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Hugh Patrick

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COLUMBIA UNIVERSITY IN THE CITY OF NEW YORK

## **Japan's Abenomics Bumps Along**

Hugh Patrick

Center on Japanese Economy and Business

Columbia Business School

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### **Abstract**

Japan again seems to be breaking out of the doldrums it has been in since the early 1990s. In this paper, I begin by assessing the past year ending in summer 2015. I first consider the economic situation; Japanese trade policy, specifically its involvement in the TPP and AIIB; and the latest political developments, particularly the results of Abe's snap election of December 2014. I then examine the international and regional financial context, with China and India leading regional economic growth. Following this overview, I delve into the goals and progress of Abenomics: ending deflation and achieving 2 percent inflation; achieving 2 percent growth by increasing productivity; dealing with Japan's huge debt with flexible fiscal policy; and addressing Japan's low birth rate by increasing fertility and promoting women's rights. I focus especially on the third arrow of Abenomics – achieving sustained growth – by making difficult structural changes, notably opening up markets in historically-protected sectors such as agriculture and healthcare, as well as more modest initiatives in corporate management and governance, promoting information technology, opening Japan to 60,000 foreign skilled workers a year, and strengthening the university system by creating distinguished graduate schools and special research institutions. I then consider further specifics about corporate governance, which Abe has made a focus of his efforts. Finally, I examine the vast changes occurring in Japan's energy sector, which hold much promise with the development of renewable technologies and possible restarting of its nuclear plants – idled since the Great East Japan Earthquake in 2011 – but which also faces many challenges, considering Japan's dearth of natural resources and subsequent vulnerability to the vagaries of global markets.

## Japan's Abenomics Bumps Along

Japan now again seems to be breaking out of the doldrums it has been in since the early 1990s. Even though the daily news makes one wonder, I retain my optimism and faith, based on some six decades of studying Japan and watching it grow and evolve. I have addressed this theme in previous essays, and despite the subsequent ups and downs, I believe it applies today.

Deflation is well on the way to being brought to an end, but growth has been erratic. GDP declined by 0.9 percent in fiscal 2014 (ending March 31, 2015) because of the recession in the first two quarters, but finished strong, with substantial increases in the last two quarters. Recovery this year was jolted by a bad April–June quarter with a decline of 1.2 percent, and what now appears a tepid and uncertain recovery, and a flat and possibly negative summer quarter. Nevertheless, projections are that Japan will achieve reasonably good growth for the next two years. After that, much depends on the adverse demand effects of the scheduled further consumption tax increase to 10 percent in April 2017, and indeed whether that takes place.

The next two sections are a brief review of the economy and the international context. I then take up various aspects of Abenomics, including longer-run growth prospects, corporate governance, and Japan's energy sector, focusing on electricity.

### The Year in Review

#### - Domestic Economic Situation

The past 18 months have been a process of implementation of and adjustment to Abenomics policies, notably the consumption tax increase from 5 to 8 percent from April 2014. The negative impact on consumption and business investment was deeper and longer lasting than I had expected. With lagging aggregate demand, GDP dropped by 6.8 percent (at a seasonally adjusted annual rate) in the second quarter of 2014, and a further 2.0 percent in the third quarter, before rising 1.2 percent in the final quarter, and a very good 4.5 percent in the first quarter of 2015. However, the second preliminary data for the second quarter, announced in early September, were a negative 1.2 percent despite inventory build-up, as consumption decreased. Even with the yen/dollar depreciation from 101 in June 2014 to a 120-125 range in summer 2015, export volumes lagged until recently, though of course their yen values and export profits increased significantly.

Japan's unemployment rate, 3.3 percent in July, is the lowest it has been since April 1997 and it has been at the low end of the 3.3-3.7 range since December 2013. However, many part-time employees want regular, full-time positions. In the spring 2015 annual adjustments, wages edged up about 2.2 percent, slightly better than 2014. However, this did not compensate fully for the consumption tax increase, so in real terms wages were flat.

Deflation has probably ended, but price stability defined as a 2 percent increase in the CPI net of the consumption tax rise has yet to be achieved. Corporate profits have soared, their highest ever, and business domestic investment is beginning to pick up. Economic recovery has generated a much more responsive increase (higher elasticity) in tax revenue than in the longer run, 3.97 trillion yen above budget in 2014, and a further surplus is projected for 2015. This windfall has given the government sufficient revenues to delay the difficult process of cutting expenditures or raising taxes. However, consumer confidence has weakened, and concerns have been voiced that the recovery may be weak in the last part of 2015.

The Bank of Japan's very low interest rate policy persists, and financial markets have continued to be very easy. The benchmark 10-year government bond (JBG) yield has trended down since April 2011, and although above its low in January has been between 0.3 and 0.4 percent in September. The most notable change has been in stock prices: driven by corporate profit increases, the Topix index rose 20 percent in the year ending August 1. Though it has since backed off, the index has more than doubled from a November 2012 low.

#### - Japanese Trade Policy

Over the course of this past year Japan has been constructively involved in two major trade policies: TPP (Trans-Pacific Partnership) and AIIB (Asia Infrastructure Investment Bank). Both have become symbols of Japanese, US, and other countries' commitment to economic openness and to Asia.

TPP goes beyond reduction of tariff and other trade barriers; it establishes new rules and requires significant institutional change, including intellectual property protection, the treatment of state-owned enterprises, and dispute resolution. TPP excludes China and has flaws and difficulties in implementation, but I support it as a realistic way forward.

The other 11 TPP members were unwilling to make final offers until they were certain the proposed agreement would only be subject to US Congressional acceptance or rejection without amendment. The Obama administration finally succeeded in having fast-track Trade Promotion

Authority (TPA) passed in June. Japan and the US apparently have reached agreement on most of their major bilateral issues, including tariff reductions for beef, pork, dairy products, sugar, and rice. On October 5, following intense negotiations, the 12 countries signed the TPP agreement. It now has to be approved both by the governments of the other countries and by the U.S. Congress. Congress will have at least 90 days to review the contentious agreement before accepting or rejecting it.

Creation of the AIIB, initiated by China, has been more significant politically than economically. The economic justification of providing more funding for good infrastructure projects is straightforward. Two major issues have dominated the debate: how to deal with the rise of China as a major power creating a new financial institution where it will play a dominant role; and how to ensure that AIIB lending criteria, project evaluation structure, and operational management meet global best practice standards, emulating the World Bank and the Asian Development Bank (ADB).

The U.S. government initially opposed the AIIB, and pressured its allies and other friends not to become a member. This was a strategic and diplomatic mistake, even though the government was deeply aware of narrow-minded Congressional opposition to reforming the IMF (International Monetary Fund) and the World Bank, much less the creation of new institutions. However, in March 2015 the United Kingdom decided to join, and by the April 15 deadline some 57 countries had signed on as prospective founding members, including 16 European countries. The United States, Japan, and Canada are the only major countries that have not yet joined. The United States has now stated it will be supportive of the AIIB once it develops best international practices.

The AIIB is a complex issue for Japan. Japan has major influence over the ADB, whose president has always been Japanese. While competitive overlap is inevitable, both ADB and AIIB propose co-operating on some projects. Given the current disputes between China and Japan, trust is not high.

The AIIB is scheduled to begin operation by the end of this year. China now well understands how the AIIB is expected to perform. AIIB's behavior and performance over the coming five to ten years will determine whether it will be a success or a weak institution foundering because of poor projects, perhaps politically chosen, unable to repay their borrowings. Japan's decision to join would signal a judgment that China is committed to engage in good corporate governance to make the AIIB an effective global organization contributing to infrastructure investment.

- Domestic Political Development

In November 2014, Abe surprised everyone by calling a snap Lower House election for December 2014. In the absence of any serious opposition, the Liberal Democratic Party (LDP) won handily, maintaining a two-thirds majority together with its coalition partner Komeito. With his re-election as LDP president in September, I assume Abe will continue as prime minister until 2018, and perhaps will revise the rules to enable a third three-year term as LDP president and prime minister through the 2020 Olympics. He will continue to give top priority both to economic policy (Abenomics) and his national security objectives. With the security legislation passed, Abenomics will be the top priority in the Diet in the coming months at least.

### The International Context

The World Bank June 2015 forecast was for global growth to increase modestly to 2.8 percent in 2015, and then to 3.3 percent in 2016 and 3.2 percent in 2017, led by the now catch-up growth of many developing economies, notably China and India with their huge populations. Even though many economies are recovering reasonably well from the 2008-2009 global financial crisis, these are disquieting times, with the US and Europe involved in the terrible difficulties emanating from the Middle East.

The global financial system will continue to be dominated by the dollar and the euro as the currencies for transactions, payments, foreign exchange revenues and stores of wealth. Regarding discussion of a global role for China's renminbi (yuan), the lessons from Japan are instructive. Despite its ascent to the world's second largest economy and the Japanese government's efforts to promote its use, the yen still does not have a significant third-country role. Indeed, as recently as 2010 some 60 percent of Japan-China trade was in U.S. dollars. With the introduction of direct yen-yuan currency trading in 2012, this is changing.

There never is a simple story for any region of the world. The U.S. economy is doing increasingly well. Europe continues to go through difficult times, not only economically but also socially, with the huge influx of migrants and refugees. The Middle East is a quagmire. Russia is Russia. Brazil's major corruption scandal involving its giant oil producer Petrobras has halted growth.

Sustained East Asian development is the big economic growth story of the last six decades: first Japan, then South Korea, Taiwan, Hong Kong and Singapore, and now China, Indonesia, and the other ASEAN countries. Developing Asia, notably China and India, has been and will continue to be the major engine of global growth. The region will probably continue to grow at a 5 percent to 6 percent rate over

the coming decade. China's growth has slowed, but still apparently is on the order of 6 percent to 7 percent. And 5 percent growth is projected for the 10 ASEAN nations.

The most important global change has been the dramatic economic and political rise of China. This has significantly altered the geo-strategic environment. Japan's quiet leadership in ASEAN is being undermined by China, and China provides many challenges to historic U.S. leadership in Asia.

Because of its population of 1.4 billion, China will eventually become the world's largest economy in terms of GDP. However, it will not soon be technologically advanced, nor highly productive, with a high standard of living. In constant purchasing power parity terms, China's GDP per capita in constant purchasing power parity terms in 2014 was \$12,609, far below Japan's \$35,635 and the United States's \$52,218. Growth predictions over the coming decade range widely, from 3 percent to 7 percent. The Japan Center for Economic Research (JCER) reasonably projects a Chinese gradually declining growth rate to 4.1 percent by 2025.

Despite political tensions, Japan has sustained good economic relations with China, especially as a trading partner. China is Japan's largest export market, and fourth largest source of imports. In 2014 bilateral trade amounted to \$340 billion, the world's third largest bilateral trade relationship. Japan is the largest investor in China, with a direct investment stock of about \$100 billion. However, Japanese foreign direct investment (FDI) flows to China, which peaked at 1,076 billion yen in 2012, declined to 887 billion yen in 2013, dropped sharply to 542 billion yen in 2014, and dropped by another 16 percent the first half of this year. This is partly because Chinese wage rates and labor costs have been increasing rapidly. It also reflects normal corporate hedging strategy in diversifying production and sources of supply. It is unclear how much concern about future bilateral political relations enters Japanese corporate decisions. Not surprisingly, the U.S. continues to be Japan's highest FDI destination, with Europe not far behind.

Globalization, a process leading to greater mutual awareness and interdependence among a nation's economic, political, and social entities, is important for Japan. The world is quite open in the flows of trade, capital, tourism, students, and information, though much less so for permanent migrants. The DHL Global Connectedness Index measures and weighs these indicators; in 2014 Japan ranked 40 out of 140 countries. Japan rates very high in its global reach (breadth), pretty well on capital and information flows, but low (72nd place) in its share of trade in GDP. Japan does not import and export as much relative to its size as many other countries. In comparison, Singapore is the only non-European country in the top 10. Asia's other entrepôt, Hong Kong, is 11; South Korea is 13; the United States is 23.

Why is Japan not more connected? Its Asian neighbors are not as geographically and politically close or as rich as Europe. It is an island. Japanese refer to their Galapagos syndrome, a self-centered island interacting little with the rest of the world. The Japanese language, which few foreigners know, and the lack of widespread command of English in Japan, are significant barriers.

These measures fail to capture the reality that Japan is an open, friendly, comfortable, and very safe country. It has a hospitable, well-developed, burgeoning tourist industry that welcomed some 10.9 million foreign tourists in 2014, up from 8.0 million in 2013, spending about \$16.7 billion (at 120 yen/dollar). Most (83 percent) came from Asia, notably Taiwan (25 percent), South Korea (21 percent), and China (16 percent). Tourism is an important way in which Chinese and Koreans, subject to negative media coverage at home, learn more about Japan.

Abe's much-anticipated August 14 Cabinet statement on the 70th anniversary of Japan's surrender in World War II has received widespread comment, some in terms of missing an opportunity to have gone further. It was carefully constructed in context and tone. The statement upholds Japan's commitment to a "free, fair, and open international economic system," and to "basic values such as freedom, democracy, and human rights." Abe's legacy will depend on how and in what way these broad goals are implemented.

Abe's major policy initiative is to reshape Japan as an active, constructive, peace-oriented global leader, not just a major economic power. His most dramatic and controversial actions have been in national security. Abe has interpreted the constitution to allow limited forms of collective self-defense and to an expanded use outside Japan of its Self-Defense Forces for peaceful purposes. The purpose given is to allow Japan to work more closely with allies, especially the United States, in defending Japan, including protecting shipping lanes. Despite public concern and months of delaying tactics by opponents, the legislation passed on September 20. I do not think Japan will become militaristic in the foreseeable future, and in practice will be quite cautious, not internationally adventurous. While his heart may be in security policy, Abe will have to give economic policy major attention since that is the basis of his public support.

### Abenomics

Abenomics is the government's major economic policy program aiming to transform the Japanese mindset positively by setting extraordinarily ambitious longer-run targets and proposing policies to achieve them. These include 2 percent real growth and 3 percent nominal growth, ending deflation



(defined as achieving 2 percent increases in the core consumer price index), 30 percent of managerial positions filled by women by 2020, major reopening of nuclear power plants, and fundamental structural change in hard-core protected sectors including agriculture and healthcare.

The first arrow (target) in Abenomics is an aggressive monetary policy by the Bank of Japan (BoJ) to end deflation. The second arrow, flexible fiscal policy, means stimulus should be followed eventually by fiscal consolidation. The success depends on Prime Minister Shinzo Abe and his cabinet, with strong input from the Ministry of Finance. The third arrow, growth strategy, innovation, and structural reform, depends fundamentally on the positive responses of Japanese businesses as investors and innovators, and households as consumers and workers. The second and third arrows are deeply interrelated since good growth and sufficient private demand are essential to achieve fiscal consolidation.

Abenomics addresses Japan's three major economic challenges: demographic transition, the need to increase labor productivity growth substantially, and the need to prevent a fiscal crisis emanating from the inability to deal with the government's huge debt overhang. That means it is not a quick fix, and there is no magic bullet. Good growth is essential to provide the resources and political will to carry out the wide-ranging reforms. Abenomics involves improving incentives, restructuring institutions, improving the regulatory system, and transforming the corporate context of employment.

On September 24 Abe announced his second stage of Abenomics, with three so-called new arrows: a GNP in current prices of ¥600 trillion, up 22 percent from 2014; increased fertility so as to achieve a stable population of 100 million Japanese; and increased social welfare for young as well as old. All of these are restatements, but in more understandable public terms, of earlier policy statements, including the basic Abenomics three arrows. The statement reinforced the government's intentions, but with no specifics. The growth target is another way of saying 2 percent real growth and 1 percent or so increase in the GDP deflator based on the 2 percent CPI increase.

Some progress has been achieved in the three years of Abenomics, but it has been a bumpy path, with some policy hiccups.

### Abenomics: Ending Deflation

The most immediate goal (the first arrow) has been to end the small but persistent deflation that arose some 15 years ago, and to achieve an annual 2 percent increase in the Consumer Price Index (CPI). For analytical purposes, considerable emphasis is placed on core CPI, which in Japan excludes fresh food prices and factors out the one-shot effects of consumption tax increases.

When Haruhiko Kuroda became the governor of the Bank of Japan (BoJ) in April 2013, he committed to achieving this goal by March 2016 (the end of fiscal 2015). He has actively pursued an easy monetary policy, including a surprising further easing on October 31, 2014. This is the correct policy, and Kuroda has been steadfast despite some opposition. CPI became positive once Kuroda's policy was implemented and rose to a peak of 1.5 percent in April 2014. Less anti-deflation progress has been made than expected. This was evident even before the dramatic decline in oil prices introduced a temporary deflationary blip.

By July 2015 the CPI had dropped to zero, and in August was minus 0.1 percent, as the sharp drop in oil prices wended its way through the economy.

However the coming months will bring better performance. CPI will resume an upward trend as global oil prices eventually stabilize. Japan's deflationary mindset has weakened significantly, but has not disappeared. Given the ongoing challenges of achieving adequate private sector aggregate demand, I expect Japan's very low interest rate policy will continue for several years at least. Increases may reach 1 percent relatively soon, but Kuroda has had to delay reaching the 2 percent target by six months to September 2016, and he will have to announce a further delay. Achieving 2 percent will require further BoJ stimulus. Whether and when the target is reached are major uncertainties. I had thought this would not happen until next year, but with discouraging economic news in early October, it may well take place soon.

### Abenomics: Fiscal Policy

Flexible fiscal policy is the second arrow of Abenomics. In principle, the policy is to stimulate until private aggregate demand generates full employment growth, and then to contract to reduce the government budget deficit and eventually reduce the high gross government debt/GDP ratio of 246 percent. (The net debt ratio is 130 percent.)

The major policy debate continues to be whether, for the next several years, to give higher priority to an austere budget policy of reducing pensions and other welfare expenditures and raising the consumption tax, or to follow a full employment growth strategy by maintaining fiscal stimulus to maintain adequate domestic demand. That is, which do Japanese policy makers and the public fear more: stagnation or fiscal crisis?

Based on the experience of developed countries, my view is that growth is a better path than austerity to resolve macroeconomic difficulties. However, strong pressure must be maintained on policy

makers to carry out necessary yet politically difficult structural reforms so that further increases in the deficit can be minimized and the government debt/GDP ratio is stabilized. The high debt ratio cannot increase indefinitely; that would eventually create a fiscal crisis as bondholders lose confidence in the government's ability to repay.

Which government expenditures should be reduced and by how much, and what taxes should be increased and by how much, are uncertain and actively debated. Government welfare expenditures, mainly pensions and medical care, are projected to increase about ¥1 trillion (\$8.3 billion) annually as the population ages. The government has yet to decide how much to reduce pensions or to increase co-payments for medical care.

The 2014 consumption tax increase from 5 percent to 8 percent had a deeper and longer-lasting adverse effect on private consumption and business investment than I and most commentators expected. Was the tax increase an essential first step in averting a fiscal crisis seven or eight years down the road, or was it too costly economically in terms of GDP volatility and growth foregone? Many specialists differ, and I don't have a good answer. So much depends on Japanese (and foreign) expectations about Japan's future.

Abe postponed increasing the consumption tax to 10 percent, rescheduling it from October 2015 until March 2017, but has stated it will not be delayed further. This implies that whatever growth momentum is achieved in the next eighteen months will be temporarily dampened.

A policy to reduce corporate tax rates over several years continued in April. Japan previously had a total statutory rate of 37 percent, second highest in the industrialized world (behind only the United States). The 2015 effective rate will fall 2.51 percentage points to 32.11 percent.

Government revenues increased by ¥4 trillion more than conservatively budgeted for fiscal 2014, and probably about that much in fiscal 2015, thanks in part to the consumption tax rise. This provides the government leeway to delay fiscal reform, but eventually that will be necessary. Akira Amari, minister for economic and fiscal policy, on September 8 suggested using ¥2 trillion (\$84 billion) of the "surplus" revenues to finance a demand-stimulus supplementary budget, in light of China's slowdown. This would be less than the ¥3.5 trillion 2014 supplementary budget, and the ¥5.5 trillion in 2013. I assume Amari's proposal will be enacted before this fiscal year ends.

To carry out fiscal reform, Japan must cut welfare expenditures, raise taxes, and reform the tax system—and do so without hurting the poor and middle classes, or the elderly. This implies that adjustment costs should fall mainly on households in the top 10 percent to 20 percent of income. One approach is to reduce their pension benefits and increase their share of medical expenses.

However, Japan has been relying on increases in the consumption (value-added) tax rather than in other taxes because it is widely understood, easy to measure, and reluctantly tolerated by the general public, even though it hits poorer people harder.

My views on tax structure are not widely accepted in Japan. First, as a partial offset to increasing inequality, Japan should consider a national property tax with exemptions for owners with net assets below a certain level, in addition to the local government property taxes; however, in addition to political difficulties, the necessary data are not available. Second, I favor a progressive income tax. Third, I support a high carbon tax on CO<sub>2</sub> emissions to reduce their environmental costs, especially if this can be coordinated internationally.

While it will be necessary to raise taxes further after 2017, this will be politically difficult. Japan will face a tough choice between government expenditure cuts and further tax increases. That is one reason good growth over the next several years is so important politically as well as economically and socially.

### Abenomics: Growth Strategy

Growth provides the resources to make adjustment less costly and more flexible. Major structural changes are necessary to achieve good growth. Thus, the third arrow of Abenomics is to “revitalize” Japan’s economy to achieve sustained, full-employment, rapid growth.

The third arrow has become a broad label under which every potential economic policy can find a home. There are three basic aspects: implementation will take several years, the private business sector will play the dominant role, and the results will be achieved over the longer run. Most third-arrow initiatives focus on increasing corporate profitability through better corporate management and governance, more innovation, IT (information technology) promotion, and development of human resources.

On June 30 the government issued a revised revitalization and growth strategy. It is a wide-ranging document, which proposes both broad policy measures and some specific examples. It includes six major projects involving innovative technologies by the time of the 2020 Tokyo Olympics: next-generation transportation systems, energy management, robotics, medical care; 20 million foreign tourists, and increased inward foreign direct investment. Deregulation to achieve more pro-business, but also more competitive, markets is stressed, particularly where “bed-rock regulations” have remained so strong, notably in agriculture, healthcare, energy, and employment.

The government has begun to announce, legislate, and implement policies in these and other important areas. Some progress has been made, but there is a long way to go. Some actions are particularly important symbolically, signaling the cracking of well-established economic barriers.

Agriculture is a prime example. It is economically insignificant, producing only 1.2 percent of GDP and employing only 3.4 percent of the work force. Nonetheless, the 1.3 million commercial farming households, while now only 2.6 percent of all households, are the backbone for most villages and small towns, and are politically and socially important. JA (the Japan Agriculture Group) through JA-Zenchu (the short-form Japanese for the Central Union of Agricultural Cooperatives, which is JA's organization handling a comprehensive range of farm policy activities including handling the purchase of fuel, seeds, and other inputs and half of rice sales, among other activities), is very powerful. As a result, Japanese farmers have been heavily protected: average farm household incomes are higher than non-farm households.

Most farms are so small that they cannot be competitive for most crops – particularly rice. Nonetheless, Abe has included agriculture in the third arrow strategy, envisaging farms growing world-class products for export. Agriculture is a traumatically but amicably declining industry, with the number of active farmers falling and the area farmed decreasing. According to the 2014 Japanese census of agriculture, the average age of Japanese farmers is 66.8 years, with 63 percent of farmers above 65. Eventually they will be replaced by some 200,000 younger households with larger farms and greater productive efficiency.

It is good news that Japan's food self-sufficiency rate, at 39 percent in caloric terms, remains below the government's target of 45 percent. Japan is efficiently relying on inexpensive food imports rather than very inefficient domestic production. Food security is provided by assuring adequate inventories of grains, soybeans, meat, and other storables.

The government is pursuing policies to accelerate agricultural adjustment smoothly. In February it forced JA-Zenchu to agree to limit its control over individual JA cooperatives at the village level. JA's special legal status will be changed to that of an ordinary incorporated association, and it loses its sole power to audit and guide local cooperatives. Nonetheless JA will continue to be influential, particularly through the credit and other local financial associations it continues to control. Most farmers grow products under the guidance of the JA group and use the group's distribution channels to ship the products to market. This gives Zenchu a significant influence on rice prices. With the ending in 2018 of the rice production quota program, rice prices will become more flexible.

This is Japan's first major agricultural reform since the 1950s, and has major symbolic significance. Substantively it may not achieve much directly, but it will probably lead to broader reforms. When TPP is implemented, it will have greater direct substantive impact since it will significantly reduce agricultural tariffs and other import barriers. Rice tariffs currently run more than 700 percent. <>

Labor force reforms have been mixed and limited. Japan's labor force is 66.2 million (June 2015 seasonally adjusted), down from the peak of 68.1 million in June 1997; 37.6 million (57 percent) are male and 28.5 million are female. The unemployment rate in July was 3.3 percent, and the ratio of positions open to those available is the highest it has been in 23 years. In the two and one-half years since January 2013 male employment increased by 100,000 and female employment by 900,000. The Abe government attributes much of this to its "womenomics" policy of making it easier for women to work. However, it was mainly due to increased demand for labor in tightening labor markets.

Abe's policy to increase the number of women in managerial positions to 30 percent by 2020 is dramatically ambitious, and unrealistic. One problem is the small number of women in company or government employee cohorts who could be promoted to managerial positions over the next five to ten years. Many listed companies are now hiring more women entering their management tracks, so in 15 years or so the 30 percent target may become achievable.

Though it is gradually evolving, Japanese corporate culture continues to be male-dominated. Women hold less than 9 percent of managerial positions. Company culture is evolving and probably can cope with relatively small numbers of female managers. However, when as many as 30 percent of managers are women, the management lifestyle and culture will change significantly.

While Japan, like all developed countries, seeks highly skilled foreign professionals, basically its immigration and foreign worker policies are restrictive and minimal. Japan would benefit from more foreign workers, unskilled as well as skilled, but is liberalizing very cautiously. Of the 788,000 legal foreign workers in Japan – 1.3 percent of the labor force – 339,000 are Brazilian and others with Japanese heritage, 147,000 are skilled workers, 145,000 are technical interns, and 120,000 are foreign students with part-time work permits.

The main policy initiative is to open Japan to add about 60,000 foreign skilled workers a year on five-year contracts, lengthened from three years. Indicative of the policy mindset is that in July the government announced new policies whereby foreigners working in one of the national strategic zones (mainly Tokyo, Yokohama, and Osaka) would be able to obtain visas for foreign housekeepers. But why are Japanese not allowed to do this, and why not anywhere in Japan? This is one way to increase the opportunity for married women to enter the labor force.

Abenomics proposes to strengthen the university system by creating distinguished graduate schools and special research institutions. Japan's university system is strong overall, but a significant part is a declining sector, namely two-year colleges and local private, low-ranked, four-year colleges. This is because of fewer enrollments as the numbers of college-age Japanese has been decreasing.

Undergraduate students peaked at 2.9 million in 2011, as did graduate students at 272,000. Since national and other public universities are of high quality, decreasing enrollments are mostly in private institutions. The number of private four-year colleges increased from 542 in 2004 to a peak of 606 in 2013, and has now begun to decline. This will be a slow, difficult process as weaker colleges reluctantly merge or close due to lack of students. Private junior colleges have decreased from 451 in 2004 to 334 in 2014 and enrollments dropped from 214,000 to 129,000.

### Growth in the Longer Run

Optimistically assuming aggregate demand will be adequate, Japan's growth over the longer run depends on the supply side: changes in the labor force and its skills, growth in capital stock, innovations, and other improvements that increase productivity and output. GDP growth is estimated by increases in labor force (ideally, hours worked), net additions to the capital stock, and innovation and other measures that increase productivity, namely total factor productivity (TFP, the Solow residual in growth accounting). In complex, interactive processes, TFP is determined by R&D, education, inventions, and other innovations.

Japan achieved high productivity growth during the postwar decades to 1990 as companies succeeded in bringing Japan to, and beyond, the global technology frontier in manufacturing. Since then, productivity has inevitably slowed. Considerable growth can be gained by allocating workers and capital more efficiently. That is one major focus of Abenomics' ambitious third arrow reforms.

Japan's labor force will soon decrease about 0.5 percent a year; potential further increases in the participation rates of women and older workers are only a one-shot offset spread over several years. Japan's growth depends essentially on increasing labor productivity, that is, real GDP produced per hour worked. Japanese labor skills, capital stock, and technology levels are already high. But, Japan's productivity lags seriously behind other G7 countries, and in 2013 was only 61.6 percent of the U.S. level.

In March 2015, McKenzie Global Institute published a comprehensive, detailed, ambitious, optimistic, 128-page study, "The Future of Japan: Reigniting Productivity and Growth." It recommends a

wide range of specific measures, particularly for the business sector, to achieve a “broader adoption of best global practices, a wave of investment in new technologies, and a greater willingness to try bold new business models.” The study aspirationally lays out what Japan should do.

The government’s June 30, 2015 growth strategy states what the government intends to do over the next five years or so. The ambitious 2 percent growth target implies that labor productivity will have to increase by 2.2 percent annually, and TFP comparably. This is much higher than has been achieved in the last 25 years.

Like most observers, I do not think Japan will achieve sustained 2 percent GDP growth. The government is unlikely to implement its full package of third-arrow structural reforms. Its baseline projection is more realistic: 1 percent growth, sustained full employment, a CPI increase of about 1.5 percent, and a leveling off of the government debt/GDP ratio. Real GDP growth of 1 percent would be pretty good: GDP/capita would increase about 1.5 percent or so, almost double its performance since 1992.

IMF projections are cautious: while the GDP growth rate will increase from 0.8 percent in 2015 to 1.2 percent in 2016, the increase in the consumption tax to 10 percent in April 2017 will slow growth to 0.4 percent, and from 2018 growth will be 0.7 percent annually through 2020. This reflects IMF concern about the still disappointing levels of business investment and slow progress in labor market reform, notably the inability of firms to discharge permanent workers, and the rising number of non-regular workers with their relatively low wages and limited fringe benefits.

The longer-run bottom line: with decreasing labor inputs, 2 percent growth would be outstanding, but almost impossible to achieve. Even if Abenomics is very successful in carrying out major structural reforms and in ending deflation, achieving growth of about 1.5 percent would be very good. It would mean Japanese GDP growth/capita would be on the order of 2 percent, high in both historical and comparative terms.

### Corporate Governance

In Japan, as elsewhere, effective corporate governance is a system in which companies make good, prompt, fair decisions; engage in sufficient disclosure to be reasonably transparent; and take into appropriate consideration the interests of their shareholders, customers, employees, and communities. In practice, more so than elsewhere, every Japanese company, large and small, has its own, strong, self-



replicating corporate culture based on insiders, often with ambiguous or weak internal checks and balances. Reform is needed because corporate management is entrenched, autonomous, and powerful.

Corporate governance reform of companies listed on the stock exchanges is a major policy objective of the Abenomics growth strategy, and its implementation is making good progress. The basic objectives are to make managers of publicly traded company more responsible to, and responsive to, shareholders and potential investors, though not to fundamentally change the existing system of entrenched management. The focus is on making companies more competitive, more profitable, and engaging in adequate disclosure and transparency.

Listed companies (there are about 3,500, including 1,895 on the Tokyo Stock Exchange [TSE] first section) can be classified into several overlapping models of corporate control and internally based governance. Founder family influence continues well after a company is first listed, but over time the company evolves into control by entrenched professional management based on permanent employment, promotion, and internal selection of the top positions of president, chairman, and almost all board members. Some companies have developed a strong CEO-based model, making it possible to make and implement strategic decisions more rapidly. In some cases retired CEOs continue to exercise strong power in advisory positions.

Legally shareholders have more power in Japan than in the United States, but have not used it. Most Japanese institutional investors accept management control in turn for receiving stable, gradually increasing dividends and non-interference in their own businesses. Cross shareholdings have helped managements protect their interests. Earlier, highly publicized hostile take-over efforts by activist foreign investors failed, but now activist institutional investors, especially foreign but also some domestic, are pressing companies with huge cash holdings to significantly increase dividends and share buy-backs. They also press companies to raise their currently low returns on investments and assets. Foreign institutions hold about 32 percent of shares listed on the TSE.

The TSE and the Financial Services Agency, with public input, introduced the important new Corporate Governance Code on June 1. It focuses on best practices and follows the OECD (Organisation for Economic Co-operation and Development) model.

Japan's Code is not legally binding, but has strong reputational force; it is both a symbol and a driver of corporate change. The Code establishes five major categories of principles to which listed companies must comply, or explain and justify non-compliance. Two major changes are the appointment of at least two independent, outside directors on the company's board, and disclosure of the company's overall policy and voting criteria for cross-shareholding, in order to reduce such holdings.

Other principles focus on disclosure and transparency, appropriate cooperation with all stakeholders, and use of stock options to link compensation of top executives to company performance.

The percentage of all listed companies having at least one outside director was 12.9 percent in 2010 and 21.5 percent in 2014; 92 percent of TSE first section firms have at least one outside director. To meet the target of at least two outside, independent directors, TSE first and second section companies will need to make 1,848 new appointments. More important than sheer numbers will be the quality, knowledge, and, especially, the commitment to be truly independent and questioning. In the past, outside directors have often been marginalized, with basic strategic issues decided by management and then simply ratified by the board.

Cross-shareholding has been a basic mechanism of management control in the postwar period. Banks had to divest major holdings of group companies in earlier financial reforms, but many companies continue to hold shares in each other. Many of the holdings are to maintain business relationships, which can mean helping to fend off hostile shareholders. While the government cannot legally require companies to end cross-shareholding completely in order to increase transparency, the Corporate Governance Code now requires companies listed on the TSE to explain the rationale for holdings. Some 60 percent of the 300 biggest companies have sold some cross-shareholdings, but it is premature to determine how far and how rapidly this will proceed.

The government-backed JPX-Nikkei 400 Index selects the best-performing companies based on three-year average return on equity, cumulative operating profit, and market value. In its second annual revision of the index in August, 42 firms were added, replacing companies performing less well. Since management aspires to have the company included, it has incentives to improve. Commentators refer to the JPX-Nikkei 400 as the “shame index” since it is shameful for a large company not to be included. This may be appropriate, since shame in Japan is often more of a motivator than merit.

The Toshiba Corporation scandal—using inappropriate accounting to inflate total group operating profits by more than 10 percent over five years through March 2014—is a shock. Toshiba is a globally well-regarded brand and a prestigious, innovative company ranked seventh globally in patents received. With four outside directors, it was presumed to embody good corporate governance. Apparently, Toshiba’s strong leadership set unrealistically aggressive profit targets that middle management feared to challenge, and internal checks and balances were inadequate. While the Olympus scandal a few years ago was an aberration, the Toshiba case raises wider concerns as to how effective governance actually is in well-established major firms.

## Energy

Energy is probably Japan's greatest vulnerability, both in environmental terms and in assured sources of supply. Japan's long-run energy policy is simple: to obtain stable supplies at low cost. Implementation is complex and difficult in what is a global, dynamic, rapidly changing set of related industries.

Fossil fuels are the predominant energy sources for Japan, as for all developed countries. They are relatively cheap, but create greenhouse gases and pollutants. Having mined out all its coal long ago, Japan has to import essentially all its oil, LNG (liquefied natural gas), and coal. Security of supply is a major geopolitical concern. One issue is how to achieve the best mix among fossil, nuclear, and renewable resources.

The world is in a disruptive energy revolution based on the rapid development of cheap shale oil and gas, as well as ongoing efforts to harness solar and wind power. Energy costs and prices are dropping dramatically. In Japan and globally, a myriad of ongoing technological advances, large and small, increase the efficiency of energy production, transportation, and distribution to industrial and household users, and their better use.

The drop in the world price of oil (Brent crude) from its last peak of \$117 per barrel in August 2013 to \$42 in August 2015 is currently substantially benefiting Japan through improved terms of trade, even as it makes it more difficult to achieve the 2 percent CPI rise target. LNG has been sold globally and to Japan under long-term fixed-price contracts linked to the price of oil. Markets have been opaque and only gradually are becoming more flexible. Over time Japanese companies have successfully negotiated down the substantial premiums they have paid for LNG.

The greatest achievement of the third arrow thus far has been in energy policy, implementing major reforms to reduce the monopolistic power of the 10 regional electric power companies, from Hokkaido to Okinawa. The retail market for electric power is to be fully liberalized in a year or so, and by 2020 the companies have to spin off their generation, transmission, and distribution businesses into separate companies.

The Fukushima crisis undermined Japan's ability to continue as a global path-breaking leader regarding climate change. It will fail to meet its Kyoto Protocol commitments to reduce greenhouse gas emissions by 25 percent from 1990 levels by 2020, as will many other countries. At the G7 June 2015 meeting, Abe announced a more modest target of reducing emissions by 26 percent below the 2013 level by 2030, equivalent to 18 percent less than 1990. Even that will be a substantial achievement.

Some three-quarters of Japan's energy use is fuel for motor vehicles and gas for heating, cooling, and cooking. The other quarter is to generate electricity.

Japan is so deficient in natural resources that in 2014 it imported more than 90 percent of its primary energy supply. (Primary energy refers to an energy form found in nature that has not been subjected to any conversion or transformation process). Japan is the world's largest LNG importer, second-largest coal importer, and third-largest net importer of crude oil and oil products. Stability and security of fossil fuel imports, as well as their prices, appropriately are top-priority foreign policy concerns. Japan imports 82 percent of its oil from the Middle East, 33 percent from Saudi Arabia alone. LNG imports are considerably more diversified. Australia, Malaysia, and Qatar are the major suppliers, providing three-quarters of total imports. Domestically, hydroelectric provides about 3 percent of total energy supply and about 8 percent of electricity. Before being shut down, nuclear energy provided about 30 percent of electricity, and this had been expected to increase to at least 40 percent by 2017.

On June 30, METI (Ministry of Economy, Trade and Industry) announced its projection for 2030 of the mix of sources for primary energy and electricity production. The government supports research to achieve energy free of fossil fuels in the very long run, based on hydrogen and nuclear fusion technologies. However, for the next 20 to 30 years at least, Japan will continue to rely predominantly on fossil fuels.

In 2030, oil, coal, and LNG are projected to provide 75 percent of the primary energy supply, down from 92 percent in 2013 and 82 percent in 2010. Renewables will provide 13 to 14 percent, and nuclear power 10 to 11 percent. The big changes are projected for electricity generation: renewables will comprise 22–24 percent and nuclear power 20–22 percent. Three aspects of these projections are striking.

First is the continued importance of coal, generating 26 percent of electricity, slightly above the average 24 percent in the 10 years before Fukushima. Japanese companies have developed effective clean-coal technology and are seeking to export it, but it is expensive and will require strong anti-pollution commitments by importing countries. In Japan, new, large scale coal-based electricity projects are both clean and apparently cost competitive; although upfront capital costs are high, interest rates and operating costs are low. Existing coal-based plants will be mostly replaced by 2030. Coal's greatest competitive challenge in Japan will continue to be LNG and nuclear power.

The projected major reliance on nuclear power once again by 2030 implies not only reopening many of existing plants, but also building new ones. I am not persuaded this will be achieved. Given the current adverse views of the Japanese public following Fukushima, this will require a major change in

the public mindset. Since electricity prices have increased 29 percent for business and 19 percent for household since Fukushima, reductions attributed to cheap nuclear power generation will be important in overcoming Japanese anxieties. Safe nuclear power generation does not pollute the air, though disposal of radioactive waste and decommissioning of old plants are serious unresolved issues. Security of fuel supply is not a problem; uranium is readily imported from a geographically diversified range of democracies.

All of Japan's 54 nuclear power plants were closed by September 2013 following the Great East Japan Earthquake in March 2011, when three reactors were destroyed in Fukushima. The Nuclear Regulatory Authority (NRA) has developed new, stringent safety regulations. As a result, companies have already decided to decommission seven older plants because upgrading costs to meet the new standards are too high.

As many as 32 of Japan's 43 operable plants are possible candidates to reopen. So far the NRA has approved reopening 5 plants and another 16 are under review. However a 2015 Reuters analysis concludes that only seven are likely to be restarted over the next several years. Moreover, at least 13 reactors would need to have their lifetimes extended beyond the 40-year normal limit.

Despite substantial economic benefits, the reopening process has been careful and cautious. Kyushu Electric Power in Kagoshima Prefecture has reopened the first nuclear power plant, restarting operations on August 14; it took 11 months to reopen after the September 2014 approval, both to ensure details and overcome regional, if not local, opposition. The first plant reopenings will be a critical test as to whether Japanese will accept nuclear power once again and put the country on track for the 2030 nuclear target, which seems difficult to achieve.

Fossil fuels are essential, but they are not good for one's health. Air pollution kills people quietly. My colleague David Weinstein estimates that if Japan had not closed its nuclear plants following Fukushima, and thereby burned less fossil fuel, more than 9,000 Japanese lives would have been saved annually. No one has died from radiation leakage and the nuclear meltdown at Fukushima, though the dislocation costs of those directly affected were substantial.

As noted, renewable energy sources are expected to increase significantly to 22–24 percent of electricity generation. Hydropower will be about 9 percent. The big renewable increase will be in solar, to some 7 percent, a consequence of the exuberant corporate response to Japan's extraordinarily high subsidies (feed-in tariffs) for electricity sold to Japan's 10 utilities, initially 42 yen per kilowatt hour. Solar power prices and installation costs have been dropping sharply. Some 82 percent of Japan's \$34.3 billion investment in renewables in 2014 (second only to the United States's \$36.3 billion) was in small-scale

projects, where the feed-in tariff rate as of July ranged between 27 and 35 yen per kilowatt hour. However, the growth of solar facilities is constrained by suitable sites and access to power grids.

Biomass burning, considered less polluting than fossil fuels, will generate 3.7 percent to 4.6 percent of electricity. Since bamboo grows so rapidly, two new bamboo-based plants are under construction. Wind will remain costly, so is projected to contribute only 1.7 percent. In volcanic Japan, geothermal plants will provide the final 1.0 percent; however most sources are in national parks, where tourist hot springs businesses resist their intrusion.

One major problem is that solar and wind power are unreliable since they are intermittent and volatile. This limits the ability of power grids to handle electricity supply flows smoothly as daily demand fluctuates. Huge, efficient storage batteries or new methods for storing electric power cheaply and efficiently are essential. Several Japanese and U.S. companies are leaders in developing large storage batteries, as well as batteries for electric cars.

In the coming decades, radically new technologies almost surely will further alter global energy sources and supplies dramatically. They will involve major breakthroughs to achieve efficiencies, cost competitiveness, and environmental benefits, as well as social and political acceptance. The most controversial will be nuclear power – the traveling wave reactor that burns its own nuclear waste and other major new fission technology, and eventually nuclear fusion. Artificial photosynthesis, replacing plants, is being developed to produce hydrocarbons to fuel motor vehicles.  $\text{NH}_3$  (ammonia) is being proposed as a hydrogen-carrying fuel.

For Japan, methane hydrate (natural gas in frozen deposits) could become a major fuel source. Japan has found some 750 deposits in its coastal waters. Methane hydrate is globally abundant but costly to mine. The government-owned Japan Oil, Gas and Metals National Corporation has been doing research on methane hydrate since 1995, and in 2013 its ship Chikyu dug wells and extracted natural gas samples in the Nankai Trough. The government plans further testing in late 2016 of its methane hydrate well to resolve technical difficulties, which cut the 2013 effort short. It estimates that it will take at least a decade before costs can be reduced sufficiently for methane hydrate to be commercially competitive. This is probably optimistic. Nonetheless, methane hydrate may eventually become Japan's major source of gas. In one form or another, gas will increase significantly beyond the 2030 projection, as the nuclear portion falls short.

## Conclusion

In the 70 years since Japan's surrender in 1945, Japan has done very well economically, politically, and socially. It has achieved a high standard of living, with high educational attainment and high levels of technology. It has embodied democratic principles, policies, and institutions, with full respect for the rule of law. It has pursued a peace-oriented, indeed pacifist, international policy, with a small but competent self-defense force, and deep reliance on its security treaty and close relationship with the United States. Life expectancy has increased for women from 54 in 1950 to 88 today, and for men from 50 to 80.

Japan is a comfortable, clean, safe, and friendly country. One of Japan's strengths is that it adjusts to tremendous demographic and economic change in a stable, usually rather gradual, non-disruptive way. Even though the process may seem inefficiently slow, it maintains a high degree of social cohesion, especially important in Japan's homogenous, group-oriented society.

Japan has the same sorts of problems as other economically advanced democracies. Its relative poverty rate, measured as income less than half of median disposable income, is 16 percent, sixth highest of the 34 OECD members; the United States is fifth highest. The large and rising proportion of non-regular workers, now 37 percent of the labor force, is disquieting. They have lower hourly wages and fewer fringe benefits, which makes many of them members of the working poor. The lowest 10 percent of Japan's income recipients have had an absolute decrease in their income since the mid-1980s.

The annual survey on living conditions in 2004 found 44.2 percent considered their living conditions as normal or comfortable, and 23.0 percent as very hard. In almost every year since, respondents have been less satisfied, particularly when the consumption tax was increased. In 2014, 36.8 percent felt their living conditions were normal or comfortable, but 29.7 percent considered life very hard.

Japan's first 15 postwar years, to 1960, saw demilitarization, Allied Occupation reforms (to 1952), independence (since 1952), creation of new institutions, and development of new opportunities. The next era of 30 years, to 1990, provided unprecedentedly rapid, catch-up economic growth, and achievement of Japan's high standard of living. The past 25 years have been an era of mediocre economic growth, and a modest but rising sense of malaise and decreased optimism about the future. At the same time, Japan's broad self-image persists as a peaceful, comfortable, insulated country not much involved in international political, security, or social issues.

However, today's world is complicated and difficult. Japan's economic power and its global economic breadth are too great to allow Japan to persist in being insular and passive. At the same time

Japan's leadership in Asia, assiduously built up over the postwar period, is now being eroded by a huge, rapidly growing but still poor, resurgent China.

Prime Minister Abe is pursuing a very ambitious long-run policy to redefine Japan not just economically but in terms of its appropriate international role, with the expanded peace-keeping and humanitarian Self-Defense Forces. While Abenomics has broad support despite vested interests, Abe's national security policy has yet to be widely accepted, and thus is the major challenge Abe faces.

Some commentators have been sharply critical of the performance of Abenomics. However, Abenomics is a long-run program to bring about fundamental economic reform. I think monetary policy is successfully bringing the deflationary mindset to an end. The 2 percent CPI annual increase will not be achieved any time soon, but the BoJ should persist in this very ambitious target. The sustained 2 percent growth target probably cannot be achieved. However, in order to overcome pessimistic expectations, it is important for Abe to pursue both these targets wholeheartedly.

How Japan will deal with its fiscal policy reform—the second arrow of Abenomics—is the most difficult area of government policy. There is a major policy conflict between fiscal austerity—reducing welfare expenditures and raising taxes—and providing sufficient government demand to sustain full employment growth. If Abenomics succeeds in bringing about major structural reform, if household consumption and business investment respond well, and good economic growth is achieved, then tax revenues will grow enough that less severe austerity measures will be required. Current economic performance provides a couple of years of leeway before the government will have to confront these issues head on.

I continue to worry about inadequate private demand in Japan. The economy is too big to expect exports to be a main source of stimulus. Two main challenges are to raise productivity closer to U.S. levels, and relatedly, to raise wages significantly. To drive growth, consumption must increase. That means household income must rise, which means wages must increase more than they have this year. It is puzzling that, with labor markets so tight, wages have not increased more. Perhaps labor market pressure will manifest itself more strongly in the year ahead.

The reality of good Japanese economic performance from now on reflects the difficulty of large percentage increases in traditional measures when the levels are already high. With a declining labor force and population, 1 percent or so real growth actually is pretty good over the longer run. Japan's standard of living (GDP per capita) would improve at a historically good 1.5 percent or so. With continued advances in medical care and technology, the quality of life can be expected to improve even



more. This is the reality of good Japanese performance in the longer run, so the Japanese and those of us who study and care about Japan will have to adjust our mindset accordingly.

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