

*“Accelerating Development in the Mekong Region:*

*The Role of Economic Integration”*

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The Implication of FTAs for the Mekong:

How to Participate in International Production/Distribution Networks

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## 1. International production/distribution networks in East Asia

### The formation of networks

International production/distribution networks in East Asia are distinctive at this point in time in the following three aspects: their significance for countries in the region, their extensiveness in covering a large number of countries in the region, and their sophistication in the combination of intra-firm and arm's-length (i.e., inter-firm) transactions. Active foreign direct investment (FDI), development of cross-border production sharing or fragmentation accompanied with massive inter-regional transactions of parts and components, sophisticated disintegration of production activities involving various types of firms with different firm nationalities, and the formation of industrial agglomeration, particularly in machinery industries, have been prime features of the East Asian economy since the 1990s (Kimura (2006)).

### Mechanics of networks

The fragmentation theory started from a seminal work by Jones and Kierzkowski (1990). The traditional international trade theory primarily explains location patterns across industries. However, in the currently observed production/distribution networks, location patterns are extensively determined at the production process level. Fragmentation, i.e., locating fragmented production blocks in different locations, becomes cost-saving when the production cost *per se* drastically reduces and the cost of service links for connecting production blocks is low enough.

The trade and investment pattern of East Asia after the 1990s requires further development of the analytical framework. International production/distribution networks in East Asia include sophisticated combination of intra-firm and arm's-length transactions. Kimura and Ando (2005) claim that the concept of fragmentation must be expended to two dimensions. The horizontal axis denotes geographical distance. From the original position, a production block can be detached and placed in geographical distance. On the other hand, the vertical axis represents the organization (integration and disintegration) of corporate activities. A fragmented production may be conducted by either intra-firm establishments or unrelated firms. A firm's decision on whether to fragment or not depends on cost saving in production *per se* in production blocks and the height of service link cost.

In East Asia, geographical fragmentation and agglomeration go hand in hand. The concentration of fragmented production blocks occurs through the following two channels: first, local minimal points of service link cost tend to attract a large number of fragmented production blocks. Moreover, service link is often accompanied with strong economies of scale. Second, the closer the distance with business partners, the smaller the service link cost in searching potential business partners, consulting detailed specs of products, controlling product quality and delivery timing, solving disputes over contracts, and monitoring business partners. The concentration of production blocks would reduce the service link cost, and the low service link cost would further attract production blocks.

#### Policies for activating globalizing forces

The development of international production/distribution networks has actually been backed up by great transformation of development strategies in ASEAN forerunners and China. While keeping import-substituting strategies for some industries, ASEAN forerunners and China were stepping into aggressive utilization of globalizing forces. To host export-oriented or network-forming industries, governments must enhance location advantages by using not only tariff-related trade policies but also various measures through multiple policy channels. Foreign companies will invest only when the country provides the best (or just next to the best in case of risk hedging purposes) location advantages in the world. Competition over hosting FDI has become harsh among the East Asian countries, among local governments, and among industrial estates.

## 2. Policy implication of the networks for the Mekong Region

#### Possible winners and losers in globalizing forces

Forces of fragmentation and agglomeration may result in uneven developments across countries and regions and generate winners and losers. Geographical concentration of economic activities and income disparity are more likely to occur in the globalization era. The reasons are, first, that capital, human capital, and technology are mostly internationally mobile with FDI so that concentration of FDI on some specific countries/regions is possible. Second, service link is often accompanied with economies of scale so that fragmented production blocks may concentrate on a limited number of

places. Third, once agglomeration is formed, spatial economies of scale may work so that more economic activities would be attracted.

#### Massive trickle-down effects

At the same time, the growth of agglomeration eventually generates congestion effects in the form of wage hikes, labor/human resource shortage, congestion in transport services, and others. Agglomeration yields both positive and negative spatial economies of scale, and some of the economic activities start thinking of moving away from agglomeration. It means that lagged-behind neighboring countries/regions would have a chance to enjoy trickle-down effects from agglomeration. To take advantage of such benefits, however, countries/regions must be attractive enough in service links and production conditions.

#### Required policy packages

A set of conditions so as to utilize globalization waves must be met. Countries such as Indonesia, Vietnam, and other ASEAN latecomers are now at a crucial point for policy reform.

The first task for policymakers is to attract fragmented production blocks of MNEs. In addition to traditional emphasis on location advantages for production, reduction in service link cost to overcome geographical distance becomes crucially important. The second task is to form a seed of agglomeration by hosting MNEs as many as possible. Once agglomeration generates opportunities for vertical links through arm's-length transactions, benefits of agglomeration become one of the location advantages and stabilize the industrial structure. The third task is to foster indigenous firms and make them penetrate into production/distribution networks initially formed by MNEs. Fragmentation generates new channels of introducing capital and technology. Once local firms successfully grow, the link with international production/distribution networks is further strengthened.

### 3. Impact of FTAs on the Mekong Region

#### AFTA, ACFTA, AKFTA, AJFTA, and beyond

The start-up of AFTA in 1993 was one of the epoch-making moves for ASEAN forerunners. AFTA convincingly asserted a collective political will for improving investment climate so as to attract FDI. Although actual tariff reduction/removal did not immediately start, the AFTA tariff reduction scheme presented a plan to get out of import-substituting industrialization strategies and worked a roadmap for MNEs to reorganize location choices and value chains. AFTA tariff reduction scheme started working effectively in the recent one or two years. AFTA now perhaps ends up with one of the cleanest and most effective regional trade arrangements in the world in the sense that liberalization scheme covers almost all commodities, the role of origin is simple and unrestrictive, and a large portion of intra-regional trade is already under free trade. ACFTA and AKFTA as well as AJFTA will follow the liberalization path of AFTA with few year lags.

In order to effectively take advantage of globalizing forces for economic development, ASEAN latecomers should positively involve themselves in the trend of regional integration.

#### Tariff removal

One of the usual missions of FTAs is to clean up inefficient import-substituting industries. Import-substitution-type industrial promotion policy requires complicated combination of trade protection, regulation, and incentives, and we experienced numerous failures. How to clean up such policy distortions and to make import-substituting industries competitive is one of the most important policy agenda.

Restructuring of import-substituting industries often requires strong political effort in breaking entangled vested interest or may need to design proper soft-landing scenario. However, in case of ASEAN latecomers, with some exceptions in Vietnam (e.g., iron and steel industry), no significant import-substituting industries under heavy trade protection have developed. High tariffs exist, but the prime motive is sometimes just to raise government revenues or is to generate rent in customs procedure or in smuggling. Tariffs are not quite working for infant industry protection and are to be reformed.

In order to improve the current situation, trade facilitation would perhaps be more important than tariff removal.

#### Spaghetti bowl phenomenon?

Multilateralism is of course a cleaner path of trade liberalization than regionalism, and thus we should pursue it whenever possible. However, active participation in East Asian regionalism would provide a lot of benefits, and thus it is quite understandable for East Asian countries to commit themselves to regionalism.

Undesirable side effects of regionalism would all come from discrimination. Trade diversion, spaghetti bowl phenomenon due to complicated liberalization procedure and the rule of origin, and the fear of economic blocks are examples. In particular, “spaghetti bowl” becomes a key word to express a concern about the development of East Asian economic integration. On the contrary to public belief, the author would like to claim that the probability of suffering from serious spaghetti bowl phenomenon is rather low.

The reasons are threefold. First, in East Asia, most of the production-network-related parts and components are already being traded without any tariff because of the tariff removal for semiconductor-related parts in the late 1990s as well as extensive usage of various kinds of duty drawback system. Further tariff removal and the rule of origin in FTAs do not seem to affect the East Asian economy so seriously anymore. Second, in the transition period of multiple FTAs, some confusion of tariff structure among East Asian countries may be inevitable. However, it does not seem to be too serious to disturb regional trade as a whole. Firms are already actively responding to changes in trade policies and start enjoying preferential treatments. Third, the rule of origin of AFTA is going to be an East Asian standard, and this rule is actually very simplistic and least protective.

A recent article by Baldwin (2006) points out a possibility of turmoil (he calls it “noodle bowl”) in international commercial policies in East Asia due to weak legal enforcement and the lack of dispute settlement mechanism. His claim is quite right, to my opinion, that East Asia requires much tighter political integration with stronger enforcement mechanism as well as committing ourselves more on multilateralism. However, the author believes that major setback in East Asian economic integration is unlikely.

#### Wider policy packages

How to further activate international production/distribution networks is another mission for FTAs. International trade among East Asian countries effectively

utilizes the logic of fragmentation, but there is still a lot of room for reducing service link cost and reducing production cost. In particular, the strength of East Asian economy is to serve for sophisticated markets with flexible small-lot/wide-variety supplies. Therefore, lowering service link cost and speeding up feedbacks between upstream and downstream are fundamental issues.

Economic integration in East Asia thus requires proper designs. In addition to tariff removal, FTAs would include (i) trade and FDI facilitation, (ii) institutional building for investment rule, intellectual property rights, and others, (iii) trouble-shooting mechanism between private and governments, and (iv) the link with other policies such as economic/technical cooperation policy, international finance policy, energy and environmental policy, and others. ASEAN latecomers must also follow such a strategy with properly prioritizing various policy measures.

#### Role of economic/technical cooperation

ASEAN latecomers except Myanmar are now in a very favorable position for receiving various forms of economic and technical cooperation from donor community. The framework of FTAs also includes further cooperation. Effective usage of such resources is the key for the success in necessary policy reform so as to take advantage of globalizing forces.

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# **The Implication of FTAs for the Mekong: How to Participate in International Production/Distribution Networks**

## **Background Paper: International Production and Distribution Networks in East Asia: 18 Facts, Mechanics, and Policy Implication**

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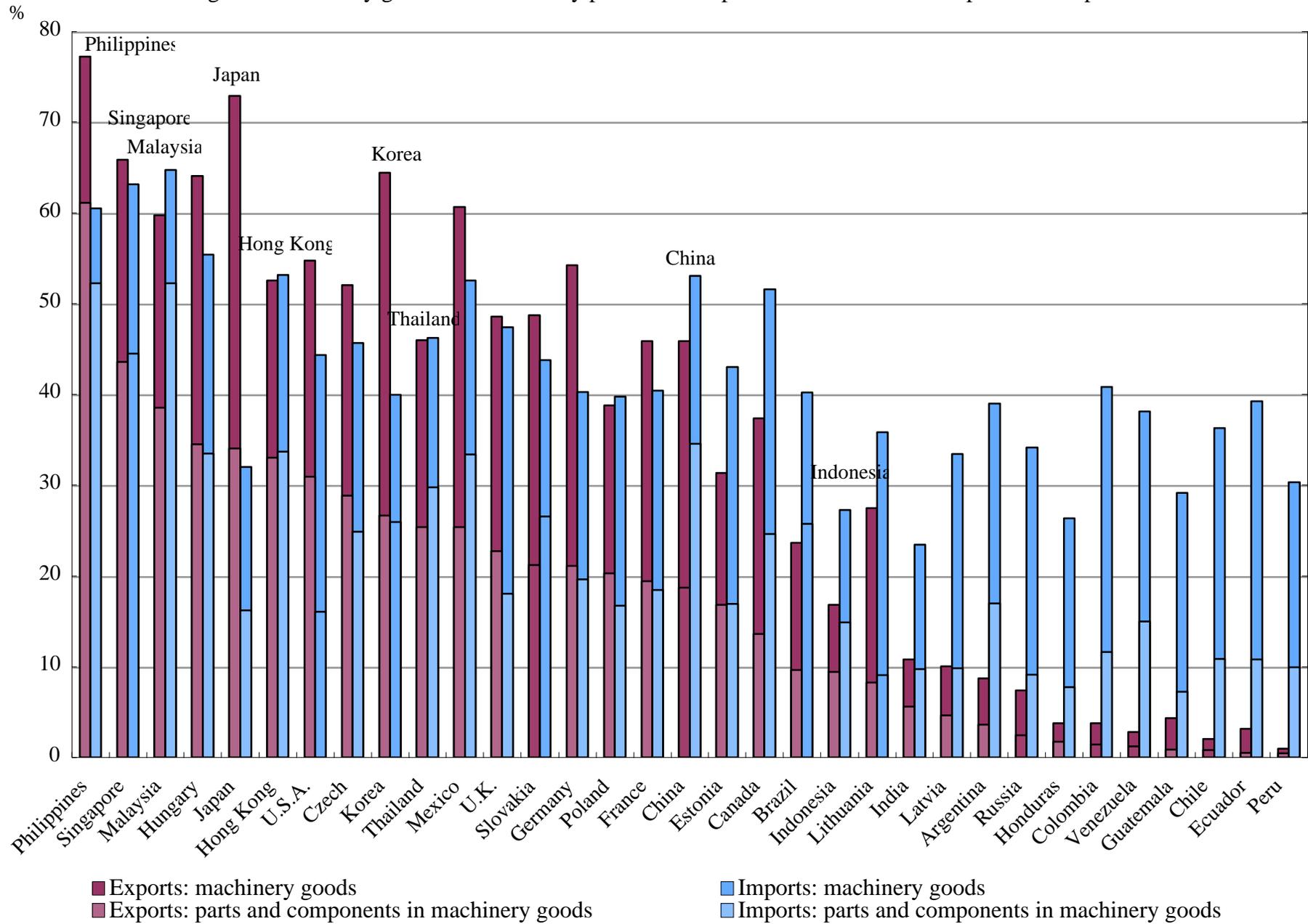
# 1. Introduction

- The nature and characteristics of international prod./dist. networks must be analyzed more carefully.
- Mainly (but not limited to) machinery industries.
- International prod./dist. networks in East Asia are distinctive in (i) their significance, (ii) their extensiveness, and (iii) their sophistication.
- Comparison with the US-Mexico nexus and the WE-CEE corridor would be useful.

## 2. “18 facts” on prod./dist. networks in East Asia

- “18 Facts”
  - Facts 1-8: from international trade statistics
    - Process-wise international division of labor among countries at different development stages
  - Facts 9-11: from microdata of Jap. MNEs
    - Prod./dist. networks; intra-firm vs. arm’s length
  - Facts 12-18: from case studies/casual obs.
    - Location advantages; agglomeration; service link cost; outsourcing (disintegration); local firms

Figure 3 Machinery goods and machinery parts and components: shares in total exports and import



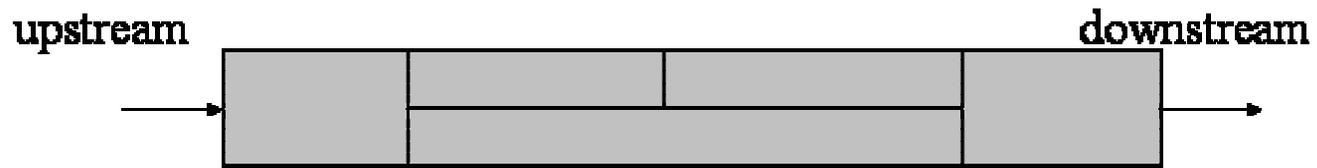
Source: Ando and Kimura (2005b).

### 3. Mechanics of two-dimensional fragmentation and agglomeration

- Seminal work: Jones and Kierzkowski (1990)
- Adding “disintegration” to “geographical distance” as another dimension of fragmentation (particularly important in East Asia)
  - cf. vertical integration, Grossman and Helpman
- Reduction in production cost per se vs. service link cost in two dimensions
- Link with agglomeration at the industry/macro level
  - Economies of scale in service link
  - Importance of proximity in arm’s-length transactions

Figure 4 Fragmentation and service link costs

**Before fragmentation**



**After fragmentation**

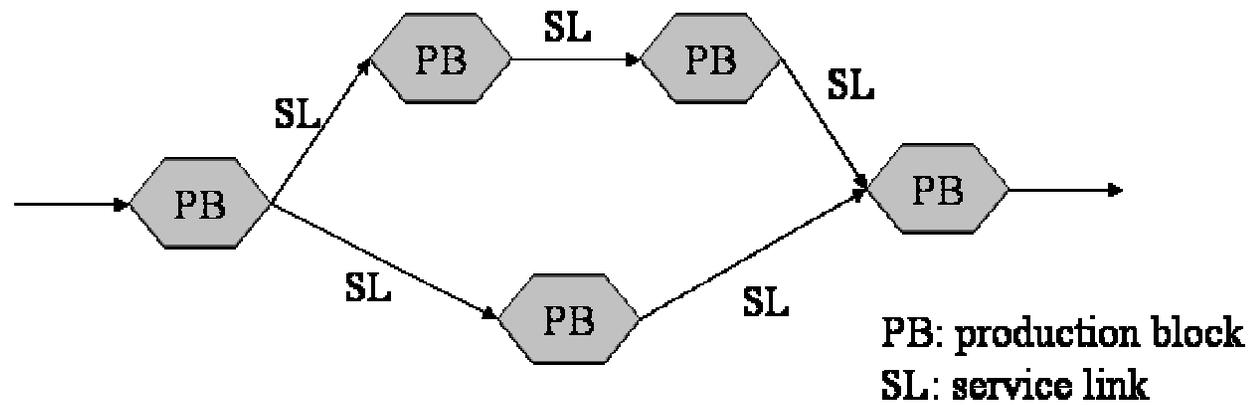
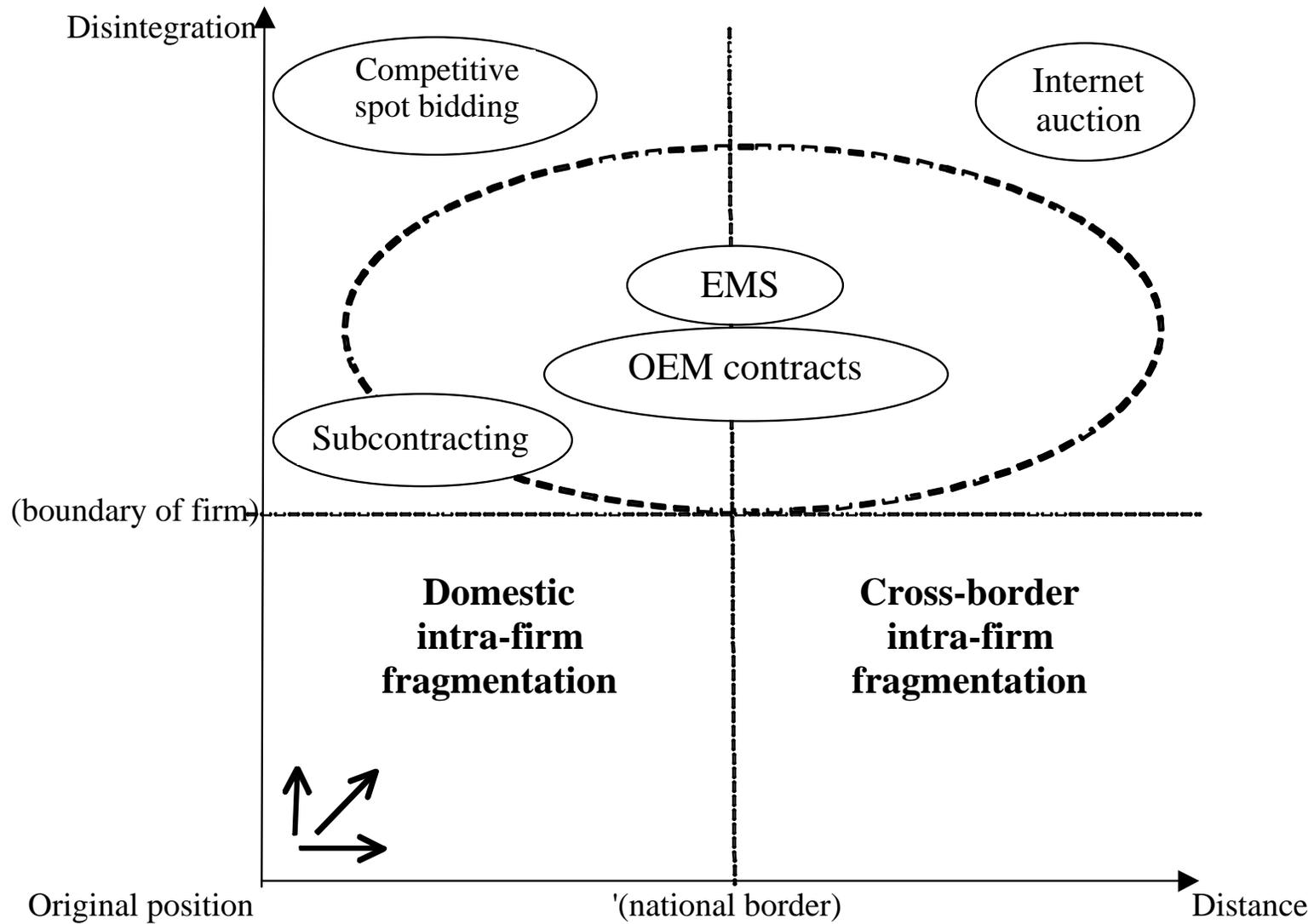


Figure 5 Fragmentation in a two-dimensional space



Source: Kimura and Ando (2005).

Table 1 Tradeoffs in two-dimensional fragmentation

	<i>Service link cost connecting PBs</i>	<i>Production cost per se in PBs</i>
<i>Fragmentation along the distance axis</i>	<p><b>Cost due to geographical distance</b>            Elements (examples): transportation, telecommunications, inefficiency in distribution, trade impediments, coordination cost</p>	<p><b>Cost reduction from location advantages</b>            Elements (examples): wage level, access to resources, infrastructure service inputs such as electricity, water, and industrial estates, technological capability</p>
<i>Fragmentation along the disintegration axis</i>	<p><b>Transaction cost due to losing controllability</b>            Elements (examples): Information gathering cost on potential business partners, monitoring cost, risks on the stability of contracts, immature dispute settlement mechanism, other deficiency in legal system and economic institutions</p>	<p><b>Cost reduction from (dis)internalization</b>            Elements (examples): availability of various types of potential business partners including foreign and indigenous firms, development of supporting industry, institutional capacity for various types of contracts, degree of incomplete information</p>

Drawn from Ando and Kimura (2005b).

## 4. Policy environment for int'l prod./dist. networks

- Policy background for network development
  - Policy reform of East Asian countries in the late 1980s and early 1990s.
- Policy agenda for developing EA
  - Clean up inefficient import-substituting industries
  - Further activate prod./dist. networks

- Possible uneven developments in EA
  - Mobility of human capital and technology
  - Economies of scale in service link and in agglomeration
  - Possibly generate winners and losers
- Massive trickle-down effects
  - Congestion effect => possibly trickle down to latecomers

- Required policy packages
  - 1) Attract fragmented production blocks of MNEs
  - 2) Form a seed of agglomeration by hosting MNEs
  - 3) Foster indigenous firms and make them penetrate into networks

# 5. Impact of FTAs on the Mekong Region

- AFTA, ACFTA, AKFTA, AJFTA, and beyond
  - AFTA as a roadmap for improving investment climate so as to attract FDI
  - CEPT has recently started working.
  - ACFTA, AKFTA, and AJFTA will basically follow the path of AFTA with few years lags (method of tariff reduction, rule of origin)
  - ASEAN latecomers should positively involve themselves in the trend of regional integration!

## ■ Tariff removal

- One of the missions of FTAs: clean up inefficient import-substituting industries
- However, with some exceptions, ASEAN latecomers do not have significant import-subst. inds.
- High tariffs are for raising government revenues or generating rent in customs procedure or smuggling, not for infant industry protection
- Trade facilitation in addition to tariff removal is important.

## ■ Spaghetti bowl phenomenon?

### ■ May not be very serious in East Asia

- Network-related parts and components are already traded without any tariff.
- Some confusion of tariff structure may be inevitable but seems not to be too serious to disturb regional trade as a whole.
- ROO of AFTA is going to be an East Asian standard, and this rule is actually very simplistic and least protective.

### ■ “Noodle bowl”?

## ■ Wider policy packages

- Another mission for FTAs is to further activate prod./dist. networks.
- There is a lot of room for reducing service link cost and reducing production cost.
- Designs of economic integration in East Asia
  - 0) Tariff removal
  - 1) Trade/FDI facilitation
  - 2) Institutional building (e.g., investment rule, IPR)
  - 3) Trouble-shooting mechanism between private and governments
  - 4) Link with other policy channels (e.g., economic/technical cooperation policy, international finance policy, energy and environmental policy, and others)

- Role of economic/technical cooperation
  - ASEAN latecomers are in a very favorable position for receiving various forms of international cooperation.
  - FTAs also contain further cooperation.
  - Effective usage of such resources is the key for success.