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The Different Structure of Japanese and American Trade with China and the Future Outlook

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Introduction

The biggest socioeconomic change in Japan since the year 2000 has probably been the change in attitudes to the causes of (and remedies for) the country's economic ills. When the boom of the 1980s turned to bust in the early 1990s, the Japanese government's response was very much the traditional one of trying to manage aggregate demand in an effort to revive the economy. This policy also commanded a fair degree of public support. In spite of over ¥120 trillion in public-works spending in the course of the 1990s, however, a series of cyclical recoveries failed to prove self-sustaining.

It was doubts about the wisdom of this approach that led, in 2000, to the election of Junichiro Koizumi as prime minister on a platform of "No pain, no gain" and to a program of privatization and deregulation (especially of the country's public corporations) with strict adherence to a policy of fiscal consolidation. Nor were there any major differences in this regard between the two main political parties (LDP and DPJ) during the recent general election, notwithstanding some minor differences in their approach to small businesses and pension reform. Indeed, a public consensus about the general direction of structural reform appears to have been formed during the past few years.

For several years we have argued that Japanese economic revival will happen only when the nation's high-cost structure is rectified. We think this can be achieved by better utilization of corporate assets and human resources and by the adoption of policies to stimulate demand. We have also emphasized the importance of measures designed to step up decentralization and to deal with a declining birthrate and the aging of society, such as policies to promote greater work force participation by women.

We see progress being made in the efficient utilization of human and physical resources. Companies have trimmed excess capital despite substantial increases in capex, and more efficient use of human resources—achieved through a transition to productivity-driven wage structures—has begun to spread from manufacturing to no-manufacturing sectors. Moreover, measures have been established to deal with an aging society, including the creation of more daycare facilities and the deregulation of temporary employment services.

Japan is currently experiencing a cyclical recovery that began when the previous cycle bottomed early in 2002. We expect real GDP to grow by 2.9% year on year in FY03—well above its trend rate of growth, which we estimate to be in the region of 1~1.5%. However, we can not expect current recovery would turn to the self-sustained full-fledged recovery while structural reform is still ongoing. As we expect that Japan need another several years of the structural reform period considering the current pace of structural reform, full-fledged recovery will take a while longer to eventuate, in our view. In other words, for the time being, the Japanese economy will continue to tend to be swayed by changes in exogenous factors. From such a perspective, overseas economies are becoming an increasingly important determinant of the Japanese economy's future course.

Current state of China's economy

The expansion of China's exports has brought rapid growth in industrialized countries' trade deficit with China. Looking only at 2001, industrialized countries imported from China nearly three times the amount they exported to China, incurring a huge overall trade deficit (Exhibit 1). China has already replaced Japan as the country with which the US has its largest trade deficit. In light of the situation, we do not find it surprising that there is growing pressure on China to raise the value of its currency, particularly from the US. Meanwhile, Japan's deficit with China is also growing rapidly.

In light of China's economic situation, we doubt whether China would move quickly to revalue the

yuan, however great the pressure from industrialized countries. In principle, the only factor that can motivate a country to increase the value of its own currency is an increase of inflationary pressures in that country's economy. The reason for this is as follows. If the domestic economy becomes overheated under a fixed exchange rate regime, growing domestic inflationary pressures causes the current account to go into deficit at the same time. Under such conditions, normally the domestic economy normally cools off and domestic interest rates rise to enable the continued financing of the current account deficit. If that proves insufficient, it becomes necessary to alter the exchange rate itself.

The current situation in China, however, is one of strong deflationary tendencies over all,with producer prices continuing to decline in year-on-year terms. In our view, one reason for the strong deflationary pressures is the still large number of inefficient, state-run companies operating in China. The presence of inefficient, state-run companies either causes the output gap to grow or leads to an increase in nonperforming loans, thereby raising domestic deflationary pressures in both the real economy and the financial economy. Additionally, the disparity of incomes between regions also serves to restrain any inflationary pressures. In Shanghai and elsewhere in the coastal provinces, rapid economic development has brought with it a pronounced rise in wages. Along with this, a housing price bubble even appears to have developed in some areas. Nevertheless, China's interior provinces have a considerably higher population than the coastal regions, and wage levels are extremely low. Consequently, when wages rise for workers in the coastal areas, it brings an influx of low-wage workers from the interior, and this structure makes it difficult for upward wage pressures to gain momentum in China overall.

Added to recent deflationary pressures, a reevaluation of the yuan runs the risk of derailing the policy goal of export-led economic development. Although the overall size of China's economy in real terms is roughly equivalent with Canada's, China only ranks 138th in the world in per-capita real GDP terms. In order to spread China's wealth out to the agrarian areas, as well, export-friendly policies will probably be necessary for a while.

The yuan's equilibrium rate

Based on this understanding of China's current situation, we will proceed to analyze, in order: (1) the equilibrium rate for the yuan, and the time required for the yuan to move fromundervalued to fairly valued; (2) the impact on Japan's economy once the yuan is revalued; and (3) an analysis of US economic scenarios via changes in the yuan's value.

As a point of departure for this discussion, we must first calculate an equilibrium rate for the yuan. There are a number of different methods to calculate an equilibrium rate, but the usual approach is to use purchasing power parity. One institution that has published an equilibrium rate for the yuan based on purchasing power parities is the United Nations' International Comparison Project (ICP). The ICP estimates an equilibrium rate of 1.74RMB/ US$1. According to this, the actual rate of 8.28RMB/US$1 understates the yuan by a factor of four, relative to its equilibrium rate.

Nevertheless, calculations based on purchasing power parity only take into account nominal changes in price. Moreover, price levels are known to increase in conjunction with economic development, and thus comparisons of countries with widely different levels of economic development are subject to a great degree of bias. Accordingly, when comparing China with industrialized nations, we think it more appropriate to calculate an equilibriumrate that reflects terms of trade, the labor environment , productivity and other elements of the real economy, rather than relying solely on nominal changes. An estimate of the equilibrium exchange rate based on this approach is shown in (Exhibit 2). Based on this, the equilibrium rate Is 4.27 RMB/US$1.

What explains why the current yuan exchange rate diverges so dramatically from the equilibrium rate, even when taking into account differences in costs, productivity and level of economic development? In

our opinion, the main reason is the extremely low level of wages in China. It is normal for wages to be low when worker productivity is low, but wages in China are lower than what can be explained by low productivity. In the case of a developing country, the gap between the actual and equilibrium exchange rates is eliminated sooner or later through the increase in wages that accompanies development. We think the same will eventually hold true in China. The question, however, is how much time it will take for the yuan to attain its true value. We concede that statistics show that wages in China have recently grown at a double-digit pace. In China, however, there is a huge difference in wage levels between the interior provinces and Shanghai and other coastal regions, and the huge population in the interior provides a constant supply of cheap labor. But just how long will it take before the yuan adjusts to its true value?

The time necessary for the yuan to reach its proper value without Exchange rate adjustments

The Beijing Olympics in 2008 are often compared with the Tokyo Olympics in 1964 as a way to note the similarity between Japan in the 1960s and China today. True enough, the Japanese economy before and after the Tokyo Olympics (1960-1968) had a real growth rate of 8.8%, employment growth of 1.2%, and wage growth of 11.4%, and economic conditions in China today are strikingly similar to Japan at that time. Considering that Japan switched to a system of floating exchange rates in 1973, it makes sense that in China's case, the yuan's undervaluation should be eliminated in the not-too-distant future.

Nevertheless, even assuming that China today follows the same path as the Japanese economy in the 1960s (which achieved still unmatched record growth), it should take another roughly 20 years before its present undervaluation against the dollar (US, Case 1) and the yen (Japan, Case 1) is eliminated (Exhibit 3). If China's recent growth in GDP and wages is assumed to be semi permanent (US, Case 2 and Japan, Case 2), the time horizon would be shortened somewhat from Case 1, primarily because recent wage growth in China is higher than it was in Japan during the 1960s, but the correction would still require at least 10 years. Our simulation suggests that, provided the current economic rends in China persist, it is extremely unlikely that the yuan's undervaluation will be corrected anytime soon.

If China's economic trends cannot be substantially changed from the outside, the parameters for the industrialized countries must be altered to correct the yuan's valuation. For example, if information technology and other factors enable the US economy to achieve a stable potential growth rate of at least 4%, the yuan's undervaluation would be completely eliminated by 2010 (US, Case 3). In Japan's case, if productivity improvements or labor cost reductions enabled Japan to achieve reductions in unit labor costs of 1% per year, the yuan's value would be corrected by 2010, as with the US (Japan, Case 3). In other words, Japan's high cost structure represents the flip side of the yuan's undervaluation.

The undervaluation of the yuan is thus unlikely to be corrected within the next 10 years unless, regards the dollar, the US is able to achieve annual growth of at least 4% through productivity gains and, regards the yen, Japan is able to reduce unit labor costs by at least 1% annually. Considering that Japan's manufacturing sector has been able to reduce unit labor costs by more than 2% annually over the past several years, this is not an impossible target, but it will not be easy. It would also appear almost impossible for the US to maintain economic growth of at least 4% (productivity growth of at least 2%) for 10 years. Our simulation indicates that, barring any forceful exchange rate adjustments, it will take considerable time before the yuan's undervaluation is erased, and we thus view it unlikely that the political pressure for yuan revaluation is going to disappear.

The impact of yuan revaluation on the US economy

To evaluate the impact of Yuan on the US economy and the Japanese economy, especially on those trade structure, we make the simple econometric model. At first, we estimate the ordinary trade function between US and China, and between Japan and China. By cooperating those estimated function into macro

econometric model, we simulate the trade structure both countries with China

The bilateral trade functions (exports and imports functions) are estimated in ordinary shape. Exports are determined by the counterparts' demands and relative prices. Imports are determined by the domestic demands and relative prices. Both relative prices should reflect the exchange rate fluctuation. To calculate the relative prices, it would be better to use the PPI or Wholesale price index by definition. Exports and imports are real term. However, as PPI data of China is quite limited, although it's available, we use CPI date instead. Considering the importance of FDI on the trade structure of the Japanese economy, we use the bilateral FDI as explanatory variable in Japanese trade function.Results are shown in (Exhibit 4). We can point out some interesting futures. Firstly, income electricity in imports equation is strongly higher than price elasticity with in both countries. Although income elasticity in US imports function may be overestimated, it should be true that income elasticity tend to be bigger than price elasticity. Secondly, price elasticity in exports function has no significance in both countries. Thirdly, as for the Japanese trade functions, the coefficient on the FDI in exports function is negative, that in imports function is positive. It means that the increase in FDI for China should decrease the Japanese trade surplus against China.

If the yuan were to be revalued, what would happen in Japan and the US? We start by using a quantitative model to simulate the impact on the trade balance, which we think is the primary reason there is pressure to revalue the yuan. Our simulation looks at three cases:(1) absolutely no exchange rate adjustment; (2) a 10% increase in the yuan's value over one year; and (3) a 50% revaluation all at once. Looking first at the US (Exhibit 5), our simulation suggests that in the first case, with no yuan revaluation, the current US trade deficit with China of $100 billion would nearly triple within five years to $280 billion. The 10% revaluation under the second case would not make a big difference in the growth of the trade deficit. With the 50% revaluation under the third case, the trade deficit with China would decline for three consecutive years, but not completely disappear.

Looking next at Japan (Exhibit 6), a slight improvement in the trade balance was observed even with only the 10% revaluation of the yuan under case (2), whereas the sudden 50% increase in the yuan's value in case (3) improves the likelihood that Japan's trade deficit with China would turn into a large surplus. In other words, a revaluation of the yuan appears likely to eliminate the trade deficit with China in Japan's case, but relatively less likely to do so for the US.

We attribute the differences between Japan and the US regarding the impact of yuan revaluation to fundamental differences in the structures of Japan-China trade and US China trade. These differences are particularly evident in the roles played by the Chinese subsidiaries of Japanese and US corporations.

Japan's subsidiaries in China are primarily there to serve as manufacturing platforms. Looking at the trends of Chinese subsidiaries in 2000 (Exhibit 7), although there are some industries, such as transportation machinery, where more than 80% of production was sold domestically, the average percentage of domestic sales was less than 50% overall—specifically, 46% for all industries and 48% for manufacturers. The percentage of production reimported into Japan, however, was a high 27%. In contrast, the Chinese subsidiaries of US corporations primarily serve as sales platforms (Exhibit 8). The percentage of production sold domestically by the Chinese subsidiaries of US manufacturers was 75% in 1995 and, although declining gradually since then, is still high at 64%. The percentage of reimports is only 13%, and moreover has not changed significantly since 1995. This indicates that the decline in the percentage of domestic sales has been absorbed by an increase in exports to third countries.

Changes in the character of Japanese subsidiaries in China

Our simulation showed that a revaluation of the yuan could produce substantial short-term gains in Japan's balance of trade. A stronger Chinese currency would improve the cost competitiveness of Japanese products versus Chinese products, prompting an increase in exports of intermediate goods from Japan to

China (inciting exports) and impacting positively on the Japanese economy. Almost 70% of the companies surveyed by the Japan Bank for International Cooperation answered that their foreign direct investment was aimed at expanding foreign markets and had no impact on domestic production (Exhibit 9). If FDI is indeed unrelated to domestic production, then in the medium term it would have little impact on trade between Japan and the partner nation, even if exports did increase. But when we plotted growth in outstanding FDI against growth in exports and imports, we confirmed a positive correlation for Japan and China. Meanwhile, no correlation was observed between outstanding FDI and trade growth for the US and China (Exhibit 10).

Our import and export functions for Japan versus China include outstanding FDI as an independent variable. The coefficient has strong significance in both cases, being negative in the export function and positive in the import function. This, too, suggests that direct investment in China (ie, the shift of domestic production facilities to China) has a negative impact on the Japanese economy. The impact of foreign direct investment on the real economy depends on the relative size of three factors: the export-inducing effect, the export replacement effect, and the reverse import effect. The standard analysis says that since the export-inducing effect is the largest of the three on a macro basis, FDI has a generally positive effect on the Japanese economy, although there are certain industries—such as the textile industry—in which it has begun to have a negative impact. However, the negative coefficient foroutstanding FDI in Japan's export function suggests that—at least with respect to trade with China—the export replacement effect exceeds the export-inducing effect (Exhibit 11). The purchasing behavior of Japanese subsidiaries operating in China has in fact changed substantially over the past five years. In 1994, imports fromJapan represented nearly half (48.8%) of all purchases by these units. By 2000, however, the ratio had fallen to about 36% on increased purchases from local and third country (particularly Asian) suppliers. This result suggests that the export-inducing effect has weakened significantly. On the other hand, the FDI coefficient has remained consistently positive in the import function, suggesting that reverse imports continue to rise. In short, Japanese FDI in China tends to reduce production in Japan.

Medium-term impact on Japan of yuan revaluation

Revaluation of the yuan could clearly have some positive short-term impact on Japan. But in the medium term, there would be many negatives. Revaluation of the Chinese currency would affect Japan and the US differently because of differing industrial structures and labor market flexibility. The main reasons why yuan revaluation would have a positive shortterm impact on Japan are: (1) compared with the US, Japan still competes directly with China in many areas, especially products made by smaller businesses; and (2) because of its inflexible labor market, Japan is unable to benefit significantly from an increase in cheap imports from China. If Japan's labor market were more flexible, higher imports from China would result in lower prices and higher real incomes, thereby driving demand in other industries and absorbing any unemployment created in the directly affected manufacturing sectors. The question is whether such shifts of labor can be easily accomplished. In the medium term, adjusting exchange rates towards a stronger yuan and a weaker yen to achieve short-term gains would give inefficient Japanese companies and industries a new lease on life. Longer term, we think it would only impair Japan's national competitiveness.

Traditional trade theory argues that the advantages to both countries will be maximized if China—with its large, low-cost labor force—specializes in the production and export of labor-intensive goods while technologically superior Japan specializes in capital-intensive products. Moreover, economic development always entails rising labor costs, making the shift from labor-intensive to capital-intensive industries unavoidable. If we assume that nearly all of the Japanese companies and industries competing with China are labor intensive, it can be argued that a revaluation of the yuan would only hinder the advancement of Japanese industry. Even if we accept that the yuan is significantly undervalued, we should not forget that one reason for this undervaluation is the Japanese economy's high coststructure and the slow advancement of Japan's industrial structure.

Yuan revaluation would have negative impact on US economy

Trade deficit with China is expanding in both Japan and US. However, contents and characteristic each countries trade with China are different. It should be important to check the differences in order to consider the future development of trade structure in both countries.

With respect to competitiveness measured in specialization coefficient, Japan and US lost the broad basis competitiveness in 1980th. Although the degree of decline in competitiveness has been more severe than Japan, both countries' competitiveness continues to decline through 1990th. However, if we look at the competitiveness on sector level, there is huge difference in characteristics of trade with China between Japan and US. Japan drastically has lost the competitiveness in household electric applicants (ie. TV, Radio,etc.). And, it still has relatively high competitiveness in high value added goods like car reflected goods or construction machineries (Exhibit 12).

On the other hand, the feature of US trade with China has not changed so much in 90th. It means that there are few sectors that lost the competitiveness against China in 1990th. Sectors that would compete with those in China may have disappeared before 1990th. In fact, the competitiveness of US electrical machinery against China has not been eroded though 1990th ,which is interesting contrast with that fact that the Japanese electrical sector' competitiveness drastically declined in 1990th . It reflects there remain many Japanese companies that directly compete with those in China. In US, there are few companies to make almost same goods that directly compete with goods made in China. As a result, the US electrical machinery competitiveness measured in specialization coefficient has not diminished through 1990th (Exhibit 13).

The US trade relationship with China is qualitatively different from that of Japan from the view point of characteristics of the Chinese subsidiaries. The Chinese subsidiaries of US companies tend to be sales offices, and imports from China are generally products not manufactured in the US. More specifically, US imports from China are mostly made by labor-intensive industries whose domestic market share declined sharply in the 1970s and 1980s. In other words, a clear distinction can be drawn between imports and domestic products. Rather than an undervalued Chinese currency driving down US industrial competitiveness, imports from China are more likely to be products for which there is only a limited domestic supply.

Unlike Japan, the US has few factories that still compete directly with Chinese plants. If the yuan were revalued to a level at which both countries stood on an equal competitive footing with China, then Japanese factories whose capacity utilization had dropped because of Chinese competition would receive a second lease on life. This would result in either higher exports from Japan or (following production substitution in Japan) lower imports from China. In contrast, an increase in the value of the yuan—no matter how large—would not have a significant impact on US production activity. It would, however, lead directly to higher import prices. The US industrial structure is already characterized by a clear distinction between goods that are manufactured locally and goods whose production has shifted offshore. As a result, the impact on the US would likely be much different from that on Japan.

This becomes clearer when we look at the horizontal division of labor (ie, the degree of competition) for trade in the two countries. (Exhibit 14) shows the horizontal division of labor for Japan and the US with respect to trade with China. In contrast to the US, whose trade with China tends to be vertical, Japan's division of labor with China is more horizontal. Since Japan's trade structure remains horizontal —that is, many Japanese companies still make products that compete directly with China—its trade sensitivity to exchange-rate fluctuations is extremely high compared with that of the US.

This key qualitative difference not only affects Japan-China and US-China trade but also translates into a different impact on the consolidated earnings of Japanese and US parent companies via the mechanism of Chinese economic conditions.

A revaluation of the yuan would adversely affect the Chinese economy, thereby reducing sales for foreign subsidiaries operating in China. The Chinese economy is still driven by exports, which represent about 20% of GDP, compared with 7% for the US and 10% for Japan. Using input-output tables for China,

we estimated that a 10% revaluation of the yuan would eliminate production—mainly in agriculture, textiles, and machinery—equivalent to 1.25% of GDP (Exhibit 15).

Economic stagnation in China as a result of substantial appreciation of the yuan would probably have a severe impact on China's neighbors in Asia in particular. (Exhibit 16) shows the coefficients of specialization for the regional exports of China and the Asian newly industrialized economies (NIEs), demonstrating clearly that Asia's trade structure is changing to a major degree. China's coefficients of specialization for regional exports show that China's competitiveness has increased greatly relative to the US, while falling rapidly relative to the Asian NIEs. Furthermore, the Asian NIEs are gradually losing competitiveness relative to the US, but are compensating for this through higher competitiveness in terms of exports to China. In other words, the Asian NIEs are losing competitiveness due to higher wages, but are compensating by increasing their direct investment in China, and thus using China as a base for exports to developed countries. In fact, 70% of direct overseas investment in China comes from the Asian NIEs. Consequently, economic stagnation in China caused by a stronger yuan would have a surprisingly large impact on the Asian NIEs.

Sales within China and exports to third-country markets account for 87% of sales by US subsidiaries operating in China. In other words, 87% of their sales would be affected by a Chinese economic slump or rising export prices. Meanwhile, the domestic sales ratio for Japanese subsidiaries is only 41%, making them far less vulnerable to a slump in local demand. Moreover, 83% of these companies' third-country exports are to Asian markets and are most likely intermediate goods being shipped between subsidiaries in China and other Asian countries. To the extent that these are transactions between local subsidiaries, shifting production among factories can easily neutralize exchange-rate fluctuations. Given that the rising yen accelerated growth in Japan's FDI and the overseas shift of manufacturing, we think that yen weakness (ie, appreciation in the value of local currencies) could actually encourage companies to bring production back to Japan. In this sense, we think the impact on the Japanese economy would not be negative.

In the end, a revaluation of the yuan would improve Japan's balance of trade with China and would have only a limited impact on the earnings of Japanese subsidiaries operating in foreign countries. Hence, the short-term impact on the Japanese economy would almost certainly be positive. In contrast, a stronger yuan probably would not improve the US balance of trade but would adversely affect the earnings of US subsidiaries operating in China.

Reduction of the Fed's monetary policy freedom

We think that a major contradiction at the heart of US diplomacy toward China poses risks over the medium term. This major contradiction, in our opinion, stems from the US pressure on China to allow the yuan to appreciate, which threatens to disrupt a source of prosperity for the US economy. This also looks likely to pose major risks for the Japanese economy, and the global economy. We think that the US is finding fault with the value of the yuan and China's currency exchange system because of its widening trade deficit, and because it thinks that imports from China are destroying domestic jobs. However, we do not think that US reasoning is necessarily correct in this respect. Although this may be the case in certain sectors of the textile industry and other areas, an overall link between imports and US employment conditions is not clearly discernible, in our opinion. We have plotted import penetration rates and changes in employment levels for individual sectors in Japan and the US in (Exhibit 17). The result suggests that there is a clear correlation between higher import penetration and employment conditions in Japan, while no such correlation is apparent in the US. The overall number of people employed in manufacturing industries is falling in both Japan and the US, and employment is falling in both manufacturing and the economy as a whole in Japan, as evidenced by the rise in the overall unemployment rate. In the US, by contrast, employment is on the rise in nonmanufacturing industries and the economy as a whole.

If we accept that higher import penetration is not causing employment to fall, then import growth is,

at least, not to blame for lower domestic demand. Consequently, if the US succeeds in its forceful requests for appreciation of the yuan, then we would expect the US to be far more prone to inflationary, rather than deflationary, pressure. Appreciation of the yuan would, in effect, remove one of the three pillars of US prosperity in the 1990s, and end up reducing the Fed's freedom of action in terms of monetary policy, in our opinion.

The biggest risk is import inflation, not deflation

If we accept that US imports good from China for which it (the US) has little domestic capacity for replacement supply, then China is not a product assembly base as far as the US is concerned (ie, the imports are not reimports). Consequently, we see no reason why the US is obliged to import from China in particular, and it is indeed free to buy fromwherever offers the lowest prices. This principle is clearly observable in the pattern of US imports from Asia (including Japan). (Exhibit 18) shows changes in shares of exports to the US (US imports from Asia) held by 10 East Asian countries, and the wage levels paid by their manufacturing industries. This demonstrates that the US buys more goods fromcountries with lower wages, and that China's labor costs are relatively low. Under these circumstances, it is likely that the yuan's appreciation would push down its exports to the US, through higher prices stemming in turn from higher wages. Furthermore, a reduction in US imports from China would probably be accompanied by growth in imports from other Asian countries, with the overall level of imports from Asia remaining unchanged, in view of the original lack of supply capacity in the US. Moreover, the price of goods imported into the US from elsewhere in Asia would rise during the course of this process. Price elasticity is thus a significant factor affecting US imports from China, since changes in currency exchange rates have a substantial impact on bilateral trading balances. As shown in (Exhibit 19), however, the price elasticity of US imports from the world as a whole is almost zero. This suggests strongly that it is possible to cancel out changes in exchange rates by importing from different regions. Even though price changes affect trading patterns between two countries, in other words, the advanced state of US industry limits the types of goods that it can successfully produce, and this means that lower imports from China will be matched by higher imports from other regions. Consequently, we expect little net impact on prices as a result of a decline in US imports from China.

Supposing that some supply capacity had survived within the US to compete with imports, then higher import prices would not push up final domestic product prices (consumer commodity prices) to the same extent. However, the domestic supply capacity of companies competing with Chinese products (Asian products) is falling, and import prices are therefore having a growing effect on consumer commodity prices. (Exhibit 20) shows the import price elasticity of consumer commodity prices (core CPI). The most recent data fromthe 1990s shows that import prices are having a growing impact on consumer commodity prices. We calculate that at the most recent peak, a 1% rise in import prices would result in a 0.6% rise in the core CPI. For reference, the same calculation for the Japanese CPI gives an elasticity value of 0.01, or 0.06 for goods only, which is only one-tenth of the US level.

The resulting stability of commodity prices has undoubtedly played a role in supporting consumer spending in the US, in our view. We estimated and compared the real consumption function in the 1980s and 1990s, and this shows that lower commodity prices in the 1990s had roughly twice the positive impact on real consumer spending than in the 1980s, although the coefficient is small. Furthermore, the income elasticity value is also 0.07 point higher in the 1990s. This suggests strongly that growth in low-priced imports from China has helped to push up real purchasing power, and improve consumer sentiment.

What is the fundamental difference between US and Japan in trade friction problem with China?

It is relatively easy to understand and solve the Japanese trade deficit problem with China. It is because the Japanese economy simply follows the route that the US took in 1980th, when the US industrial competitiveness had been eroded by the emerging economy "JAPAN". In other words, Japan can learn the

lesson from US experience in 1980th. However, the current US trade deficit problem (especially with China) should be different from the Japanese one in nature.

Japan is not the first country to have experienced such a difficult economic situation. The US faced a similar situation in the 1980s. The competition that Japan now faces from China, the US then faced from Japan. During the 1970s, the US had to contend with an export offensive from Japan, with which it began to run up a mounting trade deficit. In 1980, GM, Ford and Chrysler (the "Big Three" of the industry that had led US manufacturing in the postwar period) all announced losses at the same time, and Chrysler's very existence was threatened. As US manufacturers became increasingly uncompetitive, the number of people employed in manufacturing went into decline.

An analysis of import penetration (ie, of the extent to which domestic demand depends on imports and therefore of the competitiveness of domestic manufacturing) in the US shows that, since the 1980s, domestic demand has moved from domestically produced goods to imports. At the same time, however, domestic manufacturing has become increasingly competitive. This shows that, as competition has increased, US manufacturers have been forced to become more efficient, and it is this that laid the foundations of the US economic boom of the 1990s. Even though the service sector has been the fastest growing sector of the US economy, it has been the manufacturing sector that has led the drive towards higher productivity (Exhibit 21).

As the number employed in manufacturing has declined, it has been the service sector that has absorbed the surplus labor . Since the 1980s, there has been an increasing demand not only for spin-offs and outsourcing but also, as the service sector has expanded, for new services, such as temping agencies and both business and personal services. One of the main factors behind the increase in the number of jobs in these new sectors since the late 1970s has, perhaps not surprisingly, been the US government's commitment to deregulation and privatization.

Nor is it surprising that most of those who lost their jobs in US manufacturing during this period did not find new jobs in the service sector straight away. Even those who did usually had to accept much lower wages. The result tended to be an increase in either part-timers or working couples (ie, a greater participation by women in the labor force). The growth of the service sector tends to create new types of employment (eg, part-time work). In turn, this enables companies to use their labor more efficiently (ie, to control their wage costs) and to reduce the price of their products. As a result, households are able to maintain their purchasing power in real terms even if their wages do not rise very much in nominal terms. Provided this mechanism functions properly, not only will the corporate sector benefit, but also purchasing power will be maintained in real terms (even though the labor share is declining) and consumer demand is likely to increase. It is just such a mechanism that has operated in the US since the 1980s, in our view.

There has also been an increase in new types of employment (eg, part-time work) and more efficient use of labor in Japan (Exhibit 22). However, the rate of increase has been extremely slow. There have also been differences between different sectors and sizes of companies in the extent to which the labor share has declined since peaking out in the economy as a whole (Exhibit 23). In the case of large businesses, we note a marked decline, which has been one of the factors behind the recent improvement in corporate earnings and the stock market rally. In the case of small businesses, however, the labor share is still, if anything, in an uptrend. Furthermore, it is only very recently that the number of people employed by small businesses has begun to decline.

A comparison of import penetration and productivity in Japan and the US shows that, in terms of improved productivity, Japanese manufacturers lag their US counterparts. While import penetration in Japan has risen sharply as China and other Asian countries erode Japan's lead (just as happened to the US in the 1980s), productivity improvements by Japanese manufacturers have been insignificant compared with those of US manufacturers in the 1980s and 1990s (Exhibit 24). This shows that the effects of the structural reforms carried out by large businesses have now spread to small businesses, which are now in the early stages of

carrying out their own structural reforms. The scenario that the efficiency gains in nonmanufacturing - recovery in manufacturing - increased demand for nonmanufacturing is about to kick in.

It may be relatively easy for Japan to overcome the problem around trade with China. It should be impossible for all labour-intensive companies in Japan to compete directly Chinese companies and hold competitive-edge. Japan has to change the industrial structure to fit the matured economy. In other words, we have to accelerate the development of value-added oriented economy.

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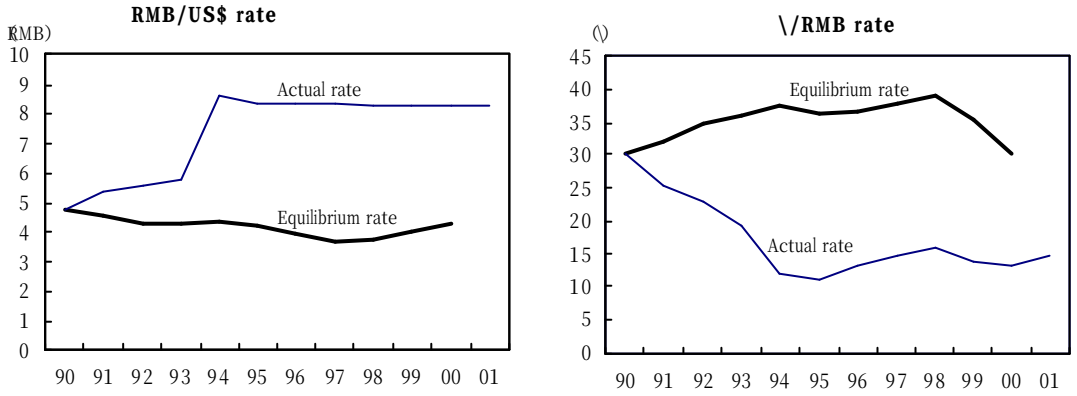
(Exhibit.1) Industrialized countries7 trade balance with China

(US$ billion)

		Exports	Imports	Trade Deficit
Industrialized nations	1990	21.1	44.6	-23.5
	1995	58.6	125.7	-67.1
	2000	77.2	238.1	-161.0
Japan	1990	6.1	12.1	-6.0
	1995	21.9	35.9	-14.0
	2000	30.4	55.2	-24.8
US	1990	4.8	16.3	-11.5
	1995	11.7	48.5	-36.8
	2000	16.0	106.2	-90.3

Note: Industrialized countries are as defined by the IMF.
Souce: Nomura,based on "Direction of Trade"(International Monetary Fund)

(Exhibit.2) Competitive equilibrium exchange rate versus the Chinese yuan



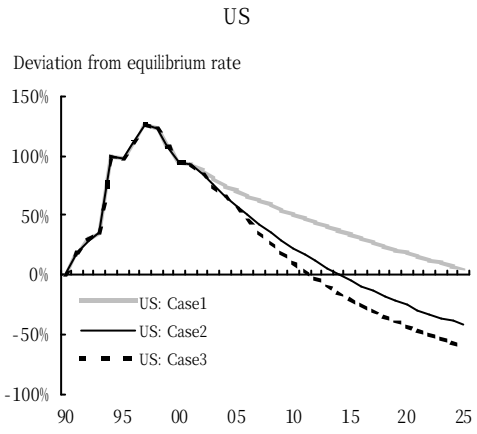
Note:(1)The equilibirum exchange rate is calculated using the following formula.

$$e = \left(\frac{w}{w^*}\right)\left(\frac{a}{1 - m \times c}\right) \Big/ \left[a^* + \left(\frac{p_R^*}{w^*}\right) \times m^*\right]$$

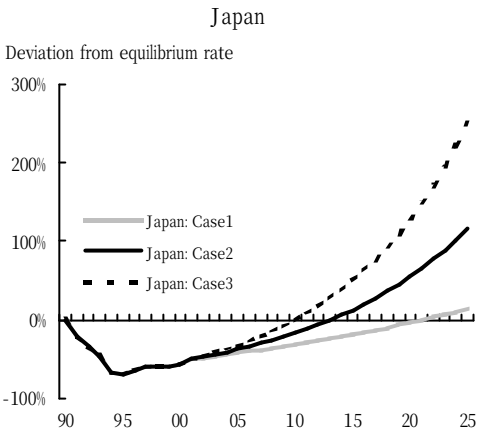
e : equilibrium exchange rate, w :nominal wage rate, a :labor input coefficient, m :material input coefficient
c :terms of trade(export prices/importedmaterials prices), P*R :material prices (in dollars), *indicates variable for trading partner
(2) The material input coefficient is linearly interpolated from base data in 1990 and 1995.

Source: Nomura based on "Inter-industry Relations Table (Asia) 1990 & 1995,"(Institute of Developing Economies)
"Corporate Goods Price Index,"(Bank of Japan), "National Accounts (Cabinet Office) and data from each Asian country.

(Exhibit.3) Number of years required to eliminate the yuan's undervaluation



Note: Case1: China achieves the same growth in GDP, wages and employment as Japan did in 1960s. In the US, the economy grows at 2.5%, employment at 0.5% and wages at 3%. Case2: Chinamaintains growth at recent levels, and US growth is the same as Case1. Case3: China maintains growth at recent levels and the US economy grows at 4%
Source: Nomura



Note: Case1: China achieves the same growth in GDP, wages and employment as Japan did in 1960s. In Japan, the economy grows at 1.5%, wages at 1%, and employment is flat. Case2: China maintains growth at recent levels, and Japan's growth is the same as Case1. Case3: China maintains growth at recent levels and Japan maintains negative wage growth of 1%.
Source: Nomura

(Exhibit.4-1) US trade function against China

Dependent Variable: LOG(USXPORT)
Method: Least Squares
Date: 09/25/03 Time: 15:46
Sample(adjusted): 1988:1 2003:2
Included observations: 62 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.23278	0.62617	0.371752	0.7114
LOG(CHINA_IIP)	0.89393	0.031388	28.48033	0
PDL01	0.028736	0.024243	1.18536	0.2407
PDL02	0.004009	0.004908	0.816875	0.4173

R-squared	0.941007	Mean dependent var	7.877377
Adjusted R-squared	0.937956	S.D. dependent var	0.479351
S.E. of regression	0.1194	Akaike info criterion	-1.35034
Sum squared resid	0.826864	Schwarz criterion	-1.21311
Log likelihood	45.86053	F-statistic	308.3916
Durbin-Watson stat	1.590281	Prob(F-statistic)	0

LOG (relative prices)		Coefficien	Std. Error	T-Statistic
	0	-0.03705	0.05329	-0.69531
	1	-0.02029	0.04046	-0.50152
	2	-0.00585	0.0307	-0.19055
	3	0.00628	0.02461	0.25493
	4	0.01608	0.02238	0.7185
	5	0.02357	0.02286	1.03114
	6	0.02874	0.02424	1.18536
	7	0.03159	0.02523	1.25205
	8	0.03212	0.02511	1.27919
	9	0.03033	0.02353	1.28897
	10	0.02623	0.02031	1.29101
	11	0.0198	0.01536	1.28958
	12	0.01106	0.0086	1.28661
Sum of Lags		0.16259	0.2263	0.7185

Dependent Variable: LOG(USIMPORT)
Method: Least Squares
Date: 09/25/03 Time: 15:54
Sample: 1990:1 2003:2
Included observations: 54

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-45.19134	1.258098	-35.9204	0
LOG(USGDP(-1))	5.683632	0.11038	51.49137	0
PDL01	-0.179145	0.018562	-9.65128	0
PDL02	0.002197	0.004712	0.466228	0.6431

R-squared	0.985853	Mean dependent var	9.489477
Adjusted R-squared	0.985004	S.D. dependent var	0.667962
S.E. of regression	0.081797	Akaike info criterion	-2.09797
Sum squared resid	0.334538	Schwarz criterion	-1.95063
Log likelihood	60.64504	F-statistic	1161.435
Durbin-Watson stat	0.247104	Prob(F-statistic)	0

LOG (relative prices)		Coefficien	Std. Error	T-Statistic
	0	-0.07201	0.05156	-1.39655
	1	-0.10657	0.03924	-2.71578
	2	-0.13446	0.02929	-4.58981
	3	-0.15566	0.02219	-7.01381
	4	-0.17017	0.01843	-9.23417
	5	-0.178	0.0177	-10.057
	6	-0.17915	0.01856	-9.65128
	7	-0.17361	0.01954	-8.88592
	8	-0.16138	0.01975	-8.1696
	9	-0.14248	0.01878	-7.58539
	10	-0.11688	0.01641	-7.12217
	11	-0.08461	0.01253	-6.7536
	12	-0.04565	0.00707	-6.45653
Sum of Lags		-1.72061	0.18633	-9.23417

(Exhibit.4-2) Japan trade function against China

Dependent Variable: LOG(JapEXPORT)
Method: Least Squares
Date: 09/25/03 Time: 16:20
Sample(adjusted): 1988:1 2003:2
Included observations: 62 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-5.07174	0.532928	-9.516739	0
LOG(IIPCHINA(-1))	1.811821	0.112482	16.10766	0
LOG(FDI,4))	-0.29398	0.0364	-8.076384	0
PDL01	-0.01398	0.01334	-1.048119	0.299
PDL02	-0.00204	0.003046	-0.669644	0.5058

R-squared	0.956709	Mean dependent var	6.23273
Adjusted R-square	0.953671	S.D. dependent var	0.515307
S.E. of regression	0.110916	Akaike info criterion	-1.482881
Sum squared resid	0.701234	Schwarz criterion	-1.311338
Log likelihood	50.96932	F-statistic	314.9149
Durbin-Watson sta	0.78788	Prob(F-statistic)	0

LOG(Relative prices)		Coefficient	Std. Error	T-Statistic
	0	0.01902	0.03242	0.58666
	1	0.01064	0.02374	0.44818
	2	0.00341	0.01688	0.20184
	3	-0.00267	0.01244	-0.21471
	4	-0.00759	0.01099	-0.69103
	5	-0.01137	0.01183	-0.96085
	6	-0.01398	0.01334	-1.04812
	7	-0.01545	0.01449	-1.06627
	8	-0.01575	0.01481	-1.06365
	9	-0.01491	0.01413	-1.05545
	10	-0.01291	0.01234	-1.04635
	11	-0.00976	0.00941	-1.03778
	12	-0.00546	0.0053	-1.0301
Sum of Lags		-0.07679	0.11113	-0.69103

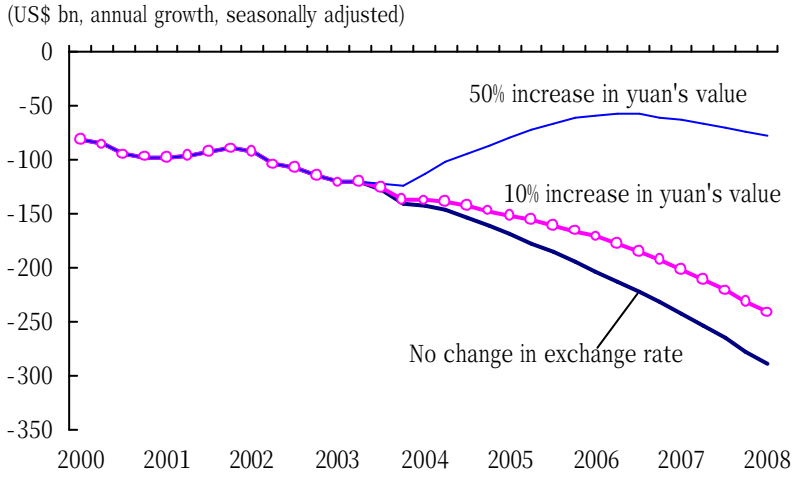
Dependent Variable: LOG(JapIMPORT)
Method: Least Squares
Date: 09/25/03 Time: 16:25
Sample(adjusted): 1988:1 2003:2
Included observations: 62 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-28.4207	3.442464	-8.255907	0
LOG(RGDPJ(-1))	3.161897	0.245828	12.86224	0
LOG(FDI,4))	9.12E-10	4.06E-11	22.48188	0
PDL01	-0.17678	0.012232	-14.45222	0
PDL02	0.005225	0.002161	2.417305	0.0189

R-squared	0.987062	Mean dependent var	6.5937
Adjusted R-squa	0.986155	S.D. dependent var	0.659094
S.E. of regressio	0.077553	Akaike info criterion	-2.198495
Sum squared res	0.342827	Schwarz criterion	-2.026952
Log likelihood	73.15335	F-statistic	1087.198
Durbin-Watson s	0.42375	Prob(F-statistic)	0

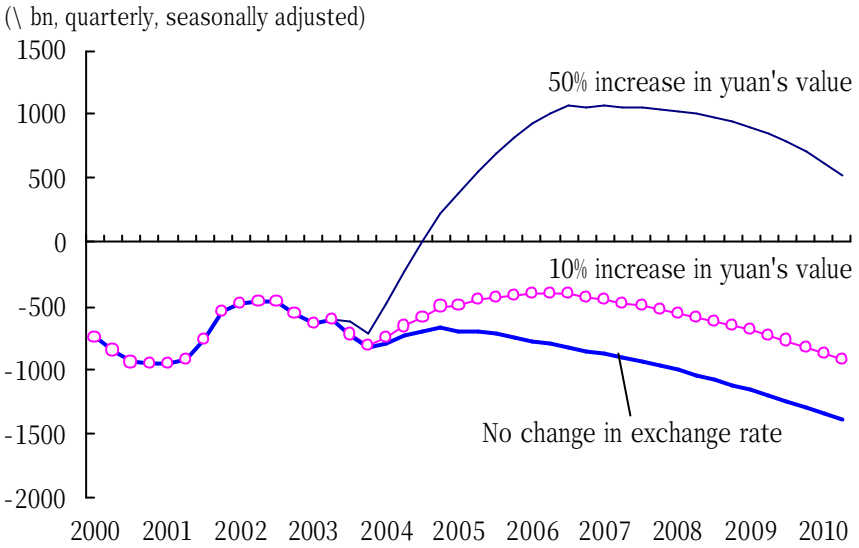
LOG(Relative prices)		Coefficient	Std. Error	T-Statistic
	0	-0.10512	0.02354	-4.46644
	1	-0.13137	0.01808	-7.2641
	2	-0.1519	0.01414	-10.742
	3	-0.1667	0.01192	-13.9826
	4	-0.17579	0.01131	-15.5492
	5	-0.17915	0.01165	-15.3727
	6	-0.17678	0.01223	-14.4522
	7	-0.1687	0.01255	-13.4453
	8	-0.15489	0.01233	-12.5633
	9	-0.13536	0.01144	-11.8357
	10	-0.1101	0.00979	-11.2426
	11	-0.07912	0.00736	-10.757
	12	-0.04242	0.0041	-10.3553
Sum of Lags		-1.7774	0.11431	-15.5492

(Exhibit 5) Simulation of the US trade balance with China



Note: We estimated the trade coefficient with China and used a schedule of exchange rate variation multipliers derived from a global input-output table and our US medium-term model to estimate values of the nominal balance.
Source: Nomura from data supplied by the governments of China and the US

(Exhibit 6) Simulation of the Japan's trade balance with China



Note: We estimated the trade coefficient with China and used a
schedule of exchange rate variation multipliers derived from a global input-output table and JMAP estimate values of the nominal
balance. JMAP = Jpan Model for Aging Population.
Source: Nomura, from data supplied by the Chinese

(Exhibit 7) Sales of Japanese companies' Chinese subsidiaries by region

%

	Domestic sales	Exports to Japan	Exports to third countries			
				To North America	To Asia	To Europe
Manufacturing sector	**48.7**	**31.1**	**20.2**	**2.9**	**15.8**	**1.5**
Food products	85.5	12.6	1.9	1.0	0.8	0.1
Textiles	32.1	55.2	12.7	3.2	8.8	0.8
Steel	85.7	3.2	11.0	0.5	10.5	0.1
Nonferrous metals	73.4	13.1	13.5	2.5	10.8	0.2
General machinery	28.5	47.7	23.8	2.1	16.9	4.7
Electical machinery	41.3	31.1	27.7	2.8	23.4	1.5
Transportation machinery	85.7	8.7	5.6	5.3	0.2	0.2
Precision equipment	43.7	49.0	7.3	0.4	6.5	0.4
All-Industries total	**46.1**	**27.1**	**26.8**	**2.8**	**22.0**	**2.0**

Source: Nomura from the Survey of Overseas Business Activities (Ministry of Economy, Trade and Industry)

(Exhibit 8) Sales of US companies' Chinese subsidiaries by region

All industries %

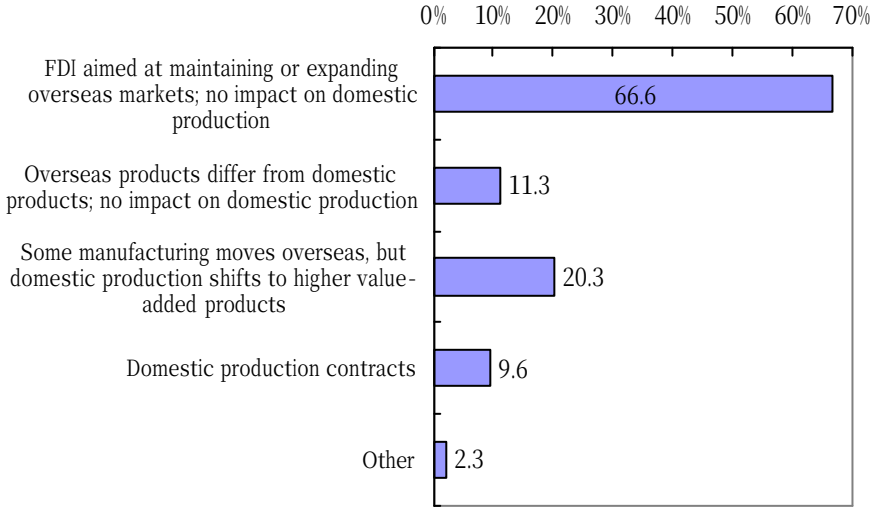
	Domestic		Reimports		Third-country exports	
	1995	2000	1995	2000	1995	2000
ASEAN4	59	48	14	18	27	35
NIEs3	51	74	18	10	31	16
China	81	70	9	11	10	18
Hong Kong	59	61	13	18	28	21
Japan	92	93	3	3	5	5

Manufacturing %

	Domestic		Reimports		Third-country exports	
	1995	2000	1995	2000	1995	2000
ASEAN4	48	35	25	23	27	42
NIEs3	39	68	35	15	27	18
China	75	64	13	13	11	23
Hong Kong	57	33	17	36	25	32
Japan	87	91	6	3	7	6

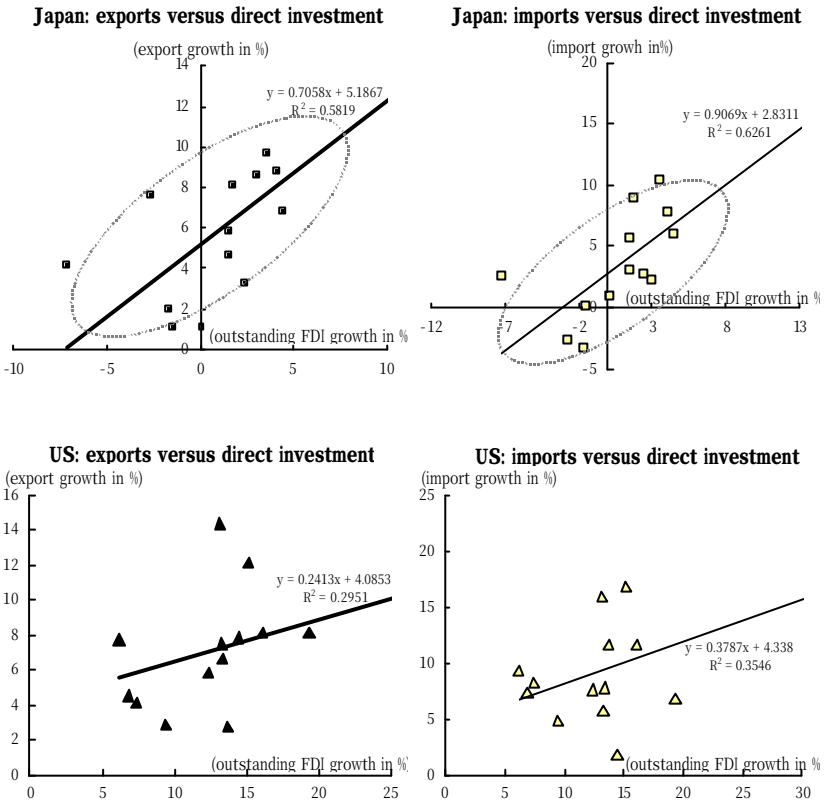
Source: Nomura, from the Survey of Current Business (US Bureau of Economic Analysis)

(Exhibit 9) Impact of Japanese subsidiaries in China on domestic manufacturing



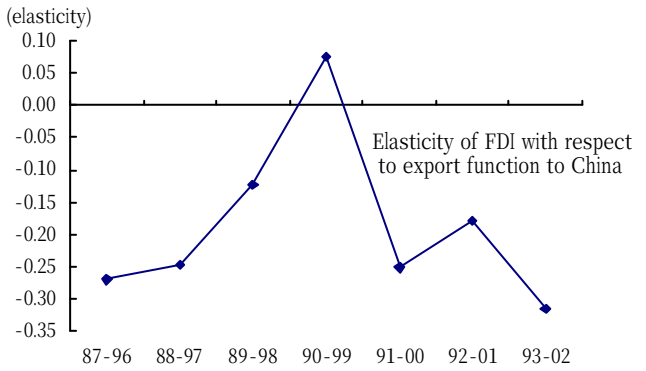
Source: Japan Bank for International Cooperation

(Exhibit 10) Direct investment and the trade balance: Japan versus the US



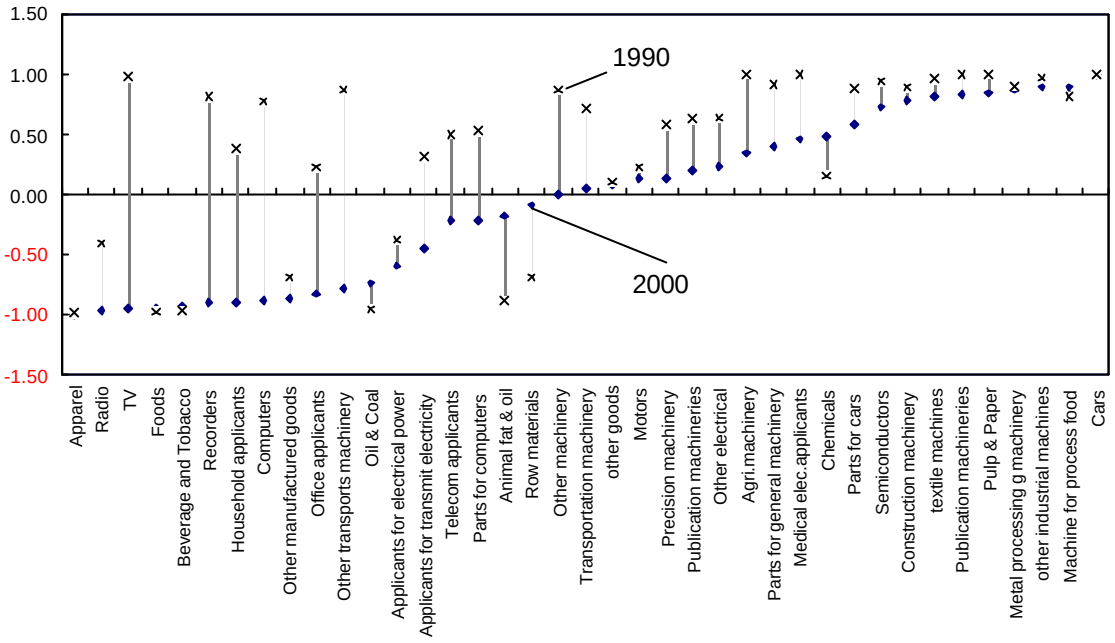
Note.▲、□ indicates industries respectively.
Source: Nomura, based on Ministry of Finance, Cabinet Office, and US Department of Commerce data

(Exhibit 11) Rising FDI in China reduces Japanese exports



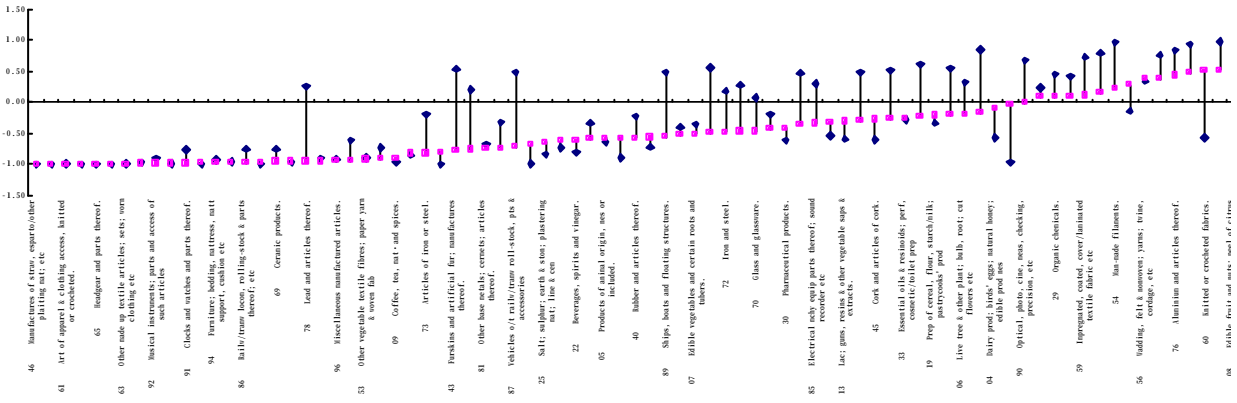
Note: The function for Japanese exports to China was defined as follows
Ln(exports to China) = α + β ×ln(Chinese industrial output)
+ γ ×ln(outstanding FDI) + Φ ×ln(relative prices). We then
plotted γ over the various periods. We used the four-year trailing
moving average of outstanding FDI, starting from 1985.
Source:Nomura

(Exhibit 12) Japan's specialization coefficient against China



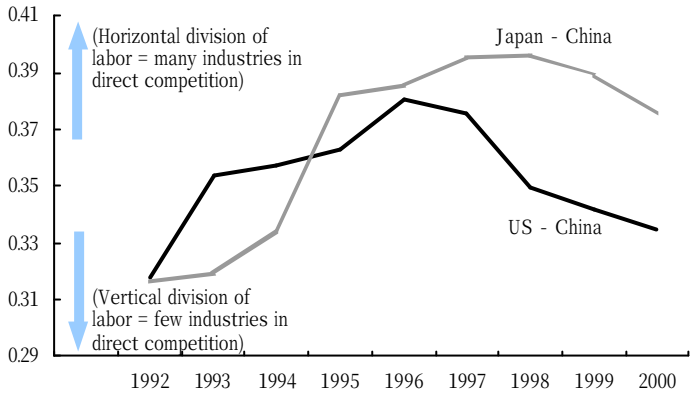
Note:Specializatrion coefiicient = (exports -Imports)/(exports+imports)
Source; Ministry of fionanace, Nomura

(Exhibit 13) US's specialization coefficient against China



Note:Specializatrion coefiicient = (exports-Imports)/(exports+imports)
Source; OECD, Nomura

(Exhibit 14) Direct competition with China: for Japan,low for US



Note: Horizontal division of labor (GL index) defined as follows: $1/n \Sigma (1-|Xi-Mi|/(Xi+Mi))$.
Data was taken from two-digit HS categories (excluding foodstuffs) in OECD database.
Source: Nomura, based on OECD data

(Exhibit 15) Estimated impact of 10% yuan revaluation on Chinese economy

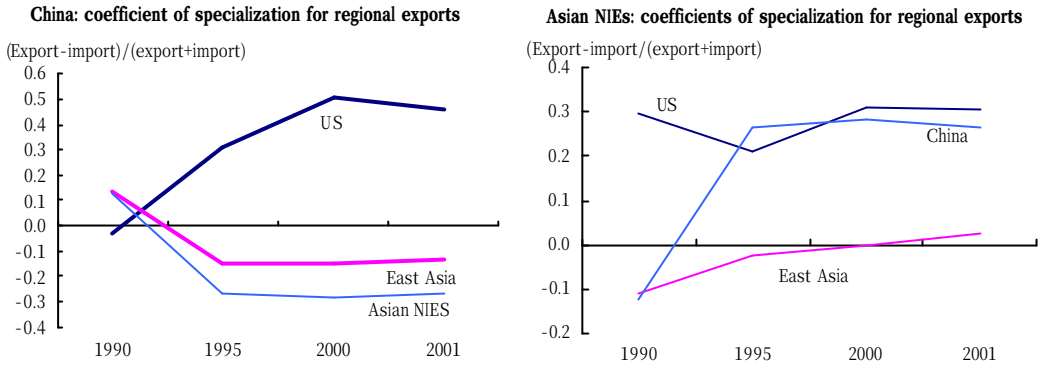
(billion yuan)

	Production decrease	GDP reduction
Agriculture	-23.6	-14.1
Mining	-15.6	-8.1
Foods	-14.0	-3.9
Textile	-61.3	-18.0
Gas & OIL	-6.6	-1.5
Chemicals	-39.7	-10.7
Non-ferrous metals	-8.0	-2.5
Fabricated metals	-31.9	-6.9
Machineries	-57.9	-16.3
Other manufacturing	-25.3	-8.9
Utilities	-7.4	-3.2
Constructions	-1.5	-0.4
Transport & telecom	-14.2	-7.9
Merchandises	-28.2	-13.7
Public services & Real est	-13.0	-6.3
Financials	-5.1	-3.1
Other services	-2.0	-0.9
Total	**-355.3**	**-126.5**

-1.25% of 2002 GDP

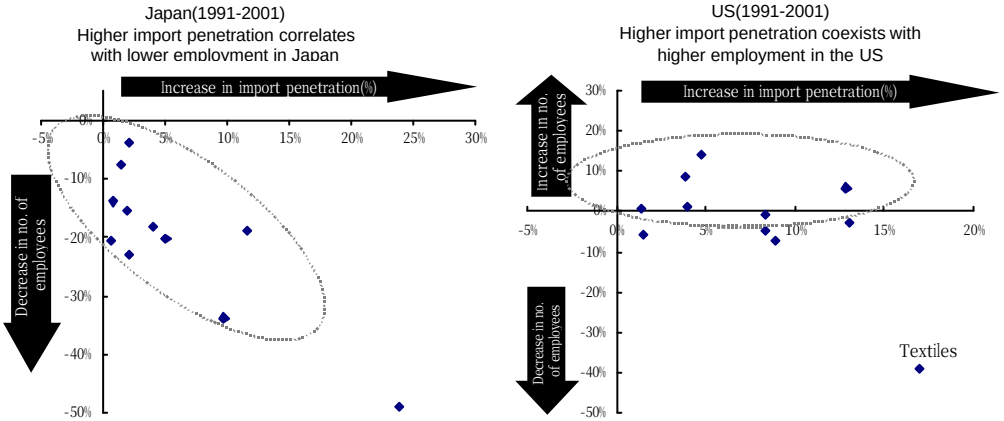
Note: We assumed exports of $325.6 billion and an export elasticity with regard to exchange rates of 0.6.
Source: Nomura, based on Chinese input-output tables (1997)

(Exhibit 16) The trade relationship between the Asian NIEs, China, and the US



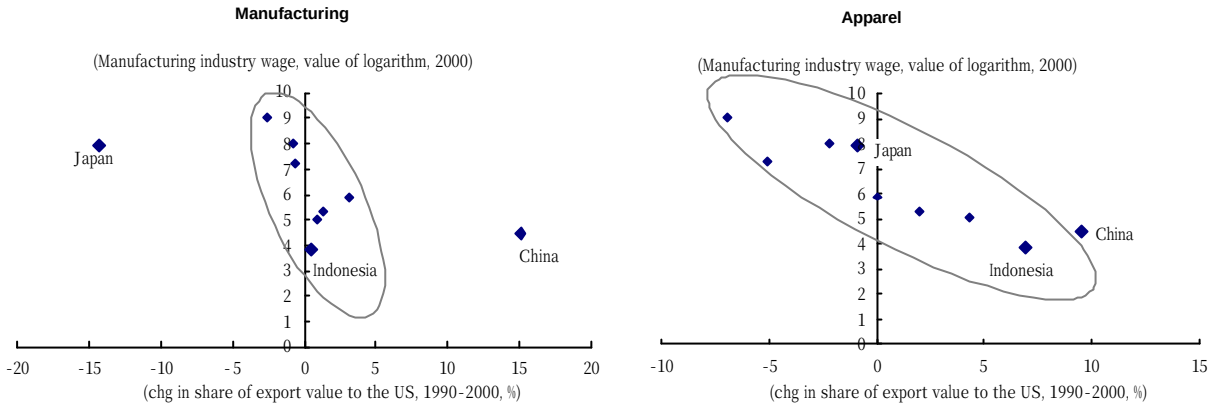
Note: (1)Asian NIEs=South Korea,Taiwan,HongKong, Singapole;ASEAN=Thailand,Malasia,Indonesia,the Philippines;East Asia
=Asia NIEs +ASEAN + China +Japan (2)Calculated from nominal trade value.

(Exhibit 17) Does higher import penetration cause unemployment? (Japan versus US)



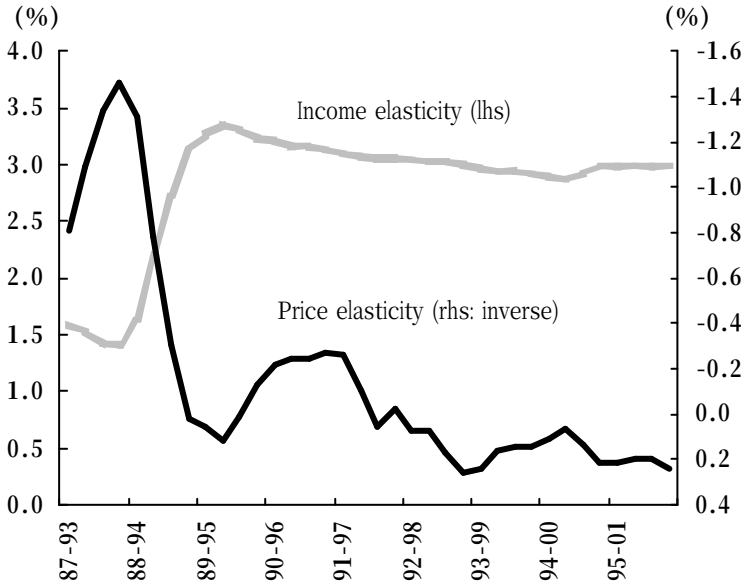
Note: Import penetration = import value÷(production value - export valule + import value)×100
Source: Nomura, from OECD materials

(Exhibit 18) The trade relationship between the Asian NIEs, China, and the US



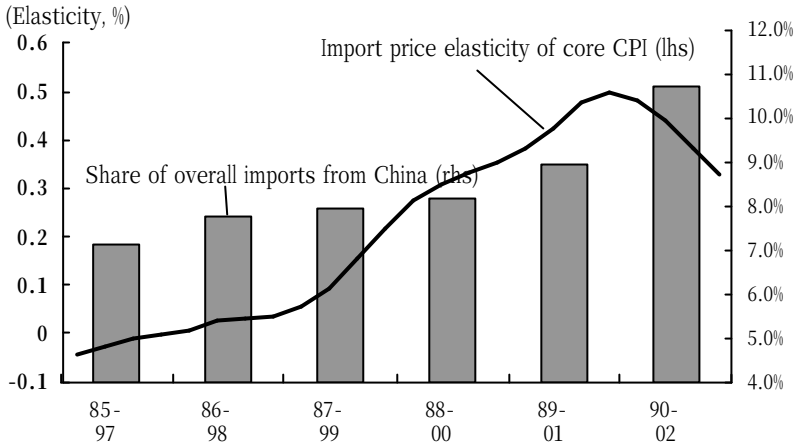
Note: (1)The horizontal axis shows change in share of export value to the US among 10 East Asian countries (Japan, South Korea, Hong Kong, Indonesia, Malasia, Thailand, the Philippines, Singapore, China and Taiwan). (2)Wages are monthly basis and denominated in US dollars; Hong Kong and Singapore data has been converted to represent 25 working days in a month; Thailand wage data is from 1999. (3)Apparel excludes knitted goods.
Source: Nomura, from International Labour Organization, OECD materials

(Exhibit 19) US price elasticity is almost zero



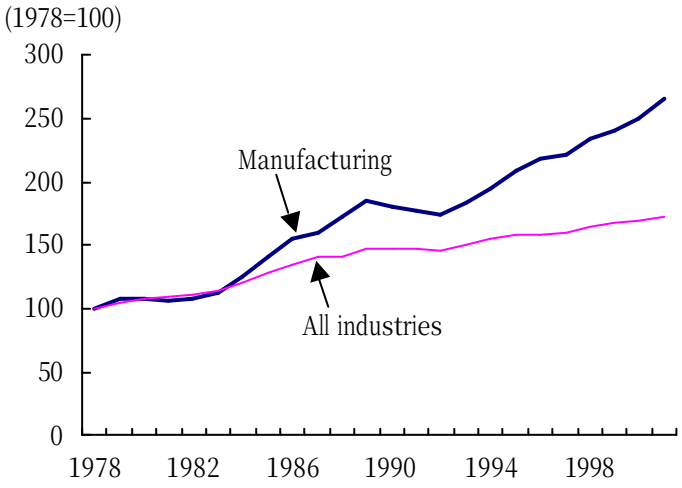
Note: Based on estimated import function over the past five years, calculated thus: import = $\alpha + \beta \times \ln$(real GDP)$+ \gamma \times \ln$(import price÷domestic producer price)
Source: Nomura

(Exhibit 20) Import prices are having a growing impact on core CPI



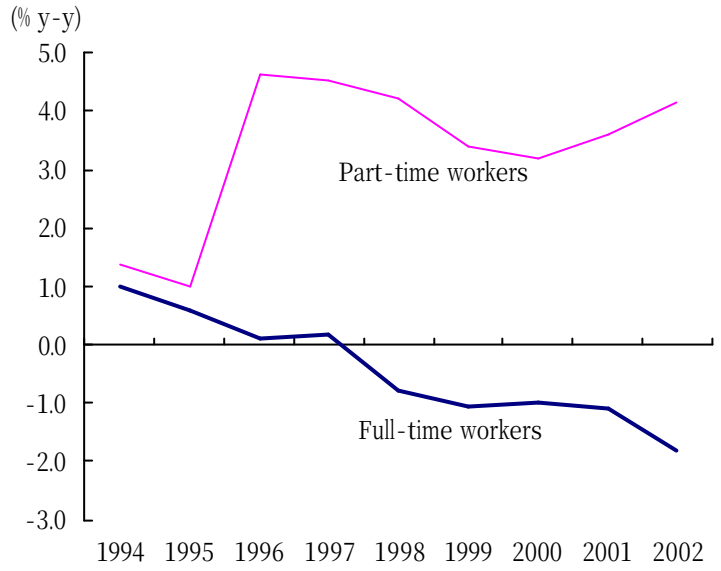
Note: Shows β calculated at different times, using :ln(core CPI)= α + β ×ln(import price) + γ ×ln(payroll)+ Φ ×ln(real GDP); China's share of imports is the average over the same period.

(Exhibit 21) The lead shown by US manufacturing in productivity growth in th 1980s



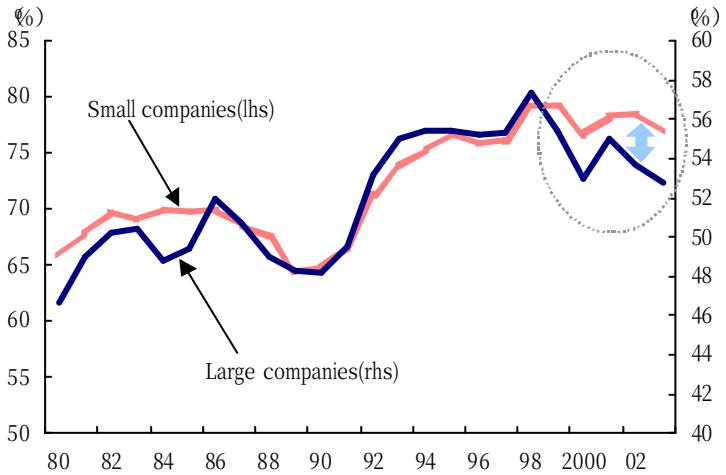
(Source) US department of commerce, Nomura

(Exhibit 22) Big increase in part-timers



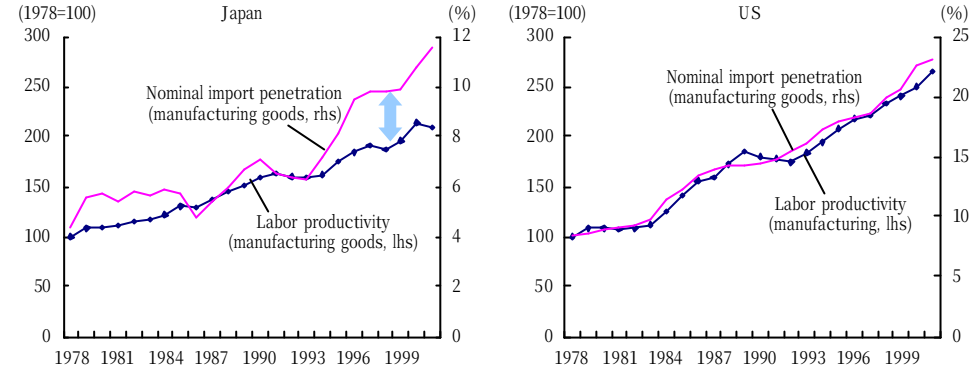
Note: Year-on-year data were calculated using the Employment Indices of Regular Employees. The data are those for businesses with a minimum of 5 employees.
Source: Nomura, based on Ministry of Health, Labor and Welfare data

(Exhibit 23) Change in Labor share (of large and small businesses)



Note: (1)Labor share = employment costs/(employment costs + depreciation + interest&discount expenses + recurring profits)×100.
(2)The data for 2003 were calculated using the year-onyear data for the first and second quarters.
Source: Nomura, based on MOF data

(Exhibit24) Comparison of the relation between productivity and rising import penetration in Japan and the US



Note: Nominal import penetration = imports/(shipments-exports)×100
Source: Nomura, based on Cabinet Office and OECD data

Note: Nominal import penetration = imports/(shipments-exports)×100
Source: Nomura, based on US Department of Commerce and OECD data