

# White Paper on International Economy and Trade 2005

– Proceeding Toward a New Stage of Economic Prosperity for Japan and East Asia –

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The White Paper on International Economy and Trade 2005 takes a multifaceted look at the East Asian economy, including China, examining production, consumption, investment, finance and culture. In addition, the White Paper analyzes the differences of regions and incomes that the statistics for the average of individual countries do not explain. The White Paper also asks whether the dynamically growing East Asian region can establish itself as an economic bloc on a par with the United States and the EU, and what sort of relationship Japan, with its declining population, should build with the East Asian region.

## I. The Growth Mechanism of the Global Economy and Potential Risks

We analyze the potential risks within the current growth mechanisms of the global economy, simultaneously taking a look at the growth potential of China, the BRICs (Brazil, Russia, India, China), and other growing powers; and discuss the impact of upsurging energy and raw materials prices, which are greatly affected by rising demand in these growing powers.

### 1. US Economic Growth and the Twin Deficits

Since the latter half of the 1990s, global economic growth has been driven by the domestic demand-led US economy, which accounts for 1/3 of the world's GDP. Domestic-demand-led US economic growth attracted imports and capital from Asia including Japan, and spurred further economic growth in the United States. The US economy in the 1990s rapidly burgeoned with low interest rate policies, active domestic demand and economic expansion led by the IT revolution, which observers described as a "New Economy." This gave the United States a budget surplus in the latter half of the 1990s, but the current account deficit increased due to expanding domestic consumption. The country, however, returned to a budget deficit in FY 2002, due to reduced fiscal revenues brought by the economic downturn in 2001, a big tax cut and a jump in military spending following the Sept. 11 terror-

ist attacks. The budget deficit in FY 2004 was US\$412.0 billion (3.6% of GDP), hitting a record-high for the second consecutive year. The real US GDP growth rate for 2004 was 4.4% year-on-year, the highest growth rate since 1999 (4.5%). In the meantime, the twin deficits (budget and current account deficits) have reached record levels, triggering concern about their sustainability in the mid-and long-term.

Looking at the twin deficits from a balance-of-funds perspective, we find that both the government sector and the household sector have had financing deficits in recent years, and have increasingly turned to offshore sources to make up for the shortfall. There are concerns about growing social security expenditures by the government sector as the population ages over the coming years. With social security outlays certain to increase in the future, mandatory spending is also expected to rise. Eliminating fiscal deficits will be an extremely harsh task. There are also concerns that the low savings rate and falling housing prices could affect household consumption, which has been a mainstay of the US economy. If the expansion of the twin deficits forces up US domestic interest rates, rising interest payments and weakened public finances could trigger a credit crunch and dollar depreciation, which would in turn have an adverse impact on the global economy. This situation bears watching.

### 2. Risk of Economic Overheating in China

China has progressively expanded its market economy since adopting a policy of reform and liberalization in 1978, and for over 20 years, its average real GDP growth rate has exceeded 9% annually. This is remarkable economic growth compared to other countries in the world, but a breakdown of its recent growth engine shows the lion's share has been generated by fixed asset investment. In terms of nominal GDP, the share generated by fixed asset investment has climbed rapidly, breaking 40% in 2003, while that of household consumption has been sharply declining (Fig. 1-2-11). In addition, investment efficiency in China continues to fall year after year. As the possibility of overinvestment grows, its lopsided economic structure (China accounts for only 4% of global GDP, but consumes 25% of the world's steel, 30% of its coal, 50% of its cement and 7% of its oil) is bringing on energy and resource-intensive economic growth. Due to the tremendous pressures arising from environmental protection and the limited availability of resources, there are now concerns about the sustainability of China's economic growth.

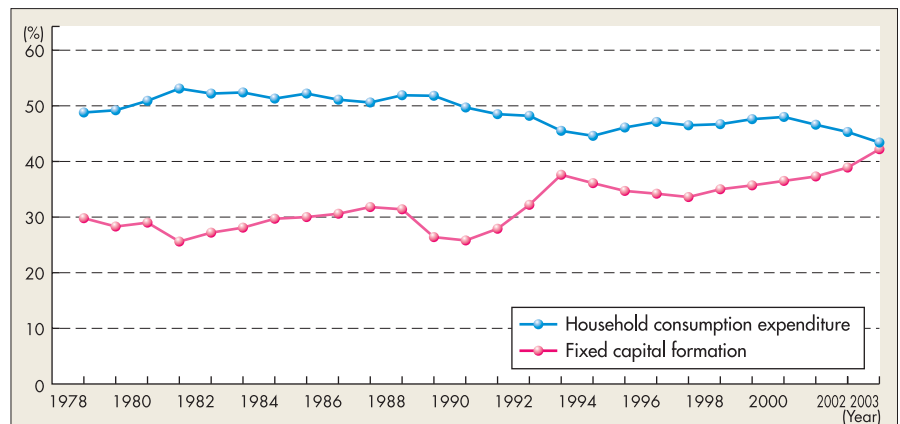
The Chinese economy that so heavily relies for its rapid growth on fixed asset investment expansion generates a negative impact and creates worries on several different fronts.

First, prices are on the rise. The con-

sumer price index (CPI) stopped falling and began to climb in 2003, and in June-September 2004, it reached 5% year-on-year, the governmental set inflation warning line. Second, electric power shortages are getting more serious. During January-September 2004, power generation showed a 14.5% increase over the previous year, yet the country's summer-season power shortage hit 30,000 megawatts, reportedly the worst since the 1980s. The third problem is rising real-estate prices. Investment in real-estate development in 2004 increased 28.1% year-on-year, which remains quite high even in relative terms. In tandem with such active real-estate investment, prices are also on an upward trend. Sales prices for buildings and land have been rising, especially since 2002. There are also concerns about the country's inflating non-performing loans, as well as overproduction and inventory buildup in steel, aluminum, automobiles and mobile phones caused by the entry of newcomers and the enlargement of production scale, which were accelerated by overinvestment.

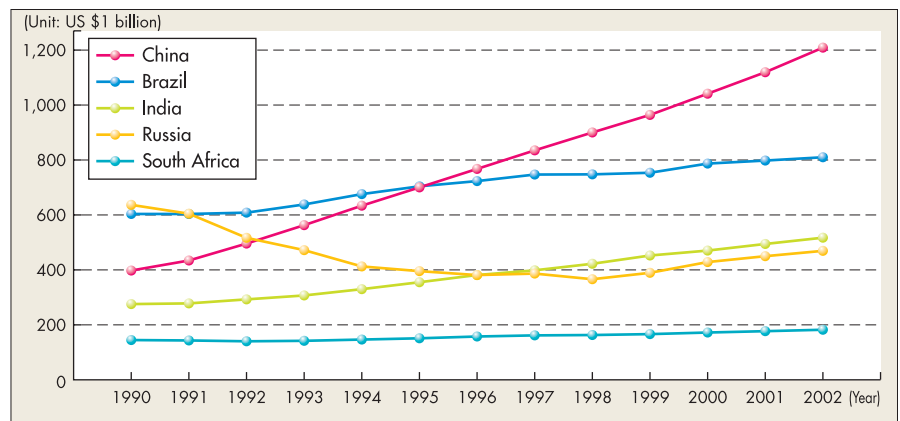
In response to such issues, the Chinese government has adopted successive policies to dampen investment since the first quarter of 2004. However, while the current round of overinvestment is due in part to domestic demand expansion spurred by economic growth, it is also closely intertwined with structural issues in the Chinese economy that will be discussed in Chapter II (including the relatively slow household consumption growth, a growth-first policy among local governments, and an inefficient financial system). Therefore, if China is to achieve sustainable, well-balanced growth, in addition to promptly moving away from a growth pattern dependent on a lopsided investment structure, it must simultaneously continue to tighten up its macro-control policy and bring forward its effort for structural problems by expanding consumer demand through increased rural incomes, and promoting reforms of state-owned enterprises, the financial system and the social security system. The Chinese government's economic policy management deserves continued attention.

Figure 1-2-11 Household Consumption Expenditure and Fixed Capital Formation in China vs. Nominal GDP



Source: China Statistical Yearbook 2004, China National Bureau of Statistics

Figure 1-3-1 Changes in GDP of BRICS



Source: World Development Indicators 2004, World Bank

### 3. The BRICS' Potential for Growth

A group of rapidly growing economies has come to the fore in recent years, including the BRICS (Brazil, Russia, India, China), and South Africa. These countries have taken on a higher profile in the global economy on the strength of their large populations, extensive land area and plentiful natural resources, but their economic growth varies in terms of speed and stage of development (Fig. 1-3-1).

Brazil made a policy shift in the 1990s to open up to the global economy. As a result of structural reform, the country entered into a period of export-led growth, and in recent years the Brazilian government has been active in the agribusiness and eco-business sectors.

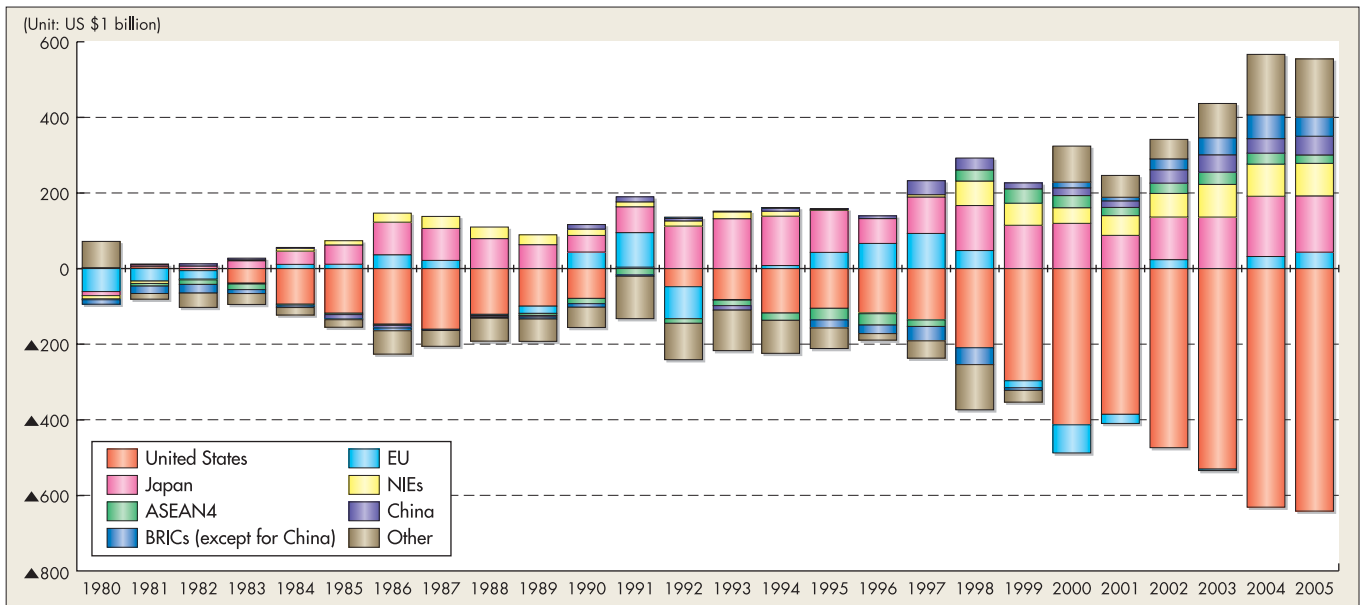
The Russian economy has been growing steadily, helped by crude oil prices that have been rising since 1999 and by

the recovery of import substitution industries spurred by the devaluation of the ruble. While a wealth of energy resources counts as a strength of its economy, the country needs to move away from a resource-dependent economic structure, which is vulnerable to the vagaries of commodity markets and exchange rate fluctuations.

Economic growth in India, meanwhile, is led primarily by the service sector, but to meet the challenge of its growing population, the development of the manufacturing sector is essential in order to create jobs. The government is committed to fostering biomedical enterprises.

South Africa, since its democratization in 1994, has advocated a strategy of economic growth through liberalization. Because of its relatively well-developed business infrastructure and the signifi-

Figure 1-5-1 Current Account Balances in Selected Countries



Source: *World Economic Outlook Database, September 2004, IMF*

cant presence of South African firms throughout Africa, the country could blossom into a gateway to southern Africa through tie-ups among South African firms and foreign business.

Each of these countries faces certain issues, but offers the promise of strong economic growth through the utilization of their plentiful resources.

#### 4. Global Economic Expansion—Soaring Prices for Crude Oil and Other Commodities

The global economy has been on the upswing since the end of 2001, and commodity prices over that period have been climbing. The pace of the climb picked up notably in 2004.

In the case of the oil market, there have been three primary causes for the rising prices: (1) demand has expanded due to the global economic recovery pulled upward by rapid economic growth in the United States and East Asia, especially China; (2) supply capacities have reached a limitation to produce enough volume, and in some producer countries, they have been unstable, sometimes actually falling for a time; and (3) an influx of investment capital into oil markets has spurred price pressure. As for the steel market, while demand has risen in step with the quick-

ening pace of global economic activity, a further boost from rocketing consumption in China has pushed up the prices of steel products, as well as raw materials and semi-finished steel.

The global economic expansion is expected to continue, and if the pace will be accelerated, prices could remain at high levels in the present tight resource markets, and this may translate into upward pressure on prices. In the economy of an individual nation, if these factors are passed on in prices, there will be growing concern about inflation and its negative impact on consumption. On the other hand, if those same factors are NOT passed on in prices, then corporate profits may be damaged, which would have macroeconomic effects. We should pay attention to commodity price trends and their impact on price levels in individual countries.

#### 5. Global Economic Imbalances

Looking at the international balance of payments as a whole, the United States accounts for a disproportionate share of current account deficits, while current account surpluses are growing in East Asia and spreading to the rest of the world economy with the exception of the United States (Fig. 1-5-1). The

causes of this global economic imbalance in current account balances, which has reached an unprecedented level, are the aforementioned consumption and imports by the United States (the engine of global economic growth), and the expansion of production and exports by the nations of East Asia, especially China.

The production and export base in East Asian nations is related to the formation of economic growth. The imbalance of East Asian nations is directly represented in their rising foreign reserves. Elsewhere, we also see it reflected in the structure of capital flows – capital obtained through current account surpluses is invested in low-risk assets such as US treasury bonds, thus making its way back to the United States and other developed nations.

It may be unlikely at this point to realize the worst scenario which assumes a failure to finance the US deficit immediately. Nevertheless, there are worries about the sustainability of the deficit at its current size. To overcome these worries, it will be necessary to transform the present unipolar economic structure dependent on US consumption to a multipolar one relying on other areas, including East Asia and Europe, in which East Asia can achieve sustainable, self-reliant economic growth.

## II. The Germination of East Asian Sustainable, Self-Reliant Growth

– Business Opportunities and Risks in East Asia –

Chapter I pointed out the need to move away from the current US-led unipolar growth mechanism and establish a multipolar structure with numerous engines for economic growth, including Asia and Europe. Chapter II addresses the question of whether East Asia is capable of emerging as an economic bloc and global economic growth engine on a par with the United States and the EU. This issue is examined from various angles, including production, consumption, investment, trade, finance and culture.

### 1. Asian Economies: Production/Consumption Trends and Risks

#### i East Asia

East Asia has been growing at a rapid pace. While Japan's contribution to East Asian regional economic growth has shrunk, China has led the region's economy since the mid-1990s.

Analyzing the structure of production in East Asia using a skyline chart, we find that Japan is placed above the self-sufficiency line in virtually every sector, producing more than enough to meet its domestic final demand, and exporting many products. The country clearly has a formidable industrial base and strong export capacity. China, too, has a strong domestic industrial base, and is highly self-sufficient in every area except for machinery and a few other categories. In contrast, the ASEAN4 nations (Indonesia, Malaysia, the Philippines, Thailand) are highly trade-dependent. Their import ratios are on the rise, both from within the East Asian region and from elsewhere in the world. It would thus appear that an international division of labor is taking place through a closely-knit intra-regional network, with network participants meeting domestic final demand, and generating exports on top of that.

Taking a closer look at the structure of the division of labor within the ASEAN4 region, we find that each nation is meeting a growing percentage of domestically generated final demand through domestic production, and this final demand is also generating the production in other ASEAN4 nations, thus an intra-regional production circuit appears to be picking up steam. We also find differences in the industrial structure of these nations. Electrical machinery and electronic goods have come to account for a large share of production in Thailand and Malaysia with production bases taking shape. In the Philippines and Indonesia, however, the manufacturing base is relatively weak, and these two countries tend to be more dependent on industries where the level of processing is low. Some conjecture that the recent differences in economic growth rates within the ASEAN4 region may be due to industrial structural differences.

As for China's domestic industrial structure, a skyline chart shows that the country has a well-balanced mix of various industries. Miyagawa (2003) and Miyagawa & Wang (2003) have noted a coexistence of capital-intensive and labor-intensive industries, as if there existed a number of different countries at different levels of development within China. Comparing the industrial structure in China's coastal and inland regions, we find many industries in the coastal region have a self-sufficiency ratio of more than 100%, along with high export ratios (Fig. 2-1-22). In inland China, by contrast, there are many industries with self-sufficiency ratios below 100%. Demand in this region is met through trade with the coastal region and within the inland region (Fig. 2-1-23).

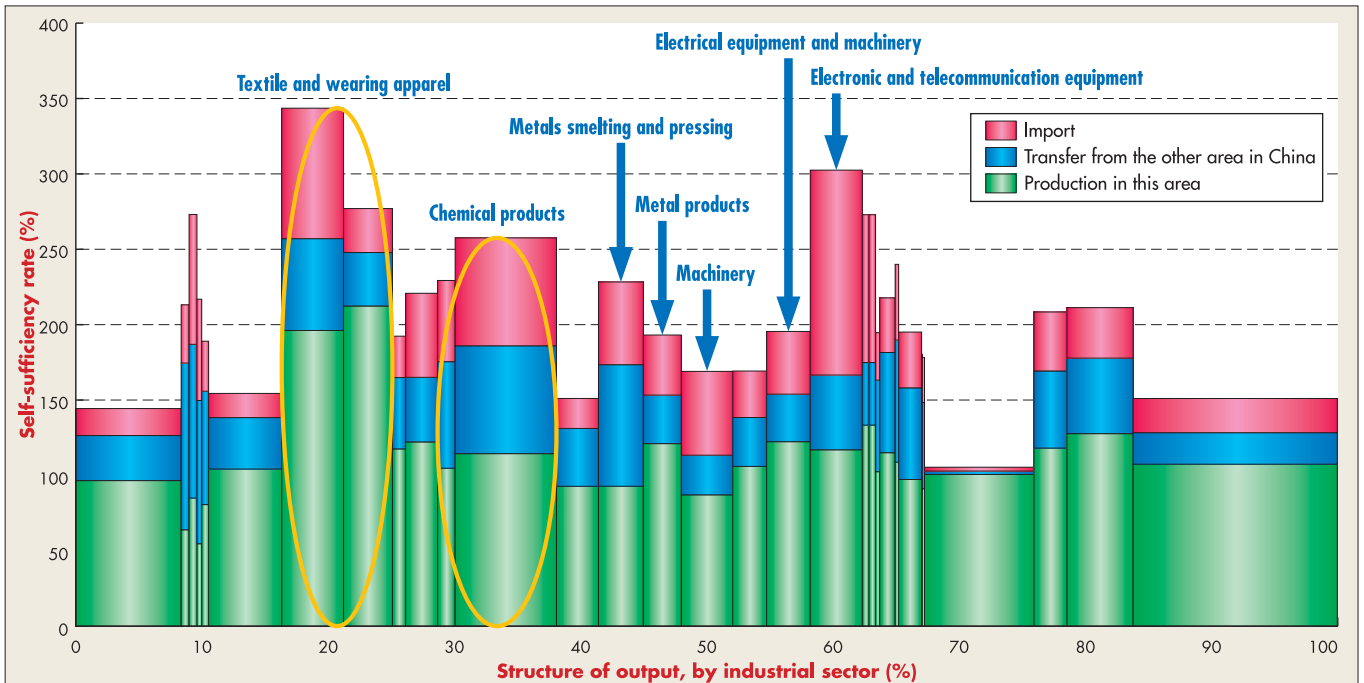
On the whole, then, China is in the process of building up an industrial base with a high level of self-sufficiency across the board, something not to be

found among the ASEAN4 nations or the NIEs (newly industrialized economies). Yet we need to pay attention to whether China has the sort of industrial base that would allow it to source internationally competitive products within the country. In other words, much of the international trade of China's coastal region consists of imports, and improvement-trade accounts for a high percentage of its exports. Since its exports are heavily dependent on intermediate products imported from East Asia and other regions, the question arises whether China is capable of producing competitive exports completely on its own. Inland China, as well, shows a certain degree of self-sufficiency, but some of that may be provided by firms, especially state-owned enterprises, which are not necessarily competitive on quality.

In terms of the domestic division of labor among China's various regions, the southern, eastern and northern coastal areas are closely tied into the global economy, but their links with the inland areas of northeastern and central China are weak. The demand increased in the coastal region is not generating production in the inland region, which means that coastal and inland China are cut off from each other. Given the way that foreign trade and incoming foreign direct investment are fueling economic growth and high incomes, the fact that the coastal region's economic growth is not spreading inland would appear to be one contributing factor behind the growing income imbalance and other economic disparities within China.

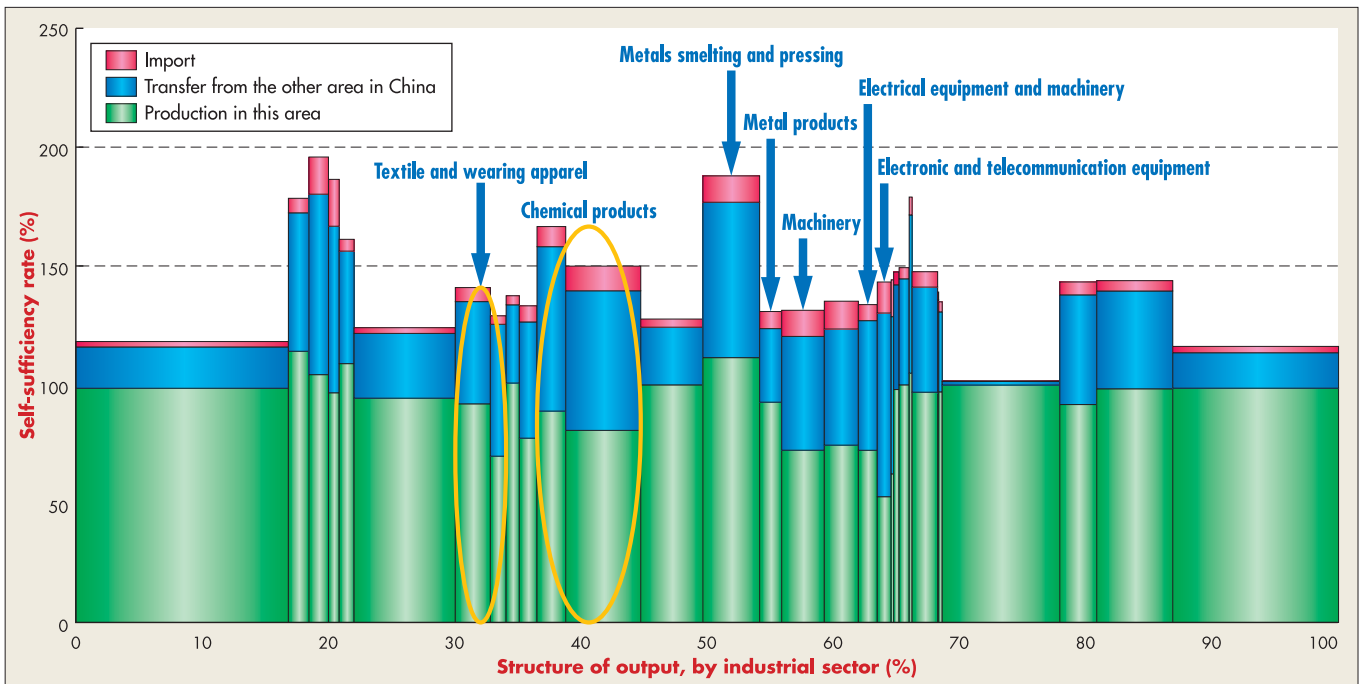
As for the degree of interconnectedness within East Asia, the international technological specialization index shows the increasing degree of interconnectedness from 1990 to 1995. We can also see the development of domestic manufacturing in recent years as the

Figure 2-1-22 Skyline Chart for Coastal China in 2000



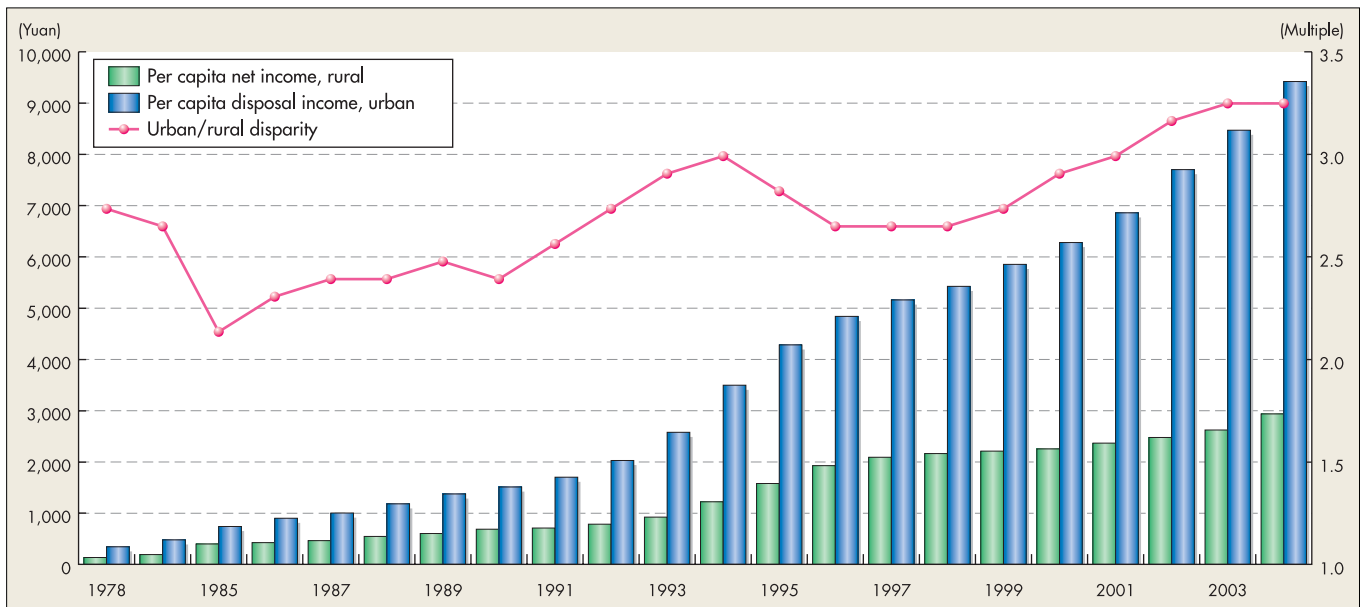
Sources: China Statistical Yearbook, National Bureau of Statistics of China; Multi-regional Input-Output Model for China 2000, Institute of Developing Economies

Figure 2-1-23 Skyline Chart for Inland China in 2000



Sources: China Statistical Yearbook, National Bureau of Statistics of China; Multi-regional Input-Output Model for China 2000, Institute of Developing Economies

Figure 2-1-72 Urban/Rural Income Disparity



Sources: China Statistical Yearbook and China's Long-Range Economic Statistics, National Bureau of China

East Asian countries and regions put more of their own domestic intermediate goods into production.

Some conjecture that this East Asian industrial base is held together by a diverse accumulation of industries, especially small and medium-sized enterprises (SMEs; sometimes referred to as "supporting industries"). Foreign-invested companies account for much of the region's capital-intensive industries, such as electronic parts and auto parts manufacturing, but the entry of local firms has picked up in recent years, and we could well see them embarking upon capital-intensive industries as a spillover effect from the foreign-invested firms.

And finally, the East Asian region is very active in R&D, as evidenced by its expenditures and the numbers of its personnel. The value-added content of export products is gradually rising. In China, especially, as the country makes its transition to a market economy, R&D activities are proceeding apace, particularly among private companies. The R&D expenditures, numbers of R&D personnel and numbers of patent

applications are rising steeply. These trends are supported by rising levels of education within China, and the training of personnel abroad. At this point in time, R&D activities in China do not necessarily lead to concrete results all the time, but from the point of view that Japanese enterprises are likely to face competition in the future, it would be wise to track developments on this front.

### ii Consumption in China

China continues to achieve high economic growth, and selective consumption is expanding in the cities. However, while fast growing fixed asset investment is acting as the engine of overall GDP growth, personal consumption is relatively low. Solid income growth and the sophisticated consumption in urban areas have propped up consumption, however, stagnant incomes in rural areas have kept consumption low. Urban residents account for a disproportionate 60% of personal consumption in China although they make up about 40% of

the population.

Overall consumption in China is climbing only slowly, for a number of reasons. First, there is the disparity between urban and rural income structures (Fig. 2-1-72). Second, there is a different consumption trend for each income bracket in urban areas. Income gaps in cities have been growing rapidly since the latter half of the 1990s, and different income levels display markedly different consumption patterns. Third, consumption trends differ according to region. In both urban and rural areas, people in the coastal region have gained more disposable income as a result of economic development compared to the inland region.

In the meantime, the benefits of China's economic development have not gone exclusively to big coastal cities. In recent years, in addition to the regional spread of Chinese markets, we have also seen striking emergence of consumer markets in smaller cities outside the major coastal cities, a phenomenon hinted at by the presence of a high-income class in neighboring small and medium-sized cities in the coastal

Table 2-1-89 Income Levels in Inland and Northeast China (2002)

	Per capita disposable income (yuan)				Shaded area	
	Top 10%	Top 10-20%	Top 20-40%	Middle 20%	Population (10,000s)	Number of households (10,000s)
Nationwide	18,995	11,772	8,869	6,656	4,400	1,650
Hubei Province	17,668	10,464	8,011	6,112	—	—
Shaanxi Province	13,421		6,778	5,096	—	—
Chongqing Municipality	19,675	10,926	8,279	6,257	129	48
Sichuan Province	14,991		7,915	5,736	—	—
Liaoning Province	16,570 (top 5%: 20,620)	10,126	7,738	5,760	129	48

Sources : From the *Yearbook of Provincial Statistics, 2003*, with reference to Shigenami (2003)

Notes : Population figures for the provinces and Chongqing Municipality taken from the *China Population Yearbook, 2003*. Average urban household size and average household size for top 10% assumed to be 3.04 and 2.68 persons respectively, based on the *China Statistical Yearbook, 2003*.

region, and even in inland areas. (Table 2-1-89) Also, within urban areas, we are witnessing the formation of a stratum called “the new middle class” with purchasing power.

If Japanese companies are to be profitable in the diversified Chinese markets featured above, they must not allow themselves to be dazzled by impressive growth figures. Rather, they must employ careful observation and analysis to adopt product development and sales service strategies crafted to suit the characteristics (regional idiosyncrasies, income levels, etc) of specific target segments. They need to differentiate their products and services, and establish their brands to gain success in potential Chinese markets.

### Structural Problems in the Chinese Economy

A number of structural problems will have to be resolved if China is to achieve sustainable economic growth.

First, the problem of overinvestment, discussed in Chapter I, is closely interrelated not only with domestic demand expansion stemming from economic growth, but also with the structural problems besetting the Chinese economy. The Chinese economy faces an array of closely-linked structural problems, including the following: (1) stagnating rural incomes and unemployment hold overall consumer demand growth to a low level except among the wealthy classes in the coastal region; (2) local governments and state-owned

enterprises engage in inefficient investments; and (3) inefficient financial activities are rampant, especially at state-owned banks, and the financial system is fragile. The following are the principal structural problems facing China today.

**The “Three Agricultural Problems”:** This term refers to low agricultural productivity, the desolation and impoverishment of rural communities, and poverty among farmers. Serious reform efforts (eg. taxation system, household registration system) have begun to address the country’s two-tier (urban/rural) social structures and to adjust the structure of agricultural production, but there are more challenges to be faced. Competition for urban job opportunities is intensifying. The quality of rural government services is declining. Not enough transfer funds are forthcoming from the central government’s revenue-sharing system. There are many other issues such as urbanization in rural areas, the building of rural infrastructure and a social safety net, revitalization of township enterprises and the building of a rural financial system.

**Unemployment:** The issue of unemployment is affected by a host of structural factors. There is still tremendous employment pressure in the cities, where many are either unemployed or being laid off from state-owned enterprises. This problem and the rural labor surplus must both be addressed simultaneously.

**Reform of State-Owned Enterprises:** Serious efforts to reform state-owned enterprises have been underway since the latter half of the 1990s. Although certain results have been achieved, including a reduction in the number of enterprises and their employees, they continue to be outdone by non state-owned enterprises in terms of profit performance, and a higher percentage of deficit balance. Beyond that, there are many other problems that must be resolved in the course of reform, including non-negotiable state-owned stocks, the limited monitoring function by stock markets, state-owned asset outflow, growing numbers of unemployed and the building of a social safety net.

**Social Security:** It is important for China to implement a sustainable social security system corresponding to the declining birthrate and aging population. The urban and rural pension systems are both fraught with challenges.

**Energy:** Increasing energy demand brought on by rapid economic growth elicits a number of issues relating to the need for a stable energy supply: (1) the building of transport infrastructure to ease domestic regional imbalances in energy supply has been lagging; (2) the country has not developed an adequate petroleum reserve system; and (3) in connection with the need to secure overseas energy resources, China needs to diversify its import risks and find

Table 2-2-1 Japan's Direct Investments in East Asia — Cumulative Amount &amp; No. of Investments

(Units: cases; ¥100 million)

	Amount			Change (vs. 1989)		No. of investments			Change (vs. 1989)	
	FY 1989	FY 1995	FY 2003	FY 1995	FY 2003	FY 1989	FY 1995	FY 2003	FY 1995	FY 2003
East Asia	10,837	65,687	117,085	6.1	10.8	1,677	9,843	13,517	5.9	8.1
China	587	12,222	20,651	20.8	35.2	126	3,133	3,972	24.9	31.5
NIEs	6,536	25,893	44,590	4.0	6.8	762	2,940	4,275	3.9	5.6
Hong Kong	2,502	11,070	14,429	4.4	5.8	335	1,326	1,589	4.0	4.7
South Korea	799	3,008	4,408	3.8	5.5	81	297	431	3.7	5.3
Taiwan	662	3,319	9,140	5.0	13.8	165	534	970	3.2	5.9
Singapore	2,573	8,496	16,613	3.3	6.5	181	783	1,285	4.3	7.1
ASEAN4	3,714	27,572	51,844	7.4	14.0	789	3,770	5,270	4.8	6.7
Malaysia	902	6,309	8,603	7.0	9.5	159	775	962	4.9	6.1
Indonesia	840	10,533	17,766	12.5	21.2	140	964	1,361	6.9	9.7
Philippines	269	2,750	8,889	10.2	33.0	87	463	813	5.3	9.3
Thailand	1,703	7,980	16,580	4.7	9.7	403	1,568	2,134	3.9	5.3

Source : Foreign Direct Investments, Japan Ministry of Finance

Note : Figure of FY 1995, FY 2003 are cumulative ones from FY 1989 to FY1995, FY1989 to FY 2003 respectively.

ways to develop such resources on its own. The country is faced with an urgent need to improve its large-scale inefficient use of energy, which also causes environmental issues.

**Environment:** Rapid industrialization and motorization are escalating air pollution problems, while urbanization worsens water pollution and water wastage, exacerbating water shortages. The impact of environmental issues on economic activity and people's lives is thus a cause for concern.

## 2. Japanese Investment in East Asia and the East Asian Investment Climate

Japanese direct investment in East Asia accelerated after the Plaza Accord of 1985, with an annual average flow of ¥800 billion from Japan to the rest of East Asia (Table 2-2-1). Investment in Southeast Asia dropped off sharply after the Asian financial crisis in 1997, but there have been signs of recovery since the turn of the century. Foreign direct investment in East Asia from Japan and other countries has been increasing, with a total of US\$1.2697 trillion in 2003, 5.2 times the US\$244.3 billion figure for 1985. This is equal to 15.4% of global inward investment, which clearly shows how attractive the East Asian

region is as an investment target.

The ASEAN nations can basically be categorized into two groups in terms of the quality of their investment climates. One consists of Thailand, which earns high marks overall, and Malaysia, which scores around average. In the other are the Philippines, Indonesia and Vietnam, which score below average in almost every category. However, in forecasts for the coming three years' investment climate change, there are high improvement expectations in Vietnam. Recently, there is a tendency to re-evaluate Vietnam as the "next China." Existing local Japanese enterprises suggest that it has that potential.

China's investment climate receives high marks for labor force quality and other labor force-related issues, which proves that Japanese-invested enterprises are not necessarily stepping up their investments in China with a single-minded focus on "cheap, abundant labor." China, however, receives low marks because of foreign exchange risk, restrictions on fund transfers, difficulty in raising capital locally, and administrative responses to customs procedures. In contrast to the attractiveness of Chinese markets, its business environment actually leaves a lot to be settled. Preferential treatment for foreign-invested enterprises, labor costs and moves to create FTAs and

Economic Partnership Agreements are concerned areas of possible deterioration in the investment climate over the next three years or so. These are concerns over intensifying competition with other firms, upward pressure on labor costs, and cutbacks in the advantageous treatment offered to foreign-invested enterprises. Some factors have already come to the fore.

**Undeveloped, Opaque Legal System:** China has reportedly amended, repealed or adopted some 1,000 laws and administrative rules in order to meet its WTO commitments. Some of these moves have been ill-considered, and have introduced chaos into the system. Foreign-invested enterprises (FIEs) are sometimes subject to administrative guidance measures that include, for example, demands to meet prescribed local content ratios or hold domestic sales below a set share of total sales.

**Protection of Intellectual Property Rights:** Japan and many other countries are working to enhance their international competitiveness by taking advantage of intellectual property rights protection to add value to products, but Chinese enterprises show little awareness of this issue, and their infringements have become an international problem.



**Labor Force Issues:** The problem of how to secure and make use of local managerial talent and highly skilled labor has become an important issue for FIEs in China.

**Electric Power:** Power consumption rose sharply in China from 1996 through 2000, at annual rates of 9 to 15%. Power demand in 2003 jumped to 1.891 trillion kwh (up 15.4% year-on-year). Power shortages have a large adverse impact on the business environment, for they have impacts on delivery deadlines, production volume and increase costs.

Even though Chinese markets are alluring, one must be very aware of the many risks and other issues and be calm and rational in devising a business strategy.

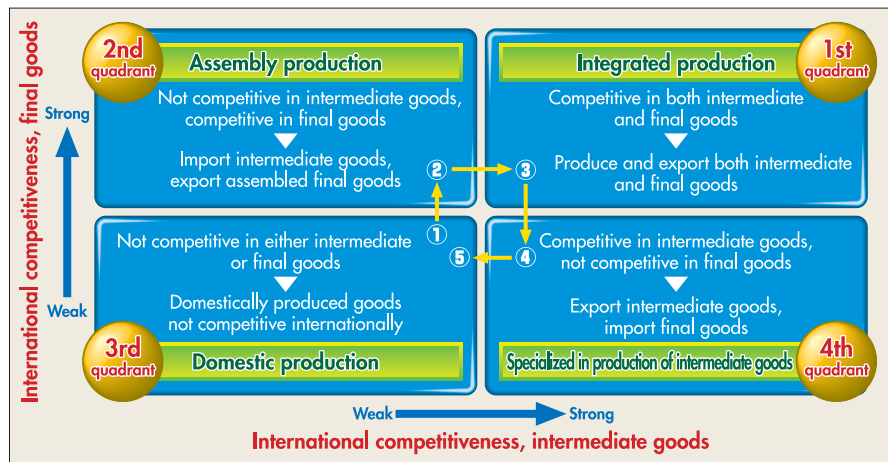
### 3. Trade Structure Behind the Growth of East Asia: Triangular Trade

This section analyzes the structure of the East Asian economy from the perspective of trade, using data broken down by production processes (raw & semi-finished materials; intermediate goods; final goods).

Looking at the East Asian economy from different production processes, we find that Japan, the NIEs, China and ASEAN all have their own special characteristics, and that complementary economic zone may have already evolved in the co-existence of an assembly manufacturing economy and an intermediate goods manufacturing specialized economy.

The flying geese pattern of development model has generally been accepted as the best theoretical model for describing industrial development in East Asia. However, in order to give proper weight to the issue of different modes of development in the East Asian economy with a highly developed labor-division network in production processes, and to fully reflect both competitiveness and complementarity within the same economic bloc, this White

Figure 2-3-2 How to Read a Chart of International Competitiveness Indicators



Source: Prepared by Ministry of Economy, Trade and Industry

Paper uses a “Chart of International Competitiveness Indicators” to analyze international competitiveness using intermediate and final goods (Fig. 2-3-2). Each quadrant in the “Chart” represents a different type of economy. Quadrant 3 represents the least matured economy, with the other quadrants representing progressively higher levels of economic development, in counterclockwise order. First, industries that start out by meeting demand for domestic supply gradually (with the strength of low wages) develop prowess in assembly, transitioning into an assembly manufacturing mode in which they import intermediate goods and export final goods. Later on, with an increased level of technology, they become competitive in both final and intermediate goods, and gain international competitiveness in both intermediate and final goods. As industries mature, they lose competitiveness in assembly due to rising wages and other factors, and begin to specialize in the production of relatively capital-intensive intermediate goods.

Finally, manufacturing itself loses its competitive advantage, and the country begins to post import surpluses for intermediate goods. Industries producing such goods lose international competitiveness and return to their original

mode, once again supplying only domestic demand. The International Competitiveness Chart is two-dimensional, but if we were to add another dimension to represent wages, we would find industrial development moving upward in a spiral path, which is why this White Paper calls this model of industrial development “the theory of spiral-type development.”

By industry, we find this type of development occurring in the textiles industry (Fig. 2-3-4), with Japan, South Korea, Taiwan, Indonesia and China swirling in chronological succession around a central point. As for chemicals, against the backdrop of dynamic change, East Asian manufacturers are becoming more competitive by concentrating on either assembly production or intermediate goods production.

By country, Japan dominates the market for transport machinery, general machinery and precision machinery, but South Korea is catching up in these areas as it becomes more competitive in intermediate goods. China is strong in labor-intensive industries such as miscellaneous goods and textiles, but at the same time it has also positioned itself as the top competitor in white goods, which shows that the country is graduating to a higher-grade industrial struc-

Figure 2-3-4 Chart of International Competitiveness Indicators



Source : RIETI-TID 2005 Research Institute of Economy, Trade and Industry

Notes : Country (region) names are abbreviated in the chart as: Japan (J), South Korea (K), China (C), Taiwan (T), Thailand (Th), Malaysia (M), Philippines (P), and Indonesia (I). Years are abbreviated as: 1980 (80), 1990 (90), 2000 (00), and 2003 (03)

ture, moving from labor-intensive industries into a technology catch-up phase.

The above analyses point to the following conclusions: (1) within the East Asian region, Japan, the NIEs, China and the ASEAN nations are all industrially competitive in their own way, depending on the special characteristics of their respective economic bases; (2) with regard to production, a complementary economic bloc has already formed; and (3) this is not a static complementarity, but a dynamic one that changes in response to economic growth and level of manufacturing technology.

As for product value, in order to analyze the trade framework, this White Paper focuses on unit value indices of foreign trade, which take the unit value of highly technology-intensive exports and divide it by the unit value of imports. These indices are based on the idea that a country scoring above 1 on the index for a product (i.e. the unit value of exports is higher than the unit value of imports) means that the country tends to produce this product with high added value. The analysis shows that: (1) Japan is the leading East Asian producer of highly technology-intensive products; (2) China still does not account for a high proportion of such products; (3) there is little overlap between the ASEAN nations and China in this area; and (4) it is possible that the ASEAN nations produce relatively highly technology-intensive products for trade within the ASEAN region.

Next, looking at the trade between East Asia and the rest of the world in terms of production processes, we find that a "triangular trade" arrangement has arisen: parts and processed goods produced by Japan and the NIEs are imported as intermediate inputs by China and the ASEAN nations, which assemble them into finished goods for final consuming markets in the United States and Europe. Moreover, this triangular trade structure has grown increasingly pronounced for almost all industries in recent years. Overall, as

production bases in China and the ASEAN nations grow, local procurement ratios are somewhat progressing. This is due in part to growing intermediate goods production in the area and the fact that exports of intermediate goods from Japan and the NIEs intensively go to China and the ASEAN nations, and that increasing exports, especially to North America and Europe have also an effect. It also indicates that a triangular trade structure has grown up in the midst of the East Asian ongoing multi-tiered economic growth, characterized by an open economic region with a high degree of sectoral specialization.

Further, qualitative changes in this triangular trade are apparent in the unit prices for traded goods. Unit prices for the intermediate goods exported by Japan to China, and for the final goods exported by China to the United States, are going up, an indication that this triangular trade is evolving towards greater sophistication. At the same time, trade that takes place outside this triangular structure – i.e. Chinese exports to Japan, and Japanese exports to the United States – is also increasing in volume, with traded goods becoming differentiated on the basis of factors such as value-added input. The East Asian economy is not becoming stronger and more sophisticated only within the triangular trade framework, but trade occurring outside that framework is also gaining momentum through intensive variant goods trading. Triangular trade among Japan, China and the United States is thus developing as a multi-layered phenomenon.

#### 4. East Asia's Capital Flows and Financial Environment

This White Paper also looks at the East Asian economy from the perspective of the capital flow structure since the Asian financial crisis. Examining the international balance of payments of individual nations around East Asia over the past few years, we find that

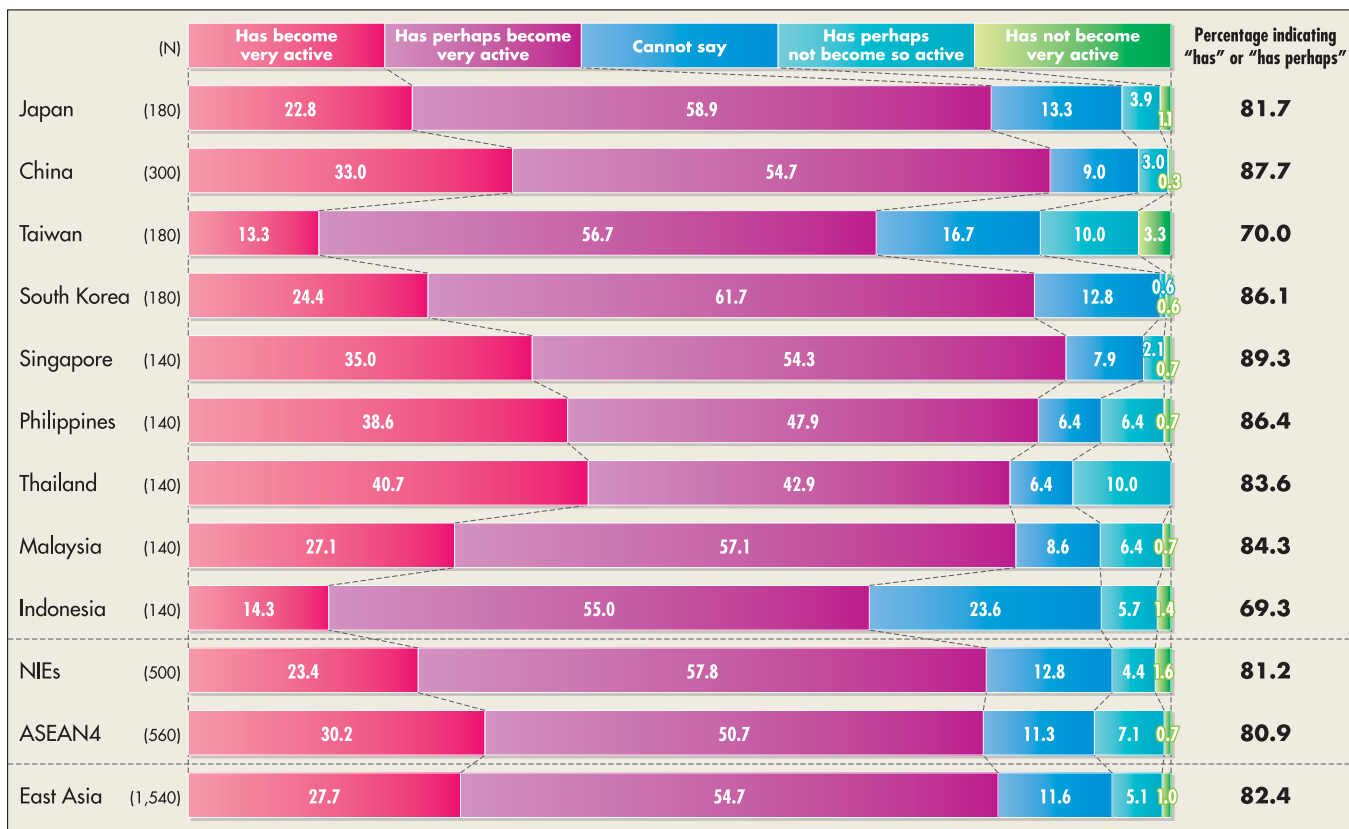
current accounts have generally either achieved a surplus or have expanded surpluses since the crisis. On the other hand, however, all nations in the region showed net capital account surpluses prior to the crisis, but turned to net deficits except for China, South Korea and Taiwan. When we turn our attention to investment-savings balances, moreover, while we find almost all nations in the region showed excessive investment before the crisis, most of them turned to savings surpluses. Dropping investment rates are the main reason for this phenomenon, and perhaps it is a sign that the corporate sector and financial sector have not recovered yet.

Examining the financial environment with a focus on the corporate sector by looking at the capital flow statistics of South Korea, Thailand and China, we find that the financial and capital markets in South Korea and Thailand suffered a massive blow during the crisis. Despite the severe damage, and although these countries show different capital raising conditions and financial intermediary functions, it would be fair to say that they are basically both in the process of recovery. It also shows that reliance on bank financing is growing in China.

Turning our attention to the financing of SMEs – the intermediary function of the banking sector declined after the crisis in every East Asian country except China, and banks also provided less funding to domestic enterprises. Governments throughout the region, having become aware of the importance of supporting SMEs, rolled out an array of financial support measures. Only then did the banking sector begin reviving and more recently, there have been signs that SMEs have been able to get more financing. However, the degree of recovery differs from one country to the next.

Thus, even with the difference in recovery in each country, signs of further recovery, though not totally sufficient, are nevertheless in evidence. A

Figure 2-5-16 Perceptions Regarding Cultural Exchange in East Asia



Source: Survey of Awareness, Research Institute of Economy, Trade and Industry

rebound in fund demand in the corporate sector and a recovery of the banking sector's intermediary function are expected to contribute to a recovery in the investment rate. The financial sector's recovery is indispensable to sustainable and disciplined growth in East Asia.

## 5. Active Cultural Exchange in East Asia

This section analyzes the relationship between cultural exchange and economic activity in East Asia. East Asian culture is a "mixed culture" created through contact with different cultures and civilizations, and can basically be characterized as "diversity." These days in East Asia, the brisk economy invigorates the movement of people and goods, contributing to a lively cultural

exchange and improvement of mutual understanding. Looking at active cultural exchange in the East Asian region in terms of the movement of people and goods, as the numbers of students going abroad to study, international travelers and international flight services within the region are growing, so is trade in cultural-related goods, including movies and music. A survey on exchange in East Asia by the Research Institute of Economy, Trade and Industry (RIETI) found that people in East Asia have a high level of awareness of active cultural exchange (Fig. 2-5-16) and a high level of positive feelings toward each other. The results of the survey also reveal that active cultural and economic exchanges mutually affect each other and that active cultural exchange may spur economic activities.

Economic growth in East Asian countries and the region has created an "urban middle class" whose members have a common lifestyle and similar tastes, reflecting their shared culture.

Yet at the same time, they serve as carriers of the great cultural diversity in accepting new cultures and commodities. With the rise of the urban middle class as a player in cultural exchange, the shared modern culture of this class is said to be indicative of the emergence of a common culture in East Asia. In the future, the expansion of this class may come to influence regional economic, diplomatic and political trends. Furthermore, the improvement of cultural harmonization in East Asia may support much stronger East Asian ties including regional and economic integrations in East Asia, which are currently under discussion.

### III. The Declining and Aging Population in Japan and Economic Integration with the New Prosperity of East Asia

As Japan's population ages and shrinks, if we are to continue enjoying our present economic prosperity, our country will have to boost its industrial competitiveness, and it will be necessary for us to take active steps to foster the dynamism of East Asia referred to in Chapter II. This chapter discusses what Japan will need to do in order to maintain and enhance its industrial competitiveness, and examine the nature of Japan's economic integration with the East Asia.

#### 1. Importance of Intellectual Assets and Human Resources in a Declining and Aging Society

Intensified global competition brought on by the rise of East Asia means that goods and services go out of date more quickly than ever before. If Japanese enterprises are to stay competitive, it is important that they implement "Intellectual asset based management," in order to strategically translate intellectual assets into corporate value. In order to enhance corporate value, companies have to work to disclose their intellectual assets to a wide range of stakeholders, so that they can evaluate them. This is precisely what the "Intellectual Assets-Based Management Disclosure Guidelines" currently under discussion are intended to facilitate. This approach will hopefully accelerate the dialogue between companies and stakeholders in a future knowledge-based economy.

As for the domestic economic environment, in addition to the rapidly dropping birthrate and aging population, Japan's population will start declining in 2006. Japan will become the first country to lose population among the advanced nations. There are concerns about how this might affect the economy. One direct impact will be a shrinking labor force. However, considering our country's post-war economic

development, the economic growth has been fueled by capital accumulation and technological progress. In turn a smaller labor force will not necessarily translate into a smaller economy. On the other hand, the rapid aging of the population could push the nation's savings rate down deeply, and this in turn could hinder capital stock formation, which may make it impossible to count heavily on the capital accumulation that has powered economic growth in the past.

For this reason, as our population declines in the future, shortages of labor and capital could develop. To achieve economic growth under such circumstances, it is important that we continue pressing ahead with economic structural reform so that productive resources can be transferred smoothly from less productive sectors to more productive ones.

Also, as noted above, Japan is moving toward a knowledge-based economy, in which the value of intellectual assets created by people with ideas and planning ability will become more and more important. In this sense, the falling population threatens to depress economic growth not by reducing the total labor force, but by reducing the aggregate store of knowledge that our labor force carries around. According to empirical studies done in the West, improving the quality of labor by investing in human resources greatly boosts corporate performance. Accordingly, to maintain a strong economic structure even against the backdrop of a declining population, it is necessary that we improve the quality of every single person in the labor force.

#### 2. Utilizing the Best and Brightest Personnel at Home and Abroad

At the national level, it cannot be said that Japan is making optimum use of its existing human resources. To respond to worries about a shrinking labor force, it is important that we take steps to

encourage women and elderly persons to take up employment. Japan's senior citizens are in fact very willing to work, and they possess a wealth of highly valued knowledge and skills. As the baby boom generation moves toward retirement age, it is necessary to provide a venue in which the elderly can make full use of their abilities. There are also plenty of capable women who find it difficult to take a job due to childbirth and child-care. Creating an environment that would help women stay in the work force longer would contribute to a higher-quality workforce.

In Finland, comprehensive policy directed toward the national and local governments, private sector and individuals have practically contributed to an increase in the rate of senior citizen employment. The Netherlands has proactively established and implemented a part-time employment system. Assessments of the system indicate that it has encouraged acceptance of a wide variety of employment modes, brought more women into the workforce, and perhaps even put an end to the country's falling birthrate. In Sweden, an active family support policy helps to maintain a high rate of employment among women and has successfully stemmed a decline in the birthrate. These policies adopted in Europe provide many hints about what we might do in Japan to promote higher rates of employment among women and senior citizens.

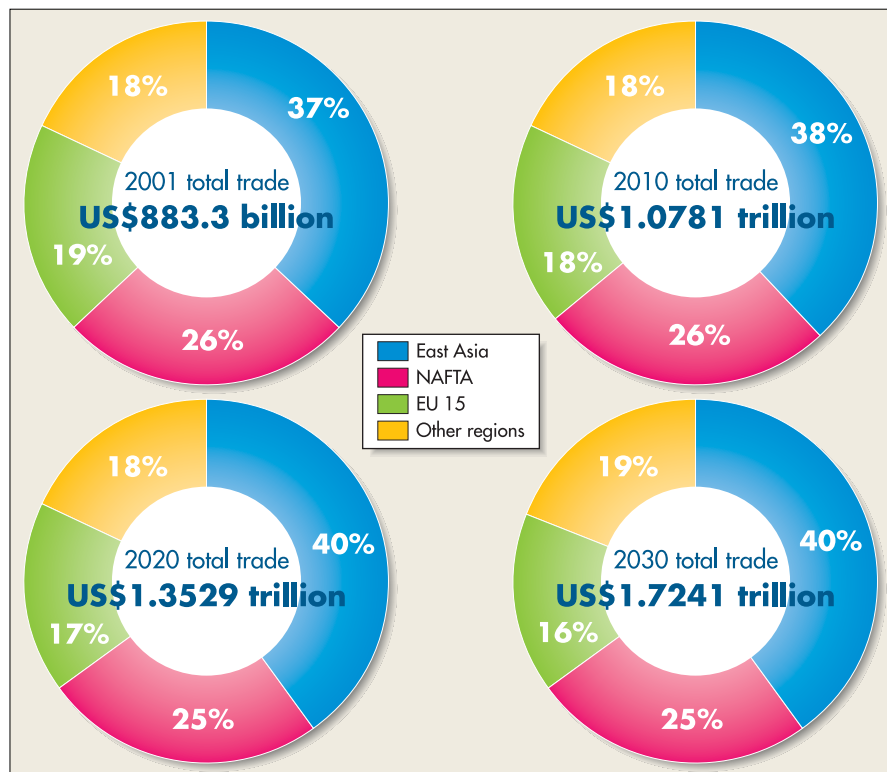
However, even assuming the rosier possible scenario for rising birthrates and increased labor force participation among women and senior citizens, there is a possibility that Japan's labor force will decline in the long term, if countermeasures to deal with falling birthrate are not effective. For that reason, we must look into the option of using foreign workers, although it is not a realistic possibility to make up the shortfall with them because Japan would have to let in hundreds of thousands of workers

per year. Accordingly, we need to discuss allowing in highly-skilled workers as they are capable of increasing Japan's international competitiveness. In areas of Japan where foreign workers are already being used, there are significant problems relating to community friction, working environment, and living environments; therefore we would have to be very careful to take steps to preclude such problems. We must, in other words, keep three principles in mind when discussing the possibility of allowing more workers into Japan: (1) foreign workers "are humans before they are workers," and they are "people living in Japan;" (2) we must banish the idea that "foreign workers = cheap labor;" and (3) we must have a more transparent system for taking in foreign workers, and must enforce the law more vigorously to prevent illegal employment and overstaying. In concrete terms, the alien resident check system and Japanese language proficiency tests must be made more effective, and government agencies and the enterprises that take in foreign workers must take adequate steps to ensure proper terms of employment, as well as attractive working and living environments. Over the medium to long run, this approach will reduce the social costs caused by incorporating foreign workers. In the future, in response to the inevitable decline in the size of Japan's workforce, we should be more aggressive in seeking out highly-skilled workers.

### 3. East Asian Economic Integration Amidst a Declining Population

As birthrates fall and the population ages and declines, Japan cannot expect to achieve extended periods of high economic growth. At the same time, however, the global economy, especially in East Asia, is set for continued strong growth. With this gap between domestic and external growth rates, Japan's external dependence (trading percentage per GDP) will go up. In particular, the share related to East Asia is expected to

Figure 3-3-7 Japan's Trading Partners : Long-range Simulations



Source: Prepared by Ministry of Economy, Trade and Industry

Notes : 1. Results of GTAP model simulations.

2. "East Asia" here means China, Hong Kong, Taiwan, South Korea, Singapore, Thailand, Malaysia, Philippines and Indonesia.

post especially big growth (Fig. 3-3-7). Trade and investment volume are set to increase not just in absolute terms, but in relative terms as well. Their importance to Japan is expected to jump. For example, the correlation of these factors with real GDP growth is rising throughout East Asia. Moreover, the East Asian economic grouping is coming to rival the EU and NAFTA in size, and its presence can be expected to grow even larger in the future. Under these circumstances, it is important for Japan to adopt an economic strategy that includes the pursuit of economic partnership agreements (EPAs) as a means of plugging into the vitality of an increasingly interdependent East Asian economy.

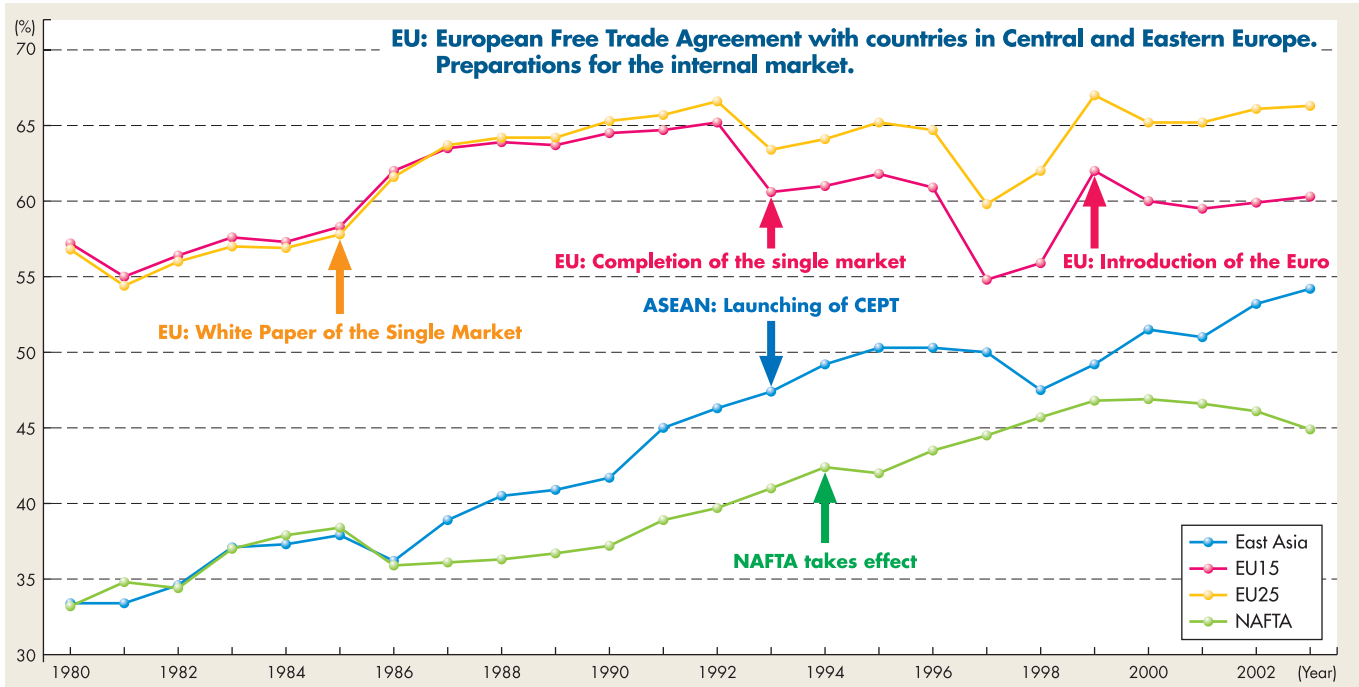
In particular, at a time of heightened external dependence due to population decline, the establishment of EPAs will have greater economic impacts in Japan,

including: increased trade as a result of tariff reductions; stabilization of our external economic relations through cooperation and the coordination of economic infrastructure creation; and enhancement of the benefits derived from overseas direct investments through improvement in the investment climate. Going beyond mere tariff reductions and taking economic ties to a higher level, including investment and economic/social systems, will thus bring enhanced economic benefits to Japan as well.

### 4. Deepening East Asian Economic Ties, and Regionally Integrating Systems

Although East Asia is not a formally constituted economic bloc like the EU or NAFTA, it has developed de facto closer regional economic ties (Fig. 3-4-1).

Figure 3-4-1 Intraregional Trade in East Asia, the EU and NAFTA



Sources : Trade statistics from IMF-DOT and Bureau of Foreign Trade, Taiwan, Chinese Taipei (<http://eweb.trade.gov.tw/default.asp>)

Notes : "East Asia" here includes Japan, China, South Korea, Hong Kong, Taiwan and the ASEAN10. Import/export figures for countries other than Taiwan are based on Taiwanese data, and cover the years 1989-2003. Import/export figures for Taiwan are based on data from other countries, and cover the years 1983-2003.

This is the result of the formation of a Japanese enterprise-driven region-wide production system and sales network in East Asia, which has spurred increasing imports of intermediate and final goods.

The experience of the EU in creating the single market shows that removing barriers to trade and investment spurs the rise of a region-wide production system and specialization of individual countries in their most competitive sectors. This would indicate that formal integration in East Asia can be expected to bring about further industrial specialization within the region, enabling whole East Asian regions to enjoy economic growth. If market integration is going to narrow the economic disparities within the region, certain conditions will have to be met, including further accumulation of human resources, strengthened financial systems and improved competition policies. Once market integration is achieved through the removal of non-tariff trade barriers, direct investment would stimulate the rise of an optimally configured intra-

regional production and sales network, and specialization by individual countries and regions. On this score, East Asia is already in the process of meeting the necessary preconditions, and the path to market integration is now being paved. However, extremely pronounced economic disparities exist within the East Asian region. Thailand, Malaysia and Singapore, for example, have already built up their industrial bases to a certain degree and are now dealing with issues related to the establishment of new economic models. Indonesia, the Philippines and Vietnam are faced with the task of achieving industrial accumulation by the improvement of their investment climates. Laos and Myanmar must build basic infrastructure and work out economic growth strategies. These countries are thus at several different levels of economic development. The EU created the Cohesion Fund as a fiscal initiative designed to build up an infrastructure that would allow member countries to adjust to the intensified competition

caused by economic integration, especially by the establishment of monetary union. For East Asia, where economic disparities are so large, the most effective measure at this point would be to use Official Development Assistance and other forms of cooperation to assist countries where the infrastructure required for economic integration does not yet exist.

Japan has been actively assisting the ongoing efforts by the developing nations to achieve growth with a consensus that economic development and the elimination of poverty are important as a means of achieving sustainable development. There is also an awareness in Japan that in order to achieve sustained economic growth among developing countries in East Asia through the creation of deeper economic ties, it is even more necessary than before to provide assistance that is tailored to each nation's needs and level of economic development to create the system to facilitate further economic ties. This assistance must be designed to eliminate

Figure 3-4-19 International Migration in East Asia

(Unit: 1,000 persons)

Country Territory	Labor force			Flow						Stock					
				Inflow of foreign workers			Outflow of national workers			Foreigners working inland			Nationals working abroad		
	2003	2000	1997	2003	2000	1997	2003	2000	1997	2003	2000	1997	2003	2000	1997
Japan	66,666	67,660	67,870	142	130	94	—	55	62	790	710	660	181	61	134
South Korea	22,196	21,950	21,604	—	37	32	(251)	251	237	373	285	253	—	—	[56]
China	760,750	739,920	705,280	—	—	—	770	426	334	—	63	82	—	—	—
Hong Kong	3,500	3,370	3,216	(83)	20	16	—	—	—	(237)	217	171	—	—	[50]
Taiwan	10,076	9,784	[9,210]	—	—	—	—	—	—	304	321	[251]	—	—	[120]
Singapore	2,150	2,192	1,876	—	—	—	—	—	—	590	530	530	(44)	—	[15]
Malaysia	10,240	9,616	9,038	—	231	—	—	—	—	1,163	880	1,472	—	(200)	[200]
Thailand	35,310	33,973	33,560	—	103	48	(158)	191	184	1,007	1,103	901	—	—	[550]
Indonesia	100,316	95,651	91,325	20	15	21	(480)	435	427	(33)	33	35	2,000	—	[1,000]
Philippines	35,120	30,908	30,265	—	—	[6]	868	841	748	(11)	—	21	—	4,940	4,700
Vietnam	41,900	38,643	—	473	—	—	—	37	22	(3)	—	—	—	300	—

Sources : Past editions of *Databook: International Labour Comparisons*, Japan Institute for Labour Policy and Training (former name: Japan Institute of Labour); *International Workshop: Movement of People and Labour Markets in East Asia (2005)*, Research Institute of Economy, Trade and Industry

Notes : ( )=previous year, [ ]= the following year. Due to data limitations, definitions are not necessarily identical in all countries.

non-tariff trade and investment barriers, and with respect to the real economy, it must further be designed to support the facilitation of economic activity. A mere reduction of tariffs is not enough, and the creation of a higher level of East Asian economic integration that will liberalize and facilitate the movement of goods, services, people and capital within the region will create a win-win situation for everyone in the region.

Trade, investment and the movement of people are all picking up steam in East Asia (Table 3-4-19), and the intra-regional movement of highly-skilled workers is almost all related to company transfers connected with direct investment in ASEAN by Japan, South Korea and Taiwan. Human resources development in the region is, however, lagging, and there are no international-style rules to govern the movement of people in some cases. In addition, highly-skilled workers are relocating in large numbers to the West, creating a “brain drain.” In Japan, many students from abroad fail to return home due to difficulties finding jobs. To deal with problems of this nature, region-wide human resource policies are needed, and a network to facilitate intra-regional movement and to develop human resources is called for.

Efforts are afoot in East Asia to further deepen economic ties. Steps are beginning to be taken to adjust the systems in different countries and regions,

and to coordinate policies across a range of different fields. Cooperation and public discourse are underway in a number of areas such as: ensuring stable energy supplies, introducing currency swap agreements, building up financial markets with an eye to heading off currency crises, harmonizing standard certification systems and developing measures to enable coordinated responses to environmental issues. With regard to energy policy, given that fossil fuels will continue to be the main energy source for East Asia at least in the near future, cooperation is needed to support the building of petroleum reserve systems and other measures to ensure stable energy supplies. The concern over worsening air pollution due to motorization means that East Asia needs, among other measures, to take steps to improve energy efficiency, push for energy conservation and promote the use of clean coal technology. If Japan’s technology and know-how in the fields of energy conservation and environmental protection were put to use in other countries, it would help to prevent global warming.

Increasing interdependence in the real economy, as described above, is arousing spirited arguments regarding an “East Asian Community” that would seek integration not only in the economic sphere, but in the political and social spheres as well. Any attempt to establish an “East Asian Community” would give

rise to all sorts of difficult issues, but in addition to the “functional approach” that puts the primary focus on functional cooperation on a wide ranging issues, countries in the region need to work from the perspective of “institute agreements” and a “sense of community” as well. Such an approach would also contribute to high-level East Asian economic integration.

Because the countries and regions of East Asia are at such disparate levels of economic development, a pragmatic approach to integration is needed, with respect to the actual conditions in each individual economy. Systemic integration is capable of triggering a mechanism that would shrink the economic disparities within East Asia and contribute to the expansion of a win-win situation, in which economic growth is enjoyed both by Japan and the other developed nations and by the region’s less developed countries. We are called upon to redouble our efforts to take advantage of our ties in order to bring the concept of an East Asian Community and an “open regionalism” to fruition.

JS

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