Industrial Policy & CLMV Economy EE.

(1)

STRATEGIC INDUSTRIAL POLICY AND LATECOMER DEVELOPMENT: THE WHAT, THE WHY, AND THE HOW

BY

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WHAT is strategic industrial policy?:Definition

- "Forward-looking packages of policies aimed at steering economic activity in a particular direction"

- Aimed to foster new industrial capacity, diversify production, create inter-sectoral and inter-industry linkages, promote learning, improve productivity and shift economic activity towards higher technology and value added activities, and improve competitiveness in the domestic market

Strategic Industrial Policy (SIP)

1. Industrial Diversification
2. Industrial Deepening
3. Industrial Upgrading

1. Industrial Diversification

- Creation of new industrial capacity and sectoral diversification
- Mobilizing and investing capital in new activities
- Increasing the role of manufacturing in production
- Expanding the range of products that is produced and exported
- Light consumer goods → Mid-technology sectors→ High-technology sectors
- Robust experience and market diversification differentiate “The rest” from “The remainder”

1. Industrial Diversification

- “You become what you export”– More advance export package, the country will grow more rapidly
- Diversification to “nearby product” is easier, but benefits is smaller and insufficient for long term growth
- Diversification to “distant product” is better!
- Successful diversification can be both expanding within product categories with similar technology and similar production and diversify into distant product lines.

2. Industrial Deepening

- Creation of local linkages and complementarities
- Creating more complete, more balanced and more inter-linked industrial structure
- SIP highlights the important role of internal integration; contribute to high and sustained growth
- Industry create “backward linkages” when it uses the inputs of other industries
- But “forward linkages” occur when the outputs serve as inputs to other local industries

2. Industrial Deepening

- Fostering and supporting dense networks of local suppliers and of providers of other specialized inputs are vital for sustainable economic growth
- SIP must seek to balance the supply and demand sides of economies and introduce measures that help developing countries to capture more of the value added and allow local wages to reflect productivity gains

3. Industrial Upgrading

- Aimed at fostering more advanced and competitive industrial structure
- Mastering more complex technological technologies through processes of technological advance
- Enhancing the capacity for “value creation” by moving to higher value economic activities– product upgrading, process upgrading or functional upgrading
- Raising local value added to able to move toward international level

SIP is part of an overall development strategy

- Identify priorities and promote cumulative change in the direction chosen
- SIP is flexible– adjust to shifting circumstances
- SIP is characterized by a strategic interaction with the private sectors both to information about present constraints and future opportunities, and to make implementation effective

Export-oriented industrial strategies (EOI) VS Import-substitution industrial strategies (ISI)

- ISI failures: found in countries that have non-selective and non-temporal trade protection. Inefficiency, rent-seeking, favouring of capital-intensive production (limiting employment), technological dependence
- EOI failures: low-value added activities, low level of innovative processes, low technological capability, require many imported raw materials, few local linkages

Functional VS Selective Industrial policies

- Functional industrial policies aimed to improve markets by effecting function across ALL or MANY industries
- Selective industrial policies target particular industries and aimed to produce a different profile of industries compared with market situation
- SIP must be selective to avoid ISI and EOI failures

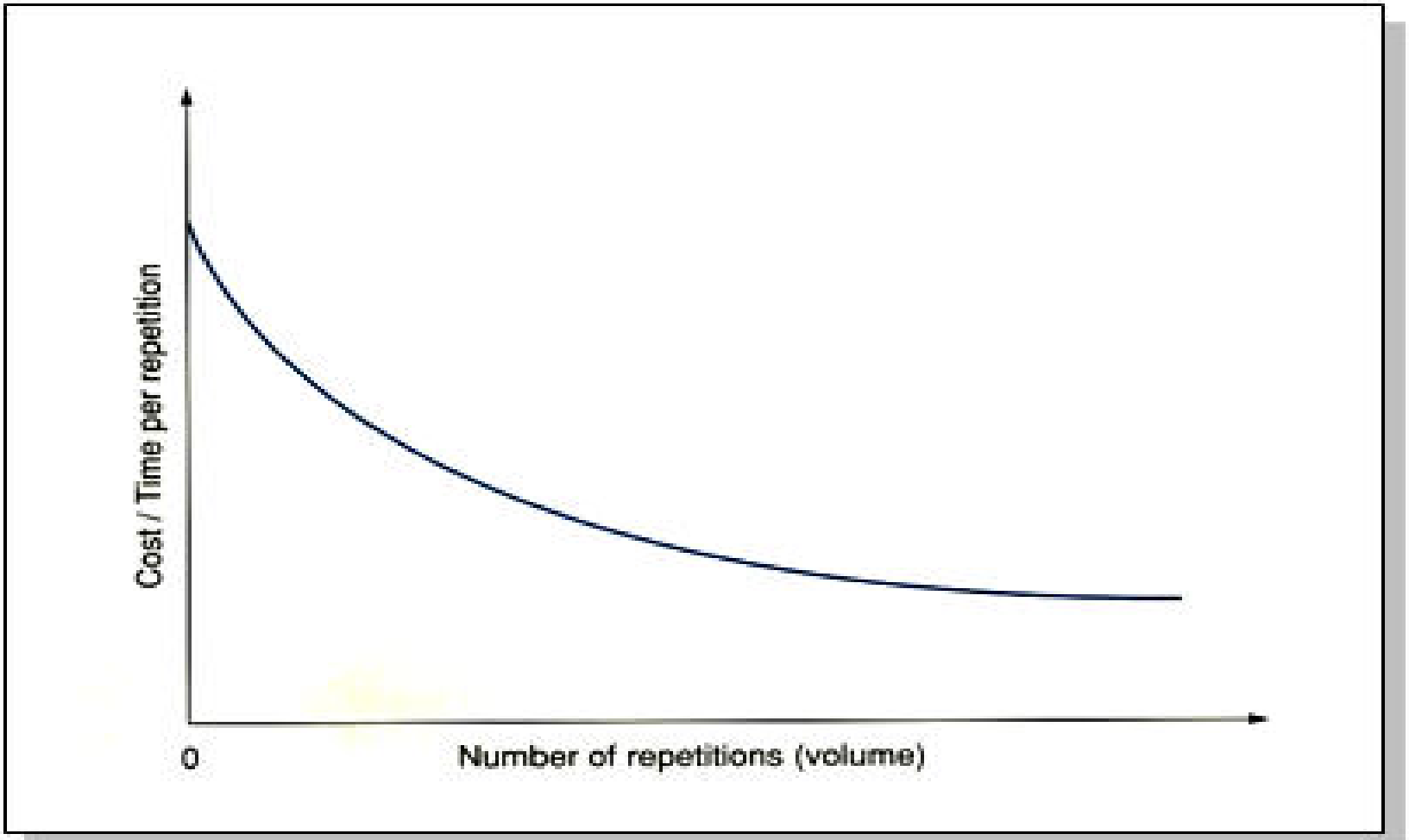
Conclusion

- “The optimal content and mode of industrial policy intervention changes with the initial national conditions and with the stage of development or phase of industrialization. It also varies with sectoral characteristics, local capabilities and international conditions.”

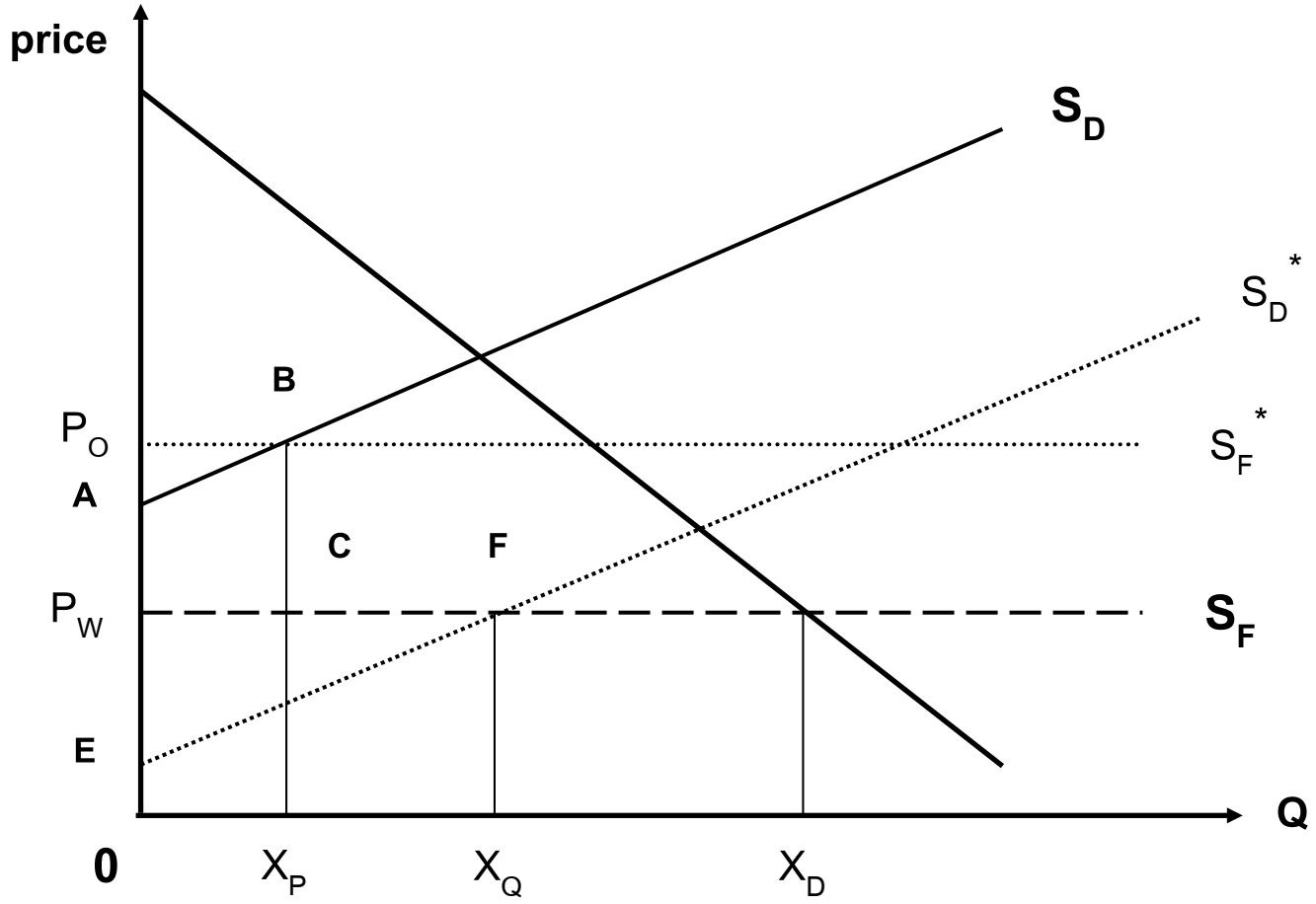
WHY Strategic Industrial Policy?: 1st rationale

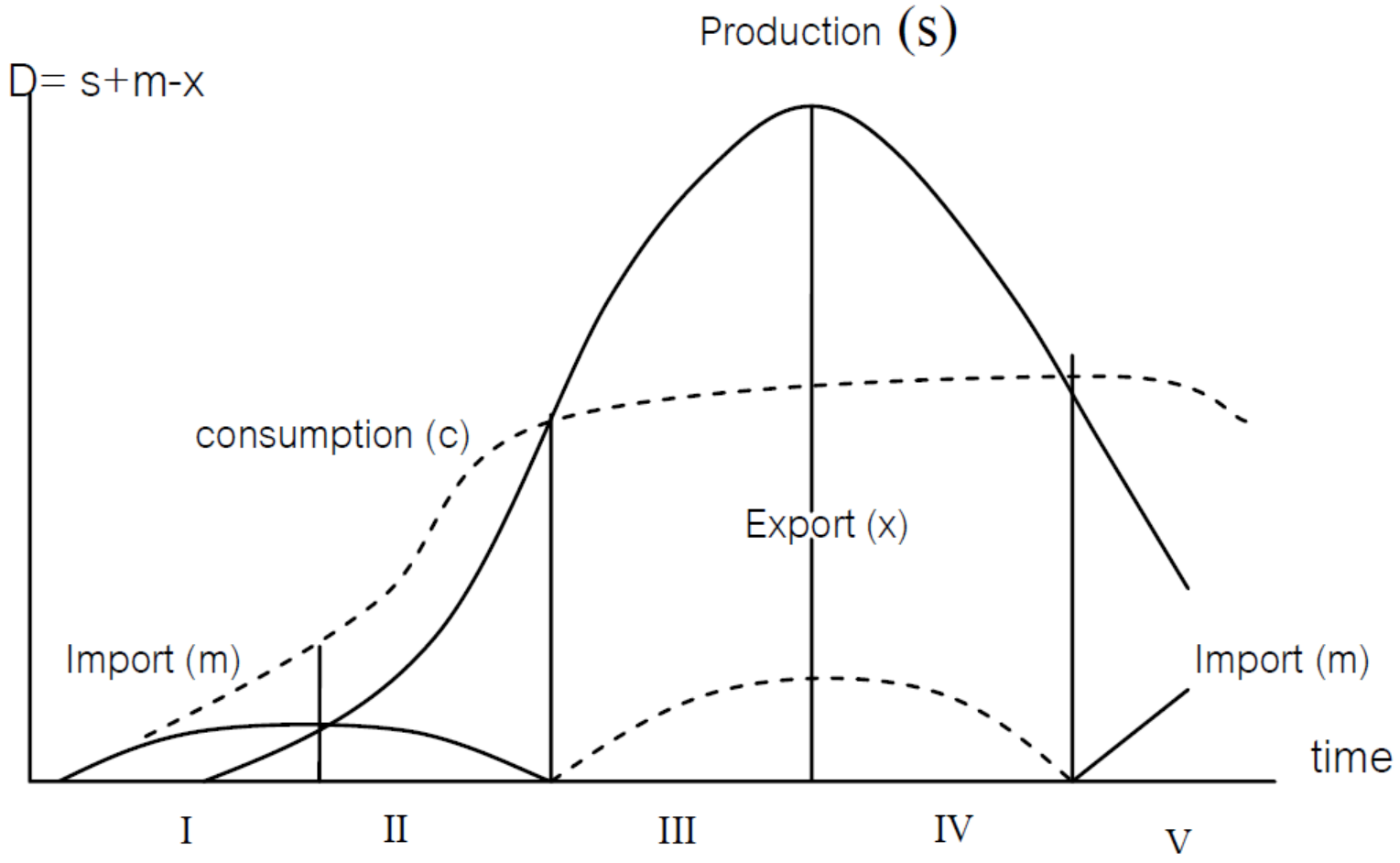
- Market failure
  - Non-efficient allocation of resources
  - Imperfect competition
  - Externalities
  - Insufficient information

Learning Curves Effect



Infant Industry




Production (s)
D= s+m-x
consumption (c)
Export (x)
Import (m)
Import (m)
time
I
II
III
IV
V

The second rationale

- Micro-issues(Firm level)
  - Comparative advantages
  - Learning and technology
  - Public support
- Learning process
  - Level of information and skills
  - Organizational and managerial routines

The second rationale

- Strategic industrial approach

  Innovation

  - New Products
  - New processes
  - New business models
  - Acquired skills, knowledge and experience through many channels
    - Repair and maintenance equipment
    - Trial and error experimentation
    - Reverse engineering
    - Human resource formation

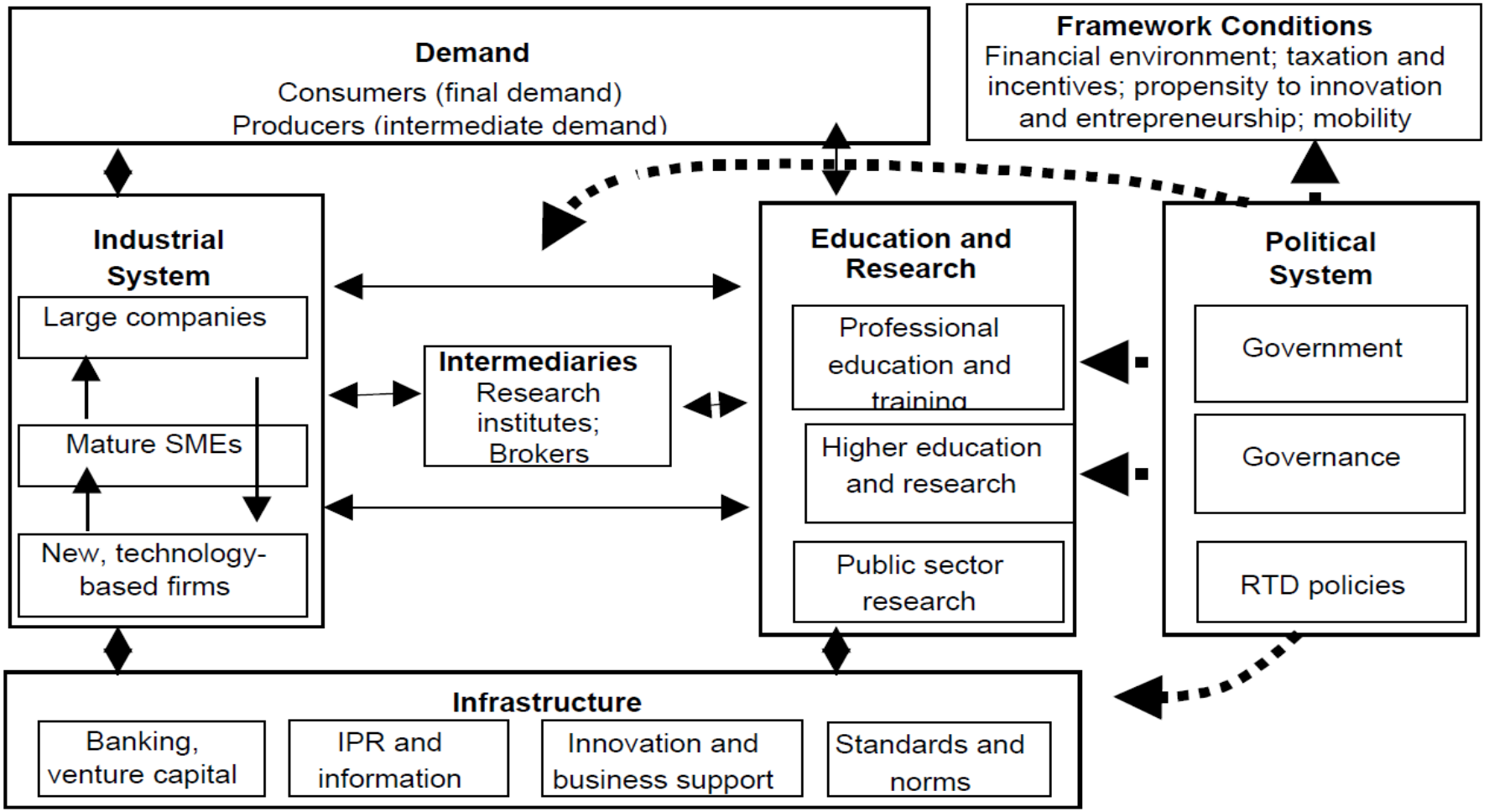
The second rationale

- Strategic industrial approach
  - Acquired skills, knowledge and experience through many channels
    - Transfer of knowledge and skills from long-term suppliers of machinery
    - Intermediate-goods producers
    - Foreign licensers
    - Customers
    - Consultants
    - Private contract facilities
  - For SI perspective one cannot specify an optimal system of innovation. The innovation process is evolutionary and path dependent over time, thus market failure becomes irrelevant
  - Occur of systemic problems

The second rationale

- Systemic problems
  - Capability problems
  - Lock-in problems
  - Institutional problems
  - Network problems
  - Transition problems
  - Infrastructure problems
- Systemic problem
  - SI-based policies cannot be neutral
  - So public intervention is need, well-timed and well-coordinated policy deployment promoting innovation and technology diffusion processes in business sector
- SI approach
  - The natures of innovation systems in developing countries differ from advanced capitalist countries.
  - Foreign companies as investors or buyers play more prominent role in developing countries

National Innovation System



HOW of strategic industrial policy?

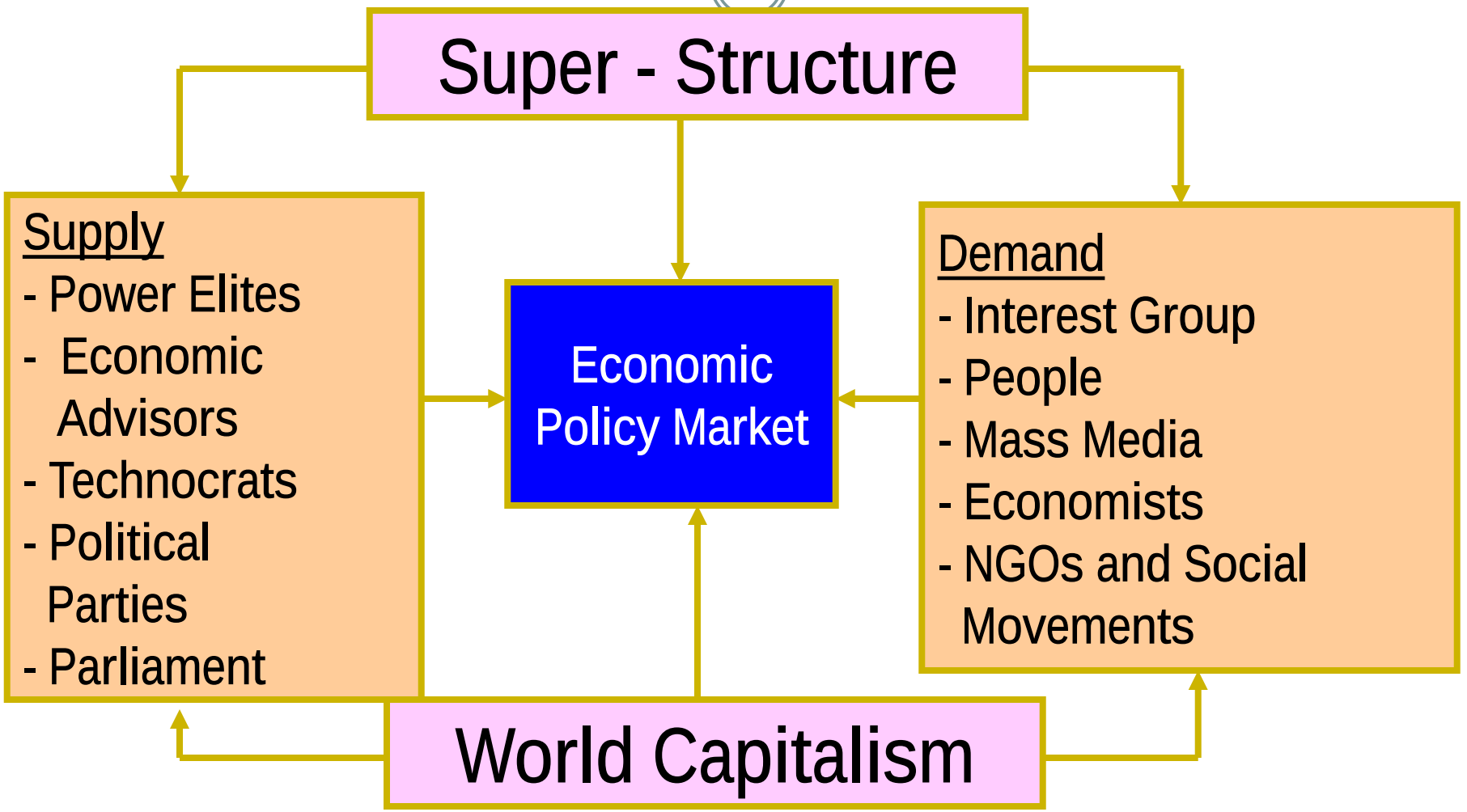
→ the policy process to accomplish the What such as…

- How are countries to choose the correct strategy of dynamic transformation?
- How are countries to decide on the relevant specific and complex public input?
- How are countries to balance central guidance with decentralized policy negotiation and implementation?

How to do industrial policy can be divided into:

1. Institutional design
2. Institutional capacity
3. Politics

Process of Economic Policy Formulation



How to do industrial policy

- The issue of institutional design is about whether there exist an essential institutional configuration that is optimal in all cases
- As now developed countries have followed alternative paths to growth and developed by using a variety of different institutional forms, we should expect developing counties to follow a variety of growth trajectories
- Operate through different set of institutional arrangements and improve the institutional quality as they move more advanced stages of development

How to do industrial policy

- The main point about how of SIP is not the details of the institutional design but the institutional capacity to discover and remedy the strategic failures and systemic problems
- The experimental and uncertain nature of industrial policies that can be left to a small cadre of elite technocrats to work out
- SIP rely on the flow of accurate, reliable relevant and timely information, consultation and credible commitments and reciprocity are needed
- Consultation between the public and private sector, a credible but conditional commitment constitutes an important part of a broader institutional capacity which can be graduated according to 3 sets of capacities: consultation, credible commitments and monitoring.

How to do industrial policy

- Beside assessing the content of strategic intervention, there is also a need for assessing the policy context of such intervention, not least the type and capacity of the state involved.
- So, SIP is about...

  - setting priorities

  - favoring some activities rather than other activities

  - forming public-private sector growth coalitions

How to do industrial policy

- A politics perspective is also needed to explain the origin of developmental policies and institutions
- Officeholders would tend to...

  - look for short-term strategies with a quick political return

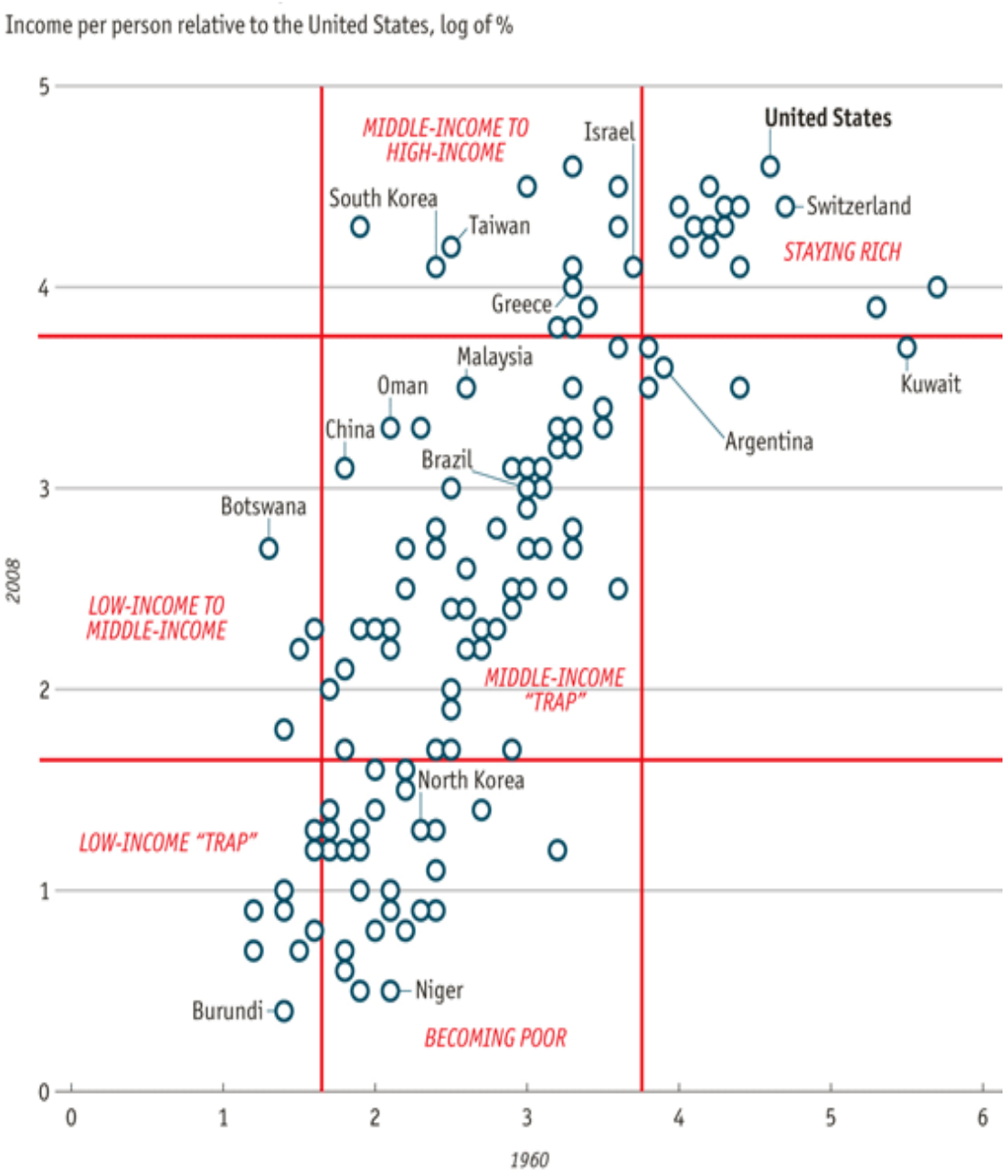
  - support 'easy' development strategies

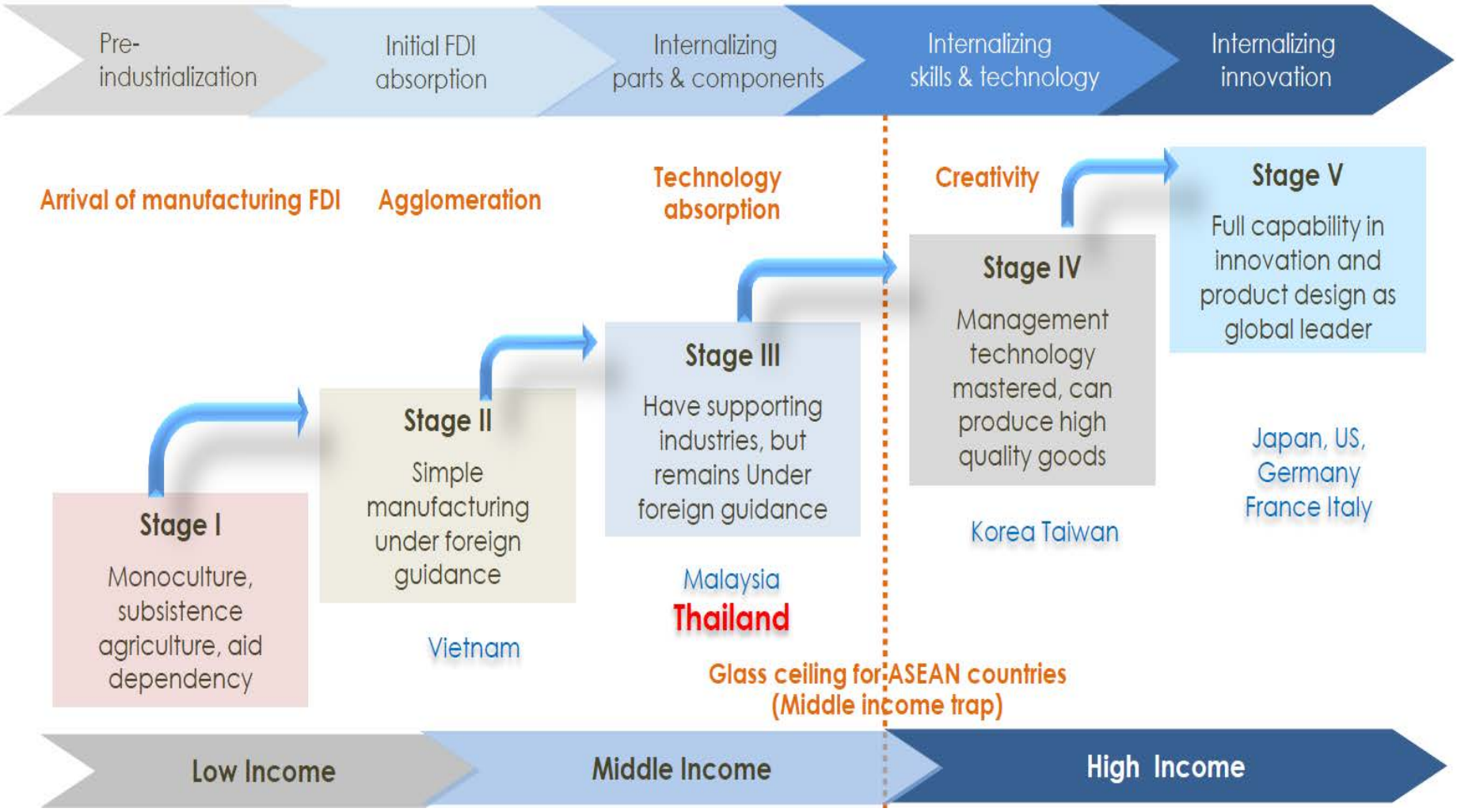
- The political elite demonstrated the will for long-term development strategies that supported growth-enhancement strategies based on *diversification, deepening, and upgrading.*

Andrew MacIntyre argued that

- *- concentration and dispersal of political power in political institutions constitute a problem*
- *- highly centralized forms of political control improve decisiveness and make it possible for leaders to adapt quickly to changing circumstances*

World Bank acknowledges that several Asian countries are in a ‘middle income trap’ where they can compete neither on low wages nor on technology. In order to climb onwards to higher income level, the policy and institutional changes needed are more complex and more challenging technically, politically and socially.





Source: Ohno (2009)

Conclusion

- The nature of political institutions is rooted in the underlying political process and the coalitional base of the state elite
- The ability of states is how to prevent political exchange relations between political leaders and business people from developing into types of corruption that skew resource allocation from productive and competitive to unproductive and uncompetitive entities.
- The institutional foundation and the politics of the business side of state-business collaboration still appear to be analytically underdeveloped.

9 Design principles concerning what to do and how to do strategic industrial policy

1. SIP must be seen as part of an over all productive development strategy or a national investment strategy that increases the surplus that can be invested
2. SIP is made up of policies that support one or all of the following processes: sectoral diversification, industrial deepening and industrial upgrading.
3. SIP emphasis on technology, collaboration, and competition
4. SIP is not caught up in and does not accept the classical juxtaposition of export-led and import substitution industrialization strategies.

9 Design principles concerning what to do and how to do strategic industrial policy

5. Strategic integration of the national economy integration of the national economy, rather than de-linking or across-the-board opening.
6. SIP are intrinsically selective and anticipatory
7. Strategic industrial policy-making is compatible with institutional pluralism and policy variation.
8. SIP is transaction-intensive, experimental and highly uncertain, and therefore requires more institutional capacity than macroeconomic policy
9. The actual functioning of the bureaucracy is strongly influence by the nature of politics

(2)
Can We Go Beyond an Unproductive Confrontation?

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Main Ideas

1. Explores both sides of the industrial policy debate, revealing its successes and failures
2. Examines many of the key issues in the debate, including
   (1) whether targeting particular industries is a desirable industrial policy,
   (2) whether the state can ever beat the market,
   (3) implementation issues,
   (4) performance indicators, emphasizing the importance of exports,
   (5) the need to combine free trade, export promotion, and infant industry protection.
3. Discusses the evolution and current changes in global rules of trade and investment.

The Industrial Policy Debate:
Conceptual Issues and Neglected Facts

- "Industrial policy," the majority of us do not mean any policy that affects industry, but a particular type of policy that affects industries.
- Selective industrial policy or targeting— a policy that deliberately favors particular industries over others, against market signals, usually to enhance efficiency and promote productivity growth.
- The modern debate on industrial policy started in the late 1970s, with the rise of Japan. Japan was the first country used the term "industrial policy" (*sangyo seisaku) to mean selective industrial policy*.
- By the late 1980s, it came to be widely accepted that strong industrial policy was also practiced in Korea; Taiwan, China; and (in a very different way) Singapore; which had until then been thought to be free trade, free market economies.
- In the early days of the debate on industrial policy in East Asia, some denied its very existence.

East Asian Industrial Policy I

- coordination of complementary investments (Big Push)
- coordination of competing investments through entry regulation, “investment cartels”, and (in declining industries) negotiated capacity cuts
- policies to ensure scale economies (e.g., licensing conditional upon production scale, emphasis on the infant industries starting to export from early on, state-mediated mergers and acquisitions)
- regulation on technology imports (e.g., screening for overly obsolete technologies, cap on technology licensing royalties)

East Asian Industrial Policy II

- regulation on foreign direct investment (e.g., entry and ownership restrictions, performance requirements on local contents technology transfer, export)
- mandatory worker training (for firms above a certain size)
- the state acting as a venture capitalist
- export promotion (e.g., export subsidies, export loan guarantees, marketing help from the state trading agency)
- government rationing of foreign exchanges, with top priority going to capital goods imports (especially for export industries)

East Asian Industrial Policy III

- The widespread use of industrial policy in East Asia does not mean that it was the cause of the 'miracle'.
- It is possible that these countries could have grown even faster, had they not used industrial policy.
  - It may be that industrial policy is bad for growth but that there were country-specific "countervailing forces" that cancelled out the harmful effects of market-distorting industrial policy.
- • However, the counterfactual is implausible (there are counterfctuals and there are counterfactuals)
  - No country has ever grown at higher rate than what the East Asian countries managed during the 'miracle' years, industrial policy or not.
- No convincing 'countervailing forces' story (culture, Japanese colonialism, Cold War politics, etc.)

Industrial Policy beyond East Asia I

- Successful industrial policy experiences in the late 20th century are not confined to East Asia

  – national industrial policies in France, Finland, Norway, and Austria;

  – regional industrial policies in Italy and Germany;

  – industrial policy under another name in the US through government R&D funding

    • between the 1950s and the 1980s, the US federal government financed anywhere between 47% and 65% of national R&D spending, as against around 20% in Japan and Korea and around 30% in Europe).

Industrial Policy beyond East Asia II

- In the 19th and the early 20th centuries, all of today's rich countries, except for the Netherlands pre-WWI Switzerland, practised protectionism and other forms of industrial policy (subsidies, state ownership, regulation on FDI).

  – Interestingly, Britain and the US – the supposed homes of free trade – had the world's highest levels of tariff protection during their respective catch-up periods.

Table 1. Average Tariff Rates on Manufactured Products for Selected Developed Countries in Their Early Stages of Development
(weighted average; in percentages of value)[1]

	1820[2]	1875[2]	1913	1925	1931	1950
Austria[3]	R	15-20	18	16	24	18
Belgium[4]	6-8	9-10	9	15	14	11
Canada[5]	5	15	n.a.	23	28	17
Denmark	25-35	15-20	14	10	n.a.	3
France	R	12-15	20	21	30	18
Germany[6]	8-12	4-6	13	20	21	26
Italy	n.a.	8-10	18	22	46	25
Japan[7]	R	5	30	n.a.	n.a.	n.a.
Netherlands[4]	6-8	3-5	4	6	n.a.	11
Russia	R	15-20	84	R	R	R
Spain	R	15-20	41	41	63	n.a.
Sweden	R	3-5	20	16	21	9
Switzerland	8-12	4-6	9	14	19	n.a.
United Kingdom	45-55	0	0	5	n.a.	23
United States	35-45	40-50	44	37	48	14

Industrial Policy beyond East Asia III

- Developing countries had best growth performance when they used industrial policy more extensively

  – They grew much faster during the 'bad old days' of import substitution in the 1960s and the 1970s than during the 'age of imperialism' or during the more recent neo-liberal period, when they used less or no industrial policy.

Annual per capita GDP growth rates	'Bad Old Days' 1960-80 (%)	'Brave New World' 1980-2009 (%)
All Developing Countries	3.0	2.6
Latin America & Caribbean	3.1	1.1
Sub-Saharan Africa	1.6	0.2

TABLE 2. Historical Rates of Economic Growth by Major Regions during and after the Age of Imperialism, 1820–1950

(annual per capita GDP growth rate, %)

Region	1820–70	1870–1913	1913–50	1950–73
Western Europe	0.95	1.32	0.76	4.08
Western offshoots[a]	1.42	1.81	1.55	2.44
Japan	0.19	1.48	0.89	8.05
Asia excluding Japan	–0.11	0.38	–0.02	2.92
Latin America	0.10	1.81	1.42	2.52
Eastern Europe and the former Soviet Union	0.64	1.15	1.50	3.49
Africa	0.12	0.64	1.02	2.07
World	0.53	1.30	0.91	2.93

Source: Maddison 2001, 126, table 3-1a.

Industrial Policy beyond East Asia IV

- If industrial policy was not confined to East Asia in the late-20th century, it becomes even more difficult to downplay its role in East Asia by resorting to some region- and time-specific "countervailing forces".
- Given the history of today's rich countries, a good industrial policy may be a necessary, although not sufficient, condition for economic development.
- If industrial policy is so bad, how is it that in every era, the fastest growing economies happen to be those with a strong industrial policy – Britain during the mid-18th century and mid-19th century, the US, Germany, and Sweden during the late 19th and the early 20th century, East Asia, France, Finland, Norway, and Austria in the late 20th century, and China today.

Lessons from the Debate - Overview

- Does targeting work? ('picking winners')
- Can the state "beat the market"?
- Political economy questions
- Bureaucratic capabilities problem
- Performance measurement
- The role of export
- Changing global environment.
- Further issues (productive capability-building, adjustment costs) – not discussed in this paper, but see the references in the paper

Targeting

- In a world with scarce resources, targeting is inevitable.
- In such a world, every policy choice you make, however "general" it may look, has discriminatory effects that amount to targeting.

  – no such thing as R&D subsidies that supports all industries equally or "general" engineers or infrastructure that benefit every industry.
- Moreover, it is not true that less targeted policies are necessarily better (cf. social policy)
- The debate should not be on whether we should target, but how to target well.

Can State "Beat the Market"?

- The state has frequently beaten the market.

  – e.g., Japanese auto industry, Korea's POSCO, Brazil's EMBRAER
- More importantly, many (although not all) of the "superior" decisions made by the state were made not because the government officials were omniscient or cleverer than businessmen but because they could look at things from a systemic and long-term, rather than sectional and short-term, point of view.
- Therefore, instead of debating whether the state can beat the market, we should be debating how to improve the quality of state decisions.

Political Economy Questions I

- Successful industrial policy requires right "political" conditions
  - – the commitment of the leadership to economic development, the coherence of the state machinery, and the ability of the state to discipline the recipients of its supports.
- When considering the political realities of developing countries, it seems difficult to imagine how industrial policy, even if it were "correct", can be implemented well in a developing country.
- But we should not let the best be the enemy of the good.
- In the real world, successful countries are the ones that have managed to find "good enough" solutions to their political economy problems and went on to implement policies, rather than sitting around bemoaning the imperfect nature of their political system.

Political Economy Questions II

- In order to take the debate forward, we have to improve our understanding of issues like:

  (i) how effective political visions can be formed and deployed to inspire various individuals and groups to act in a concerted manner

  (ii) how to build nations and communities out of groups that may have very long history of hostility and mistrust

  (iii) how to work out social pacts and build lasting collations behind them

  (iv) how to partially accept but improve the customs and organisational routines in the bureaucracy

  (v) how to minimise socially harmful lobbying and bribing while maximising the flows of information between the states and the private sector

Bureaucratic Capabilities I

- No basis for the assumption that industrial policy is more difficult than other policies.
- Industrial policy does not require sophisticated knowledge of economics, as often believed.
  - – The industrial policy-makers of East Asia were not economists (lawyers in Japan and Korea, engineers in Taiwan and China today), and what little economics they knew was usually the "wrong" kind – Marx, the German Historical School, Schumpeter.
- • High-quality bureaucracies are not as impossible to build as people think.
  - – France, Korea and Taiwan in the post-WWII period

Bureaucratic Capabilities II

- There is also “learning-by-doing” in policy.
  - – Without trying out “difficult” policies, capabilities cannot be improved.
- The fact that something is “difficult” cannot be a reason not to recommend it.
  - – After all, developing countries are routinely told to adopt “best practice” or “global standard” institutions used by the richest countries, when many of them clearly do not have the capabilities to effectively run such institutions.

Performance Measurement

- Performance targets clearly specified and the reporting requirements announced at the outset.
- The targets should be set in consultation with the business community.
- Targets need to be revised along the way, but too much flexibility should be avoided, as government flexibility can be abused by lobbying groups
- Where possible, export performance should be given a high status as a performance measure, as they are far less open to manipulation.
- Policy-makers need to pay more attention to the trends in performance indicators, rather than their absolute levels at any give point of time.

Export-related Policies I

- Economic development is impossible without good export performance.
- But, saying that export is the key to economic development is not to say that developing countries should have free trade.
- Export success requires significant industrial policy even for comparative advantage-conforming industries, as export markets have high fixed costs of entry, which smaller firms and farmers may not be able to bear.

Export-related Policies II

- Direct export subsidies (but banned by the WTO, except for the LDCs).
- State marketing help (JETRO, KOTRA, the Danish agricultural marketing boards in the early 20th Century.
- Risk-sharing through loan guarantees for exporters and insurance for payment defaults.
- Help with meeting quality standards through export product quality control, advice on sanitary and phythosanitary requirements, subsidised extension services.
- Indirect help through legal and financial supports for co-operative arrangements.

Changing Global Environment I

- Changes in global business environment
  - – Increasing importance of FDI
  - – Increasing industrial concentration
- Changes in global rules of trade and investment
  - – WTO
  - – Bilateral trade and investment agreements

Changing Global Environment II

- Importance of FDI has increased, but not as dramatically as is often claimed.
- Industrial policy (e.g., performance requirements) not as important for FDI decision as market factors (size, growth), infrastructure, quality of labour
- Business concentration has increased, but it goes up and down.
- “Chopping up” of value chains can open new opportunities.

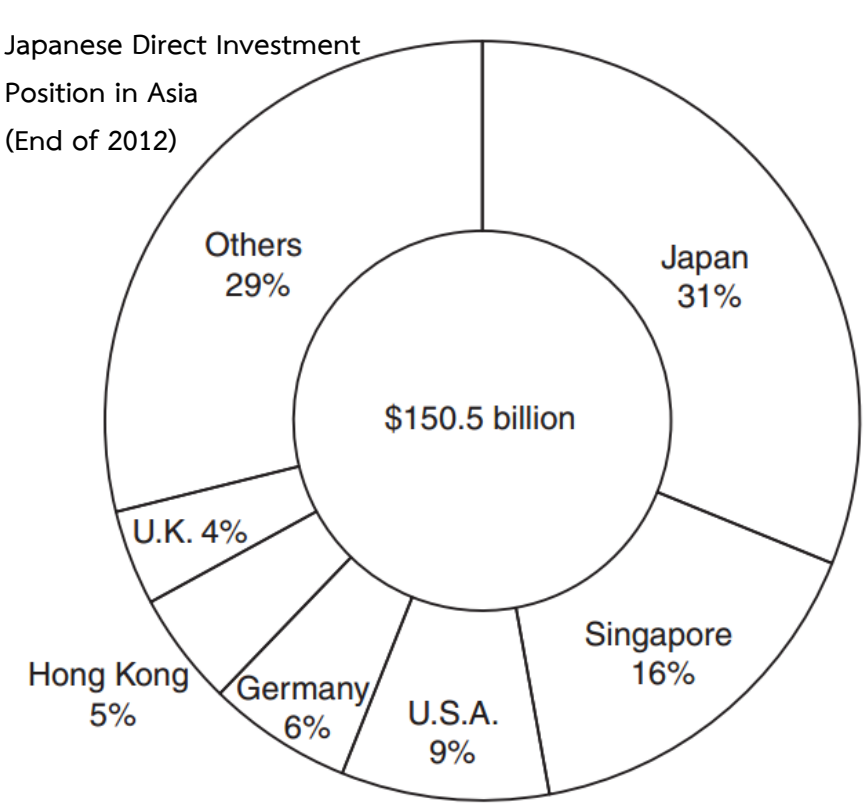
Changing Global Environment III

- WTO rules not as restrictive as believed.
  - – Tariffs allowed
  - – Emergency tariffs (sectoral surge, overall BOP problems)
  - – Subsidies for environment, agriculture, R&D, regional policies, and (for LDCs) export allowed de jure or de facto
  - – TRIPS constraining but not for older technologies
  - – TRIMS constraining but performance requirements for local labour, technology transfer, R&D, etc. allowed.
- Bigger constraints are aid/loan conditionalities and bilateral/regional trade/investment agreements
- All these rules are 'man-made' and can be changed if deemed necessary.

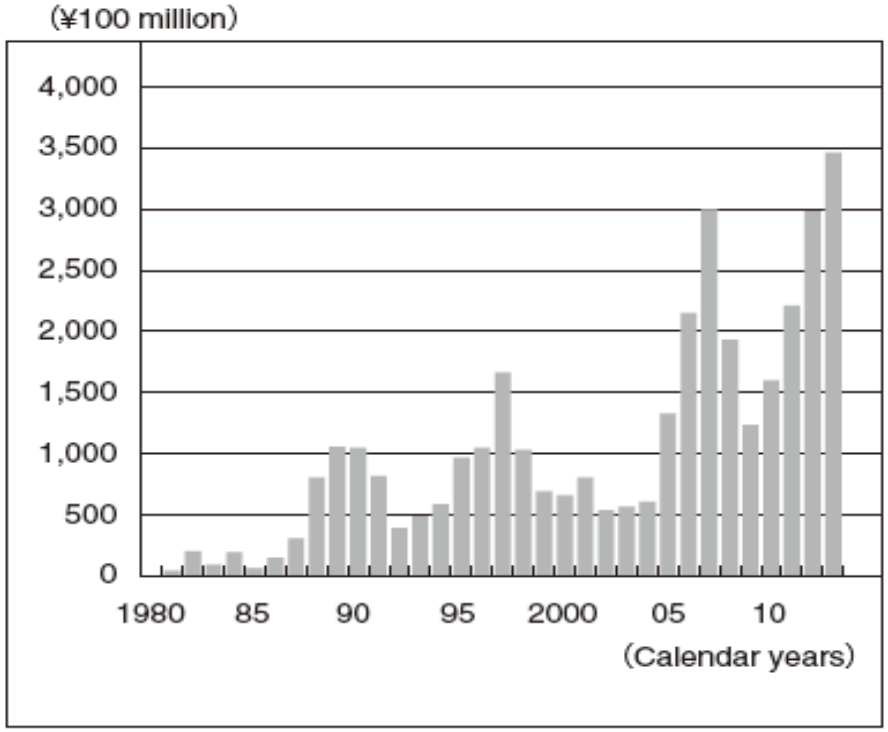
"Futile Debates"?

- Too much focus on "grand" things, like the Big Push, when much of real-life policy has been about "boring" things (e.g., getting the production scale right, export marketing)
- Some theoretical issues that both the proponents and the opponents consider to be critical actually dissolve into thin air, once looked at closely (e.g., targeting).
- Many proponents of industrial policy do not fully appreciate how critical export is for the success of industrial policy, while many opponents do not fully appreciate how export success also requires industrial policy.
- We often let sensible worries (e.g., political economy, bureaucratic capabilities) degenerate into a recommendation for inaction, letting the best become the enemy of the good.
- Real life success stories were often based on "good enough" compromises, rather than perfect solutions.

Foreign Direct Investment & CLMV



Source: Keiichiro Oizumi (2013)

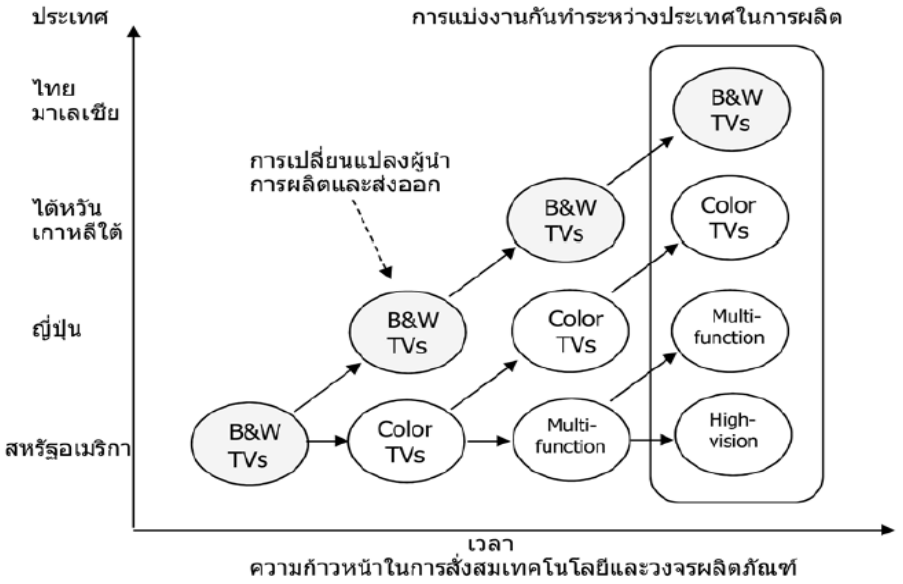


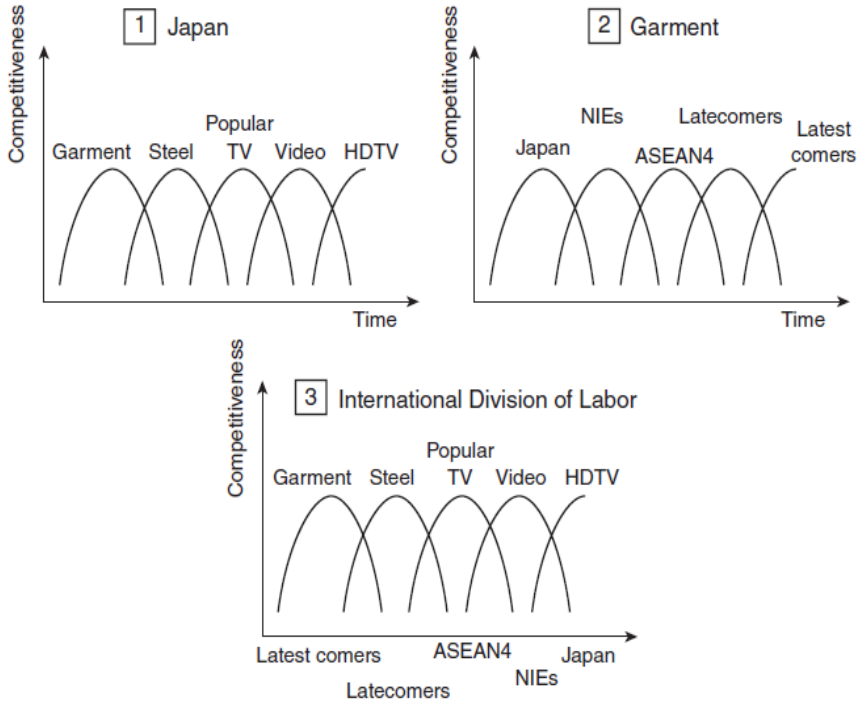
Source: Compiled by JRI using Ministry of Finance and Bank of Japan statistics

Host country determinants
I. Policy framework for FDI • economic, political and social stability • rules regarding entry and operations • standards of treatment of foreign affiliates • policies on functioning and structure of markets (especially competition and M&A policies) • international agreements on FDI • privatization policy • trade policy (tariffs and NTBs) and coherence of FDI and trade policies • tax policy II. Economic determinants III. Business facilitation • investment promotion (including image-building and investment-generating activities and investment-facilitation services) • investment incentives • hassle costs (related to corruption, administrative efficiency, etc.) • social amenities (bilingual schools, quality of life, etc.) • after-investment services

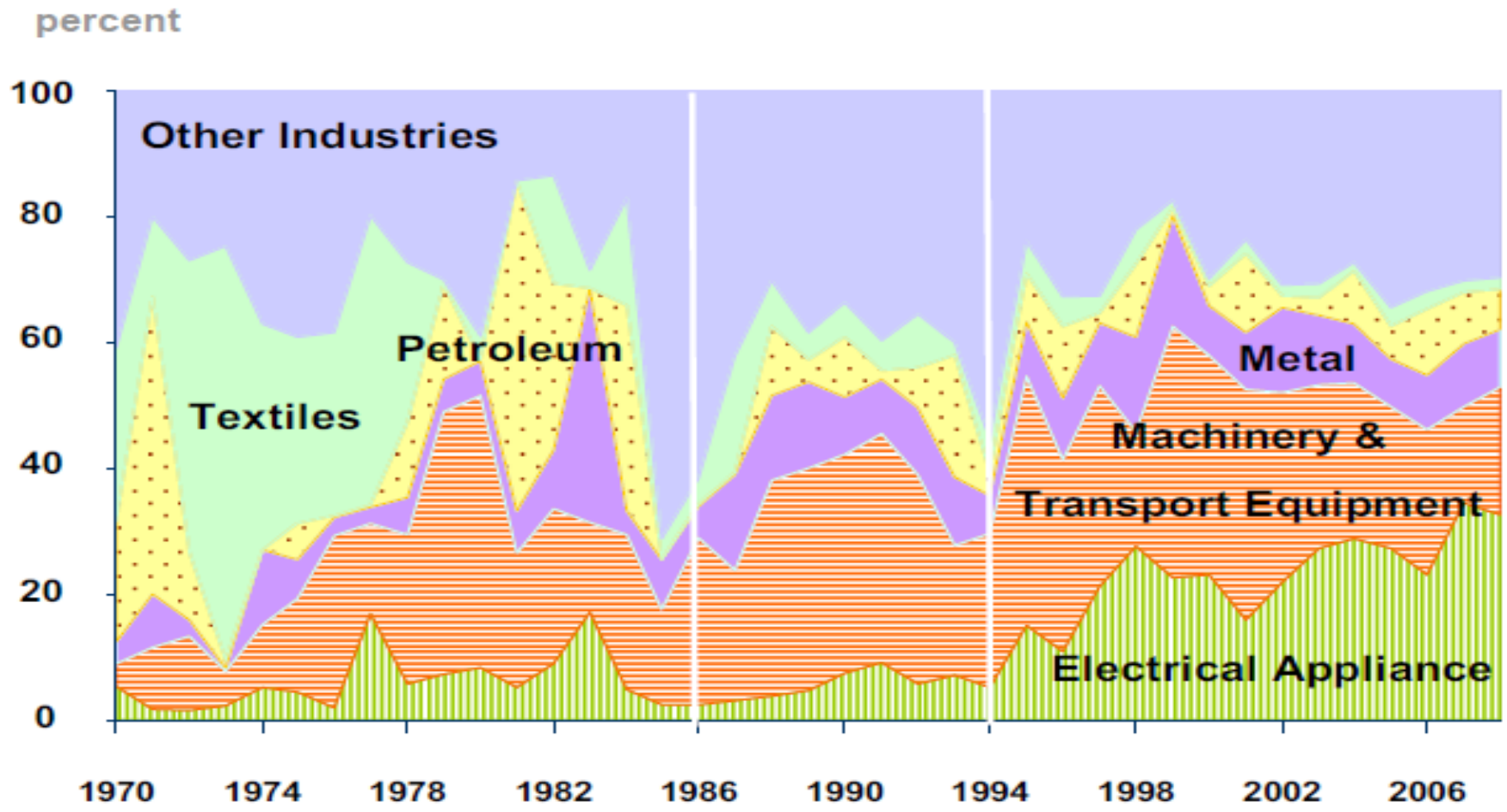
Type of FDI classified by motives of TNCs	Principal economic determinants in host countries
A. Market-seeking	• market size and per capita income • market growth • access to regional and global markets • country-specific consumer preferences • structure of markets
B. Resource/ asset-seeking	• raw materials • low-cost unskilled labour • skilled labour • technological, innovatory and other created assets (e.g. brand names), including as embodied in individuals, firms and clusters • physical infrastructure (ports, roads, power, telecommunication)
C. Efficiency-seeking	• cost of resources and assets listed under B, adjusted for productivity for labour resources • other input costs, e.g. transport and communication costs to/from and within host economy and costs of other intermediate products • membership of a regional integration agreement conducive to the establishment of regional corporate networks

catching-up product life cycle

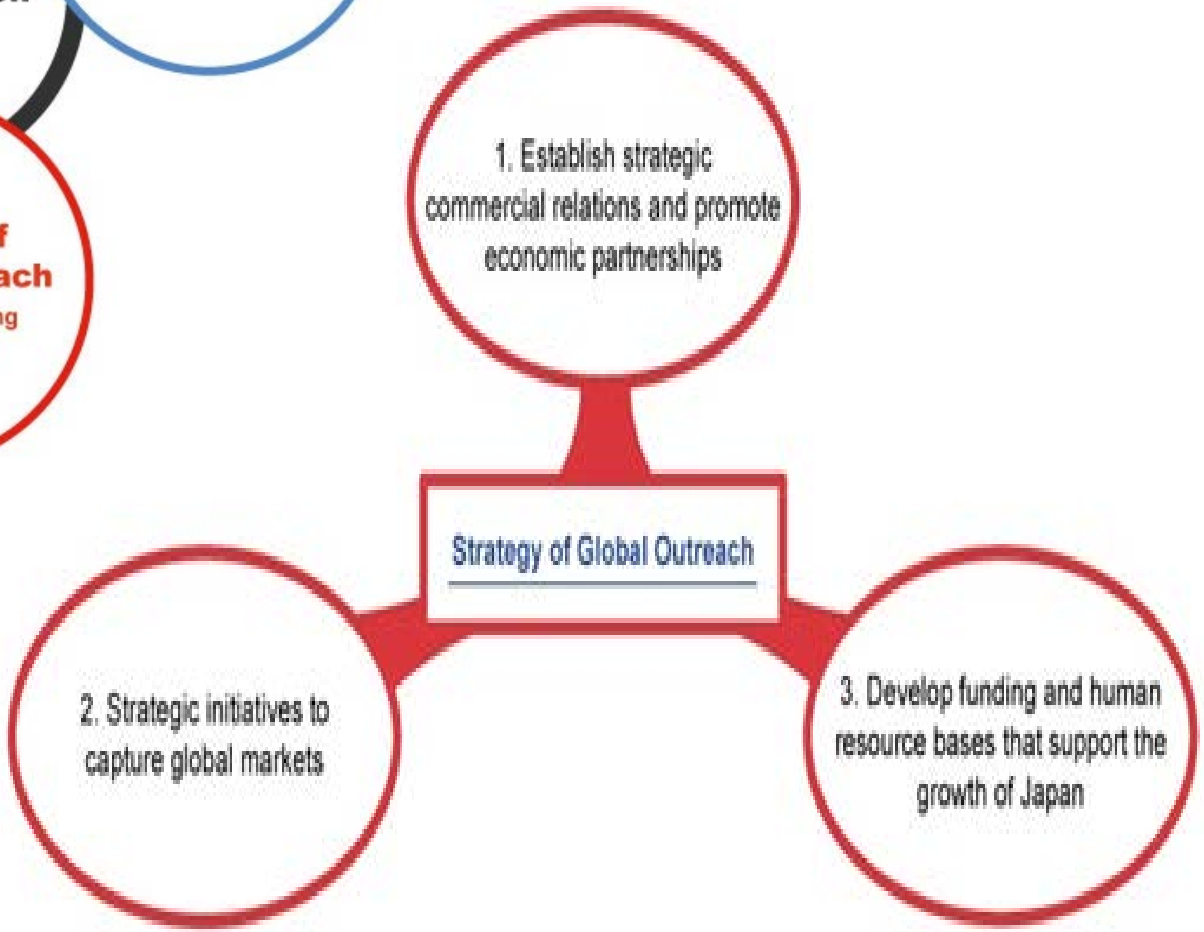


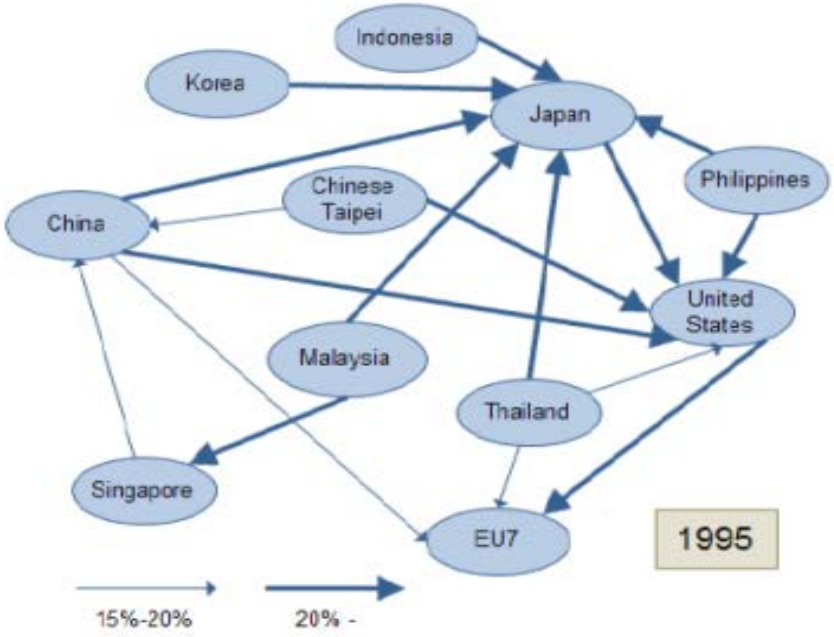


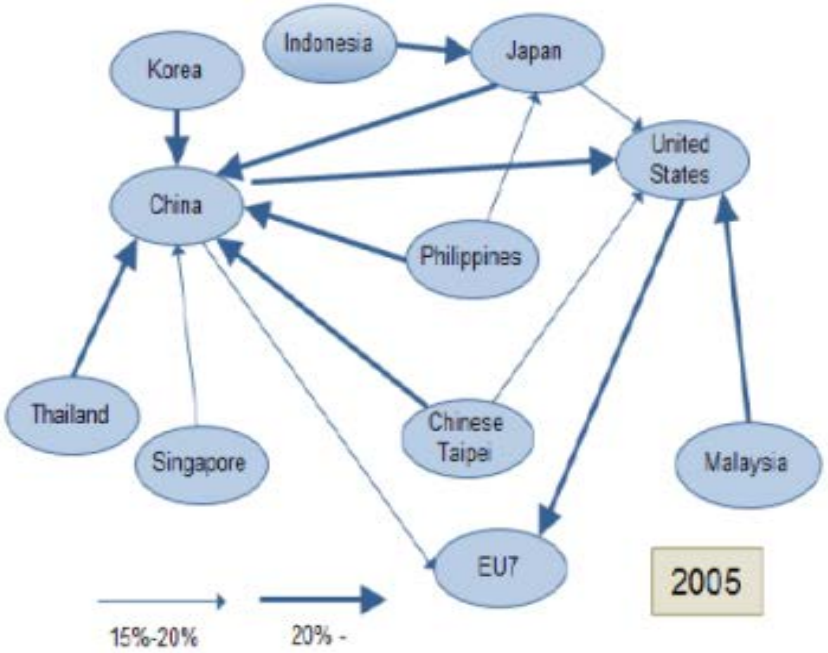
FDI and Thai Economy



Abenomic and ASEAN Economy

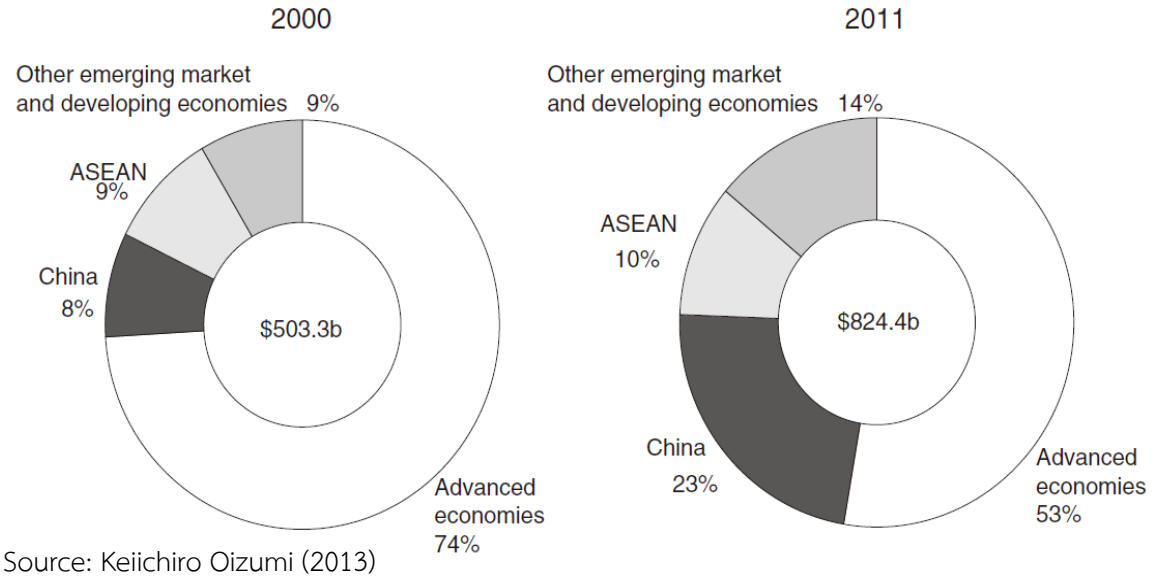




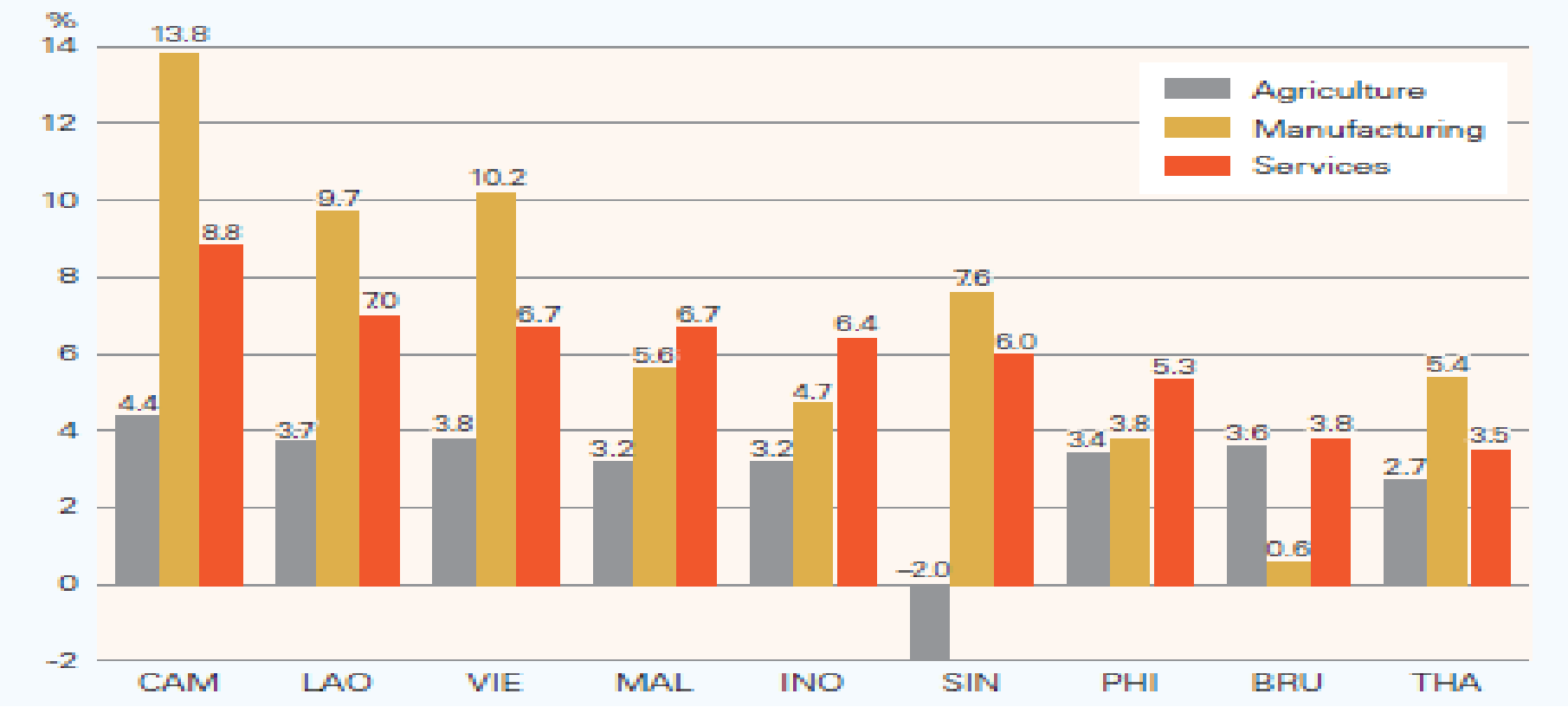


Source : ERIA Policy Brief, No. 2011-01, January 2011. Fragmentation and Changes in the Asian Trade Network

Production Network in ASEAN and China

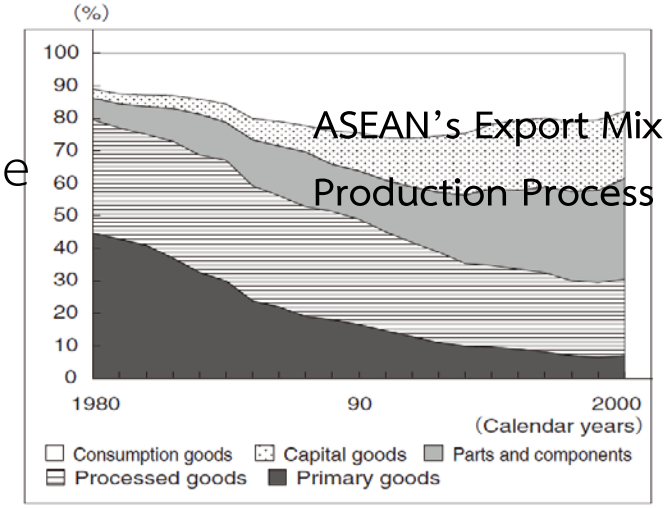


Source: Keiichiro Oizumi (2013)

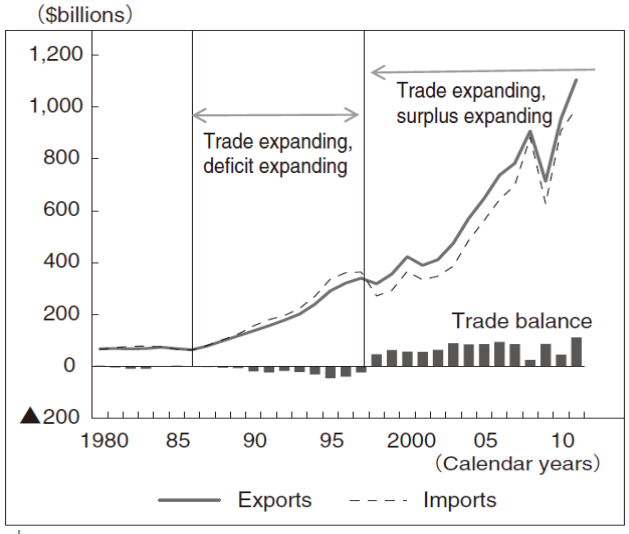


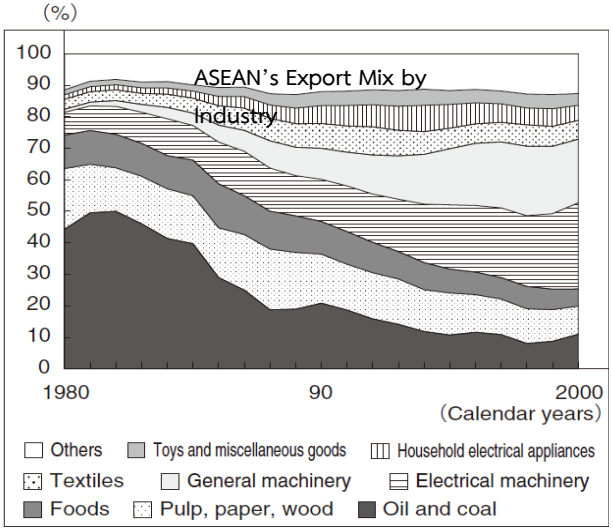
Source: Asian Development Bank Institute (2014) ASEAN 2030: Toward Borderless Economic Community

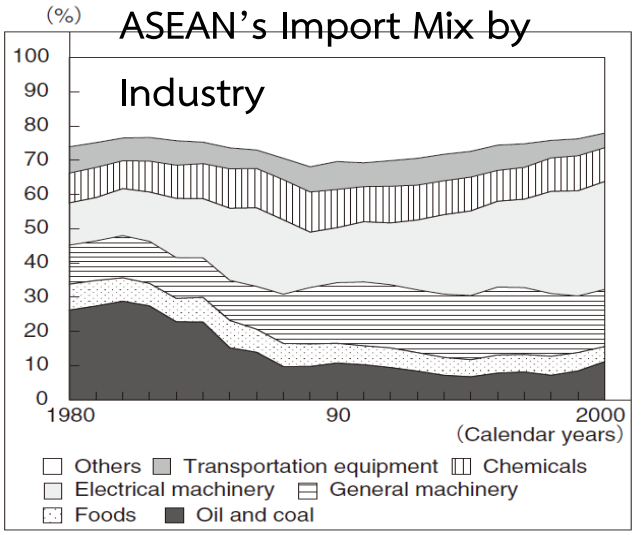
Japanese FDI to ASEAN now become Capital goods and Parts and components



ASEAN's Export Mix by Production Process

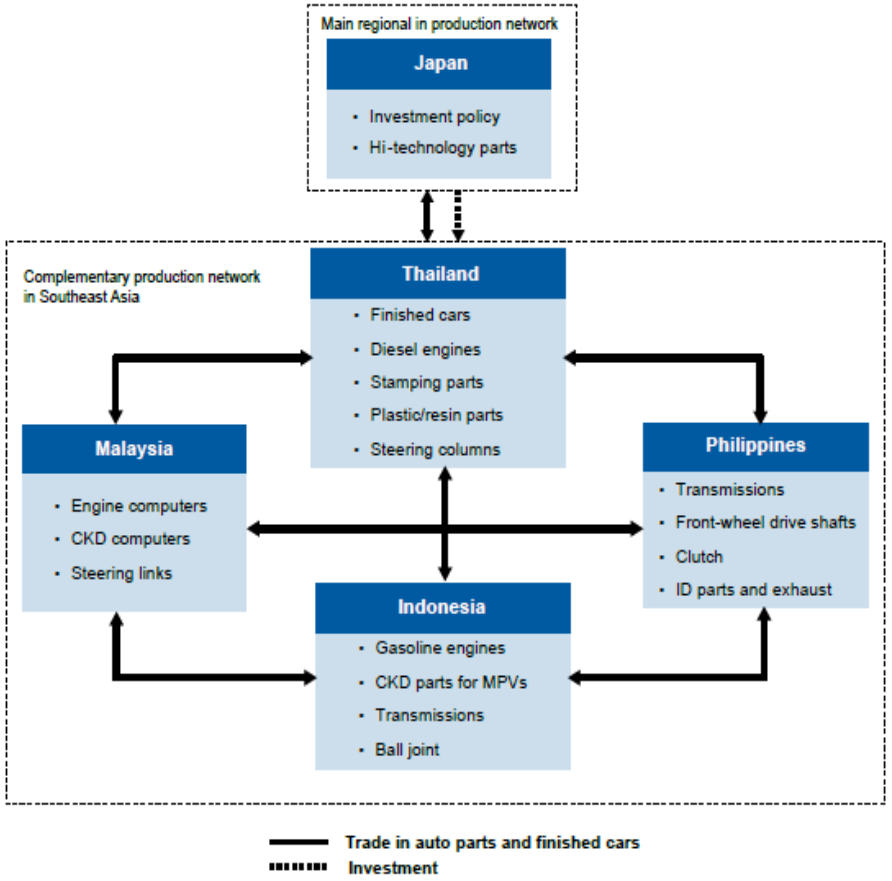


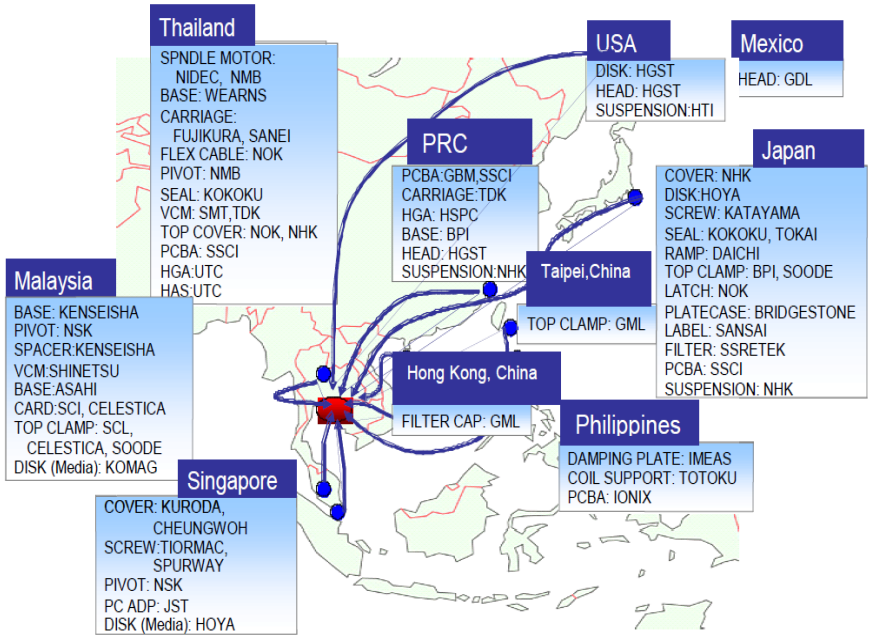




Source: Keiichiro Oizumi (2013)

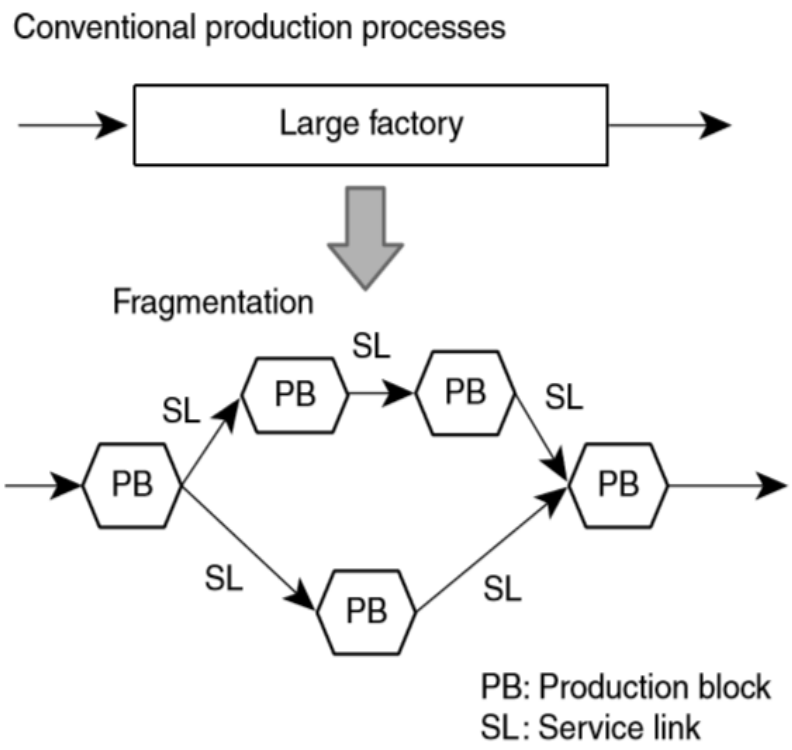
Thailand as a production hub of ASEAN



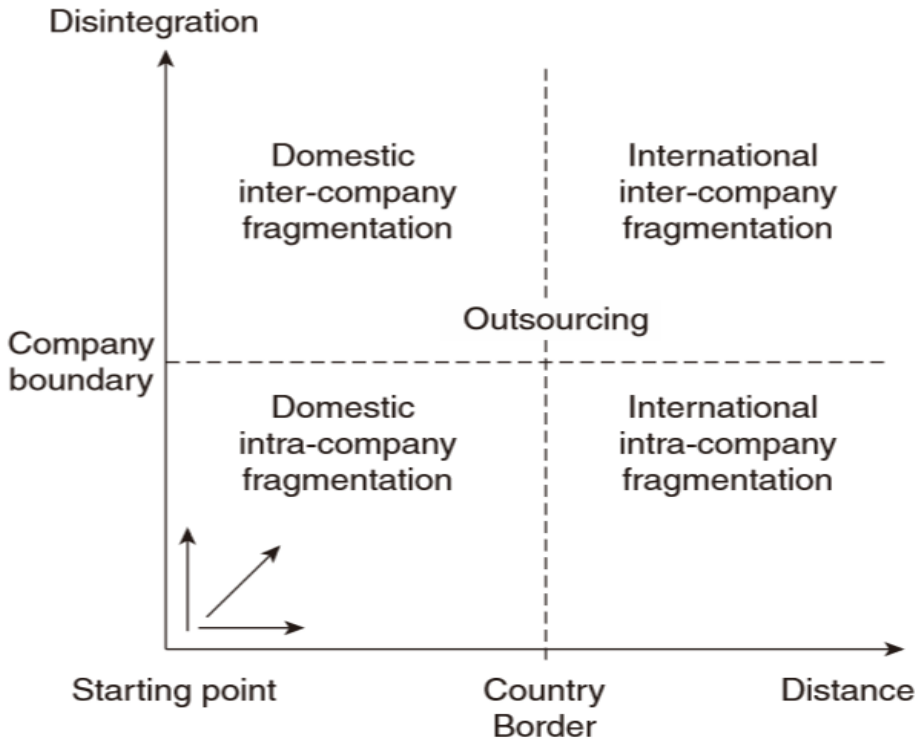


Source: Hiratsuka, Daisuke (2006). Vertical Intra-Regional Production Networks in East Asia: Case of the Hard Disk Drive Industry in East Asia. (Chapter 6.) In East Asia's De Facto Economic Integration, edited by D. Hiratsuka. London: Palgrave Macmillan.

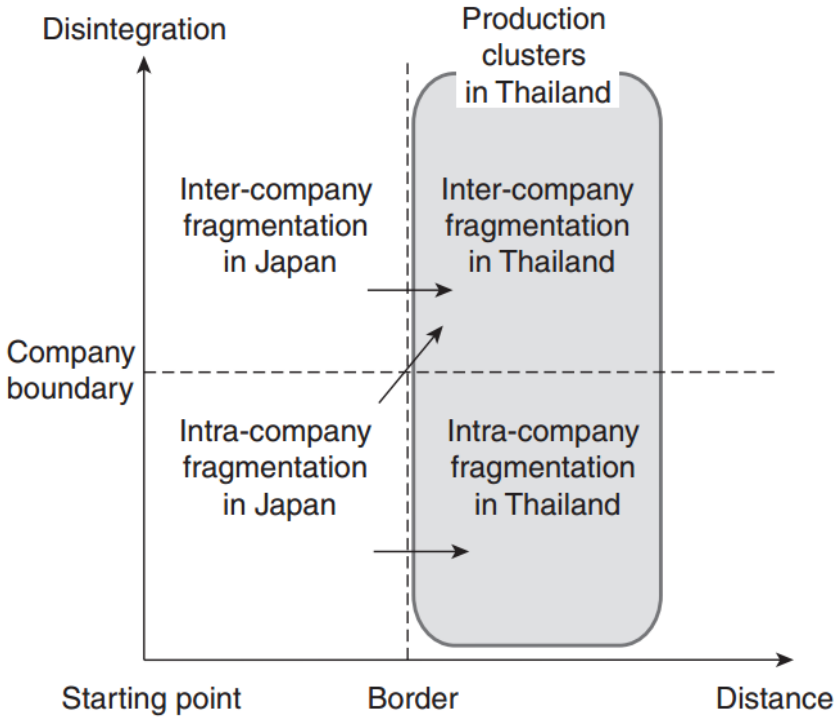
Source: ASEAN Investment Report 2013-2014

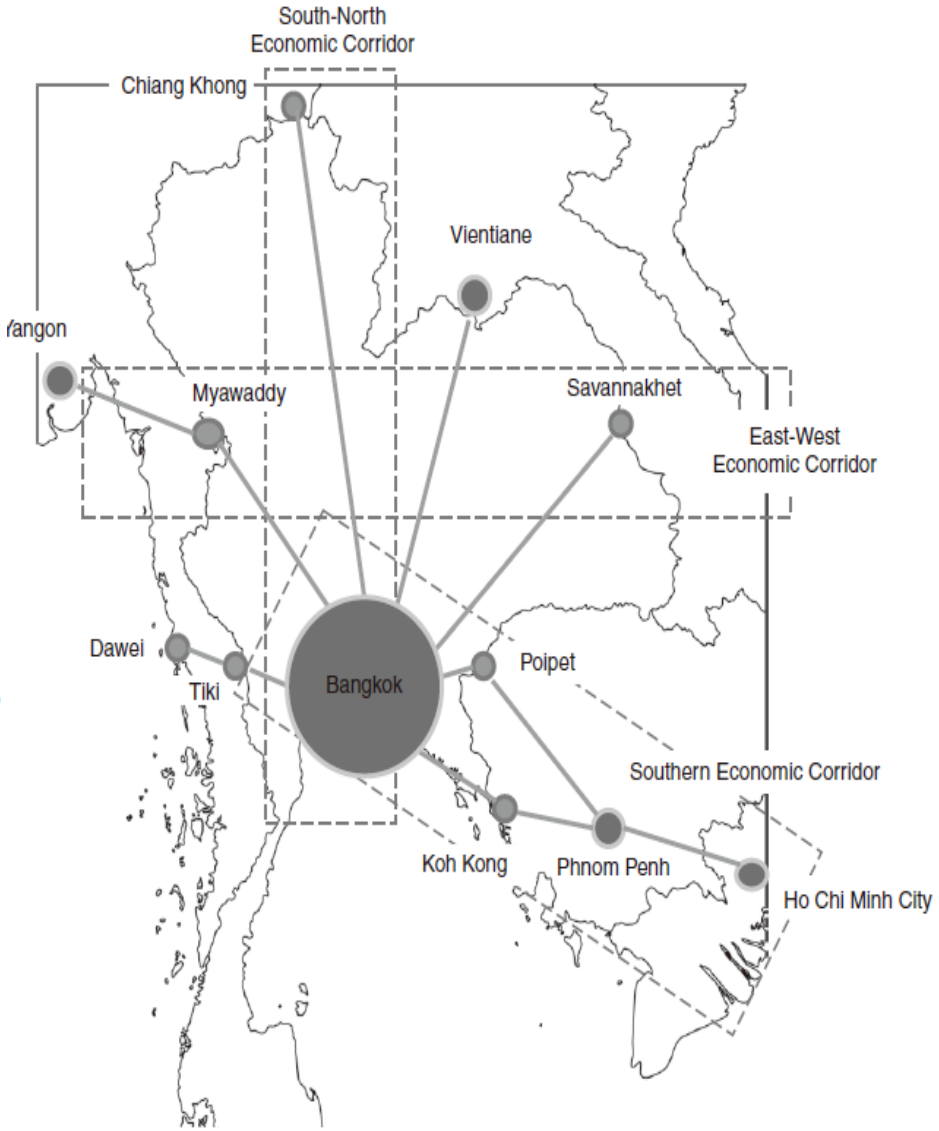


Source: Kimura (2006)



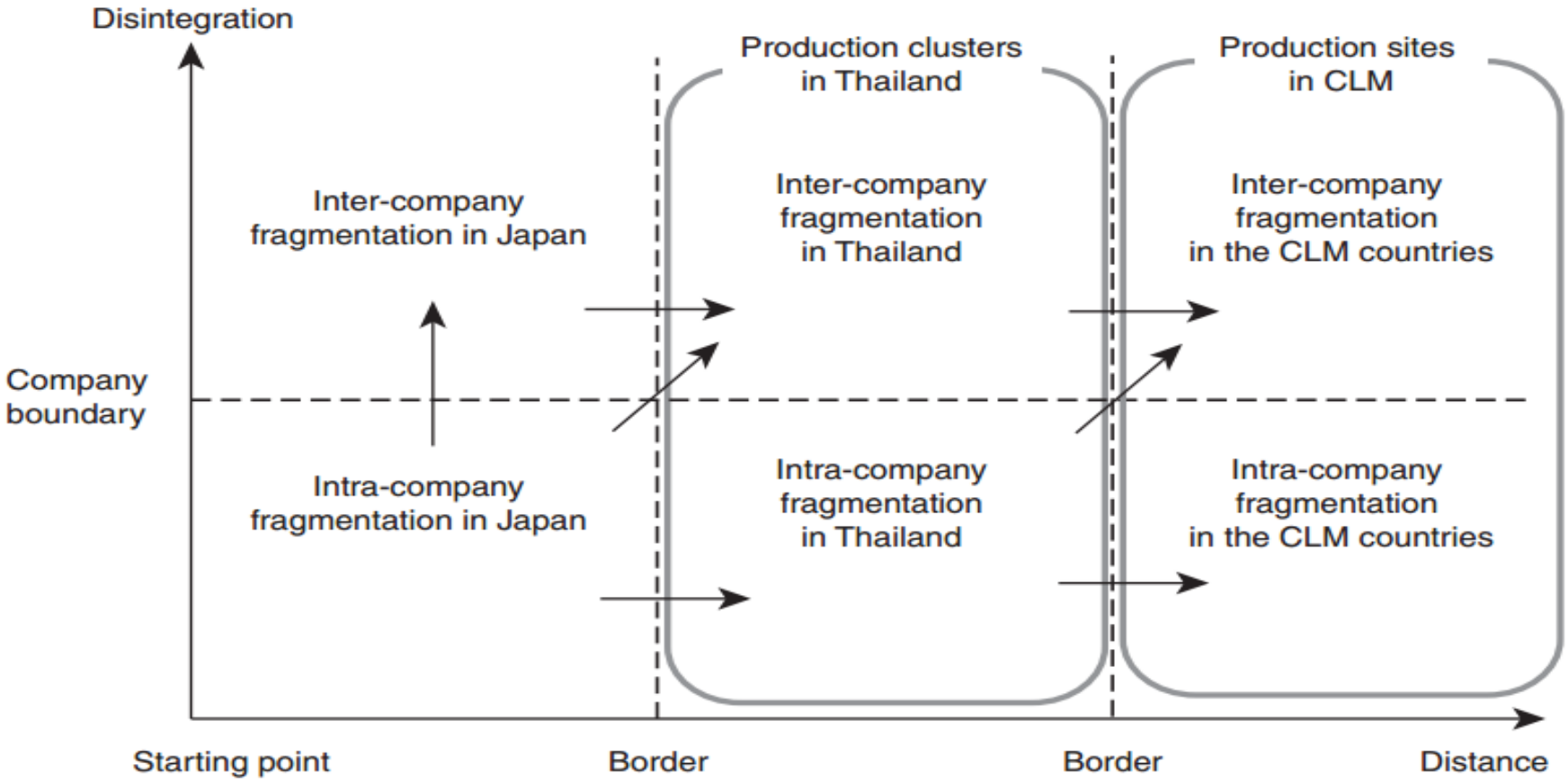
Source: Kimura and Ando [2005]





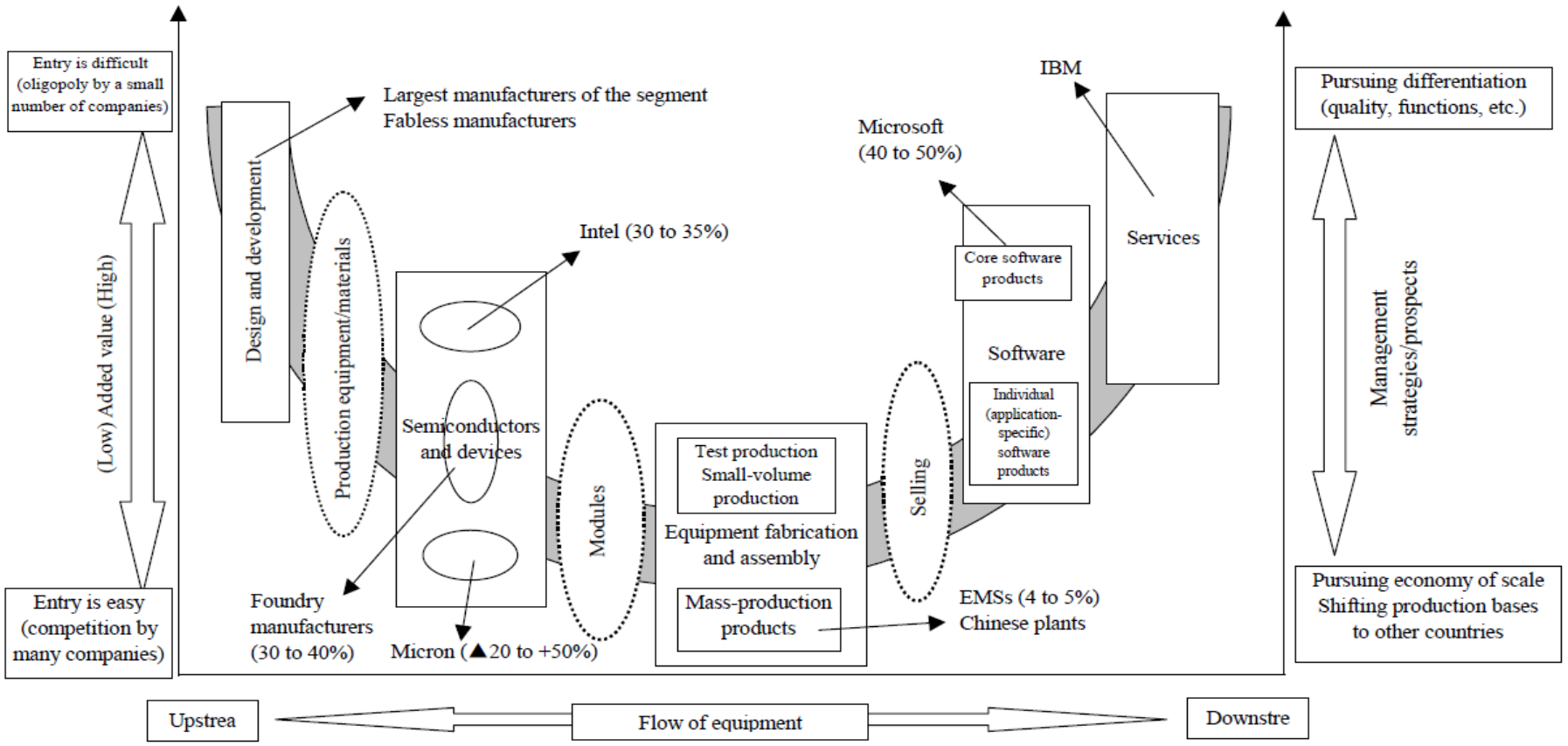
source: Oizumi, Keiichiro (2013).

Thailand plus One



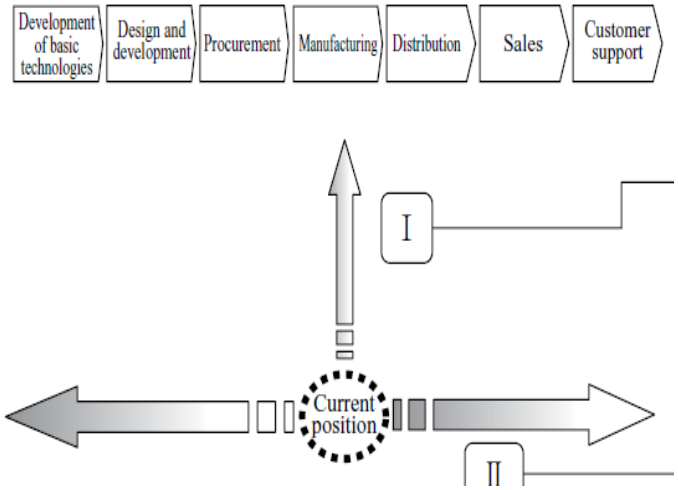
Source: Kimura and Ando (2005)

Modularization and Smiling Curve in Electronics Industries



Source: Development Bank of Japan Research Report November (2002).

Thailand move up the value chain or Die



Advanced functions used to generate added value

Locally based core functions

Composite support functions needed at local development bases

- Joint R&D facilitation functions
- Development support service functions
- Human resource development functions
- Urban and cultural functions to attract human resources
- Support for the establishment and operation of bases
- Reliable basic infrastructure functions
- Site functions—access to customers and major cities

Source: Compiled by JRI