting countries)

	textile	clothing
Average Index: Current Index	6	19
Average Index: Change Index	79	86

Its importance

- As a labor-intensive industry, it employed about 1.2 million workers and generated US\$3.16 billion (Bt119 billion) in foreign-exchange income in 2007.
- Thailand's textile and garment industry was worth 500 billion baht in 2007, split almost evenly between domestic and export markets.
- How much did the industry generate output and employ how many labor in 2012?

Trade balance of Thai textile industry



In 2009, the industry employed more than 1 million workers, or 1 of 5 of the workers in industrial sector.

Workers	2006	2007	2008	2009
<i>Industrial sector</i>	5,504,000	5,619,000	5,453,000	5,374,000
<i>Textile and Garment Industry</i>	1,063,000	1,057,000	1,049,000	1,045,000
<i>Share in industrial sector</i>	19.3%	18.8%	19.2%	19.4%
2012?				

Bleak future?

- About 10,000 workers in the textile and garment industry lost their jobs due to closure of 100 factories in the first 10 months of 2008.
- Global economic recession, especially in the United States, as well as Thailand's political unrest have hurt growth prospects for the industry that employs more than a million people.
- The impact of worsening conditions was clearly seen in September and October 2008, when 19 factories closed, affecting 5,350 workers.

Resilience

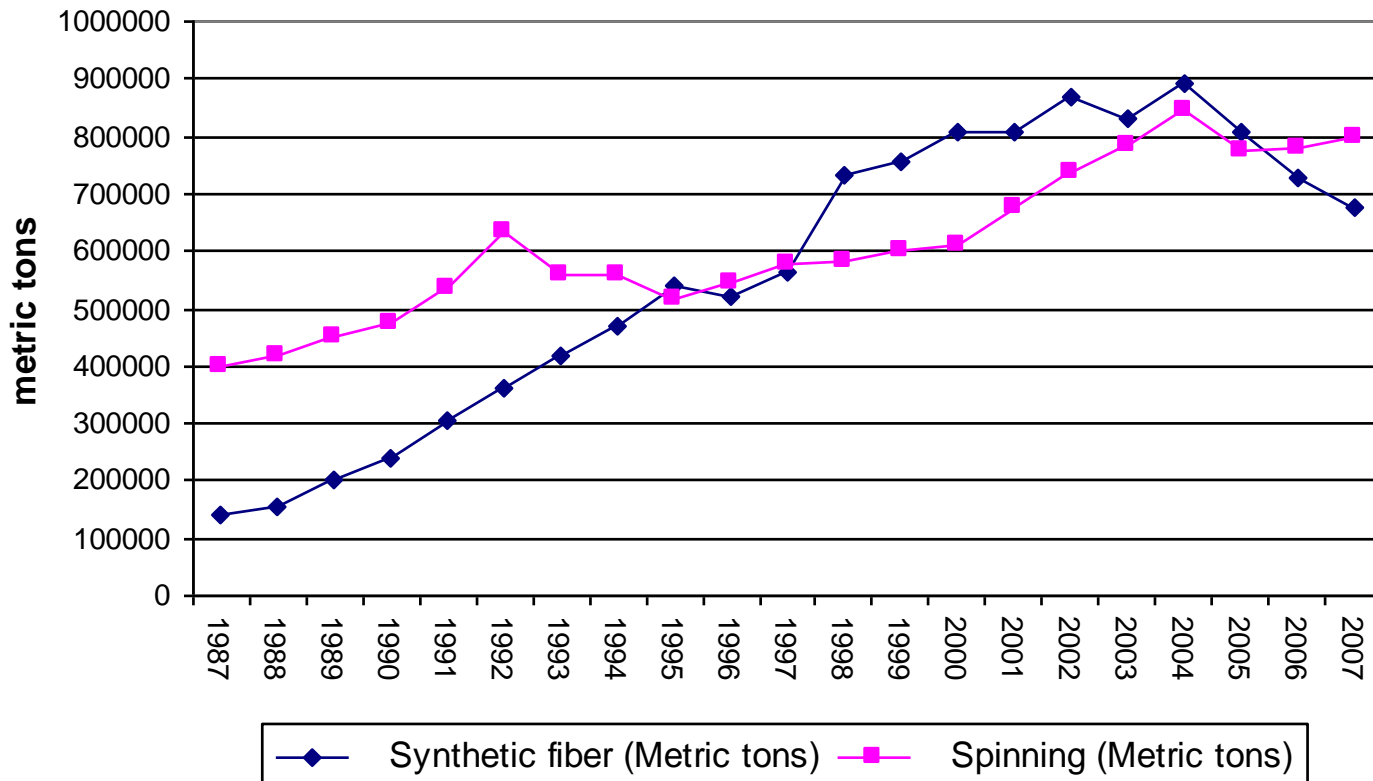
- By March 2010, the rate capacity utilization of the textile and garment industry had been rising in response to world trade recovery.
- Thailand's total exports increased by 15.5 % in 2008, declined by 14% in 2009 and rebounded by 28% in 2010.

From spinning to fabrics, to garments:
integrated textile business
vertical integration and logistics cost

- The Thai factories spin, weave, dye, finish and fabricate units for consumers in Thailand and abroad in the US and Europe such as Wal-Mart and Calvin Klein.
- By integrating production from spinning to fabrics, Thai firms are able to cut ***logistics cost and inventories***.
- It can ***react quickly*** to any change in customer needs.

Upstream textile industry

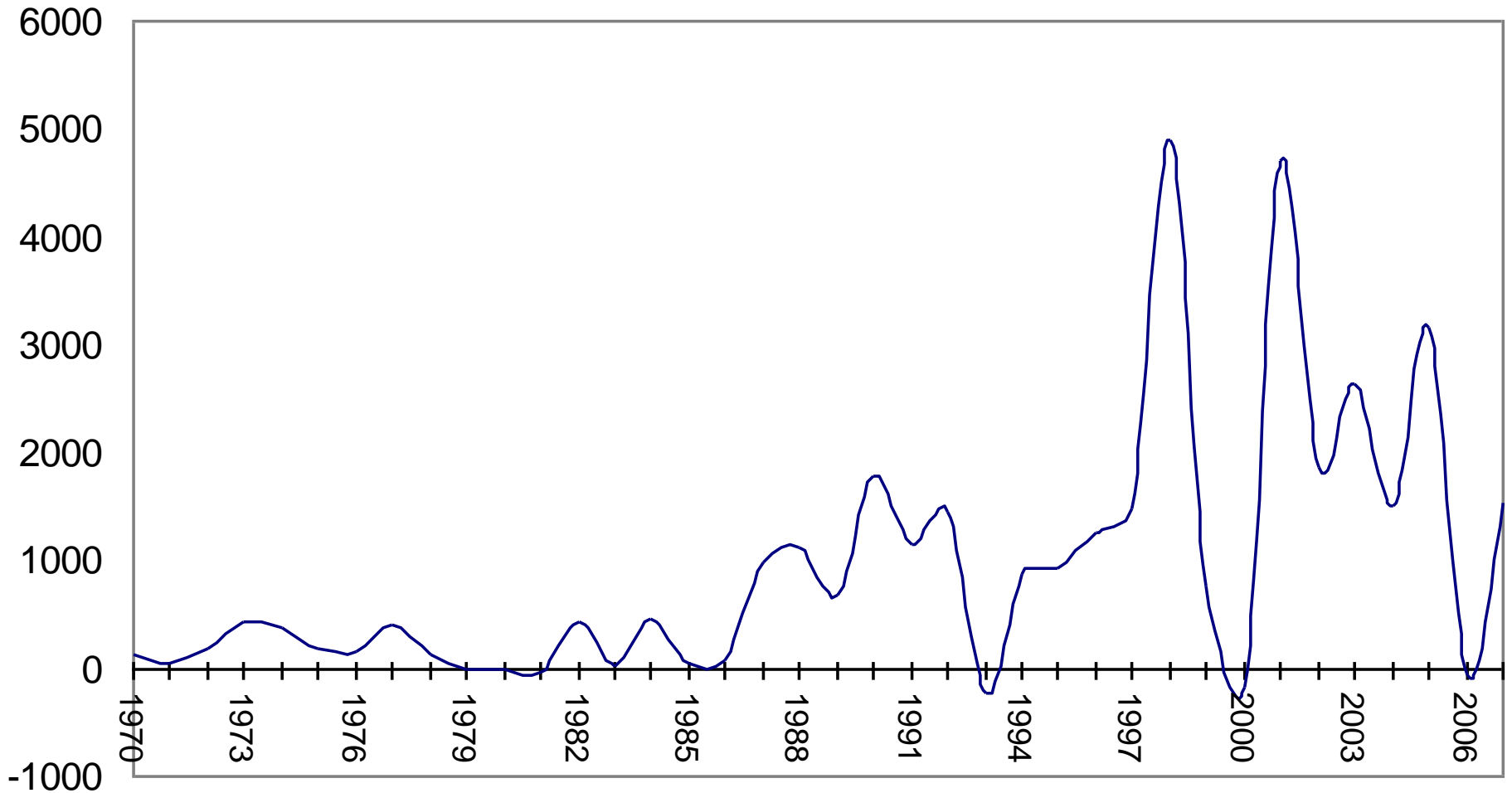
Textile Production



Surviving strategy

- The industry faces rising wage rates, losing its low cost advantage to other labor abundant economies.
- The textile and garment industry has lowered manufacturing costs by **moving labor-intensive** operations to neighboring countries in order to enjoy tax privileges for exporting to US and European markets.
- Nissan production plants in Japan uses higher K/L than the plants in India.

Net FDI in Textile industry (mil USD)
(Equity plus loan from related companies)

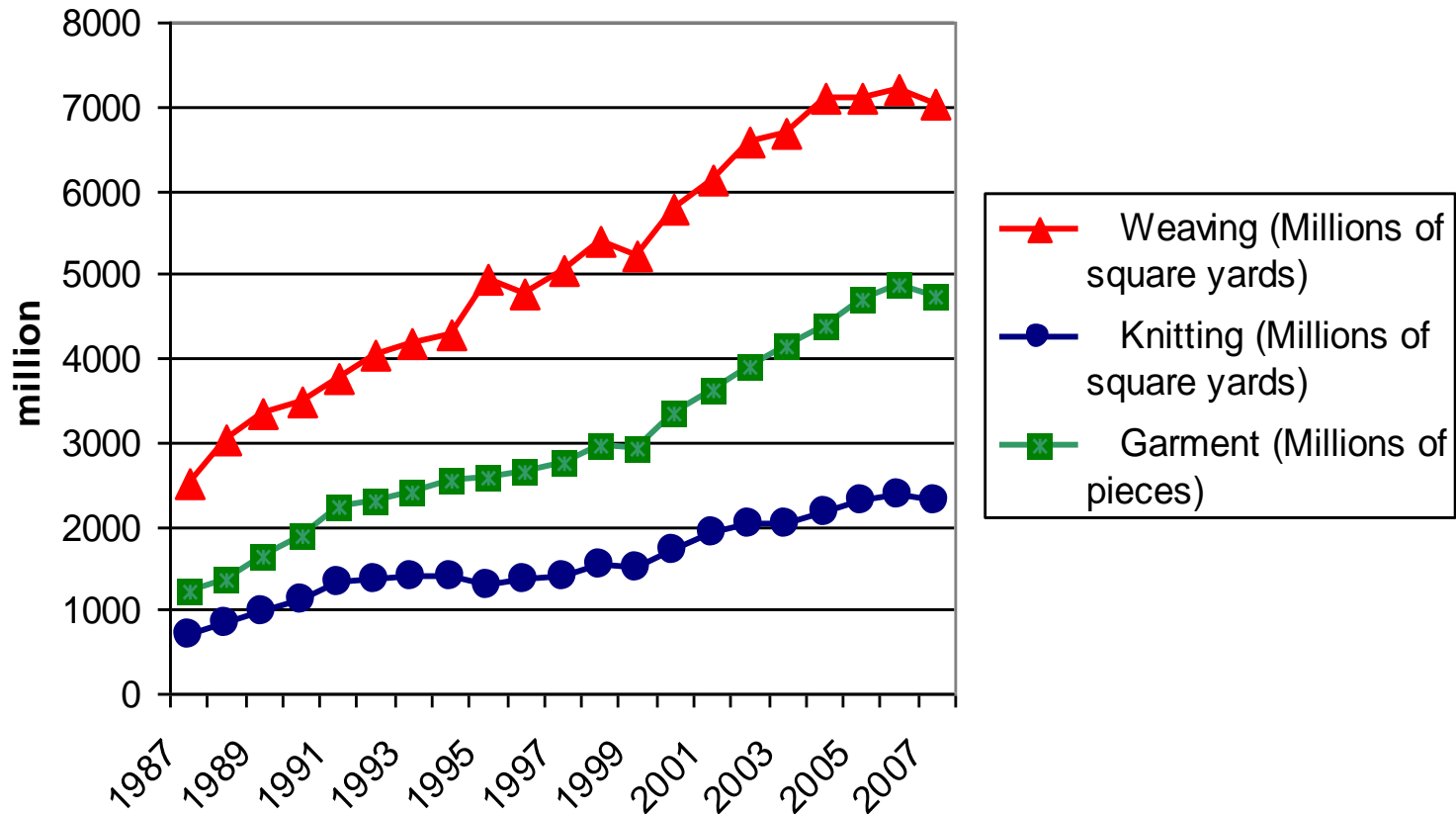


The next production stage

- Thailand is already the production base of upstream and downstream textile industry and what the industry must do is develop **value-added textile** and garment products.
- Should Thailand build up its brand name if it wants greater world recognition like Italian-made products?

Downstream textile industry

Production of Weaving, Knitting, and garment



Already encountered problems in 2007

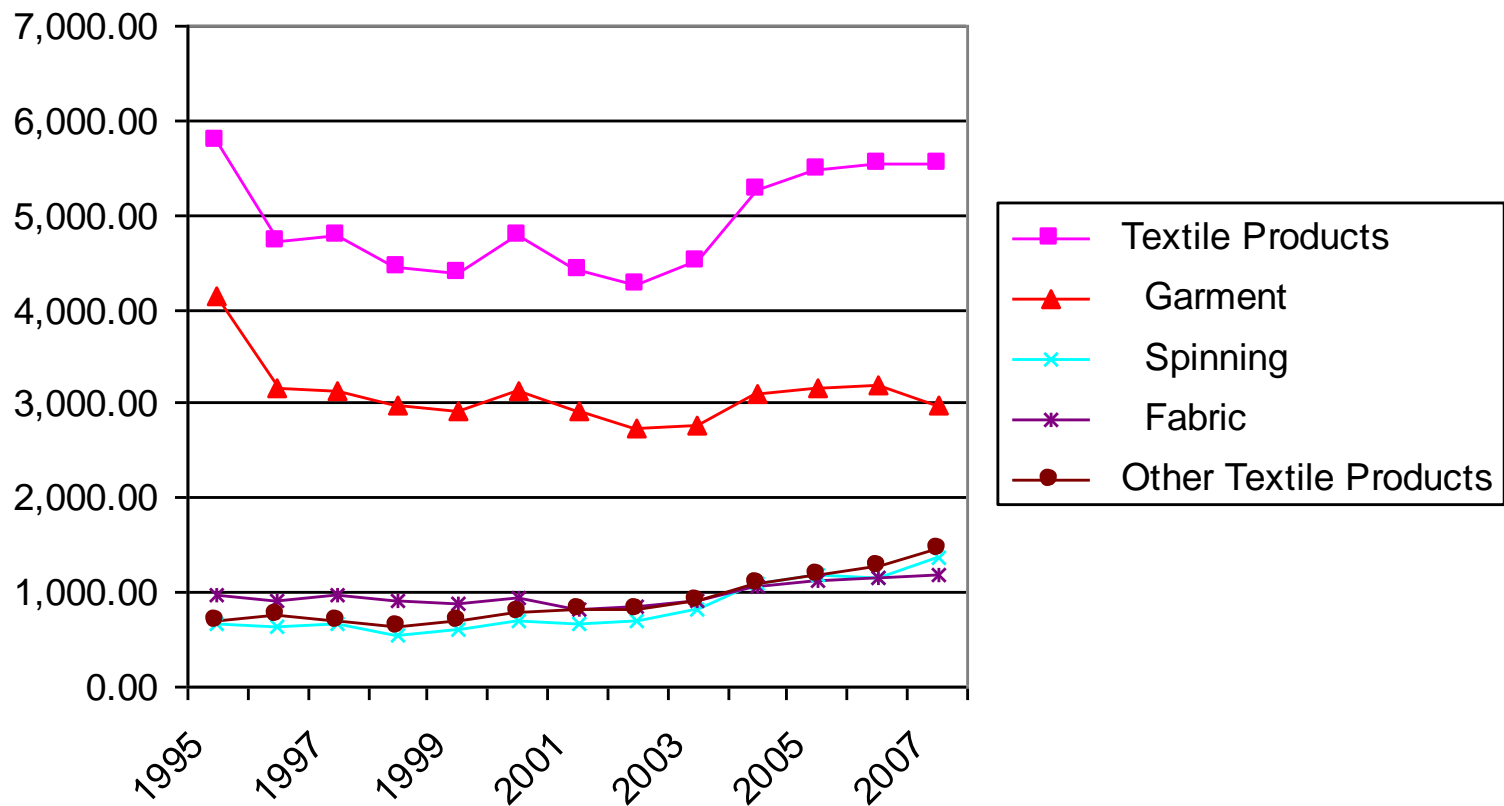
- Textile and wearing apparel industries were severely affected by the currency exchange rate and influx of inferior quality products from China.
- Local producers tried to adjust by cutting costs and focusing more on export markets.

Diversification and mitigation

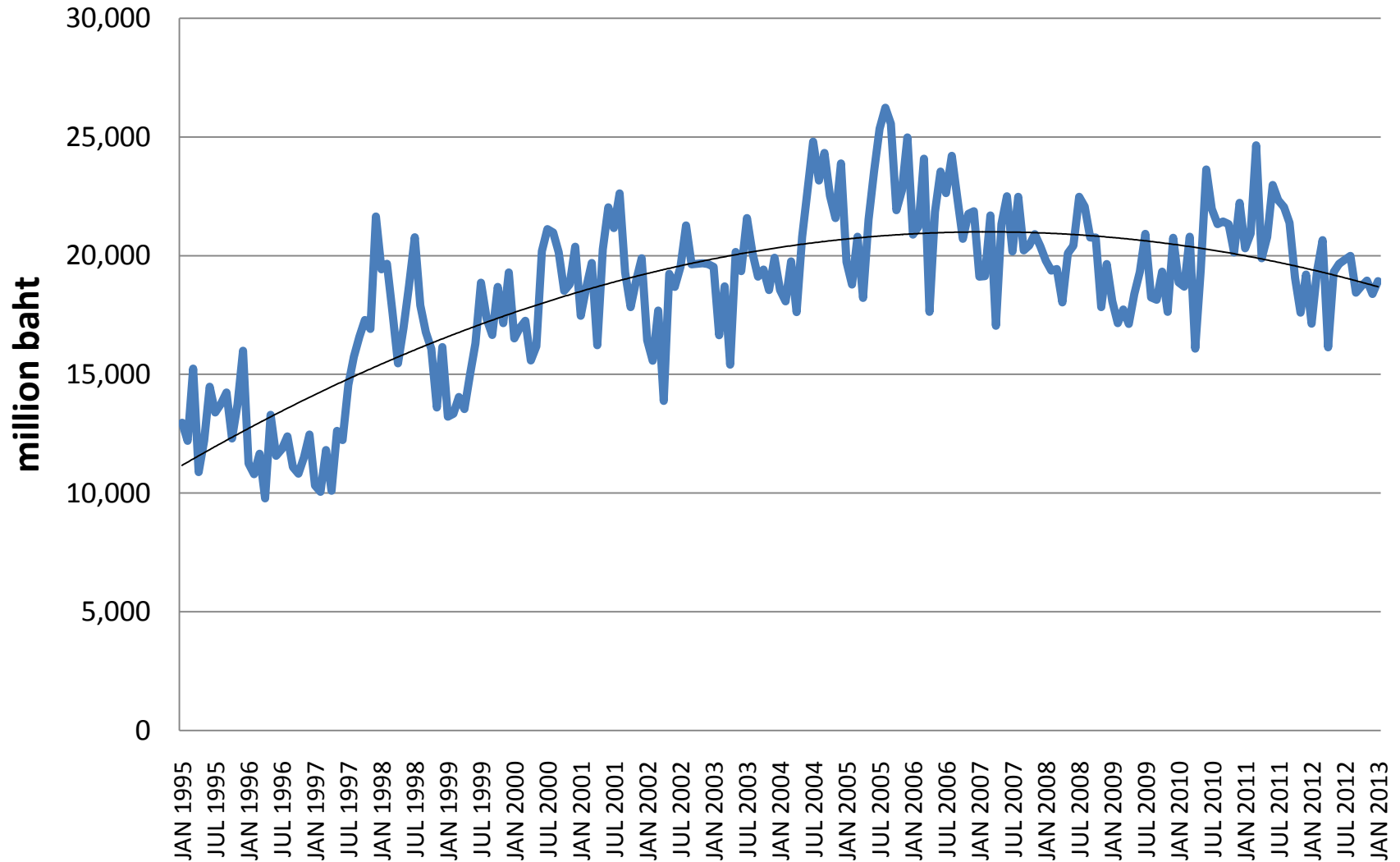
- **Ready-made apparel exports** declined due to the continued baht appreciation and exchange rate volatility, causing exporters reluctance to accept export orders.
- However, **other textile products** grew in 2007: brassieres, girdles and accessories, fabric, yarn and synthetic fiber, household and furnishing textiles, synthetic fiber and embroidered and lace fabrics.

Exports of textile products

Exports of Textile products



Exports of Apparels and Textile Materials 1995-2013



Can FTA help?

- At present, Thai garments exported to the US are subject to an average import tariff of 27 per cent.
- The FTA with USA would bring the duty down to zero. But that was a science fiction, because the deal was off after the 2006 coup.
- More orders came after the Japan-Thailand Economic Partnership Agreement (JTEPA) went into effect on 1 November 2007.
- *Did FTA with India help?*

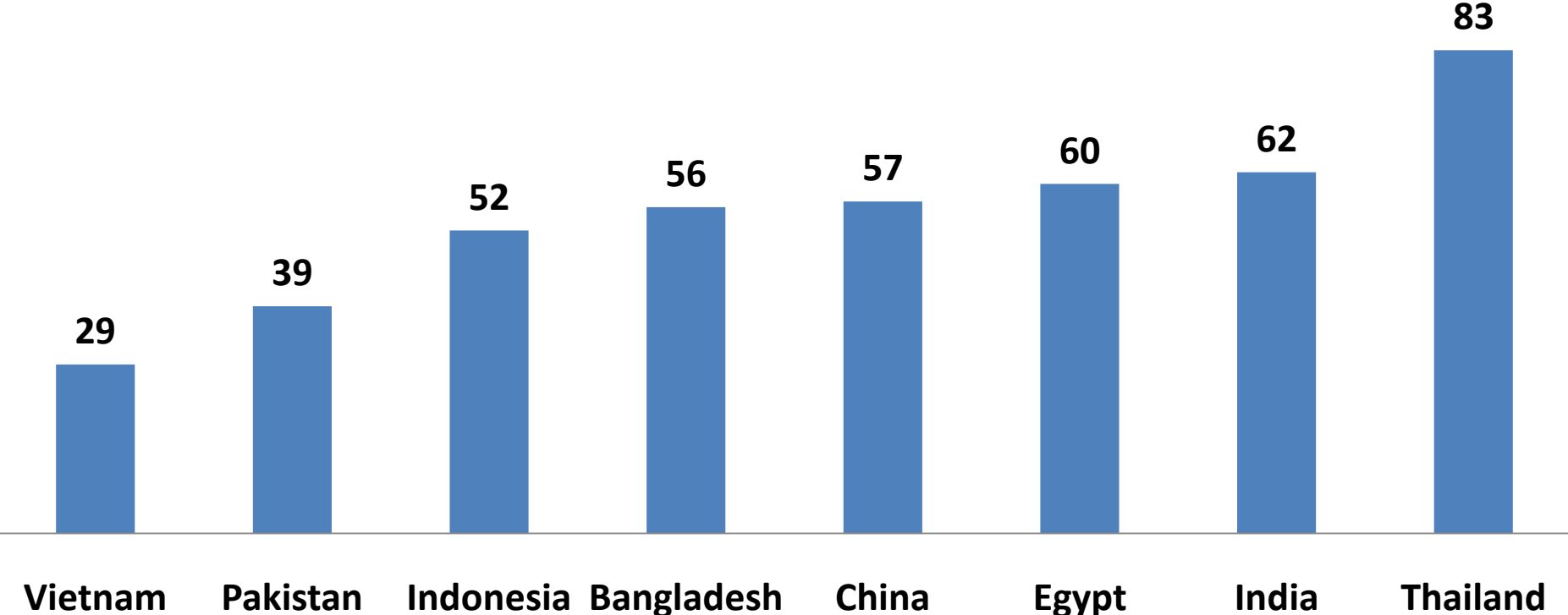
China: Threat and opportunity

- China is the world's biggest exporter, facing increases in production costs.
- China's exports this year will fall short of last year's level, because of quota restrictions, poor quality, rising export prices, and lower demand.
- There were demand for 101 million Chinese pieces last year and 181 million expected in 2010.
- Demand from ASEAN was expected to be 247 million in 2010, against only 88 million last year.
- But these forecasts were made before the global recession.

Some cost advantages remain: not just labor cost

- Thailand is the world's 13th largest garment exporter.
- With the exception of China, those countries with higher rankings control a 40-per-cent share of the market, but only 10 per cent of them enjoy cheaper labor costs than Thailand, and 40-50 per cent carry higher costs.
- Note that quantity demanded depends on both prices and income.

wage rate per hour (US cents)



Can FTA lead to higher FDI?

- Investment opportunities arise in Southeast Asia as Japanese companies are looking to supply their home country, one of the world's biggest garment importing markets.
- **Interest in Thailand as a production hub has increased mainly because of the Japan-Thailand Economic Partnership Agreement (JTEPA) and the ASEAN-Japan Free Trade Area Agreement.**
- Thailand, as the integrated production base for the textile and garment industry from downstream to upstream, offers advantages in drawing foreign investments in this industry.

Moving production base to neighboring countries

- In Lao, Cambodia, Burma and Vietnam, factories are **exempt from taxes**, so they can export to **Europe** with cost advantages compared to manufacturers in China, where they have to pay **15%** tariff.
- The Japan-Thailand Economic Partnership Agreement (JTEPA) has allowed Thai manufacturers to export to **Japan** with a 15% handicap *against Chinese* manufacturers.

Trade preferences

- Those preferences help strengthen price competitiveness of Thai products against rivals from China in the key export markets.
- **Given a shortage of labor in Thailand, more investment expansion by Thai producers is likely in Burma, Lao PDR, and Cambodia.**

Investors' worries

- Drawbacks in neighboring countries.
- Sanctions were imposed on Burma by the United States and the European Union.
- Laos has a population of only 6.3 million, limiting its workforce.

Expanding export markets

Major exports products for USA, EU and Japan are ready-made apparel, brassieres, girdles and accessories, household and furnishing textiles, fabric, as well as yarn and synthetic fiber.

These items have been steadily increasing, while garment exports are declining.

Major Export Markets

share of Thailand's textile exports

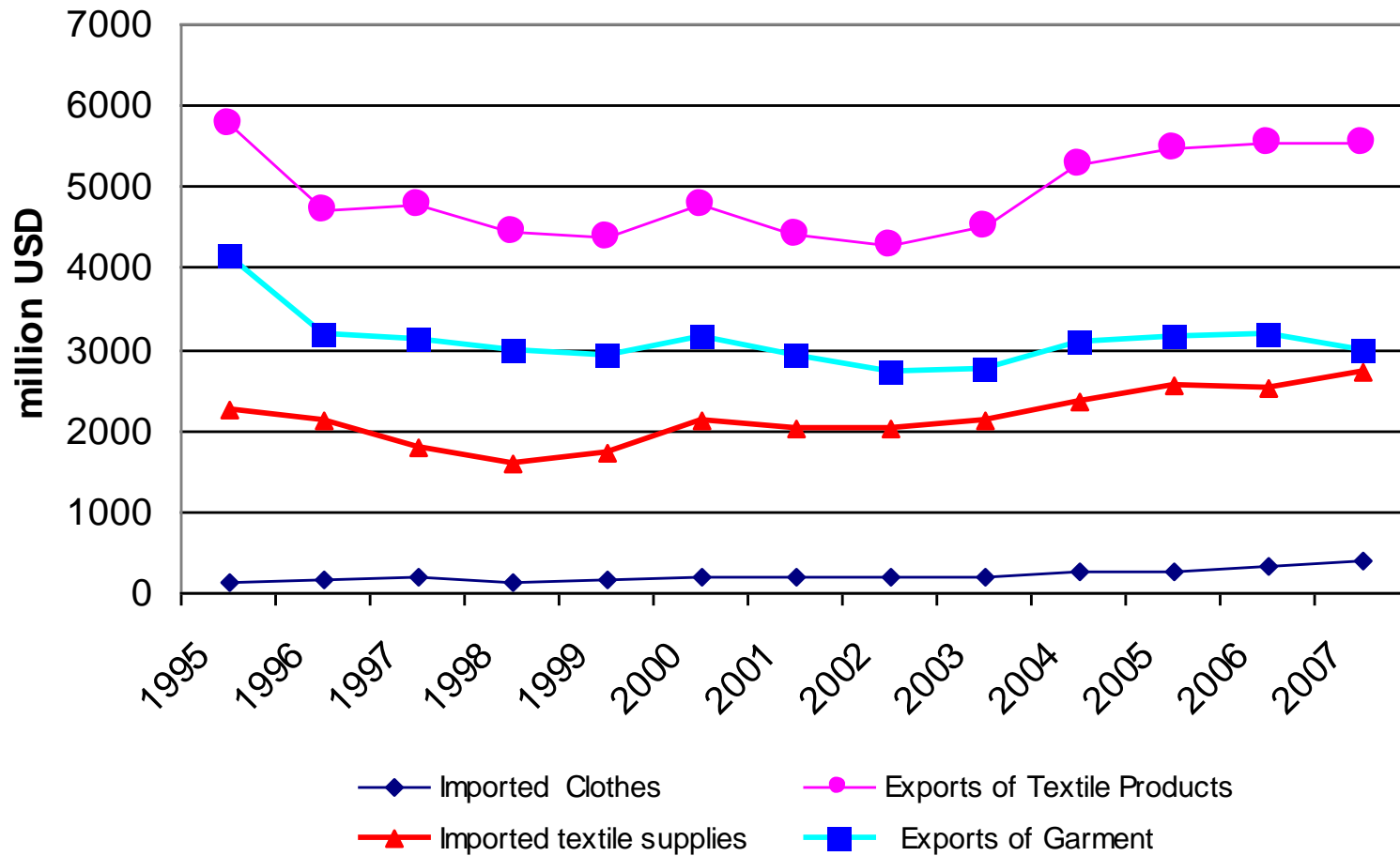
- **The United States: 28.6%**
- **The European Union: 18.8%**
- **Japan imported 5.3%**

A tiny exporter

- Thai textile and garment exporters are committed to raising export revenue to 20 billion USD in 2012 and *shifting* their focus on producing more fashion and design products.
- **China is the market leader commanding 33% of the world's market share.**
- **Thailand's textile and garment exports account for only 1.4% of the world's market currently.**
- A small country assumption fits well with the industry.

Imported raw materials

Intra Industry Trade in Textile Products



Where did Thailand import from?

(source: OIE)

- ***Fibers used in Textile Production***

USA (31.8%), Australia (14.8%) and **India (9.3%)**.

- ***Yarn***

China (19.9%) , Japan (16.5%), Taiwan (12.3%) and **Indonesia (11.6%)**.

Extensive activities of intra-industry trade

Production fragmentation

Sources of imported textile products

- ***Fabrics:***
China (39.7%) , Taiwan (16.3%) , Japan (8%), and Hong Kong (8%).
- ***Ready-made Apparel:***
China (48%), Hong Kong (12.9%), Spain (6.1%) and Italy (5.8%).
- ***Textile Machinery:***
Germany (21.2%), Japan (18.8%), Taiwan (13.8%), China (12.9%).

Chemicals and textile

- The global textile dyes and chemicals market was worth \$16 billion, and Asia accounts for some 45 percent of total consumption, much of it destined for export markets.
- Stricter environmental standards required by Western countries are prompting consolidation and innovation in the industry, which requires **imported textile dyes** and chemicals.

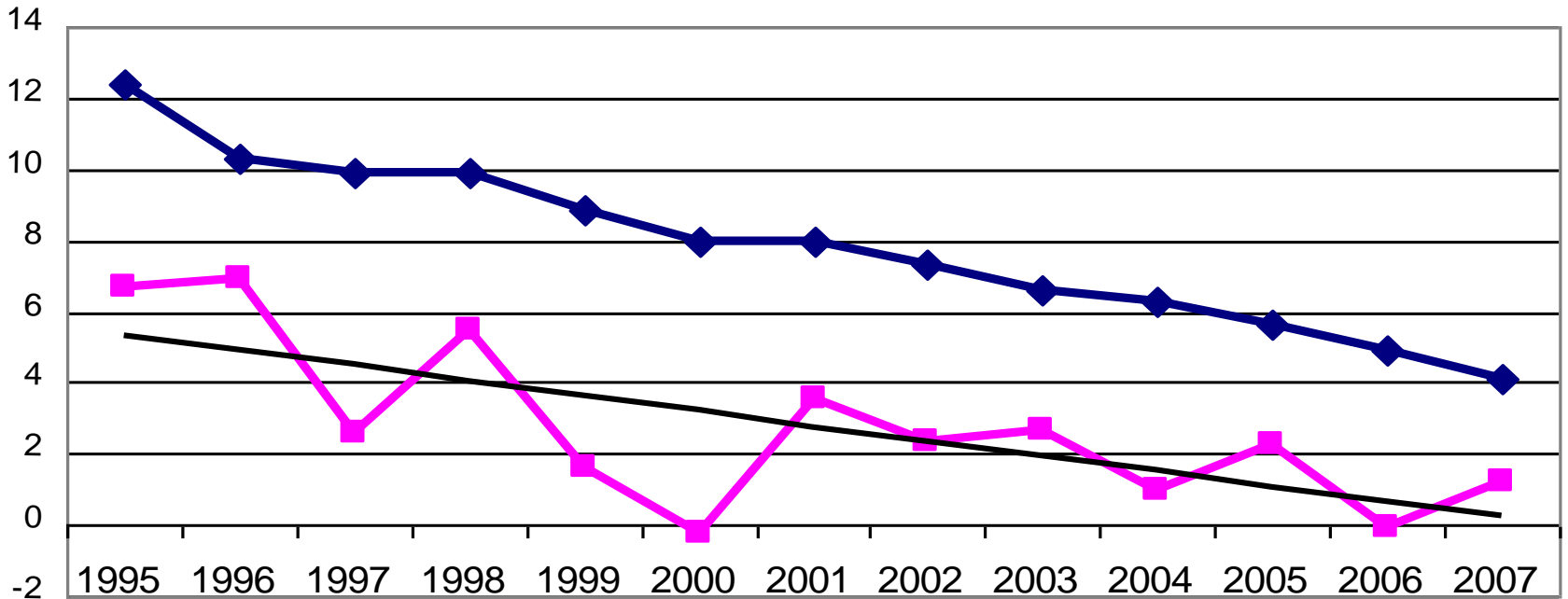
- China, Bangladesh and India are the world's top textile producers and are major consumers.
- Pakistan and Southeast Asia are important and growing players.
- Apart from apparel, a major driver for the industry is demand for “**technical textiles**” or fabrics used in cars, mattress covers, bags, tents and parachutes, among others.

Technical textiles

- In the medical field, chemicals are incorporated in surgeons' gowns to repel blood and dirt, raising the hygiene level.
- As Asia's spending power rises, "people want different products and that's going to lead to the development of a whole new market for technical textiles which didn't exist before"
- The market for ***technical textiles*** is likely to grow by 20 percent per year over the next decade.
- Thai companies must ride the growth by moving up to higher value-added products.

Importance of textile exports

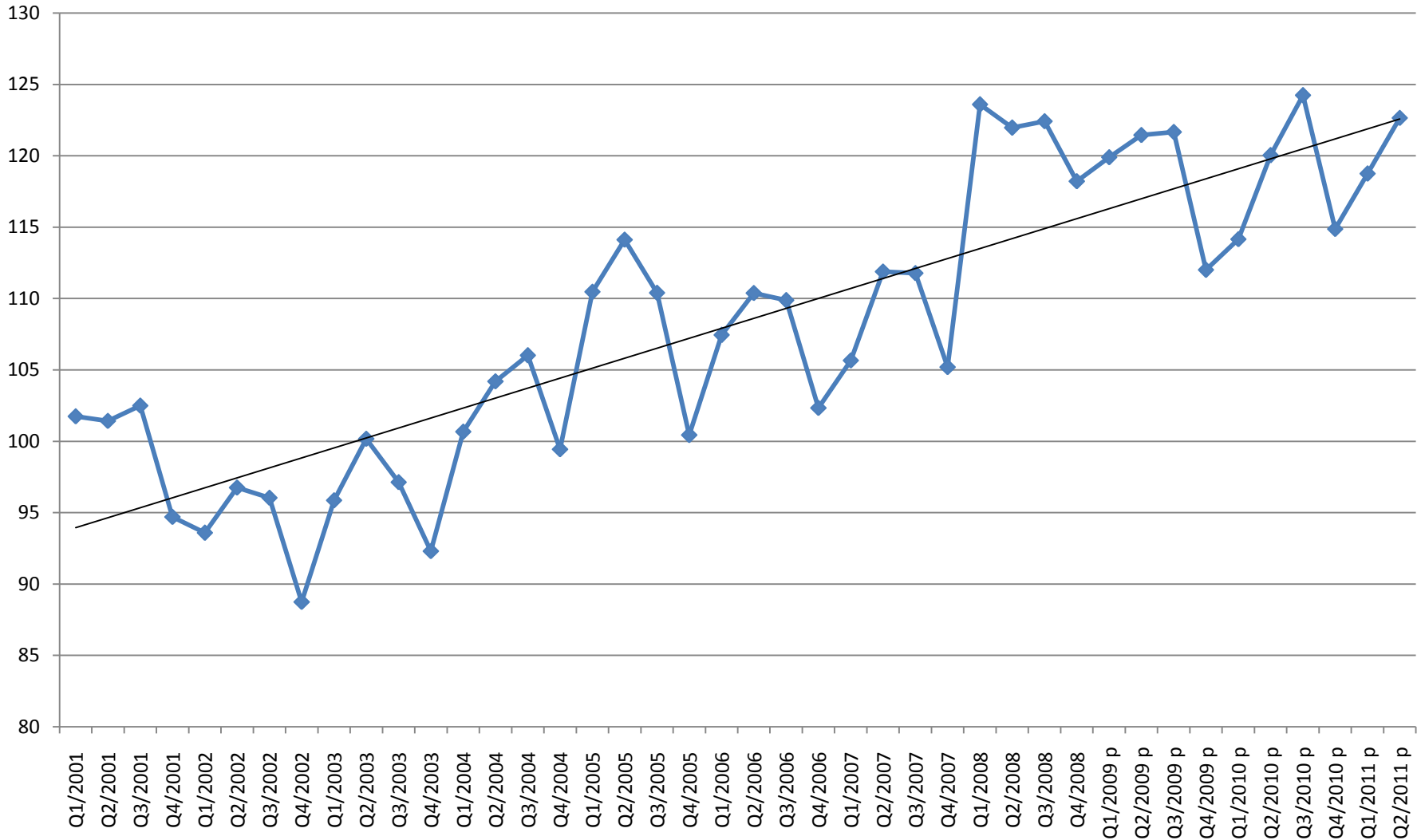
The Future of Textile Industry



—◆— share in manufactured exports —■— share in FDI (manufacturing sector) — trend

Unit Labour Cost Index

2001=100



share of total Thai exports (%)	0.03
exports as a share of world exports (%)	0.36
number of export product	21
Number of export market	36
share of top 3 export markets	81.7
Balassa index	0.3

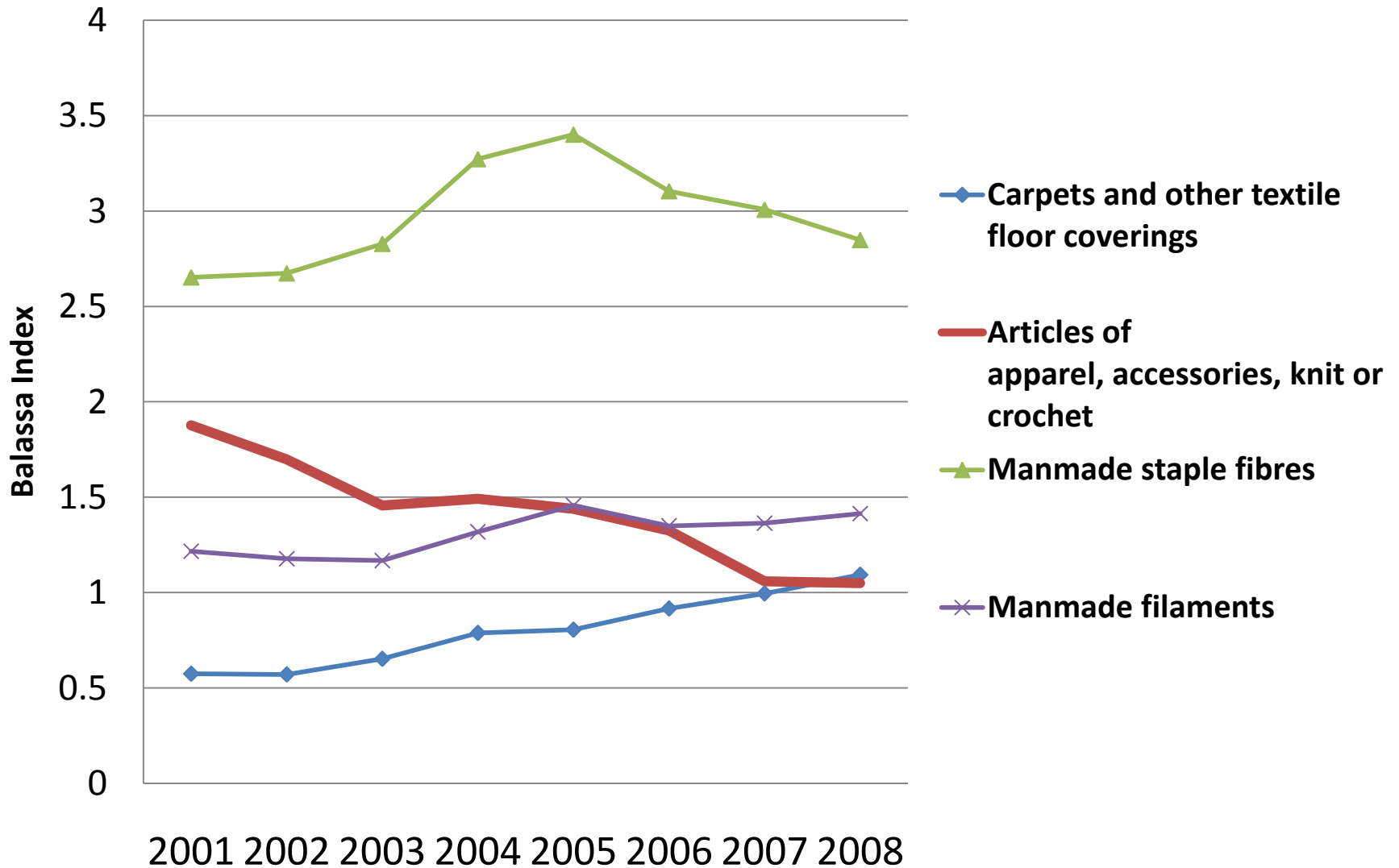
Revealed Comparative Advantage

- **Balassa** (1965) measure of relative export performance by country and industry, defined as a country's share of world exports of a good divided by its share of total world exports.
- The Balassa index measures the degree of specialisation of export products.
- If the Balassa index for a product is more than 1, it means that product involves specialisation.
- If it is less than 1 it means that no specialisation is involved in the product.
- The index for country i good j is $RCA_{ij} = 100(X_{ij}/X_{wj})/(X_{it}/X_{wt})$ where X_{ij} is exports by country i (w =world) of good j (t =total for all goods).

RCA

- One should compare the share of textile exports in Thailand's total exports with the share of textile exports in the world's total exports.
- The Balassa index is therefore essentially a normalized export share
- If $RCA_j > 1$, the country is said to have a *revealed* comparative advantage in industry j , since this industry is more important the country's exports than for the exports of the world.

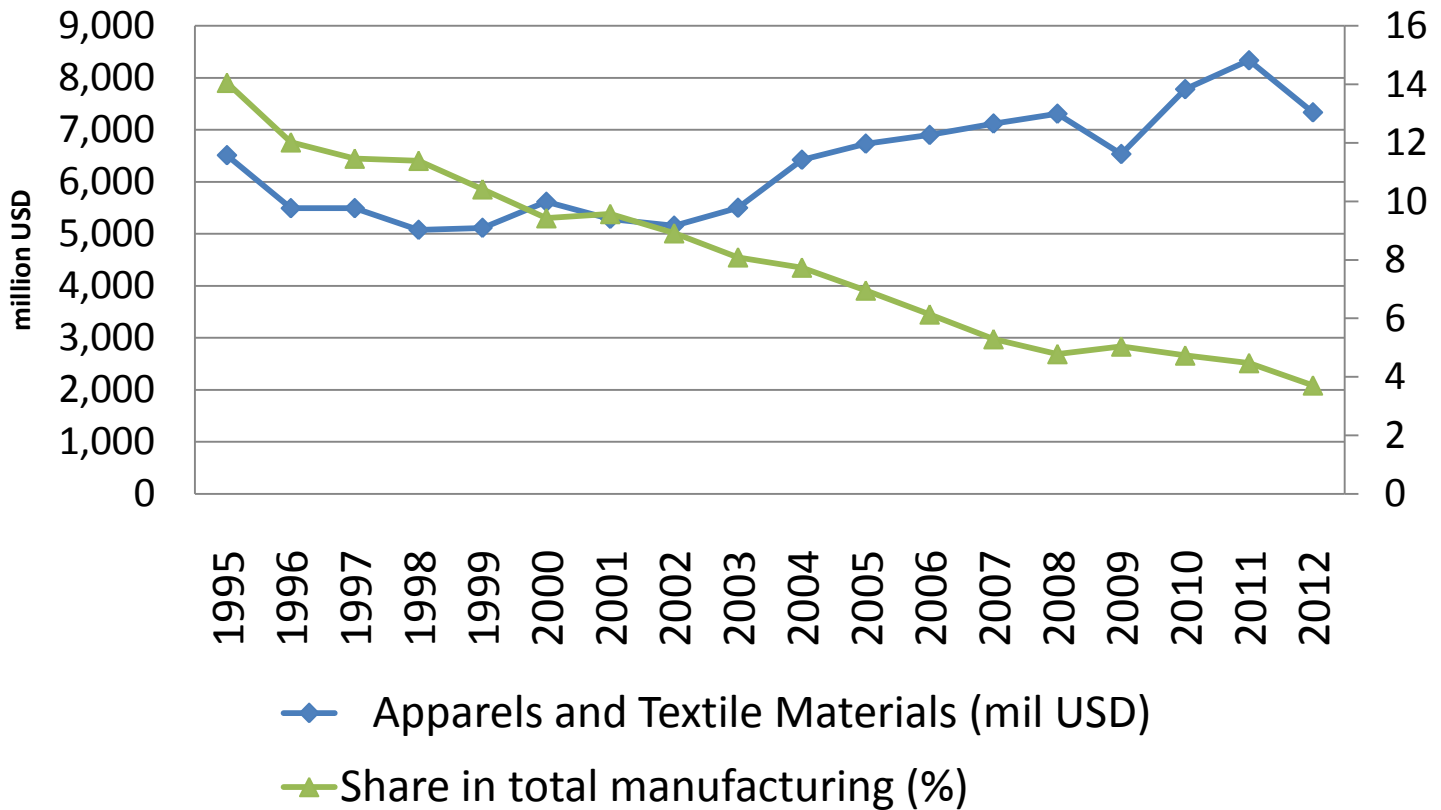
Revealed Comparative Advantage



Textile: A falling star?

- **The booming garment industry in China had led Chinese producers to focus more on their home market, which would create opportunities for Thai businesses.**
- More than 90% of Japan's garment imports come from China, leaving the Japanese market open if China switches focus away from Japan.

Exports of clothes and textile products



How to attract FDI

- Textile production costs in Vietnam were **19.5** per-cent lower than those in Thailand, because of import-duty exemptions for raw materials, cheaper labor and lower energy costs.
- Thai workers in **all sectors** earn average wages of US\$**14** (Bt479) per day
- Workers in Vietnam and Pakistan earn the least: \$**3.7** a day.
- From 2004 to 2006, Vietnam's GDP expanded 8.2 per cent, India's 8.9 per cent and China's 10.2 per cent

Where to invest

- Expanding foreign markets encourage outflow of Thai FDI.
- A study by the Industrial Economics Office (2007) shows that operators in the textile and clothing industries should **shift to invest** in Vietnam, China and India, to reduce their production costs and boost their competitiveness in international markets.
- Besides investing in Vietnam, the study indicated that Thai operators could reduce their production costs **10.6** per cent if they made their products **in China** and **5.1** per cent in **India**.

More than tax incentives

- China and India, despite having higher production costs and fewer tax privileges than Vietnam, are more attractive in terms of larger-sized markets and infrastructure.
- What are factors attracting foreign direct investment?

Research subsidy and product differentiation

- Investment (BoI) has approved incentives for Innovation Textile Research Co for its 20-million-baht investment in a research and innovation factory in Samut Prakan.
- Innovation Textile Research will develop textiles and garments, with distinctive features such as *UV protection, freer air flow and a cotton-like ability to absorb perspiration* easily.
- How about suits made by fabric that can prevent swine flue?
- Technical spillover effects deserve public subsidy.

R&D and competitiveness

- In the first three years the innovative textile research company plans to develop garments using special materials that can reduce the wearer's urge to smoke.
- It also manufactures fabric used for wound bandages to reduce imports.
- In the future, the company plans to develop and patent garments able to capture solar energy to serve travelers, and license the technology to other entrepreneurs.

Retreat: Falling share in the US market

- According to the Thailand Textile Institute, the market share of Thai-made clothing in the US has been falling steadily and is now 3.4%, down from double digits several years ago, due to intensified price competition from products shipped from China, Vietnam, Cambodia and Bangladesh.

Outflows of FDI

- Burma, Laos and Bangladesh are among the countries where the Thai Garment Manufacturers Association (TGMA) is encouraging members to invest
- Of the 1,600 factories in Thailand's garment industry, at least five are moving to foreign countries, where low-wage workforces are plentiful, with planned investments of 200 million baht each.
- Those five are among the 80 large-scale garment factories located in the country.

Thai Garment Manufacturers Association (TGMA): labor shortage crisis

- "We would call this period a labor crisis. Right now we have a shortage of 50,000 to 60,000 people in the industry, and it should definitely reach 60,000 by next year," said the TGMA president.
- A main contributor to the shortage is the fact that prices of agricultural products have been increasing, shifting labor from the garment sector to farming.
- Thailand has 400,000 people working in the garment industry.
- Can immigrant workers ease the labor shortage?

Attractiveness of the Thai industry

- Japanese textile and garment investors are showing a growing interest in relocating their production bases to Thailand after the emergence of labour strikes in China, according to the Commerce Minister.
- But Japanese companies also had other choices including Vietnam, Indonesia and Bangladesh.
- Factory workers in China have become increasingly bold in demanding better pay and working conditions as they become more aware of their rights and the growing labour shortage in some cities.
- The result has been a rise in industrial unrest at both foreign- and Chinese-owned factories.

Obedient workers?

- Chinese clothing and textile mills have also witnessed several strikes in recent months. Wantai Group in Zaozhuang, Shandong province was affected by a collective labour strike, while workers from Pingdingshan cotton factory protested for better salaries.
- Hundreds of Chinese workers at a Japanese electronics plant and a Toyota auto parts supply factory in Tianjin also went out on strike in August 2010.
- Out-sourcing vs. in-sourcing?

Conclusion

- The importance of textiles and clothing industry (mass employment because of labor-intensive technology)
- Competitive characteristics (Market and product diversification)
- Specialization index (RCA Index)
- Integrated and export-oriented
- The role of FDI (outflows vs. inflows)
- Cost disadvantages (wage rate and labor productivity)
- Japan and the Thai textile industry