World Economic Trend, Autumn 2004, No. 6

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(summary)

The autumn report focuses on three topics: an analysis of "Cluster"; long range prospects for the world economy; and the world economic outlook for 2005.

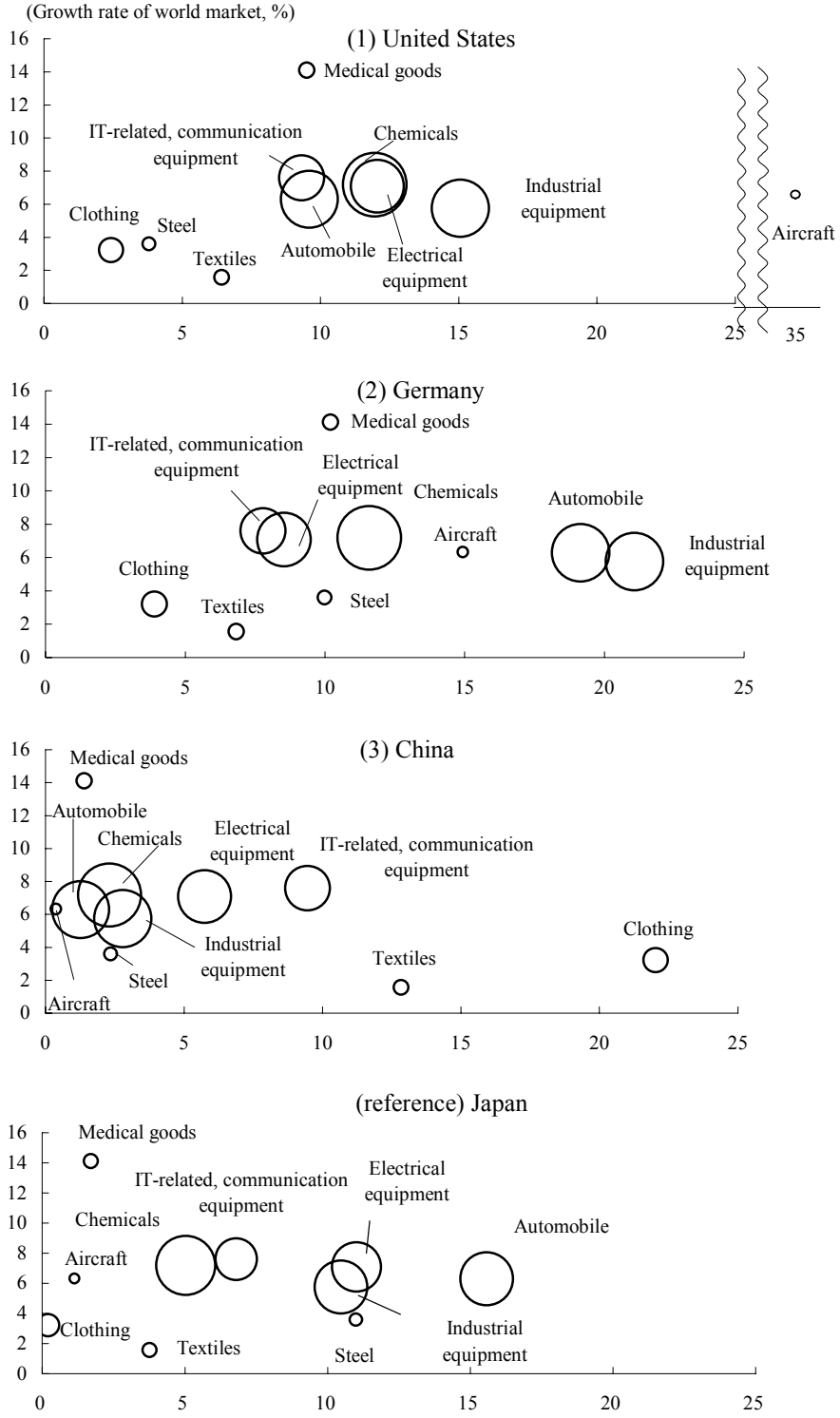
1. Cluster as the Source of Competition : From Industrial Accumulation to Cluster

Amid intensifying international competition due to rapid progress in globalization, innovation has become essential as the source of competition

In order to survive international competition, which has increased in severity due to the rapid progress of globalization and IT, interest in corporate and national strategies has increased. A country's competitiveness can be enhanced by creating an environment in which domestic corporations can produce high value-added products that would upgrade the living standard of its people in the long run. At the industrial level, an effective strategy would be one designed to help internationally competitive industries further increase their competitiveness by utilizing resources of their respective country (Figure 1).

The entity that leads competitiveness at the macroeconomic level is the corporation. Competitive corporations can survive international competition. The source of these corporations' competitiveness and advantage is the creation of innovation.

Figure 1 Item-by-Item Global Export Markets and Shares Held by the United States, Germany, and China

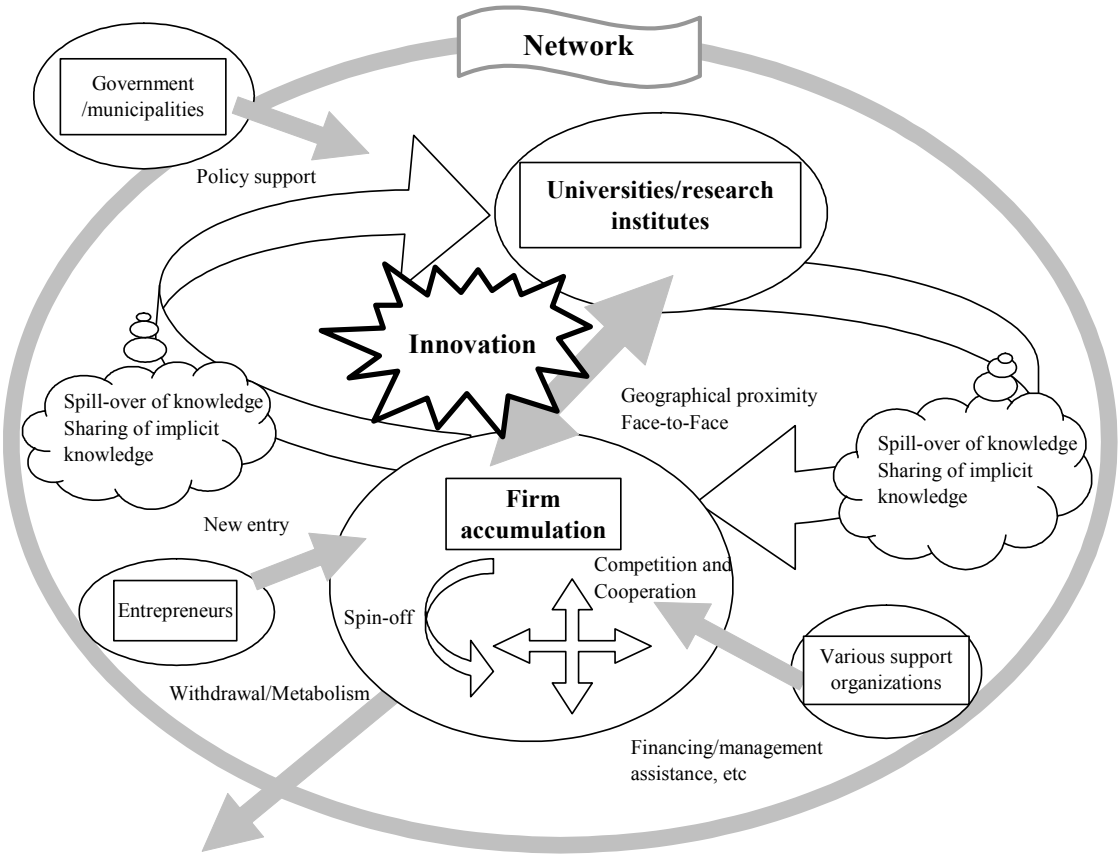


(Notes) 1. Based on "COMTRADE (the United Nations)"
2. Growth rate of the world market is the average annual growth rate from 1995 to 2003.
The share of world exports are based on figures from 2002.
3. The size of the circles indicates the relative scale of the world export market of individual items.2002.

Cluster that contributes to the creation of innovation and the enhancement of competitive advantage

"Cluster" is drawing attention as the source of competitiveness. A cluster is a system in which corporations, universities, research institutes, and others clustered in a region form multi-layered networks to dynamically create innovation in collaboration or in competition with each other and thus to enhance the competitiveness of the region (Figure 2).

Figure 2 Basic Concept of Cluster



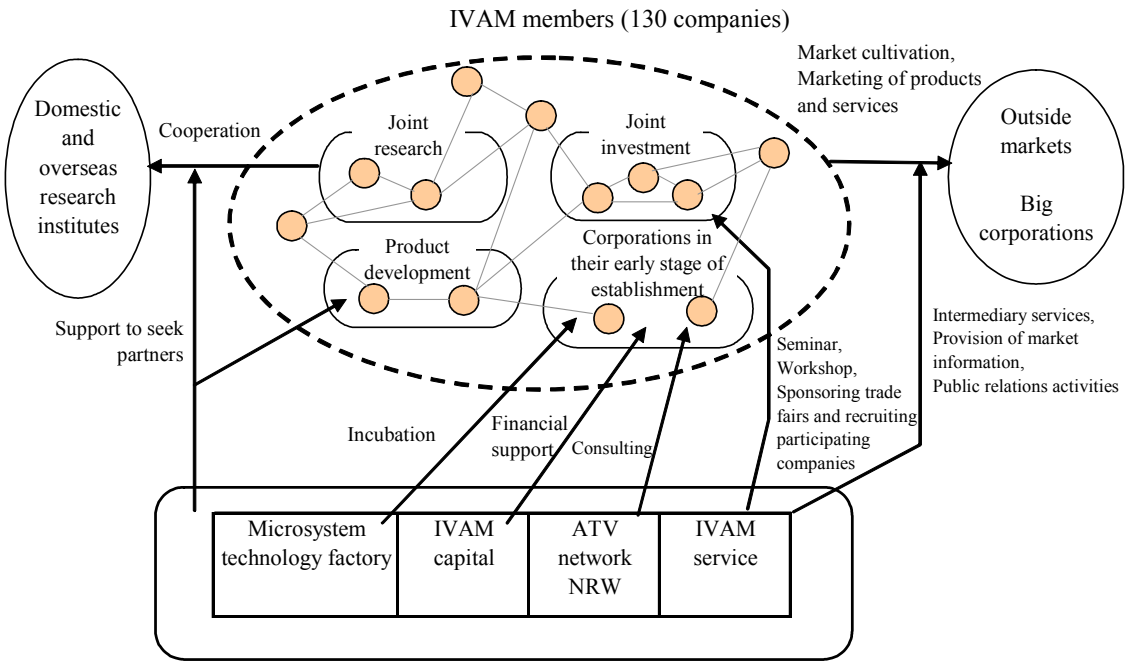
That corporations and universities in a cluster are connected with networks strengthens trust and cooperation and creates innovation through a spill-over of knowledge and the sharing and utilization of implicit knowledge.

There are many successful examples of the government playing an important role in the course of the formation of a cluster. Government support for the formation of a network that has the nature of external economy has the function of playing a central role in facilitating the formation of a cluster. In addition, providing public funds to R&Ds and industry-academia-government collaboration also plays an important role. It is hoped that the government will pave the way for the autonomous development of clusters, while refraining from excessive intervention.

Formation and development of clusters in foreign countries: Elements common to successful examples

Forms of clusters are rich in diversity. There are endogenous clusters that have developed based on existing industrial clusters and exogenous clusters in which the government was involved at the initial stage of their formation. What can be pointed out as being common to successful examples in foreign countries are that (1) a targeted vision was shared over the long term and there was a key person who led the project, (2) support organizations functioned effectively to support network activities within a cluster (Figure 3), and (3) policy support measures for small and medium-sized enterprises were utilized effectively.

Figure 3 IVAM's Network and Activity



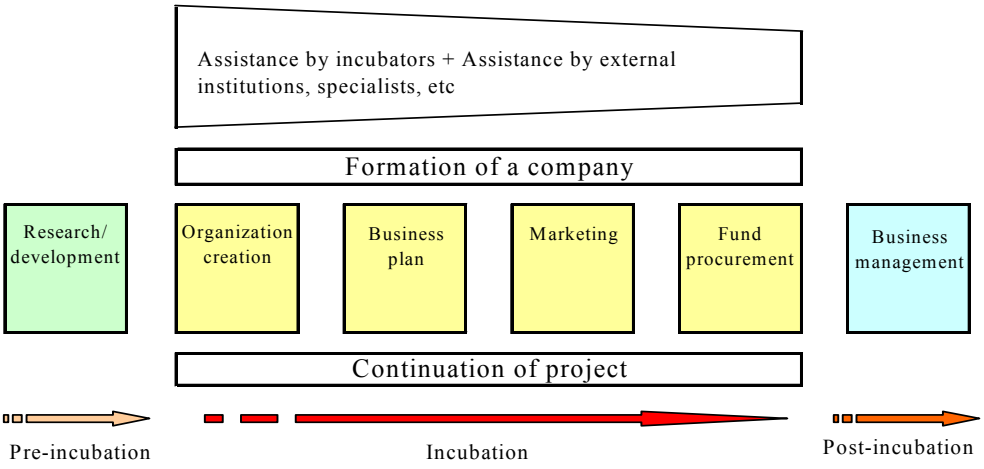
Policy Support Measures for Innovation-Creating SMEs

There are diversified policy support measures for SMEs, such as funding, technology transfer, and government procurement, in various aspects from business foundation to commercialization. Implementing these support measures strategically for SMEs will produce a bigger effect.

Incubation, a system to encourage new businesses, has increased its importance as a means to support the dynamic development of clusters (Figure 4). In foreign countries, it is widely recognized that high-quality incubation managers hold the key to the successful promotion of new businesses.

Devices such as SBIR in the United States are necessary as public support measures to put created innovations into practical use.

Figure 4 New Business Promotion Process and Incubation



(Contents of incubator's services)

* Counseling on new business promotion * Development and education of candidates for entrepreneur	* Provision of office services (office room, study space, common space) * Facility and tools * Acquisition of basic knowledge necessary for new business promotion and management	* Provision of technology /link to universities * Introduction of buyers /business partners * Fund procurement mediation * Creation of network	* Consultation by graduating corporations * Active utilization of graduating corporations

(Notes) Based on various data

2. Long Term Outlook for the World Economy

Outlook for the World Economy

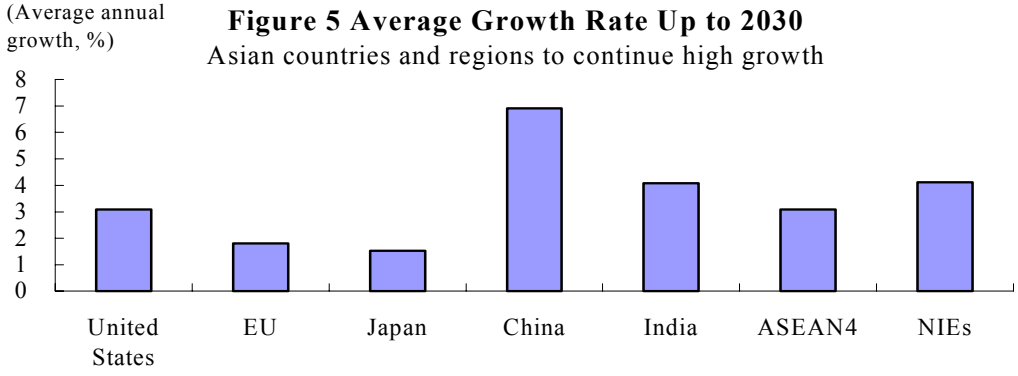
While advanced countries have entered their maturity and have been continuing their stable growth, the speedy growth of China and India in recent years is drawing attention.

The population of the world, which now stands at 6.1 billion, is expected to increase to 8.1 billion in 2030, and most of the increase will be accounted for by increases in Asian and African countries. However, even when including these

countries, the birthrate is expected to decline gradually and the aging of population is expected to advance.

By one estimate based on these demographic trends, the growth rate of Asian countries is higher than that of advanced countries (Figure 5). According to an estimate by an international organization, their share of global GDP is also expected to increase sharply (Figure 6). But, the gap in per-capita GDP, though it narrows, will not decrease as much as the gap in economic scale (Figure 7).

Figure 5 Average Growth Rate Up to 2030
Asian countries and regions to continue high growth



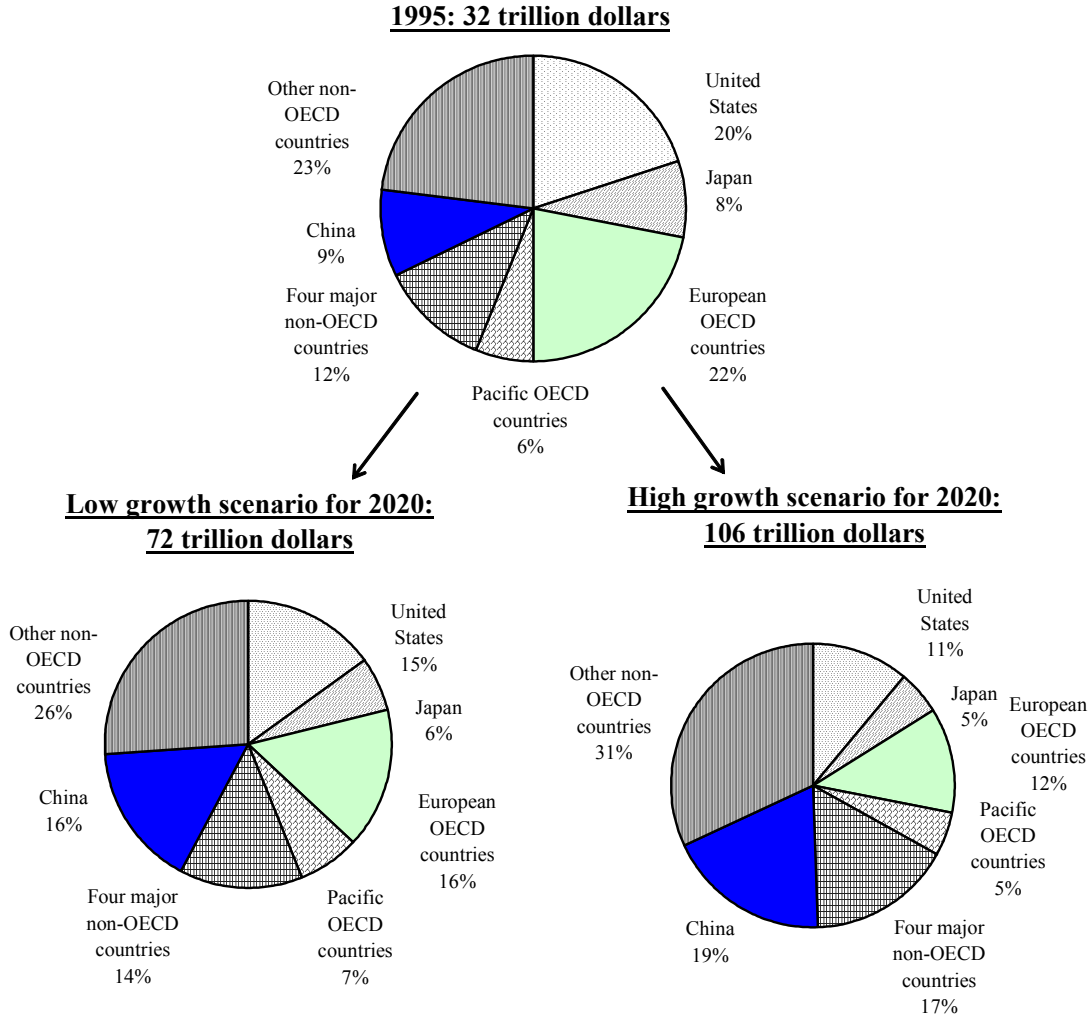
(Source) United Nations, World Bank, IMF, Groningen Growth and Development Centre, Cabinet Office, Taiwan Statistics Bureau

Global trade grew faster than the GDP in the last 20 years or so. In 2020, trade involving non-OECD countries is expected to account for 70% of global trade.

Meanwhile, energy and food problems would become constraining factors for the world economic growth. Both energy and food supplies are expected to increase in line with the growth of demand. However, in the case of energy, greater dependence on Middle East countries for energy and an increase in CO2 emissions in proportion to an increase in demand will become problems. In the case of foods, climate changes and stabilizing regional supply-demand imbalances will become problems (Figure 8).

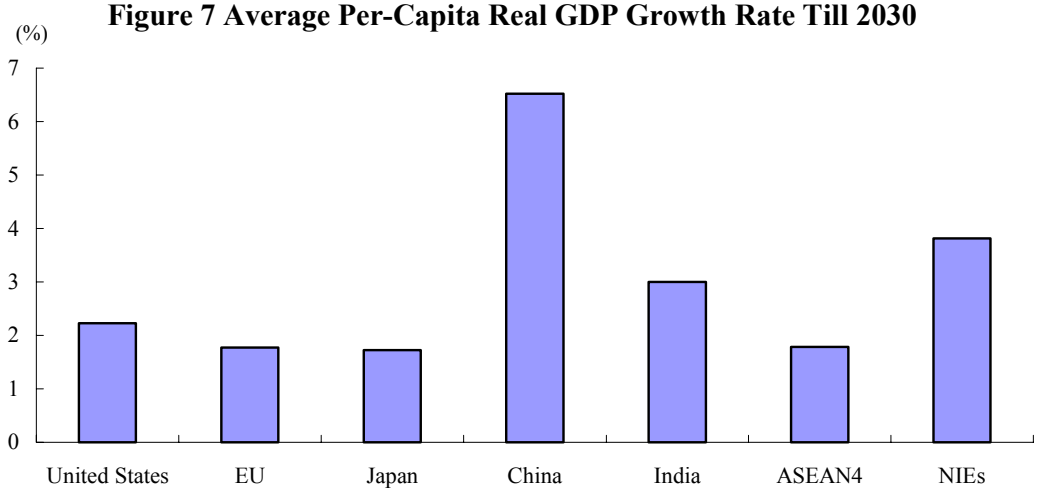
Figure 6 GDP Share Forecast by OECD (1995-2020)

China's share is expected to increase



(Notes) 1. OECD [1997] "The World in 2020: Towards a New Global Age"
2. Converted into U.S. dollar based on 1992 basic purchasing power parity
3. Four major non-OECD countries: India, Brazil, Russia, Indonesia
4. The high growth scenario is a case in which the liberalization of trade and investment and deregulation make progress continuously. The low growth scenario is a case in which such efforts do not make progress.
5. The average growth rate of China (including Hong Kong) is estimated at 8% in the high growth scenario and 5.6% in the low growth scenario. Based on this, the Cabinet Office divided the share of the five major non-OECD countries (the above four major non-OECD countries plus China) into that of China and the others.

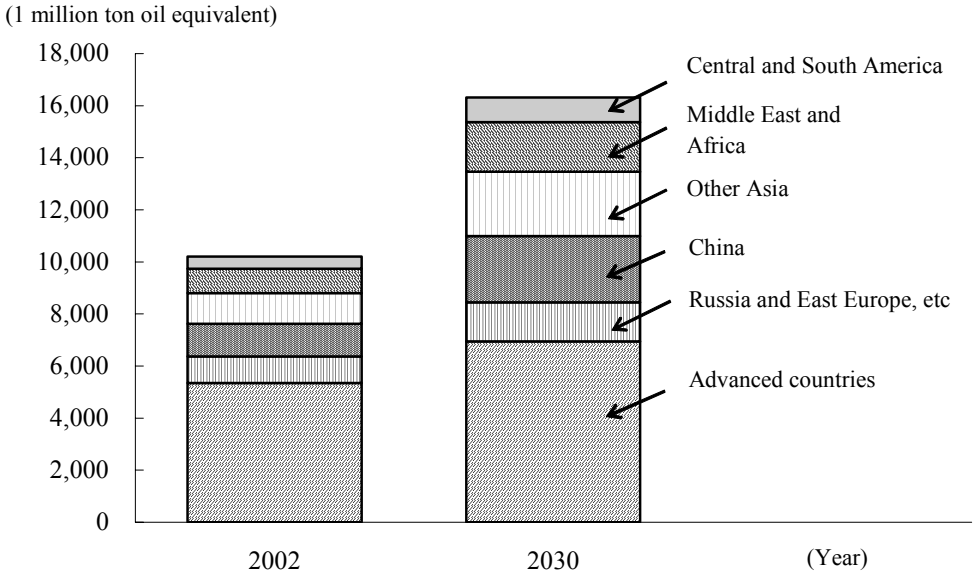
Figure 7 Average Per-Capita Real GDP Growth Rate Till 2030



(Source) United Nations, World Bank, IMF, Groningen Growth and Development Centre, Cabinet Office, Taiwan Statistics Bureau

Figure 8 Estimates for Primary Energy Demand in the World

Primary energy demand in the world estimated to rise 1.6-fold; Demand expected to increase in Asia, mainly in China



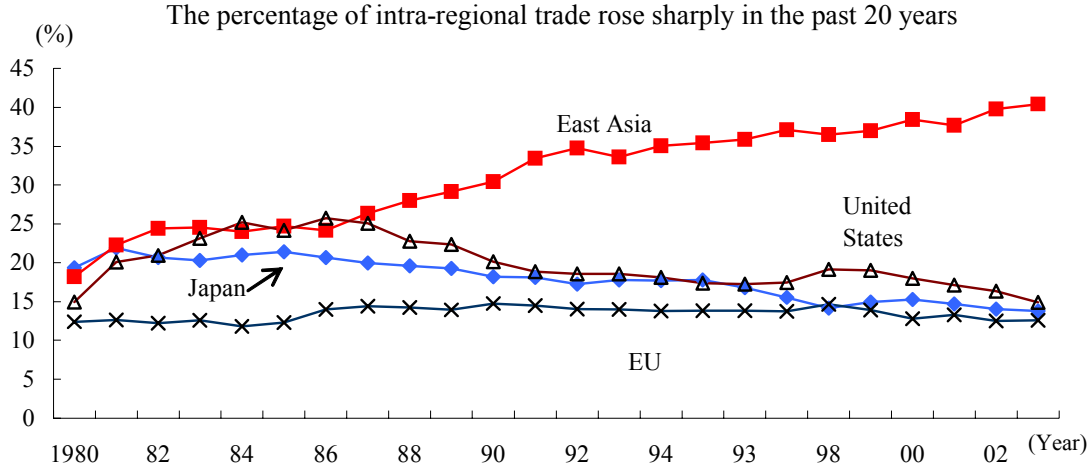
(Source) International Energy Agency [2004] "World Energy Outlook 2004"

Expansion of Trade: Key to East Asia's Growth

East Asia sharply increased its share as a percentage of world trade in and after the second half of the 1980s. In particular, the percentage of intra-regional trade posted a conspicuous increase, rising from less than 20% in the beginning of 1980 to about 40% in 2003 (Figure 9).

Figure 9 Changes in the Share of East Asia's Intra-Regional Trade

The percentage of intra-regional trade rose sharply in the past 20 years



(Source) IMF "Direction of Trade Statistics"; Taiwan Statistics Bureau

Behind the sharp rise in East Asian countries' trade dependency rate are the facts that direct investment, which increased sharply in the 1990s, has made it possible for the countries to shift from conventional import-substituting industrialization to export-oriented industrialization and that this in turn promoted a structural shift to vertical intra-industry trade mainly in manufacturing industries.

A production network unique to the region has been created. This is partly because the globalization of capital movements and the progress in the introduction of IT backed by advanced communication technologies have made it possible to establish a system of cross-border, segmentalized production processes in the region, and partly because the

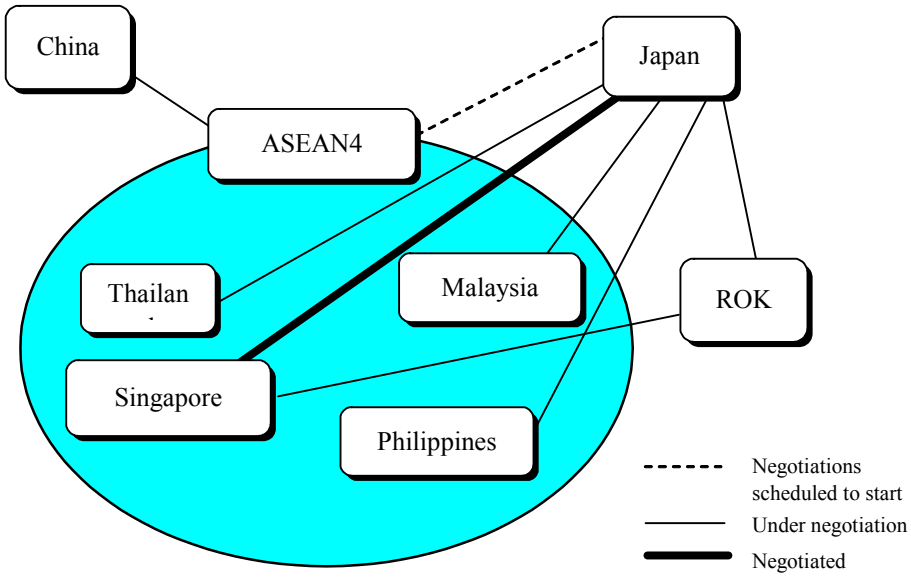
formation of many industrial clusters in the region has made it possible to take advantage of so-called economies of scale.

Since direct intra-industry trade is more likely to be activated when geographical distance is shorter and costs on trade are lower, the countries can post higher economic growth by collaborating with as many countries in the region as possible not only in trade but also in a wide range of fields.

In the medium and long terms, the principle of the WTO must be respected. However, given the differences in economic development stage and the political and time costs required for reaching an agreement among many countries, it makes sense for Asian countries to promote moves to conclude FTAs and EPAs. But, we should keep in mind a complete liberalization of global trade and be careful not to fall easily into regionalism (Figure 10).

Figure 10 Major Movements toward FTAs in East Asia

Efforts toward economic partnerships that made rapid progress in and after 2000



Situation	Countries involved	Contents
Negotiations scheduled to start	Japan-ASEAN	* As to the time frame for negotiations, it was agreed that economic ministers make a proposal to summit meetings to start negotiations in April 2005.
Under negotiation	Japan-Thailand	* In addition to meetings of officials of related ministries of the two countries that were held from July to November 2003, the "Task Force of the Japan-Thailand Economic Partnership Agreement," consisting of representatives of various industries, including agriculture and fisheries, and academics, held meetings three times. * So far, meetings were held four times, starting with the first negotiations on February 16-17, 2004.
	Japan-Philippines	* In addition to meetings of officials of related ministries of the two countries that were held from September to November 2003, the "Joint Coordinating Team of the Japan-Philippines Economic Partnership Agreement," consisting representatives of various industries, including forestry and fisheries, and academics, held meetings two times. Japan-Philippines Economic Partnership Agreement * So far, meetings were held four times, starting with the first negotiations on February 4-5, 2004.
	Japan-Malaysia	* In addition to meetings of officials of related ministries of the two countries that were held from September to November 2003, the "Joint Study Group," consisting of representatives of various ministries, including forestry and fisheries, and academics, held meetings two times. * So far, meetings were held five times, starting with the first negotiations on January 13, 2004.
	Japan-ROK	* The Industry-Academic Joint Study Group held its 8th meeting in October 2003 and published a report. * Based on the report, the two countries agreed at a summit meeting on October 20, 2003 to bring the negotiations to a virtual conclusion by the end of 2005. * So far, meetings were held five times, starting with the first negotiations on December 22, 2003.
	ROK-Singapore	* The Industry-government-academic study group began studies in March 2003. * After three rounds of study meetings, the two countries agreed at a summit meeting in October 2003 to start government-government negotiations. * The first government-level negotiations were held in Singapore in late January 2004.
	China-ASEAN	* Agreement on Comprehensive Economic Cooperation Framework Treaty reached in November 2002 * China agreed with six leading ASEAN countries to lower tariffs on farm products starting in January 2004. The two sides aim to abolish tariffs by 2010. * China and four developing ASEAN countries aim to abolish tariffs by 2015.
Negotiated	Japan-Singapore	* The treaty came into effect in October 2002.
	10 ASEAN countries (AFTA)	* Agreement reached in 1992. The member countries aim to abolish intra-regional tariffs by 2015.

(Source) Ministry of Economy, Trade and Industry; Ministry of Foreign Affairs

3. World Economic Outlook

The World economy will continue its steady recovery in 2004 but its growth rate will decline slightly in 2005.

The world economy has been continuing its steady recovery since the second half of 2003 led mainly by the expansion of the U.S. and Chinese economies, and is expected to post a growth rate in the high 3%, higher than in the previous year. In 2005, however, the growth rate is likely to drop to around 3.5% as a fall in the economic growth rates of these countries is expected to adversely affect the world economy as a whole (Figure 11).

Figure 11 Private Institutions' Economic Forecast for Major Regions

Real GDP

(Change from previous year, %)

Country/region		2002 (Result)	2003 (Result)	2004 (Forecast)	2005 (Forecast)
United States		1.9	3.0	4.4	3.5
Asia	Northeast Asia	7.0	6.6	7.3	6.6
	ASEAN	4.1	4.7	5.8	4.8
Europe4		0.8	0.7	2.1	2.2
(Reference) Euro bloc		0.8	0.5	1.7	2.1
(Reference) Japan		-0.3	2.4	3.4	1.8

(Notes) 1. Result is from each country's statistics. Forecast is the average value of forecast by private institutions.
2. Northeast Asia: China, ROK, Taiwan, Hong Kong ASEAN: Singapore, Indonesia, Thailand, Malaysia, PhilippinEurope4: Germany, France, Italy, UK.
3. The real GDP growth rates of Northeast Asia, ASEAN and Europe4 are weighted averages of nominal GDP for 2003.
4. Private institutions' forecast published in September-October 2004.
The private institutions are BLUE CHIP (51 companies), CREDIT SUISSE, EIU, OFF, JP Morgan, Morgan Stanley, Bank of Tokyo-Mitsubishi, Nomura Securities, Nomura Research Institute, Mizuho Research Institute, Japan Center for International Finance.
5. Japan's figures for 2002 and 2003 are estimates made by the Cabinet Office and thosefor 2004 and 2005 are forecast figures published by ESP Forecast (Economic Planning Association, an incorporated body) in October.

Crude oil prices (WTI) rose sharply after remaining stable at 30 dollars until the spring of 2004, and fluctuated at around 50.50 dollars in October. However, there are no signs of the surge in crude oil prices stalling the economy.

There is fear that a prolonged rise in crude oil prices may adversely affect the economy, as it places inflationary pressures on the economy and depresses consumer and business confidence. However, its impact should be smaller than in previous energy crises thanks to the improvement of the energy efficiency of the economy as a whole.

Besides a prolonged rise in crude oil prices, among other risks are an abrupt slowdown of the U.S. and Chinese economies that have so far led the world economy, and large-scale exchange rate adjustment to reduce the huge current-account deficits of the United States. However, our central scenario for 2005 is that the U.S. economy will grow slightly faster than its potential growth rate and that the Asian and European economies will achieve the average growth rates of the past.

"World Economic Trend" is a biannual report published by the Cabinet Office of the Japanese government. Developments of overseas economies and economic policies are surveyed from the view point of improving macroeconomic policy management of the Japanese economy.
(The original Japanese version is available at http://www5.cao.go.jp/keizai3/whitepaper.html#sekai)