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Japan's Economy: Moving Along Its Modest Sustainable Growth Path

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Japan's economy continues to chug along well, with above-potential GDP growth in 2017 that will continue for the coming year or two. In longer-term perspective, the economy is maintaining patterns established several years ago. This is not surprising. Above all, Japan's economic success is founded on its well-educated, industrious labor force, high savings and investment rates, and good economic institutions. Its only significant natural resources are land and a four-season climate.

Similar to other developed economies, Japan faces a wide range of economic challenges. Its most important long-run economic challenge is demographic. Japan must adjust to the consequences of low fertility rates since 1974; a decrease in the size of the potential working force since 1995; absolute, albeit small, annual decreases in the population since 2008; and a rising share of the population that is 65 and older, now at 27 percent. These trends are well-understood, and will persist at least to 2050.

Abenomics is an enduring label for a package of fundamental macroeconomic and structural reform policies. Although successful so far not as successful as had been hoped, Abenomics is not a failure. Its policies of monetary and fiscal stimulus have contributed

[1] This is a minor updating of my September 2017 essay appearing in the Center's Annual Report in November 2017. More recent data, policies, and developments are not included.

significantly to current low unemployment and good growth. Structural reform takes considerable time to implement and be effective.

The main shocks to the economy over this past year have been foreign. The biggest single shock has been the election of U.S. president Donald Trump and the uncertainties about his administration's presumed foreign security, trade, and related economic policies. So far, Japan has fared well in its relationship with the Trump administration. China's economic and political rise is an ongoing process; over time China provides Japan major economic challenges—and opportunities.

On September 26 Prime Minister Shinzo Abe announced the dissolution of the Diet's Lower House and held a snap election on October 22, 14 months earlier than required. The Liberal Democratic Party (LDP) and its coalition partner Komeito won a major victory, continuing to hold more than two-thirds of the contested seats. Shinzo Abe was reelected as Prime Minister, and presumably will be elected President of the LDP in 2019. Accordingly, he and the LDP will continue to lead Japan until 2021, making him the longest-serving Prime Minister in the postwar period.

The election ensured that Abenomics will continue. However, Abe committed an additional 2 trillion yen expenditures on childcare, education, and social services. Accordingly, some 40 percent of the 2019 consumption tax income from 8 to 10 percent will be spent for these purposes rather than reducing general debt. As a result, achieving government budget primary fiscal balance has been delayed to 2022, or possibly later. He will continue to give priority to Abenomics. Japan faces a host of domestic economic issues. These include the failure to achieve price stability, defined as a 2 percent annual increase in the core CPI; the puzzle so far of the combination of full employment and only low wage increases; very long working hours and other labor market issues; company management, including corporate governance; energy strategy in a rapidly changing global energy system; and how Japan is taking care of its poor. These topics are considered in following sections.

The International Context

The global economy continues to perform well, though subject to heightened geopolitical uncertainties. How will Brexit play out? What will happen in the Middle East, notably Syria? How to deal with the nuclear and missile threat from North Korea? In what ways and how effectively will the United States and China both compete and cooperate? What effects will Trump have? However, it is beyond the scope of this essay to do more than acknowledge this geopolitical context.

Political turmoil has not significantly hampered global economic performance. The system thus far has dealt quite well with volatility in financial and commodity markets and protectionist pressures, despite Trump's rhetoric.

The IMF estimates world GDP in 2016 grew at 3.1 percent, slightly less than in 2015. It has revised its forecasts of global growth to 3.6 percent in 2017, 3.8 percent in 2018, continuing on to 2022, bringing it close to the 4 percent average achieved over 1987-2007. The precipitous decline in oil and other commodity prices over the past two years have dampened global inflationary pressures, but the leveling off of commodity prices means that global deflation has been avoided. The IMF projects that consumer prices in advanced countries, though not Japan, will increase at about 2 percent annually over the next five years.

The world trading system is relatively market-oriented, liberal, and open, despite ongoing protectionist and mercantilist forces. The growth in the volume of global trade in goods and services slowed to 2.7 percent in 2015 and to 2.2 percent in 2016, but it is picking up significantly to 3.8 percent in 2017 and possibly 2018, thanks in part to Asia. Services comprise about a fifth of total trade, and has been increasing slightly more rapidly than merchandise trade. The growth of trade in current prices has been significantly affected by the gyrations in energy and other commodity prices. Since in almost all economies the share of domestic services in GDP is increasing while the share of manufacturers is decreasing, it is not surprising that trade increases less rapidly than world GDP.

We live in a world of incremental technological change, not only in manufacturing and medicine but in a wide range of services, as well as agriculture and mining. Much is a rather quiet process, but a significant element has been the development of the internet and the smartphone. Almost everyone in the developed world has access to near-instant communications; social media have proliferated. Japanese are major users of Facebook, LINE, YouTube, video games, and many other apps.

North Korea has become a security threat not only for Japan and South Korea but the United States. Under the leadership of Kim Jong-Un, North Korea has been vigorously expanding its nuclear weapons and missile delivery capabilities, with 28 missile tests in the past year alone. It has an estimated 21 nuclear weapons at least. North Korea’s missile test on July 28, 2017 has been perceived as meaning a nuclear warhead could soon reach the lower 48 U.S. states. This is not yet the case, but clearly this has become a dangerous game.

North Korea believes becoming a nuclear power is essential for its defense and to sustain the regime in power. It surely does not want war, as that would result in its destruction by U.S. military forces. I have long held that North Korea will never give up its nuclear weapons capabilities and goals. That is its strongest card. However, the U.S. government policy mindset, at least formally, is to seek North Korean denuclearization as its ultimate objective.

A major new uncertainty is U.S. global leadership—security and political as well as economic—following the election of Donald Trump as president. Much has to do with Trump's persona, style, and rhetoric, exemplified by his off-the-cuff, colorful, provocative, sometimes inconsistent tweeted comments. Thus, U.S. foreign policy is less predictable and reliable under the Trump administration. Fortunately, there are significant differences between Trump's rhetoric and the policies his administration have actually been pursuing so far, and the policies that Congress will endorse.

The U.S.-Japan economic relationship is very good at the government policy level, as well as in business and personal dimensions. Prime Minister Shinzo Abe has been extraordinarily effective in developing a good, close, personal relationship with Trump, with positive results. Abe was the first foreign leader to meet Trump after his election. The relationship deepened in their meeting on February 10-11, 2017 in Washington and is being sustained by frequent phone calls. Despite earlier critical remarks about Japan, following the summit, Trump stated the U.S.-Japan relationship is "very, very deep." Trump's trip to Japan November 5-7 at the beginning of his East Asia trip went well, as Trump stayed on script and the Abe-Trump relationship continued to deepen. He pushed for a U.S.-Japan bilateral economic agreement, but that was lower priority than reaffirming the security relationship, and sharing concerns about North Korea.

The two countries set up the high level US-Japan Economic Dialogue chaired by Vice President Mike Pence and Deputy Prime Minister Taro Aso following the summit. The first meeting was held in Tokyo on May 9-10 and the second in Washington on October 16. While positive, the meetings dealt mainly with overall general policies rather than specific issues.

One big issue for Japan is how Trump administration trade and foreign economic policy will evolve. On his third day in office, Trump summarily had the United States withdraw from the 12-nation Trans-Pacific Partnership (TPP) agreement. This was a blow to Japan, since Abe had assiduously and successfully pushed Japan's participation in TPP through the Diet in December 2016. Trump is committed to bilateral rather than multilateral deals, but so far the Japanese government appropriately has been reluctant to negotiate a U.S.-Japan bilateral trade and economic agreement. Japan will pursue a TPP-11 agreement.

The Trump administration, with considerable bipartisan political support, intends to pursue a tough trade policy, thus far mainly by enforcing existing anti-dumping and countervailing duty laws in response to foreign unfair trade practices. However, I do not expect the United States to impose direct protectionist actions such as comprehensive increases in tariffs or quotas. Japan will benefit from U.S. government corporate tax cuts and major infrastructure investments which stimulate U.S. growth. Japanese manufacturers have substantially invested in Mexican factories to produce automobile components and other products for export to the U.S. markets; not surprisingly, they are concerned about the specifics of the forthcoming Mexico-U.S. NAFTA negotiations.

In this era of anxious geopolitical uncertainties, with both global and regional challenges, it is important to remember how much the global economy has accomplished and continues to accomplish. The developed world, of which Japan is an outstanding example, has achieved high standards of living, low unemployment, and no inflation. The developing world, led by China and India, is on a sustainable path of good ongoing economic performance. Of course major economic problems persist—poverty-stricken countries (notably in Africa) and poverty-stricken persons and families in all countries, including Japan. Japan's economic history is one of major economic success domestically and in the global economy. Japan's challenge is to sustain that success into its future.

The Japanese Economy

Japan, the world's third largest economy, is a major global player as trader, foreign direct investor, global capital market participant, and stalwart supporter of the open international economic system. Its fiscal 2016 real GDP growth rate, 1.3 percent, was the same as 2015, but the composition was significantly different. The decline in domestic demand of 0.3 percent was entirely due to inventories, which swung from plus 0.4 percent to minus 0.4 percent. This was good news because Japan's investment and consumption increased a bit more rapidly, and inventories will almost certainly become a normal positive figure in 2017 and 2018. Half of Japan's 2016 growth was due to the positive 0.6 percent contributions of exports and a slight decrease in imports.

GDP surpassed its 2007 peak in 2013 and the economy is recovering well from its downturn in 2014 following the consumption tax increase to 8 percent. Employment is high; the unemployment rate is only 2.8 percent. While the data are not yet available for 2017, Japan has had an impressive seven consecutive quarters of good growth, averaging 1.9 percent, well above the estimated potential. This has been the result of widespread rises in household consumption and in housing, business, and government investment. Mild but persistent deflation has been brought to an end, but the core consumer price index rose at an annual rate of only 0.6 by year end.

In 2017 Japan has been at a peak of its current growth wave. Labor is no longer in ample supply; labor shortages are a major business concern. A productivity growth resurgence will be difficult, even though the government's revitalization plan assumes that will occur as major structured reforms somehow take place. But the wave will subside, not crash. Indeed, a more optimistic growth scenario is feasible. Since the mid-1990s Japan's productivity has been about three-quarters of the U.S. level, rather than continuing to catch up. It should be possible to narrow that gap. Some slack remains both in the way labor is allocated, and in how service and white-collar employees work. The government could support more research and development, improve the quality of preschool and tertiary education, and implement enforcement of social security contributions by SMEs and individuals, among other methods. It's not that Japan does badly; it just could do better.

Factors Shaping the Economy

Fundamental shapers of the Japanese economy are its demographic trends, its ethnic homogeneity, and its pacifist-oriented national security strategy.

With fertility since 1974 below the replacement rate, the working-age population (15-64) has been decreasing since 1995, its total population (now 126.8 million) since 2008, and the share of population 65 and over (now 27 percent) increasing. The trends of declining labor force and population will persist for at least the next 20-30 years. Given Japanese preferences, it is unlikely that immigration will be large-scale, certainly not enough to affect population size. Accordingly, in the coming decades, a major generational income distribution challenge is how fewer workers will support the increasing proportion of elderly.

One of Japan's strengths—and weaknesses—is its ethnic homogeneity, epitomized by the Japanese language, which few foreigners know. Social coherence is strong, with a deep sense of Japanese uniqueness. At the same time, within Japan, people are significantly differentiated by the quantity and quality of education, income and wealth, and family history. Substantial relative poverty persists.

Japan came out of World War II with a strong pacifist commitment, supported legally and morally by Article 9 of the Constitution. Defense expenditures are only 1 percent of GDP, as is the case for a number of NATO countries. Japan's national security is guaranteed by its deep alliance with the United States, including the U.S.-Japan Security Treaty. Despite its postwar Occupation origins, the Japanese have strongly supported the Constitution. It has never been revised but Abe's major goal is to revise it so as to formally legalize Japan's Self Defense Forces. This will be the major domestic political issue during Abe's tenure as Prime Minister. Japan has sent its Self-Defense Forces, mainly engineering units, overseas under UN-based humanitarian programs, but they have always been protected by the military forces of other countries. In light of North Korea's nuclear and missile development, a major defense policy issue is whether Japan should revise its self-defense policy to include preemptive strikes.

Even though the economy is doing well, Abenomics, now beginning its fifth year, has not yet achieved its three major goals: price stability as defined by 2 percent annual increases in the CPI; fiscal stability as defined by shifting from central government budget deficits to surpluses, specifically in the budget primary balance; and structural reforms through deregulation and other measures to enhance wide-ranging market competitiveness. In particular, regulatory reform has been strongly opposed by both company and government bureaucracy vested interests, and is proceeding slowly.

No matter who the prime minister is, government policy will always pursue full employment, price stability, and good growth, since there are fundamental objectives

Fighting Deflation

The Bank of Japan's easy money policy with very low interest rates under Governor Haruhiko Kuroda since 2013 has been and continues to be appropriate. While deflation has been halted, the price stability effects have been disappointingly slow; the 2 percent CPI target has not been achieved. The target date has been postponed six times**.** In September 2016, the Bank of Japan (BOJ) strengthened its ongoing monetary policy with direct measures to widen the interest rate term structure (capital market yield) by purchasing 10-year and longer-term JGBs (Japanese government bonds); it now holds some 40 percent of outstanding JGBs. BOJ has successfully prevented the 10-year JGB market rate from remaining slightly negative by targeting a zero percent market yield. In shifting from its direct quantitative easing policy of annual purchases of ¥80 trillion, BOJ is now purchasing about ¥60 trillion or less. In September 2016, BOJ also committed to overshoot the 2 percent CPI target in a large enough amount, and for long enough, to assure that market expectations would stably support CPI 2 percent annual increases in the longer term.

That the CPI target has not yet been reached has been a dismaying surprise. The policy was and is correct, but engendering sufficiently positive market expectations has turned out to be much more difficult than anticipated. The annual rate of CPI increase as of July 2017 was only 0.5 percent. BOJ expects the rate to be 1.1 percent by the end of this fiscal year (March 2018), 1.5 percent by March 2019, and reach the 2 percent target by 2020. However, market consensus continues to be less optimistic.

While some financial institutions have become more willing to lend to small businesses, many more have remained cautious; holding more money than they know what to do with, they simply build more excess reserves at BOJ. The consolidation of small local banks proceeds. With the balance sheets and administration of the major banks in good shape, the Financial Services Agency (FSA) is easing its tight regulatory oversight administration and procedures, encouraging financial institutions now to become less risk-averse.

Fiscal Policy

The macroeconomic function of fiscal policy is to assure sufficient aggregate demand for sustained full employment, price stability and good growth. Despite the sustained easy money policy, Japan's private sector—notably corporations—continue to save more than it invests. To offset this, the central government has run budget deficits for the last two decades. The Abe administration's policy, reaffirmed on June 9, is to reduce the budget deficit and achieve a primary balance (excluding government interest payments) by fiscal 2020. That is unlikely, and, indeed, should not happen unless private consumption and investment increase substantially more than is likely.

Fiscal policy faces two key issues. One is whether to have a stimulative supplementary budget for 2017. Economic and Fiscal Policy Minister Toshimitsu Motegi in August stated that there is no need this year for further fiscal stimulus, so many observers expect only a normal, small, supplementary budget. The other issue, now that Abe has stated he plans to have the consumption tax raised to 10 percent as scheduled in October 2019, is what to do with the additional tax revenues. In his September 26 election announcement, as already noted Abe stated that much will be spent for social service purposes rather than government debt reduction. The 3 percentage point consumption tax increase in 2014 resulted in a 7.6 percent GDP drop in April-June 2014 and a further 2.4 percent decline the next quarter before growth resumed. Japanese expectations and the economy's performance probably will be significantly affected by the consumption tax decision. At the least the tax increase will slow growth significantly for a year or so.

Small and Medium Enterprises

Small and medium business enterprises (SMEs) are an important, and very heterogeneous, part of the manufacturing and service sectors. They employ about 70 percent of all employees, generate about 55 percent of the economy's gross value added, and comprise 99.7 percent of all enterprises. They are defined differently by industry: SMEs in manufacturing have paid-in capital of ¥300 million or less, or 300 or fewer employees; for wholesale trade the cut-off is ¥100 million and 100 employees,; for retail 50 and 50; and for other services 50 and 100.

The government defines small (also termed micro) enterprises as those with 5 or fewer employees (20 in manufacturing). These micro enterprises, including sole proprietorships, constitute almost a quarter (23.5 percent) of total private sector employment and 16 percent of gross value added. Much of an ongoing decline in micro enterprise numbers is because owners retire due to age or illness. On the other hand, many micro enterprises are run by new, young entrepreneurs and freelance designers, software engineers, and others with special skills.

Most nonmicro SMEs are incorporated and most report corporate losses so do not pay corporate income taxes, either because at one extreme the owners pay themselves high wages, or at the other extreme, they are close to bankruptcy.

Successful SMEs are the backbone of the Japanese economy, especially outside the major metropolitan areas. Most provide services for their local communities, but some are globally successful export manufacturers, as well as competitive suppliers of goods and services to the 11,000 large firms that hire 30 percent of employees and generate 45 percent of gross value added.

Japan's zombie enterprises are a drain on its economy. There are two types of zombie firms: small loss-making companies (such as Mom and Pop stores) with elderly owners who hang on by slowly drawing down family assets, and loser firms that are not competitive enough to stay alive but banks and other creditors provide enough loans so they do not have to take bankruptcy losses. Most zombie firms are SMEs, probably with older workers, older owner-managers, and outdated facilities and technologies. Labor market shortages now provide alternative opportunities for zombie firm workers, and banks and other lenders are strong enough to write them off rather than allowing the losses to continue to expand. Japan's exit rate between 2011 and 2015 averaged 3.9 percent, and the entry rate was 4.8 percent. The Abe administration growth strategy intends to raise the rates tot hose in the 10-20 percent levels in U.S. and the United Kingdom. It is time for Japan's low corporate exit rate to rise significantly, thereby freeing labor, capital, and land for more productive uses.

Labor Productivity

With human resources quite fully utilized, growth depends primarily on improving labor productivity. Labor productivity annual growth in the 1990s was 2.3 percent, but slowed to 1 percent during 2000-09 because of the 2008-9 great recession, and to an average 1.2 percent over 2010-16. Much depends on the substitution of capital for labor, exemplified by business investment in robotics and other labor-saving innovations. The government's "Basic Policy on Economic and Fiscal Management Reform, 2017" announced on June 9, places emphasis on government preschool and tertiary education and other programs to improve the quality of Japan's human resources.

The government, companies, and educational institutions actively engage in research. This includes artificial intelligence (AI), connectivity, and robotics, in which Japan is a world leader. An important focus is on stem cells and regenerative medicine. In energy, there are programs to reduce CO_2 and other noxious emissions, and to slow global warming.

Rakuten is an economic leader in e-commerce. Retail sales have been shifting to online orders and direct delivery by Amazon, Yamato Transport in Japan, and others. This innovative process is taken for granted by young people, and many older people are adapting well to the new opportunities. Even with major ongoing technological change, productivity growth—output per worker per hour—has slowed significantly in the developed world, including Japan. This is despite measurement problems, particularly in estimating productivity increases in services. For example, the quality of service in Japanese restaurants, retail establishments, and other personal services are among the world's highest, but the market does not value it highly because Japanese culture imbues most workers with internal high performance standards. Ironically, increasing measured productivity in such establishments by reducing the number of workers often means slower service.

In addition to the high enrolment rates, the quality of education is high. Japan consistently ranks among the best performers in the OECD Programme for International Student Assessment (PISA), which tests the skills and knowledge of 15 year-old students, and the share of adults with a tertiary education is the second numeracy skill of adult workers. While Japan excels in developing skills, it falls short in using skills at work, which is equally important in these high levels of skill proficiency are to translate into economic growth and productivity.

One of the country's great strengths is that Japanese are well-educated. Some 88 percent of 3-4 year olds go to nursery school. Of the 1.195 million Japanese junior high school graduates in 2015, almost all continued their education; 89 percent in 2015 graduated from a regular high school and 2 percent from vocational high schools, while others attended international schools or other not-accredited institutions. Among 2011 high school graduates, 52 percent graduated from a regular college in 2015, and 26 percent had graduated from a specialized training college or junior college. With decreasing numbers of young people wanting to attend colleges, a number of privately owned colleges are being pushed by financial losses into merger or closure.

Corporate Governance and Structural Reform

Despite vigorous governmental regulatory reform efforts, Japan is making only modest progress on corporate governance reform, a major Abe economic policy objective. Senior management continues to be staffed by long-term, promoted employees. In more than half of the 3,555 listed companies, retired chairmen or presidents stay on in cozy positions as advisers. The strength of this system is their expertise; the weakness is the company's conservative, inadequate pace in adjusting to new circumstances. Boards of directors, mainly promoted from within, are both a main source of change and of inertia. The more entrenched the board, the lower the profit performance and dividend payout ratios. This corporate management system is changing in response to the mandate to have at least two independent directors and to increasing activism, albeit still modest, by domestic and especially foreign institutional investors.

The Financial Services Agency took the initiative in establishing for companies, pension funds, and other asset managers a voluntary Stewardship Code in 2014 and Corporate Governance Code in 2015, in which basic governance principles are laid out. The Tokyo Stock Exchange, with 3,530 companies listed on its first and second sections, plays a major governance role. By 2016 year end, 85 percent had complied with at least 90 percent of the Governance Code's 73 principles. However, while complying formally, many have yet to embrace the spirit of the principles. Pressure from investors and media coverage is putting pressure on pension funds to sign the stewardship agreement and to list their holdings.

The Stewardship Code was amended in May 2017 to call for institutional investors to report how they voted on company proposals at shareholder meetings and their reasons. It continues to be a major challenge for management in many companies to engage substantially and constructively with its investors, external auditors, credit providers, and other in order to learn new information, ideas, and ways of thinking.

The government is not pushing structural reform—the third arrow of Abenomics—as much as it should. Major structural reforms are under way—in agriculture and healthcare—but they represent a piecemeal approach. Comprehensive regulatory reform has yet to take place. It is unfortunate that Abe has not so far been willing to push structural reform hard.

Labor Markets

With 2.8 percent unemployment, Japan's labor markets are the tightest in four decades, yet substantial increases in wages are just beginning. Part of the reason is that there was considerable slack as more Japanese entered labor markets, including married women and older workers. Total employment in 2016 was 65.6 million, and unemployment was 1.9 million. The number of workers increased 1.85 million between 2012 and 2016; 1.74 million were women or 65 or older.

Not much labor supply slack remains. The number of employed persons increased 570,000 in the year to July 2017, even as the labor force decreased by 440,000 (both seasonally adjusted). The seasonally adjusted job openings to job seeker ratio in August 2017 was 1.54, the highest in 43 years, and for permanent positions the ratio was 1.01, the highest since this record keeping began in November 2004.

Segmented Labor Markets

Japan's labor markets are multi-segmented, and complex. Most workers are hired employees; self-employed and family workers are 11 percent of the total. The major divide is between the rigid markets for full-time regular employees and the fluid markets for nonregular (fixed-term, contract, part-time, and temporary) workers who are now 37 percent of the labor force. Markets are shaped by firm size, gender, age, education, location, and citizenship. Large listed firms are leaders in establishing labor market practices and trends, and accordingly analysis and policy focuses on them. Gender discrimination persists in career opportunities and wages. Japan allows relatively few foreign workers.

Regular employees have guaranteed full-time positions with annual seniority wage increases until retirement, typically still at age 60, when many companies rehire their employees with lower wages and status until 65. Almost two-thirds of regular workers are male. Regular employment has increased every year since 2003, even though the total labor force did not change. It declined in manufacturing, but was more than offset by regular employment increases in the service sector. However, with slower growth and greater market uncertainties, companies are exploring ways to lay off workers with a mandatory compensation package.

Nonregular workers receive lower compensation, have less job security, and less opportunity for development of skills. Some two-thirds of nonregular workers are women, including many married housewives. Most nonregular workers choose this labor market, but survey data indicate about one-fifth of the males would like a full-time regular position, as would about a tenth of the females. Some young workers successfully transition to being regular workers, but the probability declines significantly with age. Survey data for 2015 estimate that 9.6 percent of male workers 34-44 years old are nonregular employees. The ratio for spouseless females (never-married, divorced, or widowed) is 41.6 percent.

Earning differences are large: in 2015 full-time regular workers averaged more than 50 percent full-time nonregular workers, and benefit differences are substantial. These reflect differences in position and job, but generally only regular employees have access to the better-paying positions. Nonregular employees (especially females) are treated as marginal in many senses of the term.

The limited steps taken by employers to reduce differences are perceived as a fundamental challenge by Rengo and other unions; they are giving higher priority to assuring regular workers' job security than to wage increases.

Seniority (age) increments in wages are important primarily for regular workers in large firms, and much less so for regular workers in SMEs, and not much at all for nonregular workers. Wages almost triple from hiring date to a peak at age 50–54 for regular male employees in firms with a thousand or more employees, and double for regular female employees.

Even though Abe has urged firms to boldly pay higher wages, the 2017 shunto (spring) wage negotiations of major firms and companies resulted in increases of 2.02 percent, slightly lower than in 2016. Summer bonuses in June were smaller than in 2016. These are macroeconomic disappointments, since rising wages increase consumption and push up the CPI.

Management-track regular employees in both the private sector and the government work long hours, which is an important part of their corporate culture. The suicide on December 25, 2016, of a young management-track employee in a major firm, classified as “death by overwork” (*karoshi*), raised the issue of excessive hours worked to a new level, though data are limited. Japan, with 9.2 percent of its employees reported as usually working 60 plus hours a week, ranks second only to Korea among OECD members; the U.S. rate was 3.8 percent. In a Japanese government survey, more than a fifth of Japanese companies acknowledged that some staff members worked more than 80 hours a week. Firms are reducing overtime hours somewhat, despite labor shortages. One of Abenomics’ structural reforms is to enact legislation limiting the amount of overtime. Better work-life balance will encourage the employment of women.

Adjusting to Labor Shortages

Companies are adjusting to labor shortages and higher wages in various ways. Delivery services are reducing the number of daily deliveries. Fast food chains are ending 24 hour service. Some firms are experimenting with 4-day work weeks, with longer hours each day. From April 2018, by law employees who have been on fixed term contracts for five years must be made permanent employees when they ask. The government and Keidanren have proposed that companies close at 3 p.m. on the fourth Friday of every month, but that has not caught on—and it is not likely to. A new category—restricted regular employees—with limited working hours and relocation assignments—is emerging; they receive somewhat lower wages and fewer fringe benefits.

Labor market reforms, including womenomics, are an important component of Abenomics structural reforms, but politically sensitive. Effective implementation has been slow. Abe's grand "equal pay for equal work" statement implies that the wage and fringe benefit gaps between regular and nonregular workers, and between male and female workers, are too wide, and the government should develop policies at least to narrow them. However, "equal work" will probably be defined narrowly so that even small differences in jobs will mean they are not equal.

Despite labor market tightness for both skilled and unskilled workers, Japan maintains a highly restrictive policy in the use of all but highly skilled foreign workers. Japan accepts only minuscule numbers of permanent immigrants, so almost all new foreign workers entering have to leave eventually. In 2016 there were just over 1 million foreign workers in Japan, 1.6 percent of the total labor force. About 38 percent are Taiwanese, Korean, and other permanent residents who are not Japanese citizens. The others work on a range of projects of up to five years, such as a technical specialists or trainees, and 19 percent are foreign students working part-time. The foreign trainees category is important, though essentially they learn by working for Japanese companies. Even some foreign farmers are now allowed in special economic zones as specialists.

One government goal is to have 10,000 elite, highly skilled foreign workers by 2020, though in 2016 there were 4,732. Similarly, the government wants to attract 10,000 new Asian interns in nursing care, but they have to pass tough Japanese language tests, and only 2,777 were recruited over nine years through October 2016. There are a small number of illegal foreign workers in Japan; most probably overstayed their visas. At the end of 2016 there were only 65,270 cases of known illegal aliens. All this indicates that Japanese policy favors Japanese female and older workers and robots to all but a small number of elite or specialized foreign workers.

Foreign Trade

In fiscal 2016 merchandise exports were 13.1 percent of GDP, while imports were 12.1 percent. Japan's trade pattern combines absolute natural resources disadvantage and market-based competitive advantage. Almost 40 percent of merchandise imports are essential food, energy, and other natural resources. Most of Japan's exports are high-tech manufactured goods. As a high-saving economy with limited profitable domestic investment opportunities, Japan has maintained a balance of payments current account surplus for more than two decades, increasing cyclically in 2016 to 3.8 percent of GDP. Concomitantly, the government has accumulated official foreign exchange reserves of $1,230 billion.

Japanese companies are major foreign direct investors. Firms have developed extensive foreign production chains, particularly to supply overseas assembly operations, notably in the United States and China. The automobile industry is a prime example. For the past few years Japanese companies have engaged in foreign M&A (primarily acquisitions), but thus far with only about a one-third success rate. Among the major economies, Japan is not as deeply integrated internationally as European countries. Indeed, the stock of inward foreign direct investment in Japan is the lowest of the 35 OECD countries.

Japan's two-way trade is significantly larger with China than any other country, comprises 17.7 percent of its exports and 25.8 percent of its imports. The United States is second. However, bilateral trade balances are an inadequate measure. Japanese companies export to China through Hong Kong and from operations in Southeast Asia, and to the United States from Mexico. U.S. companies own some Australian iron, coal, and other natural resource companies exporting to Japan, among other examples.

Given the U.S. withdrawal from the Trans-Pacific Partnership (TPP) and ongoing uncertainties about its foreign trade policy, Japan has become a major leader of the open international economic order. Economically TPP is not a make-or-break trade deal, but is symbolically important. The Japanese government is taking the initiative in pursuing an 11-member TPP, even though its impact will be substantially reduced without U.S. participation. Equally important, the 2012 stalled Japan-EU negotiations to eliminate tariffs and undertake other liberalizing measures were revived in the wake of Trump’s TPP withdrawal. In July 2017, Japan and the EU agreed to a major trade agreement, though important specific issues still have to be negotiated. The EU is Japan’s third-largest trading partner.

Japan’s most troubling trade policy issue is how to deal with the Trump administration. Given Trump’s preferences, the U.S. presumably will seek a strong, tough bilateral agreement which goes beyond the commitments Japan had with the TPP, particularly in agriculture. Of course, Japan has its own opportunities. For instance, Japan could press the United States to eliminate the 25 percent tariff on pick-up and other trucks. However, Japan thus far has resisted the Trump administration’s pressure for a bilateral trade agreement.

Energy

Japan’s greatest economic vulnerability is that it has to import essentially all of its primary energy sources. Japan is the world’s fifth largest energy consumer, fourth largest oil importer, and (with a 31 percent share in 2016) by far the largest LNG (liquefied natural gas) importer. Accordingly, Japan is a major player in global energy markets. The good news for

Japan is that new sources of supply are being developed. Fracking and other technological innovation mean rigidities in global energy markets and prices are breaking down. Successful energy conservation and population decline have been dampening Japanese demand, especially for electricity.

In 2015 fossil fuels provided 94 percent of Japan’s total primary energy supply: oil 43 percent, coal 28 percent, and natural gas 23 percent. Nuclear was only 0.6 percent. Japan’s fully developed hydropower system provided 1.7 percent; solar and wind, 0.9 percent; biofuels, 2.7 percent; and geothermal 0.5 percent. Electricity is 28 percent of total energy consumption, higher than most countries. The percentages for electricity generation are: natural gas 39 percent, coal 34 percent, oil 8 percent, nuclear 0.9 percent, hydro 8.4 percent, solar 3.6 percent, wind 0.5 percent, biofuels 4.1 percent, and geothermal 0.3 percent.

Given Japan’s unrelenting dependence on fossil fuel imports, Japanese energy strategy involves a complex set of trade-offs among security of supply, prices and costs, environmental protection, and safety of operations. Since some electric power plant investments have 40 to 60 year lives, policy makers face not only decisions about current prices and supplies, but also about the much longer run. Policy aims to determine the appropriate energy mix among coal, oil, gas (mainly LNG), nuclear and renewables (mainly solar and wind). Put simply, coal is cheap but environmentally dirty; oil is essential for transportation and heating; LNG is not easy to transport; existing nuclear is safe and clean with no CO_2 emissions but following Fukushima perceived to be very risky; hydropower is already well developed; solar and wind are still costly but are expected to achieve lower costs, subject to land availability.

While coal and LNG are abundant and widely dispersed globally, that is not true of oil. In 2016, 86.6 percent of Japan’s oil came from the Middle East; Saudi Arabia is the main source.

This oil has to be transported though vulnerable sea lanes and chokepoints. Japan is the world's largest LNG importer; almost 63 percent is imported from Australia and Southeast Asia.

Even though the United States in 2018 will become the world's third largest oil producer, after Saudi Arabia and Russia, shipping costs will not make the United States a commercially attractive source for Japan. LNG is another story. Japan's LNG market is undergoing a major transformation in response to the U.. becoming a major LNG producer through fracking. U.S. producers can efficiently export to Japan with large tankers utilizing the expanded Panama Canal.

Japan faces major energy conundrums in electric power generation. Coal is cheap but, despite technological improvements, still significantly polluting. Reopened nuclear power plants are the most inexpensive source of electricity, with no CO_2 emissions, but they face strong opposition. The government's 2015 strategy realistically projected that by 2030 the share of oil would decline from 13.7 percent to 3 percent while solar and wind rise from 10.7 percent to 24 percent. However, the government optimistically and unrealistically assumed nuclear would dramatically increase from 1 percent to 20-22 percent as existing reactors reopened. The projections of LNG use to drop from 43.2 percent to 27 percent and coal from 30.3 percent to 26 percent, are accordingly too low.

Nuclear power plants are Japan's electric power industry's great economic opportunity and major political challenge. Existing reactors are Japan's cheapest source of electric power. No Japanese have died from Fukushima radiation, while hundreds die every year from air pollution. Reactor plant safety standards in Japan are among the highest in the world. Expert consensus is that nuclear power is and will be very safe in Japan. But that does not allay the concerns of a vocal part of the public. Political and legal objections to reopening plants are substantial.

The ongoing issue is how many of Japan's nuclear reactors will be reopened. Fifteen have already been decommissioned, and another one or two will be every year. Others may be operational, but current safety and maintenance investment requirements means they are not commercially feasible. As of July 2017, 5 reactors have been restarted, and another 21 are under review. Experts estimate it is technically possible to reopen another 12 by 2019. However, the Abe administration probably does not have the political will to reopen plants that rapidly. Even if Japan reopens 18 reactors by 2025, that would generate only 10 percent of Japan's projected electric power demand, substantially below its 25.3 percent share in 2010.

In addition to providing the services required to reopen plants, Japan's nuclear power industry has other major business opportunities, Toshiba's travails notwithstanding. Dismantling of decommissioned plants is expensive and will take decades. Japanese companies export nuclear power plants and technology to China and Europe. They have joint ventures with foreign companies which operate nuclear power plants in their own countries; so far Japanese power companies do not operate nuclear facilities abroad. Japanese companies have the commercial development of the ESBWR (economic simplified building water reactor) under way and are developing a next-generation boiling water reactor. It is unclear how competitive they will be in the longer run.

The dynamic LNG market is a major driver of the global energy revolution. Large new supply sources are now being developed in the United States, Australia, and Papua New Guinea, resulting in a supply glut and low LNG prices for the next several years. To ensure the security of supply, LNG projects historically have been developed under long-term contracts, with specific tankers transporting only to a specific, specialized LNG facility, and with prices linked to oil prices.

Some 80 percent of Japan's LNG imports in 2016 were still under such long-term contracts. METI's strategy is to create a much more flexible LNG market, including spot markets**,** and to develop Japan as an LNG trading hub. Japan fully deregulated its industrial gas market in April 2017, including residences and SMEs. It remains to be seen whether an LNG trading hub will develop. LNG prices are no longer linked to oil, and countries have more flexible terms, including destinations and opportunities for resale. This is important because from 2017 until 2021 Japanese companies apparently have contracted for more LNG purchases than demand forecasted in Japan. Also, demand for LNG will be dampened to the extent nuclear plants come back on line.

In June 2017, the government accelerated its ongoing program to upgrade dams to increase electric power generation, control floods, and further improve water resource management. Projects include significantly increasing the height of some dams, reducing and controlling accumulating sediments for water flowing to dams, and other operational activities. Nonetheless, new hydropower will not be sufficient enough to replace old fossil fuel plants.

Japanese companies, with the support of METI, have 10 major coal power plants scheduled to open in 2020 to replace old facilities. The new plants use cleaner technologies. In April 2016, the government decided that all new major coal power plants must use ultra-supercritical (USC) technology. However, even this method generates about twice as much $C0_2$ and other pollutants as comparable LNG plants. Carbon capture and storage technologies are being developed, but remain too expensive to be used commercially. Despite objections from the Ministry of the Environment since 2015, more new coal power plants will be built during the next two decades.

Well-being and Poverty

Most Japanese have safe, comfortable lives. The average per capita income in 2016 was $27,323. The OECD Better Life Index indicates that among developed countries, Japan is about average in income, wealth, jobs, community, education, and safety, but below average in housing for developed countries. Japanese are less optimistic than people in many other OECD countries. Only 35 percent say they are in good health, even though they have a comprehensive health system and the world's second-highest life expectancy. On a scale from 0 to 10, Japanese grade their life satisfaction as 5.9, below the OECD 6.5 average. Japan's income inequality is about in the OECD middle. In 2015 the income of the top 20 percent of its population was 6.1 times that of its poorest 20 percent; the Gini coefficient was 0.33.

While Japan is a prosperous country, poverty continues to be a significant reality. Japan uses the OECD definition of relative poverty: those whose income is less than one-half the national median income. The OECD estimates that 16.1 percent of Japan's population lived in relative poverty in 2016, the seventh highest in the OECD some 20.4 million. Given that Japan has a standard of living close to the OECD average, and per capita income that has increased over time, the incomes of many poor Japanese have risen. Poverty is an important but partial measure of Japanese well-being, which also depends on sense of personal identity, health, wealth, education, family relations, and the degree of social support among other determinants.

Japanese poverty ranges from, at one extreme, the small number of homeless (mostly older men) to families (often single mothers) with children barely able to scrape by. Public policy focuses mainly on the rising numbers of elderly, especially those living alone, and on children in poverty-stricken families. Survey data indicate that for regular workers aged 25 to 44, about 6 percent of males and 7 percent of females live in poverty. For nonregular workers the situation is much worse, especially for spouseless women. For men aged 25-34, 23 percent live in poverty, rising to 32 percent for those 35-44. For spouseless women, they are 30 percent and 52 percent, respectively.

Poverty is a complex interaction among economic, social, family, and personal considerations, with no single predominant cause. The UK-based Community Carte System (CCS) survey provides annual socio-economic information for nine of Japan major districts (small cities and poor Tokyo wards) for 2011-16. The detailed survey covers more than 40 risk factors and 30 resilience factors to escape from poverty. Being raised in a poor family is important, particularly without positive involvement by parents; even more important is the difficulties in learning at school, due to native ability and motivation, as well as an inhospitable school and social environment. Personal depression or anxiety significantly reduces the chances of escape from poverty. Being withdrawn and socially incompetent are further characteristics of poor people—and, of course, others as well.

Japan's social security system is comprehensive, but focused on the elderly. Japanese poor participate in the universal healthcare system, and those over 65 receive a central government pension. All children are required to attend school until age 15, and all their parents receive government support of ¥5,000 to ¥15,000 monthly depending on family income. Single parents also receive a monthly child-raising allowance ranging from ¥10,000 to ¥42,330, with smaller amounts for each additional child, depending upon income. However, fees make high school expensive, offset only in part by zero-interest loans.

In addition to government social security expenditures of about 6 percent of GDP, government social security benefits were 21.6 percent of GDP. Almost half (16.3 percent of GDP) was payment of pensions to those 65 and older. Consequently, the impact of the social safety net (transfers and taxes) on income inequality and relative poverty for the working-age population is among the lowest in the OECD. A third (7.1 percent of GDP) was in support of Japan's universal healthcare system. The government budgeted about a fifth of its social security expenditures (4.2 percent of GDP) for its Basic Livelihood Protection (*seikatsu hogo*) program. Of the 1.65 million households receiving this support, almost half (803,000) were elderly, 253,000 were infirm, 150,000 handicapped, and 104,000 single-parent households. While the number of households receiving this assistance increased in the two years to May 2017 by 17,000, the number of individual recipients decreased by 31,000. Elderly single households are an increasing share of the poor.

Japan is ranked 34th of 41 developed countries in UNICEF's child poverty index, released in April 2016, with a child poverty rate of 15.8 percent in 2012. About half of those children lived in poor households with two or more adults. Single-parent (91 percent the mother) comprise 1.6 percent of all households; about half are poverty stricken.

Education is the main escape route from poverty. Poor children go to compulsory school through 15, and most continue on through regular high school or technical (vocational) high school. Most drop-outs remain in relative poverty throughout their lives. The government's program begun in 2015 to help poor people become self-reliant handled 60,892 cases in fiscal 2016. The program provides job training, housing assistance, financial advice, and education assistance for children. As the CCS survey indicates, it is the degree of good performance in school and then in occupation and lifestyle that shapes whether Japanese escape poverty.

A major ongoing political issue concerning government welfare payments is the future size for pensions of all older citizens and of what age they become eligible for pensions. The elderly are everywhere and likely to vote. Poverty-stricken children are not very noticeable, especially since their parents typically ensure their kids are dressed as well as others. The media continue to point out that as the working-age population decreases and the share of the elderly increases, the burden on taxpayers will rise; current pension levels will not be sustainable. This is not a near-term budget issue, but inevitably it will enter into the debate over future government budget deficits and further consumption tax or other tax increases. It is noteworthy that Abe has proposed the 2019 tax increase revenues be used for childcare and related social services.

Conclusion

Japanese have excellent education, transportation, and other infrastructure facilities. By far most are in good health; Japanese life expectancy is the second highest in the world. Yet, Japan ranks only in about the middle of the 35 OECD advanced country member economies on the OECD Better Life Index both because it began from a lower base, and a Japanese modesty in assessing their own health and happiness.

Japan has recovered from the media-hyped “Japan disease” of slower than potential growth, small but persistent deflation, and a rapidly increasing rate of government debt to GDP. Indeed, output per worker per hour (labor productivity) since 2000 was 1.36 percent, above the G7 average. More importantly, the economy has recovered from the 2008-09 Great Recession and the 2014 increase in the consumption tax. The growth rate in 2017 will be higher than fiscal 2016’s 1.3 percent. Not only is the unemployment rate a low 2.8 percent, most potential female and older workers are now employed. Wages are beginning to increase, although less and at a slower pace than I expected.

Japan’s fundamental challenge is demographic. Most young Japanese want two children, but when a stable population size will be achieved is a long-run issue. Until then, the population will age and decrease. These projections are well understood. Their resolution will necessitate major social and economic adjustments that are only beginning to take place.

The slowdown in labor productivity growth throughout the advanced economies is a major challenge. While output per worker per hour depends in part on increases in capital and labor skills, the key in advanced countries is total factor productivity (TPF). The government's revitalization plan is based on the assumption that TFP can be increased from a fiscal 2016 rate of 0.6 percent to about 2.2 percent, the 1983-93 rate, generating real GDP of 2 percent growth by 2020. I am skeptical that such high TFP and growth rates can be achieved. Despite substantial R&D expenditures, there are not enough profitable investment opportunities being created. With a declining and aging population, achieving annual GDP growth of about 1 percent would constitute good performance, not sluggishness. That would be consistent with historically good GDP per capita growth of about 1.5 percent. It is important to remember that the measure of economic well-being is GDP per person.

To my surprise, on net balance I think the rising percent of the labor force of nonregular employees is probably good, not bad. Most, including married women and older workers, do not want to work full time. The number of full-time regular workers is not declining; their positions are not disappearing. The real problem is the large wage gap between regular and nonregular workers doing essentially the same job.

I have confidence in the Japanese people, the country's institutions, and its fundamentally good policies. They face many challenges. And they will prevail.

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