THE JAPANESE GOVERNMENT AND THE ECONOM¥

TWENTY-FIRST CENTURY CHALLENGES

By Edward J. Lincoln

The Japanese National Diet Building, Tokyo. Image source: http://en.wikipedia.org/wiki/National_Diet_Building.

Japan continues to provide a fascinating case study for economists and political scientists who study the way market economies function. From the 1950s through the 1980s, that fascination had been fueled by high rates of economic growth, generated by an economy that operated under very different rules than those generally taught in American economics courses. In the 1990s, Japan presented an equally fascinating set of problems—slow growth, deflation (for the first time in an advanced economy since the 1930s), and an alarming number of bad loans in the banking system. Now Japan provides a laboratory to study how much of the previous economic model needs to be changed to put the economy back on a more successful growth trajectory. Furthermore, Japan provides the first example of an economy facing the challenge of producing growth in a society with a decreasing population.

THE HIGH-GROWTH YEARS

On the surface, Japan has been a market-based economy like the United States, in which most of the productive resources are owned by the private sector and output is sold in private markets that are, presumably, driven by supply and demand. In the US version of this model, government's role should be limited, largely to provide a regulatory framework to prevent fraud or predatory competition, and to provide fiscal and monetary policies that will reduce the impact of recessions and prevent high inflation. But from the 1930s through the 1980s, the Japanese government was far more intrusive in the operation of the economy than was the case in the US. To be sure, in those years the US government was also somewhat more intrusive in markets than in earlier decades, but the extent of government intervention in Japan was far greater and the style quite different.

Suspicious of the ability of markets to allocate productive resources efficiently, the Japanese government attempted to guide the market through a variety of means, both formal and informal. For example, regulation emasculated the bond and stock markets, while favoring banking, so that financial resources were allocated mainly through commercial banks.

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Skewing the financial system toward banks served the government's goal of influencing allocation of productive resources—as manipulating a handful of leading banks was far easier than influencing the stock or bond markets, with their thousands of participants. The government provided informal guidance to these commercial banks about how to lend their funds, through both private conversations with bank managers and by example, through the lending portfolios of the government's own policy banks (such as the Japan Development Bank).

In the corporate sector, a number of industries (such as steel and petrochemicals) worked closely with the then-Ministry of International Trade and Industry (MITI—now renamed the Ministry of Economy Trade and Industry, METI) in ways that resulted in some coordination of important corporate decisions such as investment and pricing. Other industries operated in explicitly regulated markets that tended to protect

Kawasaki Shipbuilding, Kōbe Shipyard and Machinery Works of Kōbe Harbor in Kōbe, Hyōgo Prefecture, Japan.
Image source: http://commons.wikimedia.org/wiki/Image:Kobe_Kawasaki_Heavy_Industries01s3200.jpg.

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weaker or smaller firms and enabled official or informal pricing collusion among firms. Trade protectionism and controls on foreign investment in Japan ensured that domestic firms could grow in the cocoon of government guidance without pesky outbreaks of international competition. Finally, MITI assisted with industry research and development, bringing otherwise competitive firms together for joint efforts to tackle new production technologies.[1]

From 1950 through 1973, the Japanese economy grew at an average annual real (inflation-adjusted) rate of almost ten percent. The combination of very high growth rates and the intrusive nature of the government in the economy created an obvious analytical question: did the economy perform that well because of industrial policy? Academic debate over this question has raged for at least the past three decades. Some have argued that government was instrumental in generating high growth, directing resources toward new capital-intensive industries, such as steel or shipbuilding. These industries might not otherwise have attracted commercial financing during a time when wages in Japan were low (so low that the logical flow of resources would be to labor-intensive industries, such as textiles) and overseas competitors strong.[2] Others have argued that, in actuality, most government-supported industries did not turn out to be internationally competitive.[3]

One dilemma in this ongoing debate is that it is easy to find specific examples of industries where government was heavily involved in shaping outcomes and which subsequently became highly successful internationally (steel, shipbuilding, and semiconductors, for example). But, did government promotion really cause them to grow much faster than they would have otherwise? And, did their growth increase the overall growth of the economy? The answer remains difficult to show conclusively. At the very least, however, it is certainly possible that the government fostered a domestic environment of optimism. Business, believing that the government would promote growth and stand behind those industries in which it showed an interest, may have invested more aggressively in additional output and new technology than it would have otherwise.

The conclusion that government involvement in Japan's economy might have a positive impact was strengthened in the years from the mid-1970s to the beginning of the 1990s. By the mid-1970s, Japan had become a mature, industrialized economy with a level of GDP per capita equivalent to the major economies in Europe, and at about eighty percent of the US level. Only successful developing countries can produce annual economic growth rates of ten percent, but even at a slower pace relative to the high-growth era, Japan continued to grow faster than the US. This strong performance was most pronounced in the five-year period from 1987 to 1991, when average annual real growth was five percent, double the 2.5 percent growth rate in the US over the same years. Some observers, believing that Japanese growth should have converged to the US level, believed the Japanese model of economic organization, including the more hands-on role of the government, was superior to that of the US.[4]

The Slow-Growth Years

In retrospect, the second half of the 1980s was an aberration due to unusually low interest rates and a speculative bubble in the stock and real estate markets that was not sustainable. Reality finally caught up with Japan in the 1990s, with average annual growth from 1992 through 2002 at only one percent—well below the performance of the US over these years (3.2 percent). Since then, growth has improved, but only to around two percent (still below the US level).

The sluggish performance of the economy since the early 1990s sparked a debate in Japan over structural reform that continues today. The immediate causes of the problems of the 1990s lay mainly in a series of monetary policy mistakes, but one could argue that the downturn in economic performance was exacerbated or prolonged because of structural features of the economic system. Low interest rates and administrative guidance to commercial banks from the Ministry of Finance fueled the stock and real estate bubbles in the late 1980s.

The eventual effort to stop those bubbles with higher interest rates was too harsh and lasted too long. These government policy mistakes led both stock and real estate market prices to drop by sixty to seventy percent from their inflated peaks at the beginning of the decade—a huge loss in asset values. Most commercial bank loans in Japan are backed by real estate collateral, so these losses implied problems for banks faced with clients unable to repay their loans.

Yokohama Landmark Tower is the highest building in Japan.
Image source: http://www.puroresushop.com/pro76.htm.

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Having created this mess, the question remains—why did the government's efforts at resolution take so long, with a decade of economic stagnation, bank collapses, and deflation? One can make the case that the answer lies partly in structural features of the economic system. Indeed, these features may have contributed to the bubble as well—especially the dominance of bank finance and efforts of the government to influence the allocation of productive resources. If this conclusion is correct, then structural reform—not just cleaning up non-performing loans or better macroeconomic policy—is needed to fix the economy.

Most broadly, the argument for structural change to reduce government involvement in the economy is as follows:

- Market imperfections may justify a more intrusive government role in poor, developing countries, but not in Japan. Government success in developing countries may be enhanced by the fact that government allocation of resources is made easier by looking at the most advanced countries and attempting to duplicate their industrial structure (for example, by promoting the semiconductor industry).
- High economic growth in developing countries is also very forgiving, obscuring mistakes and misallocations due to poor government decisions. Economists argue that high growth in developing countries is possible when the government "gets it right" (in building the institutional requirements for a successful market economy). But, it is interesting to see how many things a government can get wrong and still generate high economic growth (as is currently the case in China). Thus, the government may have made mistakes in the high-growth years (for example, fostering an oil refining industry with inefficiently small capacities at individual refineries) that no one noticed because the overall economic growth rate was so high.
- When an economy finally catches up with other industrial leaders, government can no longer play a successful role in allocating productive resources, because there is no leader abroad to emulate. Bereft of easy examples, government officials are increasingly prone to mistakes. Markets also make mistakes in allocating productive resources, but usually correct those mistakes quickly; governments generally do not. Several studies over the past decade suggest that in the 1980s and 1990s, the Japanese government had become quite fallible, for example, in supporting particular new technologies that it thought would help drive economic growth.[5]

Therefore, whether or not the heavy role of the Japanese government in their economy had caused the downturn in the 1990s, a strong argument existed for deregulation and reform of the earlier economic model. Debate over exactly what needs to be reformed, however, has continued from the early 1990s to the present. At issue are three sets of features of the economic system, which address the government-established economic framework in general (and not just narrowly defined industrial policy):

- The financial system, as noted, has been heavily bank-centered. This system, as it operated in Japan, turned out to have a serious flaw. Because the interaction between bank lenders and commercial borrowers is private, the two sides could collude in private to hide financial troubles of the borrower. In the 1990s, Japanese banks did not want to reveal publicly that their borrowers were in trouble, since that would also identify the bank as having possible solvency difficulties, so problems remained hidden far too long. Furthermore, banks tended to lend based on non-economic factors, such as familiarity with borrowers through long-term relationships, school ties, and the like, rather than on hard-nosed financial analysis. In the high-growth years, this was not much of a problem, since few borrowers went bankrupt in this high-growth environment. It became a serious problem in the low-growth environment.

■ Non-financial corporate governance was dominated by internal management with only weak oversight by the main commercial bank creditors and very little input from shareholders. The argument in favor of this system was that management knew the technical aspects of the business best (unlike shareholders), and with loose oversight from banks they could concentrate on long-term performance, thereby escaping from the supposedly very short-term orientation of investors in the stock market. In the high-growth years, this was not a problem, since firms faced a very broad set of highly profitable investments. When growth decelerated in the 1980s, however, the result was low profitability—which economists see as an indicator of misallocation of resources. Whether or not firms actually maximize profits, as economists like to assume in simple models, it is important that management attempt to pursue what it perceives as the most profitable business strategies. If not, the economy becomes over-invested in activities wasteful to society. Such a misallocation appeared to be a growing problem for Japan in the 1980s.[6]

■ Many industries were overly regulated, or protected. In a mature, slow growing economy, it is critical to reallocate resources constantly by actually shrinking or eliminating some industries and firms, while growing others. Import barriers, once high for most products, increasingly protected the most inefficient industries. Regulation and protectionism interfered with the process of shifting productive resources. Regulations on large discount stores, for example, protected inefficient, small mom and pop retail outlets from the mid-1970s until the mid-1990s (as wages continued to rise, a trend that should have driven the industry toward larger store sizes to economize on labor inputs).

These problems with the economic system led to the prolonged debate over how to reform the economy. To be sure, some reform had been occurring throughout the 1970s and 1980s, symbolized by the privatization of the government-owned railway system, the telephone company, and the tobacco company in the mid 1980s. But, reform had been slow and weak. The invigorated debate on the economy in the 1990s began with the short-lived coalition of opposition parties that ruled Japan for one year, from the summer of 1993 to 1994, but it continued when the Liberal Democratic Party returned to power in a series of its own coalition governments from 1994 to the present.

Prime Minister Junichiro Koizumi of Japan speaks during the arrival ceremony on the South Lawn Thursday, June 29, 2006. Image source: http://en.wikipedia.org/wiki/Junichiro_Koizumi.

Prime Minister Junichiro Koizumi, who served from 2001 to 2006, made privatization of the postal system a central theme of his administration . . .

The result of the debate has been a slow, relatively steady process of economic reform. Over the past twelve years of this process, considerable change has taken place.[7] However, it is very difficult to figure out whether enough reform has occurred, or whether decisions on what to reform have been appropriate.

One example of the dilemma in analyzing the effectiveness or appropriateness of reform is the privatization of the postal system. Prime Minister Junichiro Koizumi, who served from 2001 to 2006, made privatization of the postal system a central theme of his administration—he had actually been pushing this idea for a decade or more before he became prime minister. At the heart of the issue is the role of the post office as a savings bank and life insurance company. The postal system is both the largest savings bank and largest life insurer in Japan. Money put into savings accounts or life insurance policies was turned over to the Ministry of Finance to be invested in revenue-generating policy projects—such as hospitals, highways, or airports—and to policy-lending institutions, such as the Japan Development Bank. This system of raising money from the public through the postal system, then lending it to public policy organizations, is known as the Fiscal Investment and Loan Program (FILP). The flow of policy-oriented financing was an important part of industrial policy in the 1950s and 1960s. However, as argued earlier, the government is likely to be less effective today in allocating financial resources for the economy, so there is far less reason for a flow of funds through this route.

Legislation to privatize the postal system passed the Diet in 2006, after a political drama in which the bill did not pass, prompting Prime Minister Koizumi to dissolve the Diet and call new Lower House elections, in which he refused to support any members of his own party who had voted against the bill.

The first step in FILP reform came just before Koizumi became prime minister. Organizations that had borrowed FILP funds were to be forced to issue their own bonds instead, thus subjecting these government investments to more of a financial market test. Currently, some of these organizations, including the Japan Development Bank, are being privatized. In exchange, the post office would be permitted to invest the funds obtained through Postal Savings and Postal Life Insurance as it saw fit (mainly in the bond and stock market). In essence, this change turned the postal system into nothing more than an ordinary financial institution. But in a developed economy like Japan's, why should the government be in this business?

Prime Minister Koizumi proposed to answer this question by privatizing the post office (including the traditional mail delivery function of the post office). Economists could argue that this solution was not sufficiently radical: if Japan were to undergo a shift in structure from a bank-dominated financial system to one with greater reliance on the bond and stock markets to allocate financial resources, why create a new commercial bank and life insurance company? The alternative would be to simply eliminate Postal Savings and Postal Life Insurance by stopping all new deposits or life insurance policies and allowing the system to gradually disappear as existing deposits and insurance policies were eventually terminated. Nevertheless, Koizumi's proposal was at least a step in resolving the dilemma of what to do with postal savings. Legislation to privatize the postal system passed the Diet in 2006, after a political drama in which the bill did not pass, prompting Prime Minister Koizumi to dissolve the Diet and call for new Lower House elections, in which he refused to support any members of his own party who had voted against the bill. The victory of the LDP Coalition in the subsequent election under Koizumi's leadership then led to passage of the bill. Details of how privatization would proceed were vague, but the goal was to have the system fully privatized by 2017.

Forcing government businesses, like airports and highways, to raise their funds through the bond market was a good development—subjecting government investment decisions to a market test that was woefully lacking in the bureaucratic fund allocation process that had characterized the FILP system. However, the recent privatization of the postal system illustrates the ambiguity of reform and deregulation. Managers of the Postal Savings system had not invested their own money in the past, and the probability was high that they would make serious investment mistakes when the postal system became a commercial financial institution. Furthermore, creation of a new commercial bank, in an economy where banking may become relatively less important, increases the probability of mistakes with money lent to low-return projects that turn sour. Others argue that, as a purely commercial bank, the post office will close small offices in rural areas, thereby depriving rural village inhabitants of banking services.[8] Over the next decade, ongoing privatization of the postal system will be a major symbol of success or failure in overall economic reform.

Other reforms in Japan have dealt more broadly with financial sector and corporate sector governance. The immediate task in the financial sector was to deal with the huge amount of non-performing loans in the banking system caused by the collapse of the real estate market in the 1990s. Relatively little happened to resolve this problem until 1998. The clean-up took until 2004, but is now largely accomplished.

In the corporate sector, a change in corporate law made it easier for firms to sell individual divisions, rather than entire companies, making corporate restructuring somewhat easier. Some corporations have also voluntarily elected to adopt a new corporate board structure, with more outside board members and a stronger auditing mandate. In addition, foreign investors are leading the way with more activist shareholder behavior—pressing management to improve corporate performance.

The Future

No one knows yet, however, the effectiveness or importance of these financial and corporate reforms. So far, the financial system remains far more dependent on bank lending than in the US or Europe. Commercial banks are no longer in danger of collapse—but to what extent have they actually reformed the process for deciding on loan applications? In other words, has financial analysis replaced old-boy ties? Will households shift their savings from bank deposits to mutual funds? Will corporations choose to raise more money through IPOs (Initial Public Offerings) or new bond issues? Will corporations put more outsiders on corporate boards? None of these questions has a clear answer.

The situation is equally unclear in the corporate sector. The pressure for change has been vaguely in the direction of increased shareholder dominance. The theory behind this change is that most of the money belongs to shareholders, so they should have the strongest interest in the firm's performance. If the firm succeeds, shareholders gain through both dividend payments and a rise in share prices; if the firm fails, shareholders potentially lose all or most of their investment. Yet, the most successful firm in all of Japan is Toyota Motor Corporation, which firmly maintains the old model—with corporate decisions dominated by its own management and not the shareholders.

Crowded pedestrian crossing in the Shibuya shopping area.
Image source: K12 Academics Web site at http://www.k12academics.com/japan_demographics.htm.

Meanwhile, the role of government in allocating resources has diminished, but the government has hardly abandoned the concept that it has a legitimate role, through industrial policy, in modestly shaping the future direction of the economy. Changes to the FILP system certainly imply that the government has less money under its direct control to influence the allocation of financial resources in the economy, but METI remains a powerful ministry and continues to have a strong interest in imaging the future of the economy. For example, METI still provides research and development funds for what it perceives as critical next-generation products or industrial processes.

One of the critical elements of the "glue" that facilitated government-business relations in the past half century has been the system of *amakudari*—the organized placement of retiring government career officials in the private sector—often in industries they had overseen during their careers. Unlike the American "revolving door" system, where individuals must find their own private sector jobs when they leave government, in Japan, each ministry negotiates with corporations every year to accept particular government retirees. Although some restrictions have been imposed on amakudari, and more may materialize, the basic system continues unabated. As long as it exists, the government has a ready route for discussion and influence with industry.[9]

Meanwhile, demographics add considerable urgency to the discussion of what or how much to change. In many ways, much of what is important and interesting about Japan over the next several decades will be driven by demographic shifts. The driver of this change is a birth rate that fell below the constant population reproduction rate (roughly 2.1 children born per adult woman) back in 1973, has declined steadily since then, and is now at a low level of 1.3 children. A number of important consequences flow from this low birth rate:[10]

- The total population peaked in 2005 and is now falling slowly. Population predictions are difficult, since they involve arbitrary assumptions about future birth and death rates. However, the current median estimate by the government predicts that the total population will fall three percent from its peak by 2020 and eight percent by 2050.
- The working age population began declining slowly in 1997. Between 2005 and 2020, this age group is expected to decrease by twelve percent and by seventeen percent in 2030. The number of young people entering the workforce (ages twenty to twenty-four) will fall even faster; in 2005, the age cohort zero to four years old (who will be the twenty to twenty-four year-old group in 2025) is twenty-five percent smaller than those who are currently twenty to twenty-four.
- The percentage of people age sixty-five and over, which was 19.9 percent in 2005, will rise to 27.8 percent by 2020 and 29.6 by 2030, giving Japan the highest ratio of elderly to total population of any industrialized nation.
- The number of children and their share in the population is falling. From 2005 to 2020, the number of children ages zero to fourteen will drop fifteen percent; by 2030, the drop will be twenty-five percent.
- Even with the decline in the number of children, the dependency ratio (children plus those over sixty-five divided by the working age population) is rising. In 2005, this ratio was fifty-one percent. The ratio is expected to rise to sixty-seven percent by 2020 and to seventy percent by 2030.

These ongoing shifts have very important implications for the economy and society in general. With a falling working-age population, all increases in output must come from increased labor productivity. Japan is now the first industrialized nation in this situation. Economists have not witnessed such a situation since the industrial revolution began over two centuries ago and do not really know much about the economic dynamics of such cases. Will Japan manage to increase productivity growth or not?

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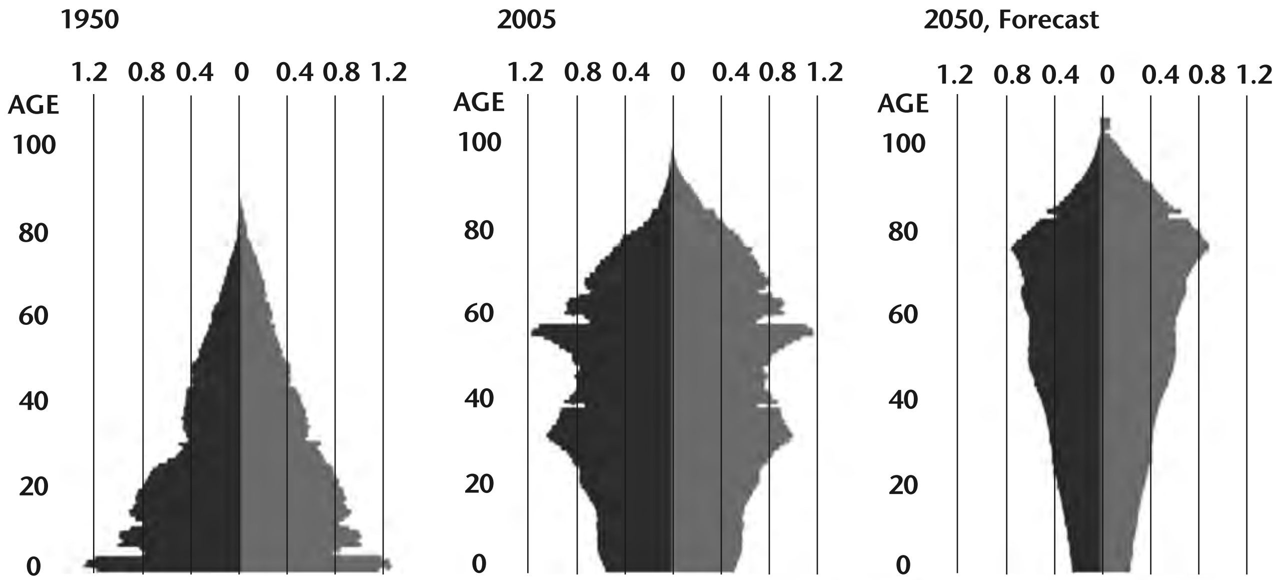
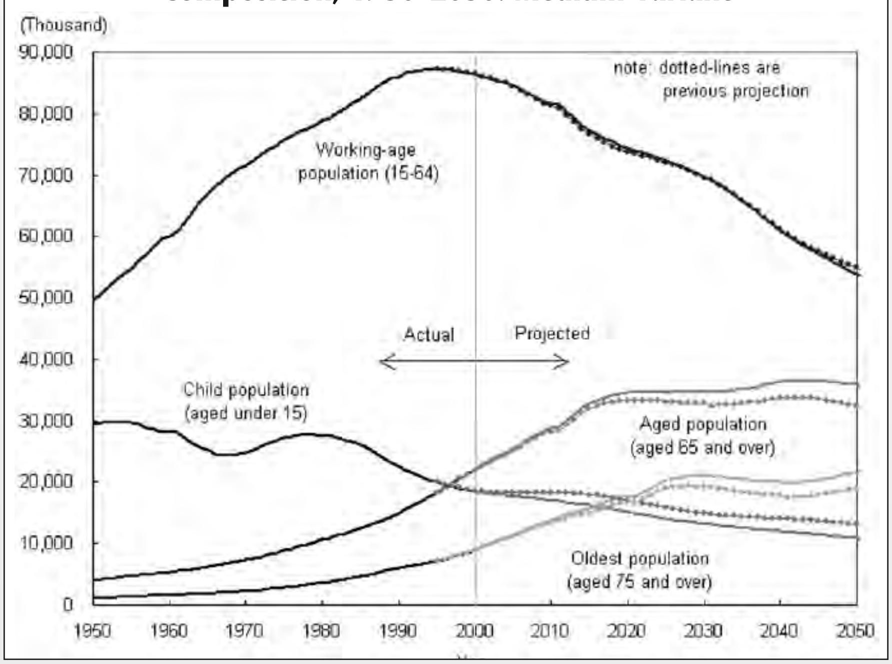
JAPANESE POPULATION PYRAMID MODELS



Source: National Institute of Population and Social Security Research, Japanese Government Ministry of Health, Labour and Welfare. Actual and projected population models based on screen capture of animated image at http://www.ipss.go.jp/site-ad/TopPageData/Pyramid_a.html.

Second, Japan faces serious problems financing social security and national health insurance programs, as the ratio of elderly people who receive benefits to working age people who pay into the systems falls. The government has already made some adjustments—raising social security taxes and health insurance fees, while cutting benefits (postponing the age of eligibility for social security payments and increasing co-payments on medical care). However, the anticipated gap between future receipts and expenditures in these important social systems is not yet eliminated. Will the Japanese make these difficult political choices, or do these programs face a future crisis?

Trends in the Number of the Major Age Composition, 1950–2050: Medium Variant



Source: National Institute of Population and Social Security Research, Japanese Government Ministry of Health, Labour and Welfare. Actual and projected population models at http://www.ipss.go.jp/pp-newest/e/ppfj02/f_3_e.html.

Third, Japanese society will face tremendous economic pressures to alter the role of women in the labor force. Women have made less progress reducing discrimination in the job market than has been the case in the United States, but firms competing for shrinking numbers of available workers may turn increasingly to women for managerial and other professional jobs generally held by men. But to do so requires institutional change—such as more available child care—and change in social attitudes. Will this male-dominated society make these changes?

> **In general, the changes have been in the direction of greater reliance on market forces and less on government quidance or old-boy ties. How far this process will or should go to produce the needed improvement in productivity growth is very much uncertain.**

Finally, society will face increased economic pressures to allow entry of more foreign workers. The number of foreign workers in Japan has increased, but the ratio of foreign-born residents to the total population (around one percent of total population) is much lower than in other industrialized nations. Will a society long known as viewing itself as both a nation and a distinctive ethnic group become more accepting of foreigners?

All of these demographic shifts resulting from low birth rates, and the questions they pose, are very important for economic performance and broader social issues. Twenty years from now, Japan could be a considerably more affluent and ethnically diverse society, with considerable equality for women (and a rising birth rate as women find it easier to balance work and family). Or, Japan could suffer from a stagnating economy and falling affluence if further economic and social reforms are not achieved.

So where are Japan and the role of government in its economy headed? Nobody knows. Certainly all analysts agree that the cumulative effect of slow reform over the past dozen years is considerable—the economic system today is somewhat different from the early 1990s. In general, the changes have been in the direction of greater reliance on market forces and less on government guidance or old-boy ties. How far this process will or should go to produce the needed improvement in productivity growth is very much uncertain. Few Japanese appear to desire a real convergence with the American economic model, and nostalgia for the past remains strong. Meanwhile, society is just beginning to grapple with the numerous economic and social implications of demographic change. This continuing debate over economic and social change and the reforms it spawns will provide fertile ground for academic research; readers should anticipate a continuing stream of books and articles analyzing what is happening and whether or not the changes are good for Japan. ■

NOTES

1. By far the most detailed source of analysis on how the Japanese economy operated during the high-growth years of the 1950s and 1960s is Hugh Patrick and Henry Rosovosky, eds., *Asia's New Giant* (The Brookings Institution, 1975). The various contributors, however, reject the view that industrial policy enhanced economic performance. For a more recent description of the main features of this system, see Edward J. Lincoln, *Arthritic Japan: The Slow Pace of Economic Reform* (The Brookings Institution, 2001).
2. The classic exposition of this school of thought was Chalmers Johnson, *MITI and the Japanese Miracle: the Growth of Industrial Policy 1925–1975* (Stanford University Press, 1982). For a more recent exposition of this position, see Bai Gao, *Economic Ideology and Japanese Industrial Policy: Developmentalism from 1931 to 1965* (Cambridge University Press, 1997).
3. The initial exposition of this position was in Hugh T. Patrick and Henry Rosovsky, eds., *Asia's New Giant* (The Brookings Institution, 1975), especially the chapter by Philip Trezise, "Politics, Government, and Economic Growth in Japan."
4. The essence of this position was captured most eloquently by journalist James Fallows, "Containing Japan," *Atlantic Monthly*, May 1989, 40–54.
5. See, for example, Scott Fallon, *Divided Sun: MITI and the Breakdown of Japanese High-Tech Industrial Policy, 1975–1993* (Stanford University Press, 1997), or Marie Anchordoguy, *Reprogramming Japan: The High Tech Crisis under Communitarian Capitalism* (Cornell University Press, 2005).
6. For a readable analysis of how various indicators of corporate performance were deteriorating in the 1980s, see Richard Katz, *Japan: The System That Soured: The Rise and Fall of the Japanese Economic Miracle* (M. E. Sharpe, 1998).
7. For a thorough recent review and analysis of the scope of regulatory reform in Japan, see Steven Vogel, *Japan Remodeled: How Government and Industry Are Reforming Japanese Capitalism* (Cornell University Press, 2006).
8. A leading proponent of this position is Mark Scher, "Policy challenges and the reform of postal savings in Japan," *Working Paper 211*, Center for Japanese Economy and Business, Columbia University, http://digitalcommons.libraries.columbia.edu/japan_wps/31/ (July 31, 2007).
9. One of the better analyses of this system is Ulrike Schaede, "The Old Boy Network and Government-Business Relationships," *Journal of Japanese Studies* 21:2 (1995): 293–317.
10. These population data are based on the median variant of projections made by the government (which also produces a high and low variant). The current projections, made in 2002, are available at National Institute for Population and Social Security Research, "Summary of the Japanese Population Projection," http://www.ipss.go.jp/index-e.html (October 14, 2007). For 2005 population data, see Statistics Bureau and Statistical Research and Training Institute, "Japan Monthly Statistics," http://www.stat.go.jp/english/data/getujidb/index.htm#b (October 14, 2007).

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