Thailand in the New Asian Economy: The Current State and Way Forward

Pichit Patrawimolpon
Runchana Pongsaparn

Bank of Thailand Symposium 2006

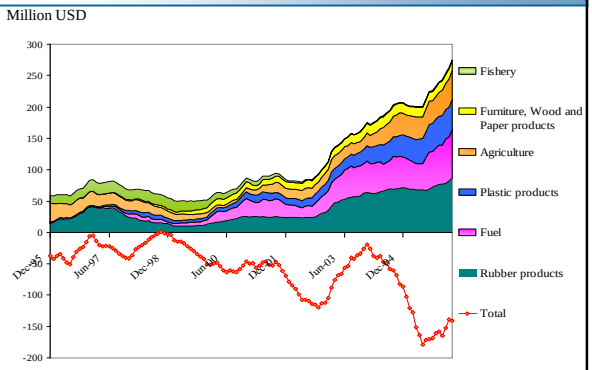
9 August, 2006

Outline

- **The Current State**
  - Where are we in the world? Bilateral vs Multilateral
- **How did we get here?**
  - FDI
  - Benefits and Costs
- **Further analyses on FDI and Investment**
  - FDI linkages
  - Investment and Growth
  - ICOR
- **Holding on to growth and stability**
  - Evidence from I/O table
  - Recent empirical evidence
- **Way forward**

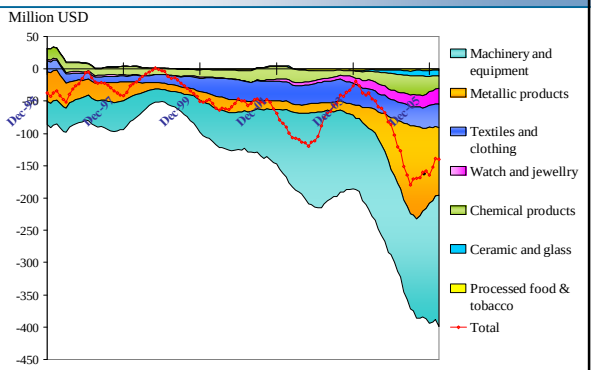
The Current State
Bilateral

Net exports to China (12-month moving average)



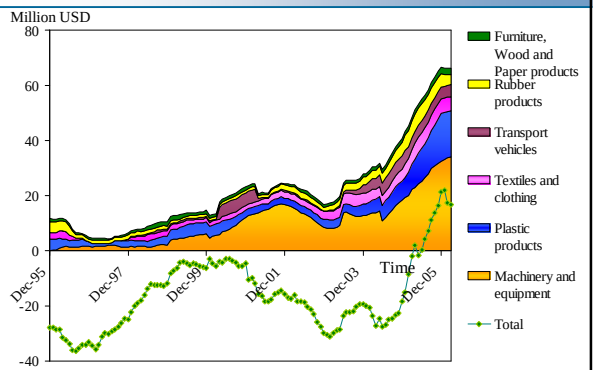
Source: Bank of Thailand

Net imports from China (12-month moving average)



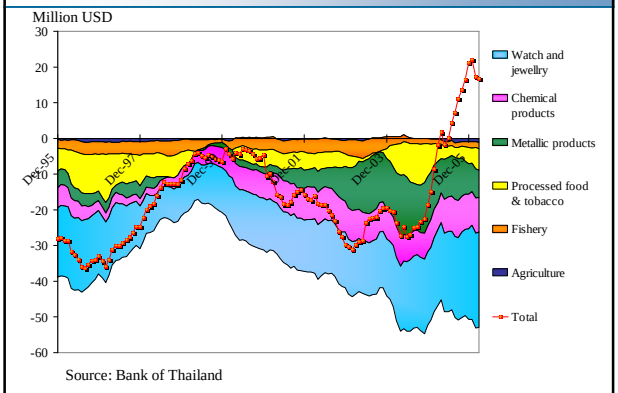
Source: Bank of Thailand

Net exports to India (12-month moving average)



Source: Bank of Thailand

Net imports from India (12-month moving average)



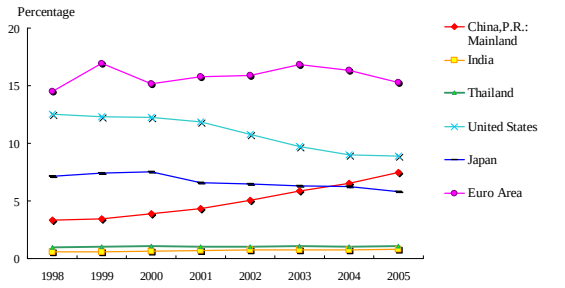
Source: Bank of Thailand

7

The Current State

Multilateral

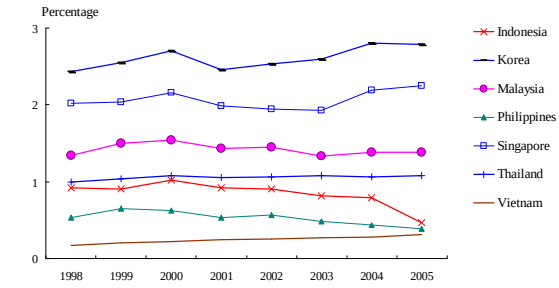
Share of World Exports



Source: IMF

9

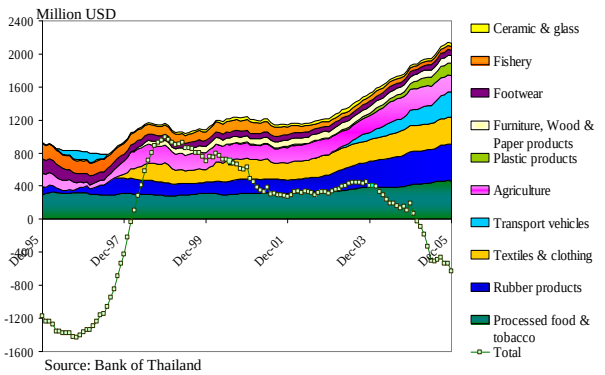
Share of World Exports: Neighboring countries



Source: IMF

10

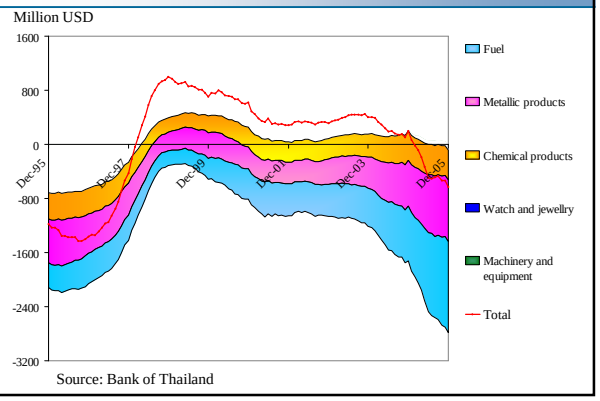
Net exports (12-month moving average)



Source: Bank of Thailand

11

Net imports (12-month moving average)



Source: Bank of Thailand

12

13

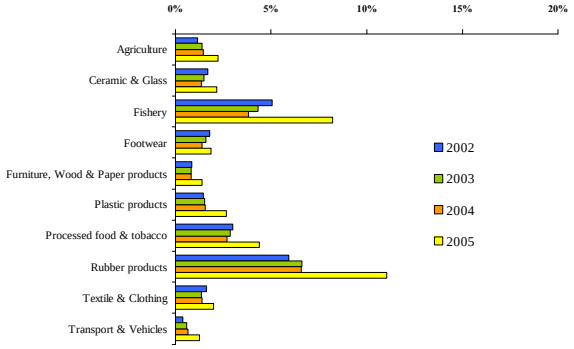
Net Export Ranking

	1995	2000	2005	Changing in Ranking 1995-2005
Processed food & tobacco	2	1	1	1
Rubber products	3	5	2	1
Textiles and clothing	1	2	3	-2
Transport vehicles	16	15	4	12
Agriculture	4	4	5	-1
Plastic products	10	12	6	4
Furniture, Wood and Paper	13	7	7	6
Footwear	6	8	8	-2
Fishery	5	6	9	-4
Ceramic and glass	9	10	10	-1

Source: Bank of Thailand and Authors' calculation

14

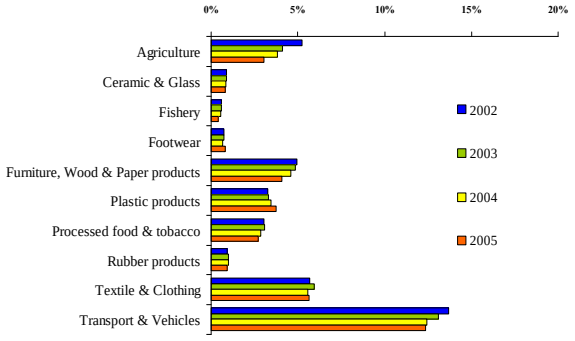
Share of Thai Exports by Commodity



Source: UN Comtrade

15

Commodity Export Share of All Commodity Exports



Source: UN Comtrade

16

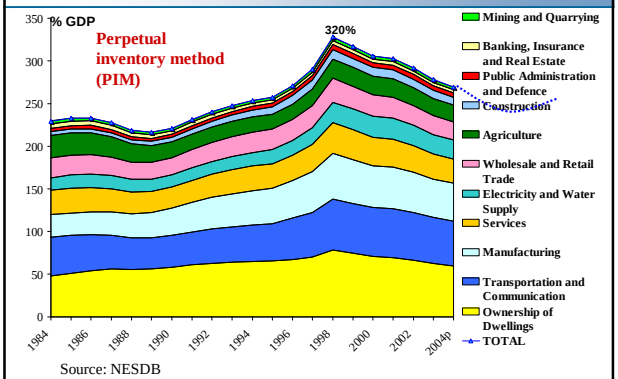
Initial Findings

- **Sectors with traditional strength contribute significantly to trade balance**
- **Increasing contribution from automobile$_{net}$ and electronics$_{gross}$**

How did we get here?

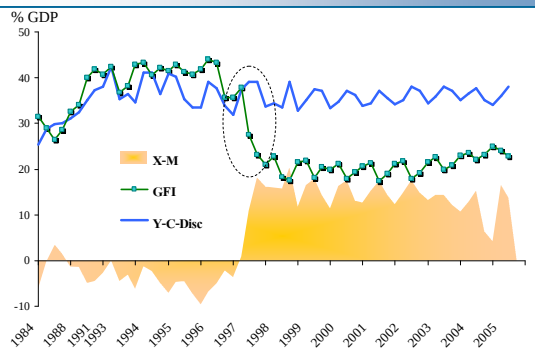
18

Net Capital Stock by Sector



Source: NESDB

19 Savings-Investment Gap and Current Account Deficit



Source: Bank of Thailand

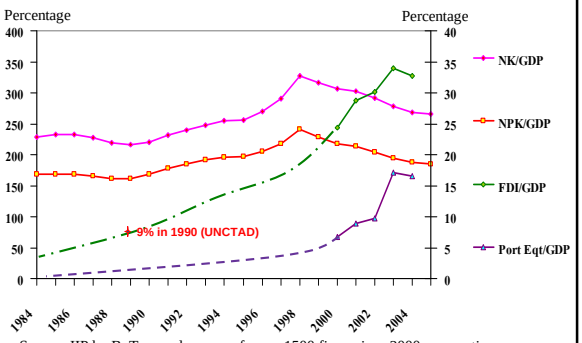
20 FDI Flows, by Region and Economy 2002-05

Unit: billion USD	2002	2003	2004	**2005
Global FDI (Gross Inflows)	716.1	637.8	695.0	896.7
DCs (Net)	-52.1	-135.2	-257.3	-127.3
Europe	30.7	-30.7	-86.1	-136.2
North America	-68.9	-77.7	-174.6	2.1
Oth DCs	11.8	-1.8	26.8	6.8
LDCs (Net)	107.8	137.3	150.0	68.7
Latin America & Caribbean	39.1	36.3	56.6	40.7
Asia & Oceania	56.0	84.0	78.1	4.2
China	50.2	53.7	58.8	na
India	2.3	3.4	3.1	na
South-East Asia	8.1	11.6	12.0	na
Thailand	0.8	1.5	0.7	3.5
Other LDCs (Africa)	9.7	12.7	9.4	8.8
South-East Europe & CIS	8.3	13.5	25.2	15.1

Source: UNCTAD World Investment Report 2005

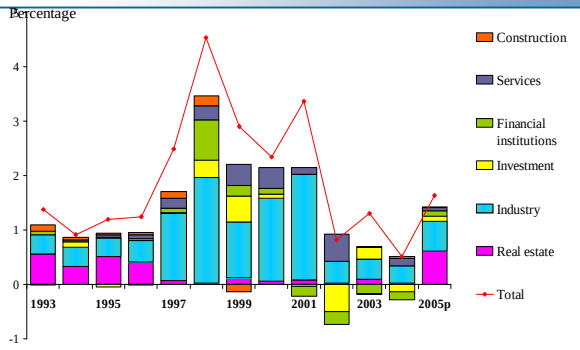
**** Global Number based on UNCTAD; Individual regions based on IFS (July 2006)**

21 FDI, Inward Equity Investments based on International Investment Positions



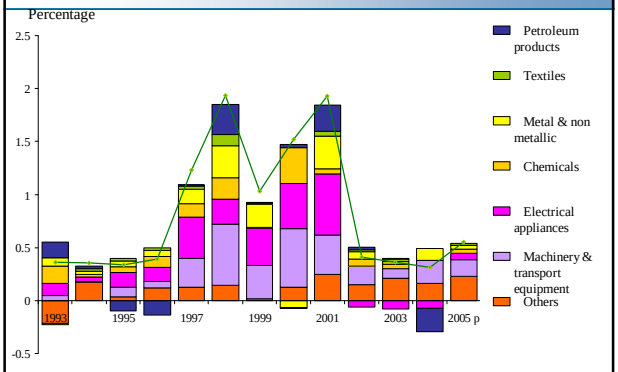
Source: IIP by BoT annual survey of some 1500 firms since 2000, accounting for over 90% of all FDI-related firms in Thailand

22 Sectoral FDI to GDP



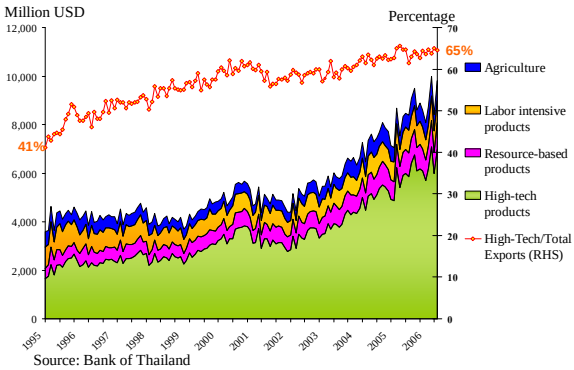
Source: Bank of Thailand and Authors' calculation

23 FDI by Industrial sub-sector (% to GDP)



Source: Bank of Thailand and Authors' calculation

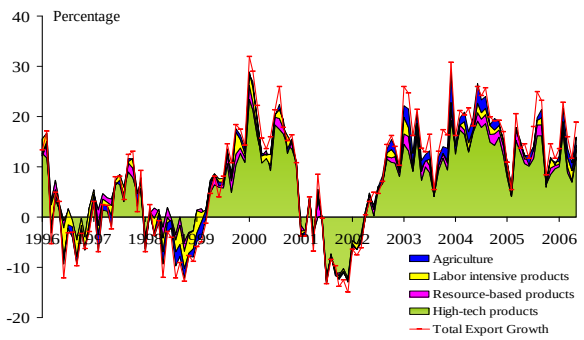
24 Exports by Group



Source: Bank of Thailand

25

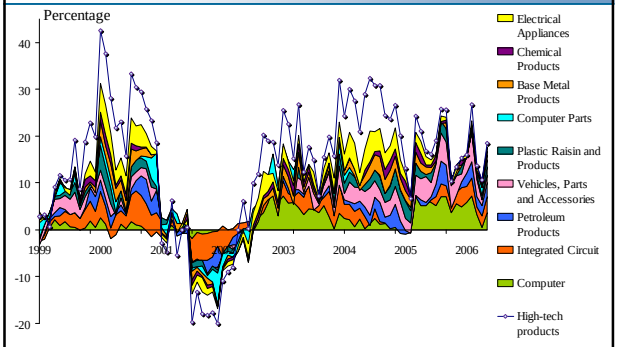
Contribution to Total Export y-o-y Growth



Source: Bank of Thailand and Authors' calculation

26

Contribution to High-tech Export y-o-y Growth



Source: Bank of Thailand and Authors' calculation

27

Comparison of FDI and Export Categories

FDI	Exports
Machinery & Transport Eqp	Vehicles parts & accessories
Electrical Appliances	Electrical App, Computer & parts, IC
Chemicals	Chemical products
Metal & Non-metallic	Base metal & Plastic raisin
Petroleum Products	Petroleum Products

28

Initial Findings

- **FDI-based exports help to maintain global market shares despite China & India rising**
  - **Bring in** Technology **(need to know basis =>assimilation);** Financing & Marketing
- **A more rigorous test is required**

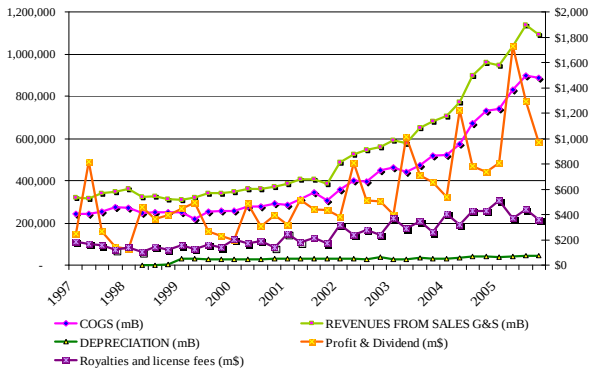
A Critical Question

- So, what is the catch?

Low value (added) creation

30

SET 350 Data vs Profit Dividend & Royalties Remittances



31

A Value (Added) Creation Index

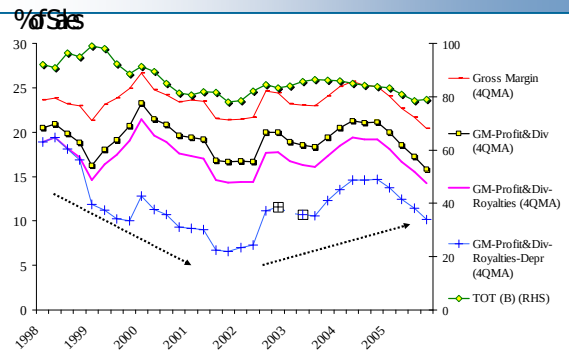
$$GM = \frac{Sales - COGs}{Sales}$$

$$GM^* = \frac{GM - (profit\ \&\ dividend + royalties)}{Sales}$$

$$VCI = \frac{GM - (profit\ \&\ dividend + royalties + depreciation)}{Sales}$$

32

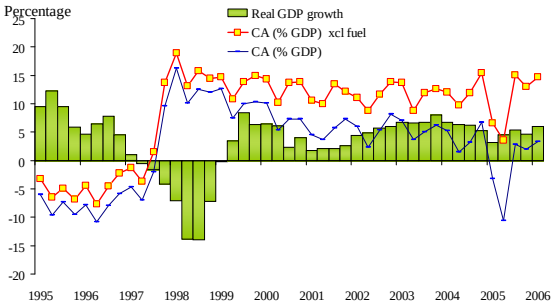
Value (Added) Creation Index



Source: SET, Bank of Thailand and Authors' calculation

33

Current Account Balance and Real GDP Growth

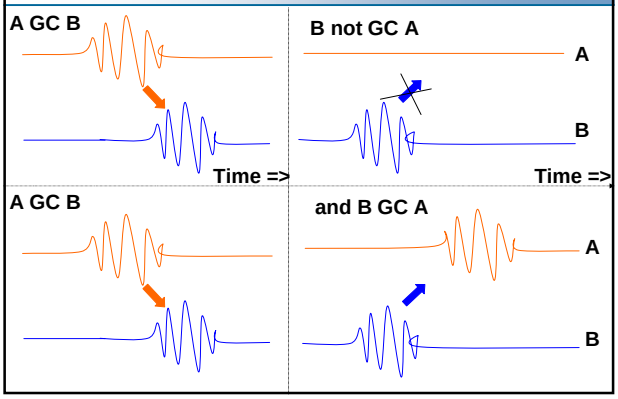


Source: Bank of Thailand

Further analyses

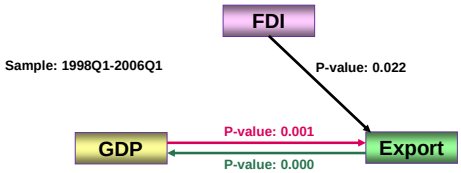
35

Granger Causality Test



36

FDI-Export-GDP



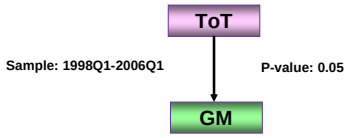
X ⟶ Y: X granger causes Y

means X helps the prediction of or statistically causes Y

FDI GC Export : in line with the earlier evidence

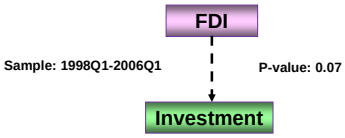
GDP and Export GC each other

37 GM-TOT



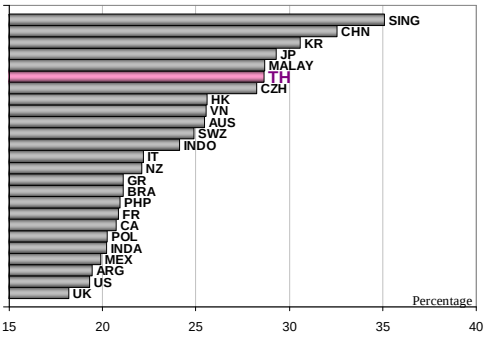
ToT GC GM : we are the price takers!

38 FDI-Investment



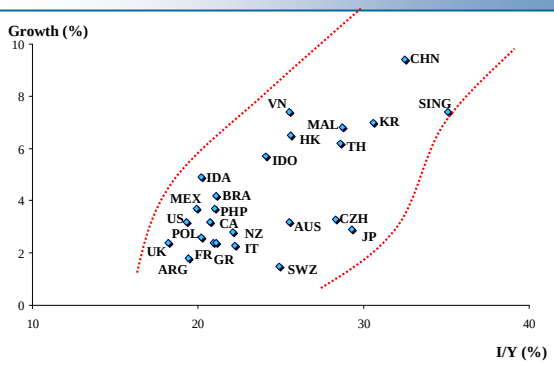
FDI (weakly) GC Investment : crowding in!

39 Investment to Output Ratio (1970-2005)



Source: IMF

40 Growth and Investment to Output Ratio (1970-2005)



Source: IMF

41 It's also the quality not just the quantity that counts! Incremental Capital Output Ratio (ICOR)

$$Growth = \frac{\Delta Y}{Y} * \frac{I}{I} = \frac{I}{Y} * \frac{\Delta Y}{I}$$

$$Growth = \frac{InvestmentRatio}{ICOR}$$

$$ICOR = \frac{InvestmentRatio}{Growth}$$

ICOR (or $I/\Delta Y$) is the amount of investment needed to generate 1 Baht of output

The higher ICOR is, the lower investment efficiency is!

42 Incremental Capital Output Ration (ICOR)

$$Y = C + I + G + X - M$$

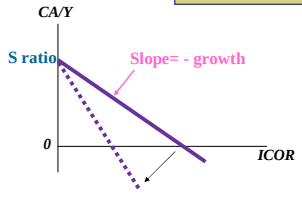
$$X - M = (Y - C - G) - I$$

Net Export = saving − invest

$$X - M = S - I$$

$$\frac{CA}{Y} = \frac{S}{Y} - \frac{I}{Y}$$

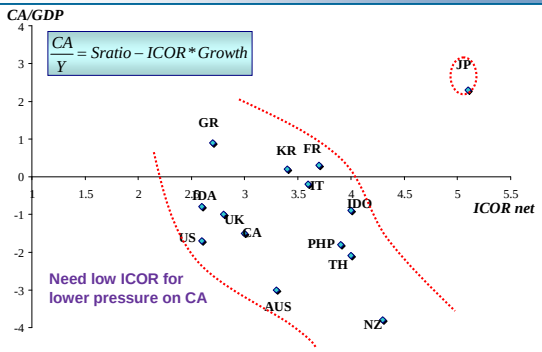
$$\frac{CA}{Y} = Sratio - ICOR * Growth$$



As economy grows faster, CA deficit is probably inevitable.

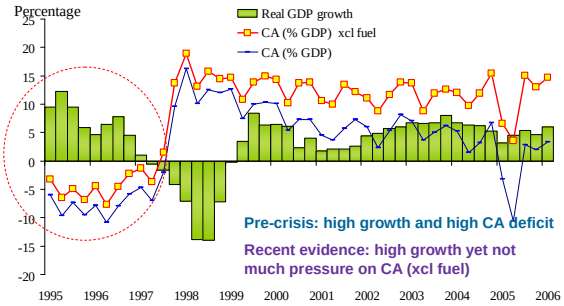
With greater investment efficiency (low ICOR), pressure on CA is less.

43 ICOR net and Current Account to GDP (1970-2005)



Source: Authors' calculation based on IFS

44 Current Account Balance and Real GDP Growth



Source: Bank of Thailand

Holding on to growth and stability

46 Identifying strength: IO Analysis
Sectoral growth contribution and current account implications

$$GDP_t = \sum_i VA_{it}$$

$$gcontr_{it} \approx \frac{\left(\frac{\Delta_5 VA_{it}}{GDP_{t-5}}\right)}{5} \qquad Mratio_i = \left(\frac{M_i}{X_i}\right) * 100$$

Growth and stability

High growth and low import ratio

Investment efficiency

Competitiveness

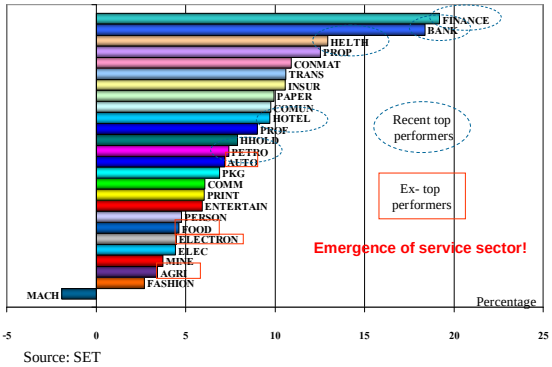
However, certain imports are essential / indirect import- e.g. fuel, raw materials or goods that cannot be produced within the country efficiently.

47 Initial Findings

- **High growth contribution and promoting current account surplus**
  - **Manufacturing: processed food, rubber products, textile, footwear, leather, ceramic, furniture wood and paper**
  - **Non-manufacturing: trade, service, communication, finance, hotel**
- **High growth contribution with high but falling burden on current account**
  - **Vehicles, plastic, chemical products and machinery (electronics)**

Evidence: 1975-2000!

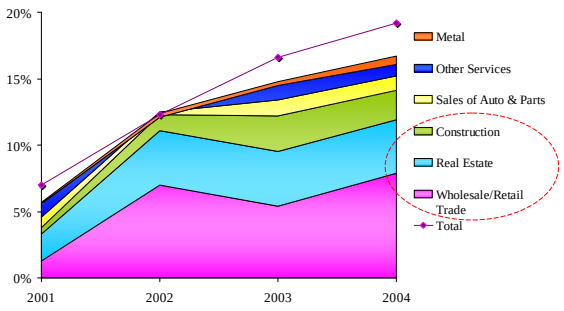
48 Net Profit Margin: 2001-2005 average



Source: SET

SME VAT Growth Contribution by Sectors

49



Source: Revenue Department, Ministry of Finance

Way forward

Way forward

51

- **Investment efficiency**
  - Improve infrastructure, e.g. logistics
  - Reduce energy intensity
  - Develop efficient production process
- **Adapting to the competition**
  - Can't fight with prices then fight with quality, design or ingenuity!
  - Take pro-active approach in finding new markets, esp. China and India

Way forward

52

- **Create Value (Added)**
  - Traditional strength: emphasis on quality/customisation

Way forward

53

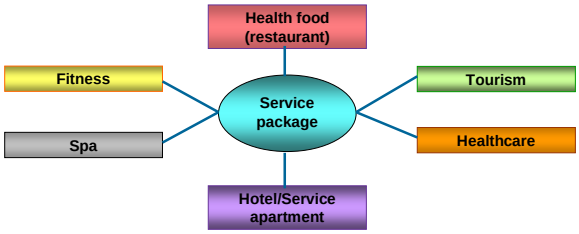
Some examples: OTOP to The World up to 2005

Category	No.	Code
Wine & Mineral Water; Herb	20	Lasante Herbal Wine; Phu-Amorn Grapefruit Wine; Ranong; Phattalung &Chaing Mai Mineral Water (4);Chiang Mai Fruit Wine; Bang Kaewpha Satho; Ongkarak Wine; Sukhothai Fruit Wine; Phayao Lychee White Liquor; Chaing Rai & Samut Prakarn Herbal Beverage(2);Phetchabun Galingale Wine; Nakornrachsima Fruit Wine; Ubon& Pathumthani "Ma-mao" Wine(2); Sara Buri Vin De Ray Wine; Yasothon White Spirits
Processed Food	18	Fresh Young Coconut; Vera Juice; Thanathorn Orange; Cashew Juice(2); Instant Cereal Drink; Yong Rice Milk(2); Doi Kam Fruit Juices; Viska; Suragrun Chumchon;Lamphon Longan Beverage ; Phichit Bael Fruit Drink;Nakhon Sawan Fruit Juices; Phetchabun Orange Juices; Phitsanulok & Sing Buri Noni Juice(2); BKK Fruit Juices (2)
Tea & Coffee	22	Ranong Tea; Mulberry Green Tea(3); Oolong Tea(8); Suriwut's Green Tea; Ka Long Tea; Chanta Buri Bio Tea; Nakhon Pathom Bai Mon Tea; Ban Rai Coffee; Eiah-Sae Coffee; Chumphon Coffee; Lamphon Coffee; Coffee with 15 Herbs; Ranong Coffee
Others	7	Chaing Mai Dehydrated Ginger; Honey Farm(6)

Way forward

54

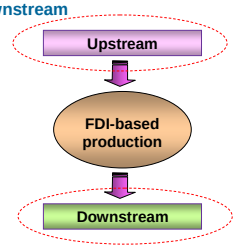
- **Create Value (Added)**
  - Service sector (Cluster Development)



55

Way forward

- **Create Value (Added) on FDI-based products**
  - Attract higher-value chain via set-ups of local upstream and downstream



56

Way forward

- **Create Value Added on FDI-based products**
  - Move from OEM to ODM and eventually OBM to capture higher value

Period/Stage	Technological Transition	Market Transition
1960s/1970s Original Equipment Manufacture (OEM)	Local firm learns assembly process for standard simple goods	Foreign MNC/buyer designs, brands, and distributes. Also gains non-manufacturing value added
1980s Own Design and Manufacture (ODM)	Local firms learns process engineering and detailed product design skills	As with above, MNC buys, brands, and distributes, MNC gains non-manufacturing value added
1990s Own-Brand Manufacture (OBM)	Local firm conducts manufacturing, product design, and R&D for new products	Local firms has own brand, organizes distribution and captures all value added

Source: ADB (2003)

57

Way forward

- **Value creation on FDI-based products**
  - Move from OEM to ODM and eventually OBM to capture higher value

Southeast Asia's Electronics Industry

Decade	Singapore	Malaysia	Thailand	Indonesia	Viet Nam
1960s	Assembly				
1970s	Process Engineering	Assembly	Assembly		
1980s	Product development	Process Engineering	Assembly	Assembly	Assembly
1990s	R&D	Product development	Process Engineering	Process Engineering	Assembly

Source: ADB (2003)

58

Way forward

Successful SMEs in MAI

Category	No.	Code
Metal & Non-metal; Plastics; Packaging; Hi-tech & Parts; Chemicals	15	LVT;PD; CIG;L&E;PPM; SALEE;STEEL;SWC;TAPAC; TMW;TPAC;TRT;UEC;UMS; YUASA
Construction & Materials	3	FOCUS;PYLON;TRC
Rubber Pd; Jewelry; Rice	3	CPR; GFM;KASET
Sanitary Ware;Hospital	2	STAR;TNH
Media & Advertising; Event Mngt; Mkting; PR	6	CHUO;CMO;MACO;PICO; PR124;RK
Business Information; Cable; S/W	5	BOL;ILINK; IRCP; S2Y;SLC
Financial; Debt Restructuring; Factoring;	3	BROOK;ACAP;DM

59

Way forward

- **Innovation, education, R&D**
  - Dynamic competitiveness
  - Attract and retain FDI by something more than cheap labour!
  - Don't rely on FDI alone as technology diffusion from FDI may not always happen
    - Preventive measures
    - Low-skilled labour
  - Require coordinated policies: education, science and commercialisation

60

Conclusion

- **Investment efficiency can be improved and is important for growth with stability**
- **Combination of strength in 3 areas: traditional, FDI-based and services**
  - each helps contribute to the strength with some drawbacks
- **To enhance long-term competitiveness at the same time utilise FDI more fully**
  - Institutional frameworks and firm adjustments
  - Energy efficiency
  - Human capital
  - Cooperation at the regional level