Japan's Economy Needs Structural Change

TAKATOSHI ITO

Japan's economic miracle appears to be waning. Structural changes are needed to put the economy on a reasonably high growth path once again.

IN THE four years from 1992 to 1995, Japan's growth rate was around 1 percent or lower, the lowest among the G-7 countries. Although the recession touched bottom in October 1993, the recovery has been extremely weak; the growth rate did not pick up again until 1996, when it is thought to have risen above 3 percent. The appreciation of the yen during most of this period and the negative effect on wealth of the collapse of the 1980s' share and land price bubble have been singled out as immediate causes of the recession. However, the slowness of the recovery suggests that other factors must have been at work as well. Specifically, features of the Japanese system that were once considered its strengths may now be holding back growth.

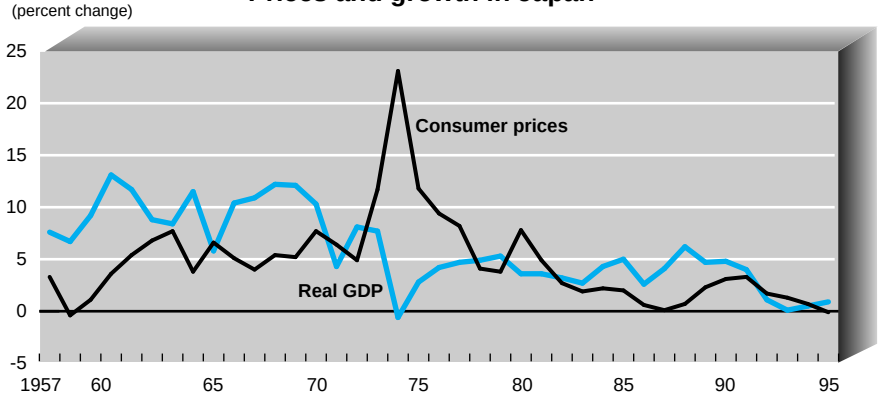
The Japanese system

Japan's growth record, especially from the 1950s to 1990, was certainly respectable for an economy without major resources (see chart). Several institutional features of the Japanese economy are frequently cited as contributing to this rapid growth.

Lifetime employment. The conventional wisdom highlights the importance for growth of the long-term relationship between Japanese firms and their workers: regular workers are virtually guaranteed a job for life. As a result, involuntary job changes are rare and the unemployment rate has been low—around 1–2 percent in the 1950s and 1960s, and between 2 and 3 percent since the mid-1970s. Although employment is to some degree guaranteed, job assignments, work hours, and rates of pay are quite flexible. Given that workers are unlikely to quit, a firm can afford to provide often costly on-the-job training. Rotation through different job skills, which makes workers versatile and prepares them for higher positions, is common. This investment in firm-specific human capital helps to increase worker productivity in the long run.

It is often said that productivity increases in Japan were due mainly to a combination of innovations in the manufacturing process and better communication between employees at all levels in the firm. This was made possible by teams of versatile workers who went through on-the-job training together. In addition, competition in the domestic labor market and a system of "deferred" payments—characterized by a steep age-earnings profile and substantial severance pay upon retirement linked to length of service and final salary—deters workers from shirking work or quitting

Prices and growth in Japan



Source: IMF, *International Financial Statistics Yearbook*, various issues.

Takatoshi Ito,
a Japanese national, is a Professor at the Institute of Economic Research, Hitotsubashi University. He was a Senior Advisor in the IMF's Research Department when this article was written.

altogether. Thus, lifetime employment is supported by a system of implicit contracts. Moreover, it is self-sustaining: lifetime employment contributes to the growth of a firm, and growth makes it possible for the firm to maintain lifetime employment.

The system works especially well in an expansionary environment, since the relatively large pool of "underpaid" younger workers makes possible more "deferred" payments to retiring workers. When the organizational hierarchy of a corporation grows, more management positions are created, and therefore "deferred" payments increase. Thus, lifetime employment can also be seen as a type of pay-as-you-go company pension scheme.

The main bank system. Strong long-term relationships between banks and firms are often cited as a source of strength in the Japanese economy. Typically, a firm develops a relationship with a particular bank and relies on its financial support over the long term. The bank not only provides loans to, but also holds shares in, the firm. In return, the firm uses the bank for major transactions from which the bank earns profits. A bank that has this type of primary relationship with a firm is called a main bank.

The main bank acts as an agent for investors and lenders to the firm, examining the viability of investment projects and monitoring the performance of management. Individual stockholders do not monitor management efforts, and Japanese institutional investors have not exercised the kind of monitoring power, such as pressing for higher dividends, that investors have in the United States, for example. Because a main bank takes a long-term view, a firm's management is able to embark on long-term investment projects with committed funding.

Keiretsu. In addition to the strong relationship between banks and firms, the Japanese economy is characterized by long-term relationships between businesses in the form of *keiretsu*, or enterprise groups. There are horizontal *keiretsu* (across different industries) and vertical *keiretsu* (between a manufacturer and its suppliers, or its wholesale distributors, dealers, and retailers).

Conventional wisdom on the significance of the *keiretsu* to the Japanese economy is similar to that for the main banks; they monitor the performance of management. Since group firms hold each other's shares, they are effectively safe from hostile takeovers. Management can therefore concentrate on long-term investment projects, rather than on dressing up quarterly earnings reports. Conversely, if the management of a company has failed, the group firms can collectively decide to replace those who are responsible.

Industrial policy. Despite the popular image of interventionist government, public expenditure as a percentage of GDP in Japan has been relatively small compared with other industrial countries. Nevertheless, public policy has been used to promote growth in a variety of ways. During the 1950s and 1960s, the government targeted certain industries as sunrise industries, providing them with various advantages to stimulate their expansion. They were given low-interest loans through government financial institutions and received hard-to-obtain foreign exchange allocations. The government also restricted entry to markets that were considered important and crowded, and some markets were segmented to limit competition.

Takatoshi Ito

One influential but controversial interpretation of the industrial policy of this period goes as follows. When a chosen sunrise industry was in its infancy, the government protected the domestic market through quotas and high tariffs, but allowed domestic firms to compete within the captive market. Japanese firms either licensed foreign technology or reverse engineered foreign products to catch up. As the economy grew and firms gained experience in production, the successful ones were able to expand. Increasing returns to scale brought down production costs, and returns to scale were further enhanced when these firms started to export and became more competitive in the world market. When the sector reached this stage, restrictions on imports were liberalized. This strategy was most visible in the steel and shipbuilding industries.

In fact, this kind of targeting was almost inevitable in the 1950s because the yen was overvalued and import restrictions (including quotas, tariffs, and foreign currency allocations) were necessary to maintain the exchange rate. The Ministry of International Trade and Industry (MITI) and the Ministry of Finance effectively "promoted" particular industries simply by allowing them to use foreign currency allocations to buy raw materials.

Opponents of this view point to failures in the government's attempt to identify prospective sunrise industries: coal, petrochemicals, oil refining, and aluminum are examples. In fact, some studies suggest that if productivity increases are related to loans from the Japanese Development Bank at the industry level, the relationship is negative. Consumer electronics, probably one of the most successful export industries, never was on MITI's list. The automobile industry is another interesting case. In the early 1960s, MITI attempted to merge several automobile manufacturers into two groups of firms, arguing that there were too many automobile manufacturers in Japan. The firms fought back and maintained their independence. If MITI had succeeded in reducing their number, domestic competition would have been stifled and Japanese automobiles might not have dominated the world market in the 1980s.

There is a broader consensus on the beneficial effects of the government's commitment to exports in general. Pushing exports was certainly an important aspect of industrial policy in the 1950s and 1960s, but it too was largely a necessary response to the overvalued currency. The evidence suggests that the phenomenal success of Japanese exports reflects a variety of factors, including the rapid response of private firms to changing market opportunities. Indeed, the composition of Japanese exports changed quite rapidly during the

Productivity growth has been slowing [1]

	1960Ð71	1971Ð81	1981Ð92
Tradable			
Total	10.22	5.67	4.59
Agriculture	4.64	3.18	2.79
Manufacturing	10.16	5.31	3.99
Nontradable			
Total	6.83	2.53	1.90
Energy and transportation	8.08	1.95	2.82
Construction	5.81	0.27	1.99
Distribution and finance	8.75	4.79	2.86
Services	4.00	1.06	0.48
Difference (tradable *less* nontradable)	3.39	3.14	2.69
Whole economy	8.92	3.96	2.88

Source: Author's calculations based on Organization for Economic Cooperation and Development, *National Accounts*, Vol. 2, *Detailed Tables* (various years).
Note: Productivity growth in a given sector is the annual percentage change in the ratio of total production to total employment for that sector.
[1] Annual percentage growth in productivity.

postwar period, shifting from textiles and toys to other light manufactured goods in the 1950s; to consumer electronics, steel, and ships in the 1960s and 1970s; to sophisticated optical products in the 1970s; and to automobiles and semiconductors in the 1980s. The structural transformation of industry was one source of Japan's continuous success in achieving trade surpluses and rapid economic growth.

Saving and investment. The Japanese household saving rate—which has fluctuated between 15 and 20 percent since the 1950s—has long been the highest among the major OECD countries and explains a good part of the country's high investment rate. Japan's high saving rate has been the focus of much study. Opinions differ on whether the saving rate can be understood purely in terms of the life-cycle hypothesis—the idea that people save during their productive years for retirement. Although this theory seems to fit the Japanese experience, the size of this effect has been questioned. In particular, some economists have suggested that, in Japan, household saving decisions are dominated by the bequest motive—the desire to leave an inheritance for future generations. Determining which hypothesis best fits the Japanese experience is important. If individuals save mainly for retirement, then a demographic shift toward a larger, older population would have important negative consequences for the saving rate. In contrast, if the bequest motive predominates in saving decisions, the saving rate should be relatively unaffected by the aging of the population.

Education. Illiteracy is extremely rare in Japan. Elementary and high school education emphasize basic skills in language and mathematics, as well as group activities. Curriculums are nationally standardized, and it is not possible to skip a grade. University admission is by examination, with stiff competition. It is widely accepted that the Japanese educational system produces highly qualified and effective workers.

From asset to liability

The very features for which the Japanese economy has been praised in the past may now be holding back growth. Declining productivity may be one symptom of the problem (see table). Productivity has been slowing over the past three decades. The effect is seen across the board, but is especially noticeable in the nontradables sector. Slower productivity growth, particularly after the very high levels reached in Japan from the 1960s through the early 1970s, may be inevitable as the economy matures. However, it may also be a sign of the need for fundamental structural change. Let us consider how Japan's key institutional strengths may be affecting growth in the 1990s.

Lifetime employment. The system of deferred payments to motivate workers that is implicit in the lifetime employment guarantee is now in danger of self-destruction for the same reasons that a pay-as-you-go pension system runs into difficulties in an aging economy: arrangements that worked in a high-growth environment begin to fail. If slow growth continues for about another decade, it is quite likely that workers who are now in their forties will retire to find that their age-earning profiles have not been as steep as those of the previous generation—a subtle breach of implied contract. The recent increase in the unemployment rate foreshadows this prospect, although firms, concerned to maintain their reputations in the eyes of prospective recruits, have so far honored their implicit contractual obligation not to lay off workers.

The type of innovation needed for today's environment seems to be difficult to generate with the current Japanese system of labor relations. The growth industries of the future are in the high-technology, service-oriented sectors, such as computer software, communications, and financial products. These industries are typically financed by venture capital and employ workers with highly specialized skills. In this context, the Japanese way of educating and training workers to perform a wide variety of jobs within a typical manufacturing firm may be counterproductive. Moreover, international competition in the tradables sector requires more flexibility on the labor front, both from the standpoint of product innovation and to prevent Japanese production operations from moving abroad to take advantage of cheaper labor costs.

The main bank system. The role of the main bank system in the 1990s is also open to question. There are two strands to the argument. First, and this is not really specific to Japan, banks generally play a diminishing role in financial intermediation as industrial economies mature. Second, the behavior and performance of the Japanese banks during the 1980s' asset price bubble and its collapse have cast doubt on the conventional view of the rational, farsighted, and growth-enhancing role of the main banks.

Throughout the 1980s, the industrial countries, including Japan, rapidly liberalized their financial markets. Regulations on interest rates were abolished; entry into new services and geographical regions (domestic and international) was increasingly liberalized; and new products and markets, most notably derivatives, were developed. In Japan, most controls on capital inflows and outflows were lifted in the first half of the 1980s. On the domestic front, all interest rate regulations were effectively lifted by the beginning of the 1990s. The Bank of Japan's restrictions on lending increases by the major banks were abolished in 1994. As regulations on capital controls, corporate bond issues, and new

stock offerings were dismantled, corporations were able to raise funds directly in domestic and international capital markets instead of borrowing from banks. Borrowing costs started to reflect the credit risk of corporations, and corporate information was made available to the market, rather than being hidden in earnings reports that could be deciphered only by the main banks. Some firms took advantage of the new environment and repaid all of their bank loans, thus freeing themselves from the main banks.

In Japan today, healthy manufacturing firms can raise funds from capital markets on more favorable terms than banks are willing to offer. And the banks' decision to extend large amounts of debt to the real estate sector in the speculative environment of the 1980s—and the sizable losses they subsequently sustained—suggests that they are no more prudent than other corporations in a deregulated world. If the banks are so smart at monitoring the investment projects and management performance of the firms to which they lend, surely they could have monitored themselves to avoid being saddled with nonperforming loans worth billions of yen.

Keiretsu. The *keiretsu* system does not seem to have served Japan well in the 1990s. The current frontier of technological innovation touches industries and companies that are not traditionally affiliated with *keiretsu*. The horizontal *keiretsu* are typically composed of large companies in the finance and manufacturing sectors. It is not these established firms that are likely to experience the next wave of expansion, but service industries, such as transportation, discount retailing, and entertainment.

For their part, the vertical *keiretsu* are not generally suited to the organizational needs of the service sector. In manufacturing, further efficiency gains will depend on the initiatives of large discount stores and other retailers to eliminate intermediaries or at least to reduce transportation costs and the profit margins of wholesalers, rather than on the *keiretsu* relationship. Moreover, the relationship between the manufacturers and suppliers faces a different challenge. Although the yen has depreciated against the dollar recently, its long period of prolonged strength has led a growing number of manufacturers to invest abroad, creating the so-called hollowing-out phenomenon. Some small suppliers that have provided these firms with just-in-time deliveries in Japan are finding it difficult to follow them to assembly sites abroad.

Industrial policy. The role of traditional industrial policy and export promotion is unquestionably minimal in Japan in the 1990s. Export expansion is not likely to play the key role in Japanese growth that it once did. As a result of trade conflicts with the United States in the late 1980s and the early 1990s, the opening of the Japanese economy through the promotion of imports has begun to be emphasized at the expense of exports.

Saving and investment. Rapid demographic change is projected to give Japan one of the oldest populations in the world by 2025. The ratio of productive persons (ages 15 to 64) to retired persons (ages 65 and over) is projected to decline from 5.8 in 1990 to 2.3 in 2025. Even this estimate may be too optimistic, since it was made in 1992, and in the past few years, the birth rate has fallen further. As noted earlier, the life-cycle hypothesis suggests that the more retired persons there are, the lower the saving rate becomes. A lower saving rate will reduce Japanese current account surpluses (by increasing domestic consumption without changing investment) or reduce growth (by lowering investment), or both. In any case, demographic change over the next 30 years will probably bring down the growth rate, unless productivity increases can more than offset the lower investment rate. Even if the bequest motive may have pushed up the saving rate in the past, it is not certain (or even likely) that it remains strong today, since the value of households' assets (durables and financial assets) is now so much greater. Taking these factors together, it seems inevitable that the Japanese saving rate will decline in coming years.

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Investment in Japan is decreasing in the 1990s. This is partly a correction after the high levels of investment sustained during the period of the asset-price bubble, but it is also partly a result of the fact that high production costs and rigidities in the system are pushing manufacturing firms to invest abroad. If investment abroad is only a temporary phenomenon, then domestic investment in manufacturing will recover soon. However, given the rigidities in the economy, and if the real exchange rate remains high, recovery is unlikely to be imminent.

Education. The Japanese education system has successfully produced a homogeneous, group-oriented labor force that is well versed in basic skills. However, many now argue that the current system does not foster the creativity and specialized skills needed to make breakthroughs in research. In particular, it appears that students are not developing the sort of highly specialized computer-oriented skills that will be necessary for tomorrow's thriving industries.

The strong pressure to pass university entrance examinations encourages high school students to study hard without questioning the material and trains them to memorize facts rather than to think independently. Moreover, since students cannot enter university early, creative thinking and specialized training typically must wait until students are 18. Some students are burned out by that time. Finally, the use of computers is limited in elementary and high school education. The ratio of computers to students is typically lower in Japan than in the United States, for example, and it appears that Japanese curriculums lag behind those in the United States in terms of information technology.

Policies for the future

What is needed in Japan is a reorientation of policies, from the manufacturing to the service sectors, and a move away from government guidance to deregulation of markets. More competition in the nontradable sectors, such as telecommunications, airlines, and distribution, will enhance productivity gains and lead to lower prices. Thus, both industries and consumers will benefit from structural reform. Hollowing out of the manufacturing sectors may slow down if the costs of production are reduced at home. However, the transition to a deregulated environment will no doubt be difficult for many sectors. Structural reforms are needed not only in industrial organization but also in employment practices and the education system. Careful implementation of the necessary changes should provide new engines for growth without causing too much friction in Japan's economy. F&D

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