

**THE CHANGES IN THE JAPANESE ECONOMY  
AND THEIR IMPLICATIONS FOR THE SECURITY OF ASIA**

**by Kiyohiko Fukushima**  
*Chief Economist*  
*Nomura Research Institute Ltd*  
*Tokyo - Japan*

Japan's population is poised to decrease fast. Since the main source of Japan's economic strength, i.e. the mechanism of high saving and high investment, remains intact, Japan is still making enormous investment for the future. The major thrust of Japanese investment is used for upgrading the quality of life and linkage with the Chinese economy. This linkage with China brings mixed results for Japan. The negative side is that it causes prolonged deflation. Deflation dampens Japan's import capacity from the rest of Asia except from China. The outcome is the rise of North East Asia and the relative decline of South East Asia. The deepening economic linkage and continuing political disharmony between Japan and China is becoming difficult to sustain. Based on the changing economic power balance in Asia, we need to further the process of APT (ASEAN Plus Three) cooperation and engage in political dialogue among the APT member countries.

---

- *Kiyohiko Fukushima graduated in Economics at the Hitotsubashi University and started his career as an economic correspondent for the Mainichi Newspaper. He was a visiting fellow at Princeton University in 1976-1977. In 1978 he joined the Nomura Research Institute. In 1980-1981 he was a guest scholar at the Brookings Institution. After working in the New York and Washington office of NRI for five years in the 1980s, he returned to Japan in 1986. He was Director of the Policy Research Department from 1989 to 1992. In 1994-96, he became a Professorial Lecturer at John Hopkins University. From June 99 to March 2002 he was the President of the NRI Europe (United Kingdom).*  
*Kiyohiko Fukushima has published three books on Japan and written numerous articles.*

## 1. The impact of a dwindling population

Population is one of the most important factors in a nation's economy. It is important to elaborate on the drastic demographic changes in Japan.

### 1.1- supply side constraints

The population is aging and decreasing at a very fast speed. According to the Japanese government statistics, the working age population, that is between age 15 and 60, has already peaked out at 67.9 million in 1997 and since then the number of working age people is declining. The total population itself is going to decrease after 2007, that is 5 years from now.

*Table 1 - Changes in Population towards 2050*

<i>Year</i>	<i>Working Age (million)</i>	<i>Over 65 (million)</i>
<i>1995</i>	<i>125.6</i>	<i>66.7</i>
<i>Peak</i>	<i>127.8</i>	<i>67.9</i>
	<i>(in 2007)</i>	<i>(in 1997)</i>
<i>2025</i>	<i>121</i>	<i>*60</i>
<i>2050</i>	<i>101</i>	<i>*50</i>

*\* estimate by the author/ Other sources: MHLW, MPMHAP*

*Table 2 - Working hours per year in Japan per worker*

<i>Year</i>	<i>Hours/y</i>	<i>change</i>	<i>Remarks</i>
<i>1956</i>	<i>2385</i>		
<i>1960</i>	<i>2425</i>	<i>+1.67%</i>	
<i>1970</i>	<i>2251</i>	<i>-7.18%</i>	
<i>1980</i>	<i>2104</i>	<i>-6.53%</i>	
<i>1990</i>	<i>2053</i>	<i>-2.42%</i>	<i>longest OECD</i>
<i>1995</i>	<i>1912</i>	<i>-6.86%</i>	
<i>1999</i>	<i>1848</i>	<i>-3.34%</i>	
<i>2000</i>	<i>1842</i>	<i>-0.32%</i>	<i>6th in 2000</i>
<i>Korea 2000</i>	<i>2474</i>		<i>longest in 2000</i>
<i>Czec 2000</i>	<i>2092</i>		<i>2nd in 2000</i>
<i>US 2000</i>	<i>1978</i>		<i>3rd in 2000</i>

What does a dwindling population mean? Since the economic production of a country is created by the domestic working population, the decrease in working population means less capacity for production and less working hours each year. It will weaken the country's capacity to supply goods and services at home.

On top of the decrease in the number of workers, the average amount of working hours per worker is also decreasing. Only 12 years ago in 1990, it was 2,053 hours, the longest among the OECD member countries. Two years ago in 2000, it shrank by 10% from the 1990 level to 1,848 hours; this is only the 6th longest working hours among the OECD members. The myth of Japan's too hard and too long working hours is now an anecdote of the past.

What are the economic implications of less workers and less working hours? Economic output is, by definition, the multiplication of a) the amount of Labour Input and b) Labour Productivity, when the capital input remains the same. When Labour Input begins to fall precipitously, it is extremely difficult to increase Output by raising the Labour Productivity indefinitely. Therefore, we must conclude that Japan's production capacity at home has largely peaked out 5 years ago in 1997. Japan has reached the supply side constraints in growth.

*1.2.- coping with the diminishing Population*

How is Japan coping with the inherent economic force for low growth caused by the dwindling working population and less working hours?

*Table 3 - Working in Elderly Year*

<i>Year</i>	<i>Life Expectancy</i>	<i>remarks</i>
<i>1950-52</i>	<i>59.52</i>	
<i>1960</i>	<i>65.32</i>	
<i>1970</i>	<i>69.31</i>	
<i>1980</i>	<i>73.35</i>	
<i>1990</i>	<i>75.92</i>	
<i>1997</i>	<i>77.19</i>	<i>women at 83.82</i>
<i>(UK: 74.06)</i>	<i>(US 72.40)</i>	<i>(Russia 58.27)</i>

Table 3 shows the life expectancy in Japan. It was at less than 60 some 50 years ago and at that time the coercive retirement age was 55. Now in 1997 Japanese men live till the age of 77 on average. Though currently, the retirement age is 60 for most companies, people are quite healthy at 60, and can reasonably expect to live for another 17 years after retirement.

Hence, to extend the retirement age or to hire people over the age of 60 can be sensible ideas to supplement the dwindling work force. Several proposals such as extending the retirement age to 67 (proposal from Prof. Yashiro) or 70 (Koizumi's study council) and/or reemployment after retirement, were already made along that line and some of them were adopted.

Another way of dealing with the labour shrinkage is to let more women work. Up to 80% of the women in the age group 20-24 are working. Then about 30% leave work from age 25 to 35 to bear and raise children but come back to work after at around age 40. The M shaped curve has edged up over the past 10 years. It could be edged up a little higher but actually not much. There seem to exist certain limits to the approach of moving up the curve higher indefinitely.

Still another way of dealing with the labour shortage is to import foreign workers. Official statistics show that the number of foreign workers has increased by 8.2% in 2000 to 210,000, against the background of rising unemployment for native Japanese workers in the same period. 48.1% are from South and Central America (and of Japanese descent actually), 27.4% from East Asia (from Korean descent mostly) and 10.9% from South East Asia.

To summarize this part on supply side constraints, there are three ways that Japan has been trying to increase the supply of workers at home: older people, women and foreigners. A flexible working system can also work.

However, the effects of those three or four approaches seem to be limited because the pace of aging and dwindling of the Japanese population is at such a high speed.

Then what else can Japan do? Obviously, one remedy is to produce less at home and import from abroad.

*Table 4.- Imported manufactured goods  
(in relation to GDP)*

<i>Year</i>	<i>change y/o/y</i>
<i>1956</i>	<i>18.6%</i>
<i>1960</i>	<i>22.7%</i>
<i>1970</i>	<i>29.5%</i>
<i>1980</i>	<i>23.1%</i>
<i>1990</i>	<i>49.8%</i>
<i>1999</i>	<i>61.4%</i>
<i>2000</i>	<i>61.1%</i>

*(a 1% rise tends to replace 500,000 workers)*

Table 5 shows that this remedial measure has already been taken. The share of the imported manufactured products in the total Japanese imports has risen from 50% in 1990 to 61% in 1999, rising by 11%. This increase in manufactured imports helped alleviate the potential labour shortage.

Rather than trying to produce everything at home, the strategy of letting the Japanese system of production move overseas to Asia and importing the final products from there seems to be a rational solution. The next table (Table 6) corroborates the idea.

*Table 5 - Trade in FY 2000*

	<i>Export</i>	<i>y/y</i>	<i>Import</i>	<i>y/y</i>	<i>Ex - Imp</i>	<i>y/y</i>	<i>Ex + Im</i>
<i>Total</i>	<i>520, 498</i>	<i>7.2%</i>	<i>424,408</i>	<i>16.4%</i>	<i>96,090</i>	<i>-20.9%</i>	<i>944,906</i>
<i>US share</i>	<i>155,390 29.8%</i>	<i>5.2%</i>	<i>79,992 18.8%</i>	<i>8%</i>	<i>75,309 78.4%</i>	<i>2.3%</i>	<i>235,382 24.9%</i>
<i>EU share</i>	<i>84,534 16.2%</i>	<i>-0.2%</i>	<i>52,108 12.3%</i>	<i>6.5%</i>	<i>32,427 33.7%</i>	<i>9.4%</i>	<i>136,642 14.5%</i>
<i>Asia share</i>	<i>214,694 41.2%</i>	<i>15%</i>	<i>178,075 42%</i>	<i>21.1%</i>	<i>36,619 38.1%</i>	<i>-5.7%</i>	<i>392,769 41.6%</i>

Japan's trade with Asia (trade means the total sum of imports and exports) was 42% of Japan's trade in 2000, whilst the total trade with the US and the EU combined was a mere 39%. Japan's trade has drastically shifted to Asia. The basic trade pattern is that Japan exports capital, technology and essential parts to Asia and builds factories there. The final products made in factories in Asia by Japanese technology are imported back to Japan or exported to Europe and America. This enables Japan to concentrate on the high value added part of the production chain.

The Asia shift of Japan's trade is one of those Japanese efforts for tackling the dwindling population while maintaining the same high level of income. This is the conclusion from the supply side constraints.

#### *1.3.- demand side constraints*

What are the conditions on the demand side? The size of the domestic market is ultimately determined by the number of people living in that country. In the Japanese economy, personal consumption is about 60% of the domestic spending.

Personal Consumption is by far the most important component in Japan's economy, or for any country's economy for the matter. Dwindling total population means less personal consumption, resulting in a smaller domestic market. The peak of Japan's population is forecast to come in 2007. It means that Japan's domestic demand will still start to decrease after 2007, other things being unchanged.

From the demand side, the implication of the demographic change is that Japan's economy will stop growing after several years from now, unless per capita consumption starts increasing fast.

#### *1.4.- outlook and implications*

To summarize this section on demographic changes, Japan has reached the supply side constraints in 1997 and on the whole, Japan's production capacity has been diminishing since then. The demand side constraints will be reached then in about 5 years from now. The likely result afterwards is a low growth economy.

Because of the dwindling and aging population, Japan's economic growth rate has largely already peaked out. 1 to 2% growth can be a reasonable notion for economic

growth in Japan. 1% coming from the trend in productivity growth and another 1% from the IT is possible. That is what the White Paper on the Japanese Economy published by the Prime Minister's Office in November 2001 also concluded that the growth rate for Japan's economy for the medium term is between 1 to 2% annually.

For reasons explained above, the world and the financial markets must accept and understand Japan's low growth as natural, not as a policy failure nor an inability to reform.

## **2. Preserving the high saving/investment mechanism for the better quality of life**

### *2.1- high saving*

In order to keep growing and investing for the future, a country's economy must have a sustainable source for financing the investment. The domestic saving is the natural source for financing the investment for any country.

In Japan, the wage earners' average annual saving rate was 28.7% in 2000. Though the saving rate in the normal month without bonus is 15.4%, which is not particularly high, it is the semi-annual bonus payment that pushes up the annual saving rate to nearly 29%. Over the years, this high saving rate has created a tremendous financial asset for an average household.

Statistics from the Bank of Japan explain why the Japanese people did not complain too much about low growth in recent years. The average household in Japan had in September 2001 a financial asset of more than 14 million yen, or 130,000 US dollars, which is tantamount to 2.9 years of the average Japanese income. The decrease compared from the year before was a mere 90,000 yen. It means, at least in a mathematical sense, the average Japanese can live without any income for almost 3 years. On top of the social welfare provided by the public sector, the Japanese have earned a strong safety net by their own saving built over the years. No other country accumulated such an amount of savings set aside by the people. Yet, the average household saving decreased slightly because of the rising unemployment and reduced bonus payment. The decrease shows the depth of the recession. But it also shows the effectiveness of the past saving as a social safety net.

*2.2- high investment*

Sustained by the abundant supply of domestic saving, Japan’s investment has remained high even in the most recent years of low growth.

*Table 6 - Private Investment in % of GDE*

<i>1995</i>	<i>15%</i>
<i>1996</i>	<i>15.6%</i>
<i>1997</i>	<i>16.15</i>
<i>1998</i>	<i>14.7%</i>
<i>1999</i>	<i>14.1%</i>
<i>2000</i>	<i>16.0%</i>
<i>2001</i>	<i>16.0%</i>
<i>2002</i>	<i>16.1%</i>

*Public investment is around 6% (to be reduced)*

*Housing is at 5%*

*Total investment is: 16+5+6 = 27%*

Japan’s equipment investment by the private sector remains around 15 to 16% of the GDE (Gross Domestic Expenditure), which is the highest level among the developed countries.

What is unique about Japan’s private sector investment is its very high level of R&D (Research and Development) expenditure. In 2000, Japan’s R&D expenditure was 3.2% of the GDP (gross domestic product), again the highest level among the developed countries

*Table 7 - Research & Development in % of GDP*

<i>Japan</i>	<i>3%</i>
<i>US</i>	<i>2.5%</i>
<i>OECD</i>	<i>2.2%</i>
<i>EU</i>	<i>1.9%</i>

Much of Japan’s investment is used for developing the new product and service of the future, rather than increasing the production based on the existing technology.



The investment is aiming at creating new technologies for a better quality of life.

**3. Japan-China economic linkage and its limitations**

*3.1- linkage in macro figures*

Japan’s high saving/investment mechanism is also used in enhancing the economic linkage with China.

China has an abundant supply of highly skilled, educated, low cost and young workforce, which is a rapidly decreasing category in Japan. Japan in the 21st century, with rapidly aging and dwindling population can establish a mutually beneficial economic relation with China.

The Japan-China economic relations are in a way an extension of Japan’s economic relations with Asia but the nature and the degree of the ongoing changes in the bilateral economic relations are completely different from the rest of Asia.

*Trade (January - June 2002) in US Dollars*

	<i>Export</i>	<i>y/y</i>	<i>Import</i>	<i>y/y</i>
<i>China</i>	17,236,438	+ 11%	27 879 956	- 0.8%
<i>Asia</i>	81,837,648	- 2.5%	67,874,120	-11.8%
<i>USA</i>	56,882,224	-9.9%	28,515,849	-16.8%
<i>EU</i>	28,837,088	-17.2%	20,195,077	-11.9%
<i>Total</i>	194,627,919	-7%	156,753,320	-14.2%

China’s export to Japan rose last year by 15% and imports by 11%, against the background of overall negative economic growth in Japan. The first six months of 2002, the trade, although on the decline with the rest of the world, is still growing. Among the numerous items imported from China to Japan, the biggest one is machinery, with 29% of the total, followed by textile, 27%. For the first time in 2001, in Japan-China trade, machinery became China’s biggest export item.

This change augurs a lot of things. First and foremost, China has established some

comparative advantage in machinery production and has successfully joined the competition in the manufacturing of machinery and high tech products among the developed countries, albeit in a limited way at this moment. China is the only country in the world that has succeeded in establishing a healthy trade surplus in machinery products with Japan. This is the most significant change in the Japan-China economic relations.

At the same time, China remains extremely competitive in the export of apparel and textile, the traditional domain of exports for the developing countries.

China's competitiveness is not limited to manufacturing. Japan imported 750,000 tons of vegetables from China in 2001, a tenth of the price of the domestic production. Lunch boxes prices have, as a result, fallen. Some Japanese convenience stores have built organic farms in China in order to use the vegetables into the lunch box, "*obento*", sold in those stores in Japan. Vegetables and fish prices are falling in Japan due to the cheap quality imports from China. According to a casual observation, the average lunch box prices in Japan have fallen by some 100 yen (15%) in the past few years, bringing benefits to office workers. But it has dealt a blow to the numerous Japanese farmers' income. Clothing prices have also fallen by 30 to 50% for the same reason: cheap quality import from China.

The deflationary impact on the Japanese economy coming from China trade will be long lasting. From food, apparel to high tech products, prices in Japan will face falling pressures until the price levels of the two countries reach some kind of equilibrium after many years.

On top of the low growth triggered by the diminishing population, the long lasting deflationary impact from China will depress the profitability of Japanese corporations. The Japanese economy has entered into a long transition period of low growth and low profitability. However, for Japan as a whole, China trade is bringing unprecedented benefits. According to the World Bank, Japan's benefit by China's entry into the WTO will be \$61 bn. by 2005, much larger than that of North America which is \$38 bn. Japan would certainly be the largest beneficiary as China opens up its door wider on its accession to the WTO.

*3.2- some examples of the linkage in specific companies*

Apart from the broad macro picture, shedding lights on to some specific examples is needed. A Japanese clothing manufacturer and retailer, First Retailing, manufactures everything in China and sells in Japan. The company First Retailing designs the product in Japan, runs factories in China, carefully supervises and instructs the cutting and sewing processes in every minor detail in China according to the Japanese specification. First Retailing using Uniqlo as their brand name started only few years ago to manufacture in China. It has now 550 stores in Japan. It was in 2001 the second biggest profit-making retailer in Japan (after 7-11 Japan). Riding on the success in Japan, Uniqlo has opened 3 stores even in London in October 2001.

Another example of such successful combination is an electric motor company named Mabuchi Motor. It is the largest mini motor maker in the world, supplying motors for running the tiny fan for cooling or driving the hard disk and floppy disk in lap top computers. What is unique about Mabuchi is that it does not run factories in Japan and built almost all of its factories in China. The reason is, not only cheap labor but also the high quality of the workers and engineers available in China.

A much bigger company than Mabuchi is adopting a similar strategy. Hitachi has announced that it will invest about \$1 bn. in China between 2001 and 2005. China's share in Hitachi's global production of \$40 bn will be 25%, the largest production share outside Japan 4 years from now. The highest level technology hardware and software of Hitachi are to be manufactured and developed in China. Hitachi has built a research lab for ubiquitous network technology in Beijing. The ubiquitous network is the state of the art technology today.

All the other major electronic companies in Japan such as Panasonic, Sony and Toshiba are adopting strategies similar to Hitachi's. For instance, the Panasonic Corporation runs more than 40 companies for production in China. China could become the high tech center of Asia, with Japanese companies playing an important part in it.

*3.3- changes caused by linkage*

With this rapid merger of the two economies, tremendous changes are occurring. As a result of the competitiveness of China, Japan imposed safe guards against three agricultural products from China in early June 2001. China retaliated by raising tariff on certain Japanese industrial products. The dispute lingered for some 7 months. Such a dispute was unthinkable a decade ago.

Yet the final outcome of this trade friction was a tacit orderly marketing agreement under the table. Though the muddy compromise may not be welcomed by free traders, the general trend is solid and indisputable. From shiitake mushroom to the ubiquitous network software, the Japanese economy and the Chinese economy are merging in an inexorable way. From the lowest tech to the highest tech sector, the economies of the two countries match and marry very well. The merger is creating a new type of economic power in the world. This unprecedented phenomenon can be named the "Japan-China linkage". This linkage will be the most important change of recent days in the world economic history.

Japan is already the largest trading partner for China and the second largest foreign direct investment country in China, behind Taiwan and Hong Kong.

Although for Japan, the United States is by far the largest trading partner due to Japan's big export to the US for now, the trend shows that China could surpass the importance of America and become the largest trading partner for Japan in the near future.

On the import side, it is already clear that by 2003, China will provide more goods to Japan than the United States.

*3.4- limitations to the linkage*

The immediate result of the Japan-China economic linkage has been the deflation in Japan. The domestic producers' sales volume and profit margin have been reduced by the falling prices. The result is low profitability for corporations. The Japanese companies have less capacity for new investment and employment at home; many producers have to cut back production and lay off their employees, thereby reducing Japan's economic growth rate.

As a result of the deflation largely caused by the economic linkage with China, Japan's import capacity from the rest of Asia except from China has also been curtailed in recent years. The rest of Asia has been left out on the sideline while the Japan-China economic linkage has been carried on.

In Japan, protectionist sentiment is rising against imports from China. Even after the compromise on three products, onions, rush (a plant used for making tatami mats) and shiitake mushrooms, has been reached, more trade frictions are nevertheless likely to occur. Though the economic forces that enhance economic linkage between the two countries are strong, there are already signs that Japan's capacity for further economic linkage with China is showing its limitations, due to a number of economic, political and social factors.

#### **4. Implications for security in East Asia**

##### *1) rise of North East Asia and decline of South East Asia*

As a result of the demographic change in Japan, high tech shift and Chinese economic linkage, in an economic sense, the importance of North East Asia has risen, while that of South East Asia has fallen.

Because the changes in the relative economic importance of the two regions seem to be long lasting, they could alter the current political and military power balance in East Asia. This, in turn, could create new tensions in East Asia.

##### *2) economic linkage and political disharmony*

Even between Japan and China, one important issue remains unresolved: the tension caused by the strong economic linkage and the continuing political disharmony. For how long can the two countries let this asymmetry keep growing unattended?

##### *3) an US-led security framework under stress?*

China's restoration of its political and military strength is a natural and inevitable result of its economic development. Instead of trying to resist those changes accompanied by the economic rise of China, confirmation and strengthening of the US-led security framework reflecting the new conditions in international security in

