

Medium-term economic prospect for Japan

By

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I. Labor shortage in Japan —A major constraint to growth

Japanese companies now face the growing issue of labor shortages, which could stand in the way of efforts to expand domestic production. According to the current employment conditions DIs in the BOJ's Tankan survey, many industries face a growing shortage of workers, even with the slump in consumption after the consumption tax hike (Figure 1). In November 2014, Japan's unemployment rate fell to 3.5%, which is roughly the same as the economy's estimated structural unemployment rate. This suggests that even if Japanese companies wanted to expand their businesses, they would struggle to secure enough workers.

What are the reasons behind Japan's shortage of workers? Abenomics has drastically shifted perceptions about the Japanese economy, but the period of strong growth spurred by the policies was not actually that long. Real GDP growth in FY13 was a relatively strong 2.1% y-y, but that also included a boost from the rush in demand ahead of the consumption tax hike. Real GDP growth in FY11 and FY12 was around or below 1%, which is low from a historical perspective. Despite this weak growth, signs of labor shortages have emerged early on before growth has taken off, which is unprecedented for Japan.

We think the lack of workers is one consequence of Japan's declining population, a long-held concern in many years. In Japan, the core 15–64 working age population has been declining each year from a peak in 1995. As of 2013, the working age population had shrunk to around 79mn people, the same level as in 1980 (Figure 2). Japan's potential supply of labor has been declining for many years. We believe this lack of labor supply, along with reduced capex by companies amid deflation, has drastically reduced the Japanese economy's maximum supply capacity.

This drop in supply capacity was not an issue while demand was weak during deflation, but with the moderate uptick in demand spurred by Abenomics, Japan's supply may already have reached its ceiling.

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Some economists point to a lack of demand, rather than a lack of supply (labor shortage) as the outcome of Japan's declining and aging population, because a smaller population would translate into weaker demand for goods and services. It is hard to predict either way whether the drop in population will lead to a greater fall in demand or in supply.

However, based on recent trends, it seems fair to suggest that the shrinking population will result in a lack of supply. The growing labor shortage problem is not the only evidence here. Looking at the historical relationship between changes in real GDP growth and the unemployment rate, we see that Japan's unemployment rate only tended to fall once GDP growth reached around 4%. However, from the 2000s, the unemployment rate started to fall even when there was only moderate growth. That shift coincided with the beginning of the decline in Japan's working age population (15–64 age group), suggesting that population trends have had a greater downward impact on supply than on demand (Figure 3).

The decline in Japan's population still has a long way to run. That means that, rather than easing, labor shortages are likely to become more serious over time. This leads us to consider its impact on the Japanese economy.

Generally speaking, when countries experience excess demand and a shortage of supply, the inflation rate tends to accelerate or the current account deficit deteriorates as imports increase. Growth in the current account deficit can also lead to a drop in the currency, which pushes up the domestic rate of inflation. In order to prevent runaway inflation, policymakers are then forced to target higher interest rates to encourage inflows of foreign capital. That could happen in Japan, given that Japan's declining population is a structural issue.

In other words, as the labor shortage becomes more serious, Japan faces a greater risk of becoming a low-growth economy with a current account deficit, high inflation, high interest rates, and a weak currency. That would resemble conditions in some emerging economies where policymakers are struggling to manage the economy. Although Japan would exit deflation, the outcome clearly would not be desirable. This could be one reason why Japan's declining population has led to a pessimistic long-term outlook for the economy.

II. Role of innovation and productivity increase

Population trends take a long time to change, so is the long-term outlook for Japan's economy destined to be negative? The above scenario assumes that there will be very limited innovation in Japan. Without innovation, there can be no increase in productivity to counter the shortage of supply caused by the drop in population. Also, without innovation, policymakers would need to set interest rates high to attract foreign funds and reduce the current account deficit.

However, not all countries with supply shortages and current account deficits are in bad positions. Japan could offset the impact of the decline in population by investing in innovation to boost domestic productivity, leading to growth in supply. Heavy investment in innovation would support stronger growth in the economy, resulting in higher inflation and interest rates. But the decline in the currency would probably be limited, because spending on innovation would boost Japan's export competitiveness, leading to improvement in the current account deficit.

Ultimately, the key to Japan's economic future lies in whether it can deliver the kind of innovation needed to offset the labor shortage caused by a declining population.

Productivity varies across Japan's various industries. While labor productivity is relatively high in sectors such as manufacturing, information and communications technology, and finance, it is relatively low in sectors such as wholesaling, retailing, transportation, construction, and services (Figures 4 and 5).

If we compare employment conditions DIs by industry in the BOJ's September 2014 Tankan survey and labor productivity by industry in 2012, we see that the industries with the lowest labor productivity are the ones that are most keenly aware of labor shortages (Figure 6). In other words, it may be the case that, as the economy as a whole begins to experience increasing labor shortages, the industries with the lowest productivity are the first to experience severe shortages. If so, it may be the case that, as Japan begins to see increasing labor shortages, the industries with the greatest potential (indeed, need) to innovate in order to raise their productivity are those with the lowest productivity (ie, especially nonmanufacturing industries).

While it is difficult to say exactly what innovations are needed, we can already find a number of hints.

When it comes to replacing relatively scarce labor with relatively cheap capital, the first thing that comes to mind is investment in automation, including robots. There are already examples of automation being used to overcome labor shortages, not only in manufacturing but also in nonmanufacturing.

Another example of innovation that comes to mind is making much greater use of land rather than labor as growing shortages of labor are matched by growing surpluses of land. Possible examples include greater use of solar farms and achieving more efficient logistics by building larger distribution centers.

Raising productivity generally requires investment for labor saving. In fact, productivity seems to be heavily influenced by capital stock per employee. (Figure 7)

There are many individual examples of efforts to deal with labor shortages. For example, the construction industry, one of those industries with low productivity and serious labor shortages, has developed a 3D technique called "business information modeling" (BIM). An increasingly serious shortage of drivers in the transportation industry has led to developments such as bimodal transport systems. The trend toward

automation and computerization will, of course, continue in all sectors of the economy and it is likely that increasing labor shortages will prompt more such labor-saving innovations.

This is not to say that innovation will flourish in every country that suffers from labor shortages.

Innovation requires a conjuncture of a number of conditions, including the level of education in a country, adequate infrastructure, and a hard-working labor force. Japan's generally high level of education and social stability would therefore seem to us to augur well for the development of labor-saving innovations. Over the next 10 years we think Japan's labor shortages are likely to stimulate growth-driving innovations that more than outweigh any negative consequences.

III. Prospect of growth strategies

The growth strategies include areas where great progress is being made and areas where future progress is awaited, but we think considerable achievements have been made in the following policies that directly and indirectly promote technological innovation: strengthening corporate governance, regulatory reforms for National Strategic Special Zones, GPIF investment reforms, electric power deregulation, and the promotion of various economic partnership agreements (EPAs). Trans-Pacific Partnership (TPP) negotiations are the most important aspect of moves to promote EPAs. Although these negotiations are lagging behind the initial schedule, we think this is largely because of the midterm elections in the US. A broad agreement is likely to be reached by mid-2015 and the removal of member countries' trade and investment barriers will likely spur competition and boost technological innovation.

The implementation of measures to eliminate childcare waiting lists marks an important achievement in terms of measures to secure labor and address the falling birth rate. However, we do not think enough other measures have been implemented in terms of reforming the labor market. In particular, we think that effort needs to be made to promote measures to diversify working patterns and ease regulations related to using foreign workers.

The revised Japan Revitalization Strategy includes radical reforms in the agricultural and medical fields that had been considered unlikely, such as reforms to agricultural cooperatives and the patient-proposed healthcare service system combining insured and uninsured services. Key points in regard to the growth strategies in future are how the government can steadily implement such measures and whether it can focus on deeper reforms, such as making it easier for companies to fire personnel.

IV. Medium-term outlook on Japan's economy

We next present the findings of our scenario analysis for the Japanese economy, including quantitative analysis. We first present our outlook for supply-demand conditions, inflation, and the current account

balance under each scenario. On this basis, we focus on monetary policy, long-term interest rates, and fiscal policy. Figure 9 shows an assumption of real GDP growth for the global economy, upon which we projected Japan's economic growth. In October 2014, the IMF released its latest medium-term growth forecast for the global economy through 2019. Our outlook over the period is well below the IMF's projection because we look for growth to trend well below the IMF's forecast for the US economy, which has a major bearing on the global economic cycle, while also assuming weaker economic growth in Europe and China.

1) Downside scenario

We present three scenarios on Japan that reflect the views contained in this report: (1) our main scenario, (2) our downside scenario (weaker-than-expected growth), and (3) our upside scenario (stronger-than-expected growth). We start with our downside scenario in order to highlight the problems faced by the Japanese economy. Under this scenario, we expect the potential growth rate to fall as efforts to boost the economy's supply capacity end in failure (Figure 10). For example, if efforts to bolster technological innovation do not proceed as planned, we estimate average annual growth in total factor productivity (TFP) will slow from an already lackluster 0.3% in 2011–15 to only 0.2% in 2016–25. In addition, we expect a sharp decline in the labor force participation rate as Japan's population ages to increase the negative contribution from labor input. We expect Japan's average annual potential growth to slow from 0.6% in 2011–15 to 0.5% in 2016–20 and 0.2% in 2021–25.

While supply capacity remains constrained, we expect average annual demand to grow a relatively healthy 1.0% in 2016–20 (Figure 11). We look for demand to be buoyed by a sustained increase in domestic demand, including consumer spending and capex, along with a rise in exports driven by a recovery in overseas demand. We expect public-sector spending to decline as private-sector demand grows.

This imbalance in supply-demand conditions will likely drive a rise in inflation. We think tighter supply-demand conditions will ensure that core CPI inflation (excluding the impact of consumption tax increases) will reach the BOJ's benchmark for price stability of 2% (y-y basis) in 2021. While we present our monetary policy outlook below, we essentially think that the BOJ will be forced to tighten monetary policy in order to ease this rising inflation. As such, we lower our average annual economic growth forecast for 2021–25 to 0.2%. Our scenario assumes supply constraints will weigh on economic growth. In assessing the outlook for Japan's current account balance, we consider the balance between Japan's savings and investment by category. With the government making only limited progress with its fiscal consolidation plans, we expect to see Japan transition from a nation of net savings to net spending as households and corporations reduce their savings. We think this is the same as the current account balance

moving into deficit as foreign savings turn net positive. The paring back of household and corporate savings reflects only modest improvement in household incomes and corporate earnings at the same time as consumer spending and investment increase. If domestic supply is unable to keep up with rising demand, Japan's reliance on imports will increase and lead to the current balance falling into the red. We think Japan's prolonged current account deficit should ease supply-demand conditions for the yen on overseas forex markets. As such, our USD/JPY forecast under our downside scenario assumes a weaker yen than under our main scenario.

2) Main scenario

Under our main scenario, innovation flourishes alongside capital accumulation and the rate of decline in labor force participation is only moderate, enabling the Japanese economy to overcome supply constraints. We expect the effects of flourishing innovation to go beyond improvement in productivity and growth in the economy's supply capacity; we also project increases in companies' expected growth rates and profitability, which in turn should bolster the corporate appetite for capex. This capex should feed further innovation, giving rise to a virtuous cycle between innovation and capex. As a consequence, we expect a greater boost to the economy's potential growth rate from TFP and capital inputs. Under this scenario, we see Japan's average annual potential growth rising to 0.8% in 2016–20 and 1.1% in 2021–25 (Figure 12). On the demand front, we expect capex—which we think will form a virtuous cycle with innovation, as discussed above—to remain buoyant (Figure 13). At the level of household finances, we think firming employment conditions will underpin growth in consumer spending. We think contraction in the labor force is unavoidable and anticipate a modest decline in the number of people in employment. However, we believe a tightening in labor supply-demand will hasten increases in per capita wages, lending added momentum to growth in employee compensation. On top of this, higher interest rates should bolster property income, thereby adding to households' disposable income. We look for exports to remain firm against a backdrop of a recovery in overseas demand and amid growth in overseas markets driven by trade treaties such as the TPP.

We forecast 1.2% average annual growth in real GDP for 2016–20 and 2021–25 and think any increase in inflation will be mild, because increased supply should mitigate any tightening in supply-demand. We think core CPI inflation (excluding the effect of consumption tax hikes) will reach the BOJ's target of 2% y-y in 2023, later than under our downside scenario (on the average annual basis, it will be 2024 before core CPI inflation reaches 2% y-y, but on a quarterly basis we think it will be 2023).

What, then, is the outlook for Japan's current account balance under our main scenario? To begin with our conclusion, our main scenario sees Japan maintaining a current account surplus. While we think

companies will ramp up capital spending, we expect technological innovation to enhance profitability and therefore anticipate only a modest decline in corporations' net savings. At the level of household finances, Japan's aging population is likely to erode the net household savings rate. However on a gross basis (taking into account factors such the impact of dwindling housing investment on fixed capital investment), we expect the balance between savings and investment to stay positive. Even assuming a government fiscal deficit, we think Japan as a whole will remain a nation of net savings, thereby keeping the current account from falling into the red.

Thus, if Japan can overcome supply constraints, we think that even at an economic growth rate of just over 1%, it should be possible to avoid the twin specters of rising inflation and a current account deficit.

3) Upside scenario

Under our upside scenario, innovation and capital accumulation make greater progress than under our main scenario. Labor input also stays broadly unchanged despite a decline in the population, owing to improvement in the labor force participation rate. Under this scenario, we see Japan's average annual potential growth rising substantially to 1.2% in 2016–20 and 1.5% in 2021–25 (Figure 14).

Turning to demand, we expect higher growth than under our main scenario in more or less all areas of private-sector demand, but our projections for capex are more eye-catching (Figure 15). We expect buoyant capex under our main scenario as well, but under our upside scenario we project even faster capex expansion owing to strengthening of a virtuous cycle between innovation and capex. We also expect stronger momentum in exports, against a backdrop of major progress in opening up overseas markets and of expansion of production capacity making it easier to respond to growth in overseas demand.

We forecast 1.6% average annual growth in real GDP in 2016–20 and growth of 1.5% in 2021–25.

Although we forecast that strong economic growth around the 1.5% level will continue, we only expect a slow rise in inflation owing to substantial expansion of supply capacity. We think the core CPI inflation rate (excluding the effect of consumption tax hikes) will reach the BOJ's target of 2% y-y in 2024, one year later than under our main scenario.

We expect Japan to maintain a current account surplus, as under our main scenario. We think the government's fiscal deficit will shrink owing to higher tax revenues accompanying the higher economic growth rate. We expect a substantial rise in capex by the corporate sector, but only a limited decline in corporations' profits owing to improvement in their profitability. We also think that Japan as a whole will maintain a savings surplus, despite a decline in the household sector's net savings.

V. Monetary policy scenarios

We now consider the likely impact of two additional rounds of monetary easing on monetary policy. We think that the core CPI inflation rate will probably remain in a range of 1.0–1.5% for some time after FY15 H2 and that the BOJ will probably have more opportunities to implement additional monetary easing if it remains committed to its inflation target. However, we think that the BOJ's next response to lower-than-expected inflation is more likely to be the adoption of a more flexible target, rather than continued additional monetary easing. Faced with an inflation rate well below its 2% target, we think the BOJ will recognize the limitations of monetary easing as a means of increasing the inflation rate in the near term. We therefore think it will adopt a more flexible stable inflation target (by aiming for a 2% inflation rate over the longer term rather than in the near term) and seek to desist from implementing additional monetary easing every time inflation remains lower than it has expected.

We see the publication of the BOJ's April 2016 Outlook Report as the most likely occasion for the bank to recognize that it had almost certainly failed to achieve its 2% inflation target "in or around FY15."

We think that once the BOJ has adopted a more flexible (ie, longer-term) 2% inflation target, it will maintain the rate at which it is expanding the monetary base for some time before starting to taper. We estimate that if the BOJ continues to purchase ¥80trn of long-term JGBs every year until 2020, it will find itself owning some 70% of long-term JGBs issued. Rather than simply owning the lion's share of long-term JGBs, it will eventually find itself the sole owner.

However, we expect the BOJ to start to taper before that happens. We see April 2018, when the current governor, Haruhiko Kuroda, will finish his term in office, as the likely start of tapering. Although it may be difficult for the BOJ to start to taper (and therefore end the quantitative and qualitative easing (QQE) that Mr Kuroda has sought to use as the instrument for achieving the 2% inflation target) as long as he is still the governor, not to do so will lead to the BOJ becoming the sole owner of all long-term JGBs and risk driving home the point that financial markets are funding the fiscal deficit. We therefore think that the BOJ will probably seek to avert this risk by starting to taper as soon as Mr Kuroda steps down as governor. Readers may recall that there was a radical change in monetary policy when Mr Kuroda succeeded his predecessor, Masaaki Shirakawa. There would therefore be nothing unusual if a change of governor marked such a change of policy. We expect tapering to continue gradually for two years (ie, until March 2020).

In the scenarios we have described, the BOJ starts to taper in April 2018, at which point we expect it to own roughly 50% of long-term JGBs outstanding. It would therefore dominate the Japanese bond market. If the BOJ, as the biggest buyer in the market, then started to (or announced that it would start to) reduce

its JGB purchases, it would not be surprising if long-term interest rates rose on the expectation that market supply-demand conditions would deteriorate.

VI. Fiscal policy scenarios

Finally we take a look at fiscal issues facing the Japanese economy. According to MOF, outstanding national and local government long-term debt is forecast to reach ¥971trn at end-FY14. Outstanding debt based on SNA, which includes short-term debt and is used for international comparisons, is an even larger ¥1,142trn (as of end-FY12). Although the need for fiscal consolidation has been pointed out, looking at the postponement of the consumption tax hike scheduled for October 2015, it is hard to say there has been much progress on this front under Abenomics.

Currently, the government's near-term fiscal consolidation targets are to halve the primary balance (combined central and local governments) as a percentage of GDP compared with FY10 to -3.3% in FY15 and achieve a primary surplus by FY20. In our simulation of the trajectory of the primary balance, we assume for all three scenarios a primary balance as a percentage of GDP of -3.6 in FY15, which falls short of the government's target of -3.3 (Figure 16). In FY20, the primary balance is -2.3 in the downside scenario, -2.1 in the main scenario, and -1.8 in the upside scenario. Depending on the steering of financial policies going forward, it is possible that the government's FY15 target could be achieved. The target for FY20 will be harder to attain, however. Although an exit from deflation will improve tax revenues, it will also raise expenditure. Exiting deflation in and of itself is unlikely to lead to a dramatic improvement in the primary balance.

We also assume in our simulation that after the consumption tax has been hiked in FY17, the rate will be raised another 1ppt each in FY20, FY22, and FY24, bringing it to 13%. After witnessing the postponement of the increase scheduled for October 2015 in response to the economic slowdown following the hike in April 2014, the number of people who think it will be difficult to raise the consumption tax further in FY18 and beyond has likely grown. However, as described below, from a longer-term view the need for fiscal consolidation is very likely to grow. In a timeline going out to FY25, it is difficult to imagine that the consumption tax hike scheduled for FY17 will be the last one.

At the same time, we also assume that the corporation tax rate will be lowered. The effective corporation tax rate currently stands at 34.64%. The ruling LDP's manifesto calls for initiating corporation tax reform from FY15 and lowering the rate to below 30% in some years. The lowering of the corporation tax rate, one of the government's key growth strategies, will most likely be implemented in stages. We accordingly have assumed in all three scenarios that the effective corporation tax rate will be cut by 2ppt each in FY15, FY16, and FY17, to below 30%. We further assume that the effective tax rate will be reduced again by

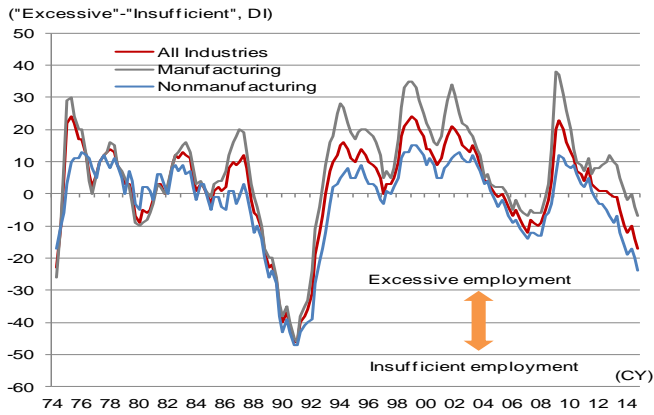
2ppt each in FY21 and FY22, to an eventual 24.64%, bringing it in line with prevailing rates in China, Korea, and other Asian countries. These tax rate reductions do not mean a commensurate reduction in government tax revenues, however, because they will be accompanied in part by receipts from alternative revenue sources. Here we assume alternative revenue sources will cover around 40% of the tax cuts noted above.

Now that we have laid out our tax system assumptions, we look at the fiscal balance adding in interest payments to the primary balance. Interest payments have begun to increase in line with higher interest rates and this will have a negative impact on the fiscal balance. Looking at the trajectory of the fiscal balance as a percentage of GDP in the 2020s, improvement is sustained in the upside scenario but comes to a halt in the main scenario (Figure 17). In the downside scenario, the negative trend becomes more pronounced. Even though we have assumed that the consumption tax will be raised by a cumulative 3ppt in the 2020s (to 13%), as noted earlier, the upside scenario aside, an improvement in the fiscal balance will be difficult to achieve.

However, this does not mean a significant worsening of the debt balance as a percentage of GDP by FY25. This ratio trends downward in the upside and main scenarios (Figure 18). Even in the downside scenario the pace of increase is limited. This is because the rate of increase in the debt balance is lower or not much greater than nominal GDP growth, the denominator. For example, even if the debt balance is ¥1,000trn and increasing at ¥30trn a year, growth in the balance will be 3%. If nominal GDP is also growing at 3%, there will be no change in the debt balance as a percentage of GDP.

Based on our fiscal outlook through FY25, while we cannot expect significant improvement in the primary and fiscal balances, the risk of fiscal deterioration as measured by the debt balance as a percentage of GDP is not all that great. We need to note that our long-term simulation is based on a number of assumptions and our estimates therefore need to be interpreted with a degree of latitude. Lastly, analyzing Japan's fiscal outlook through FY25 may not be sufficient to capture a whole fiscal picture. There is a risk that a sustained increase in interest payments from FY26 leads to deterioration in fiscal conditions beyond FY25. We hope to see steady progress on fiscal consolidation in order that such a risk does not come to pass.

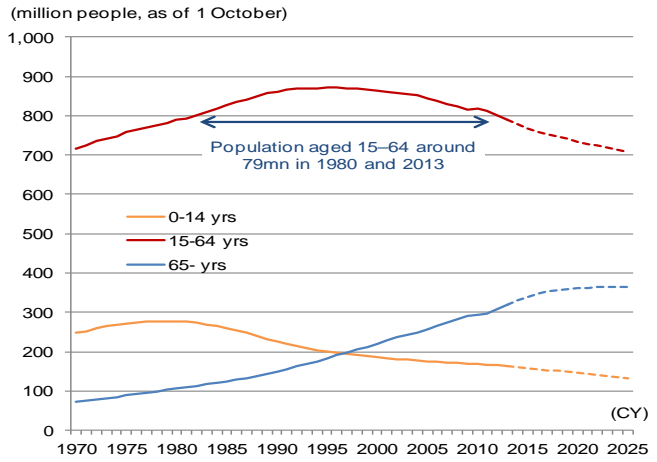
Fig.1: Current employment conditions DI by industry (all company sizes)



Note: Final data point is future employment conditions DI as of September 2014.

Source: Nomura, based on BOJ data

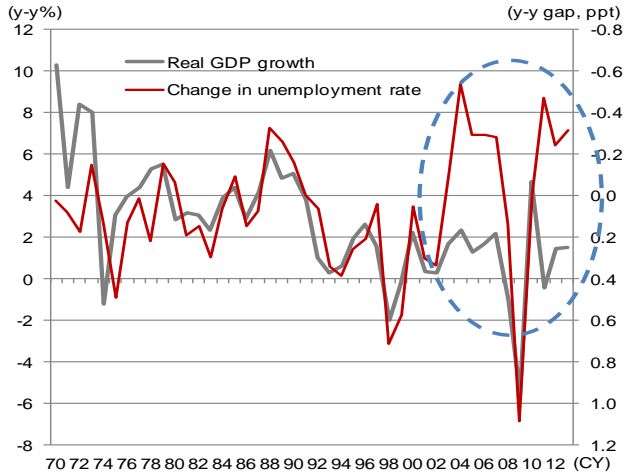
Fig.2: Japan's population by age group



Note: Data from 2014 based on estimates by the National Institute of Population and Social Securities Research

Source: Nomura, based on Ministry of Internal Affairs and Communications (MIC) and National Institute of Population and Social Security Research data

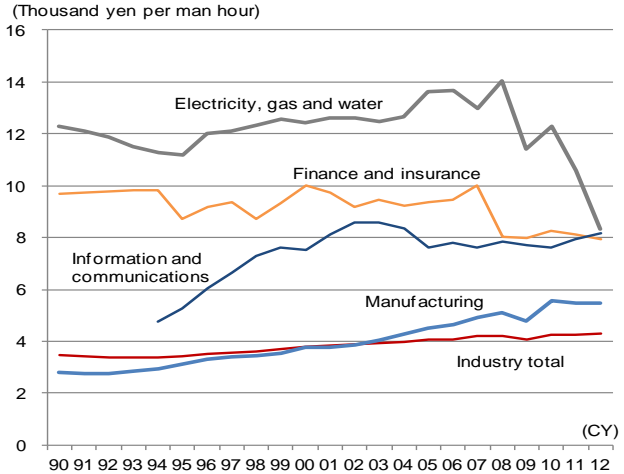
Fig. 3: Japan's real GDP growth and unemployment rate



Note: Estimates for 2014 based on actual figures for the first three quarters

Source: Nomura, based on Cabinet Office and MIC data

Fig. 4: Labor productivity (1)



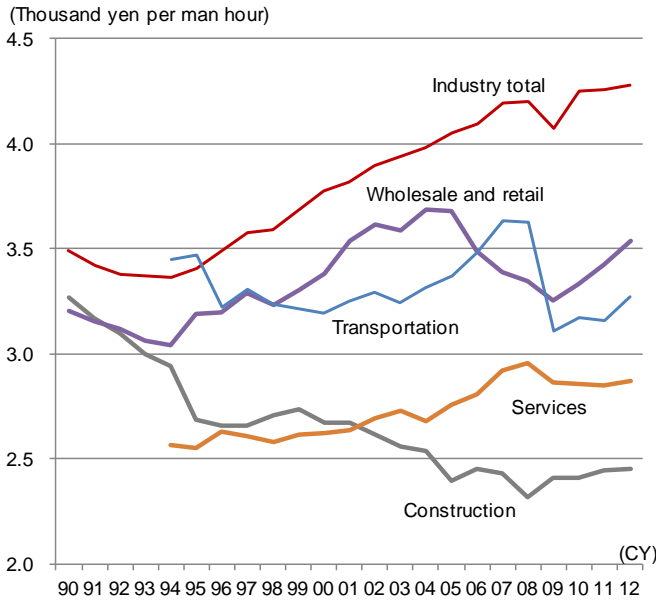
Note: Labor productivity = real GDP (at 2005 prices) / (number of persons employed x

hours worked per person). Real GDP for the period through 1993 has been backcalculated

using the growth rate for real GDP at 2000 prices.

Source: Nomura, based on Cabinet Office data

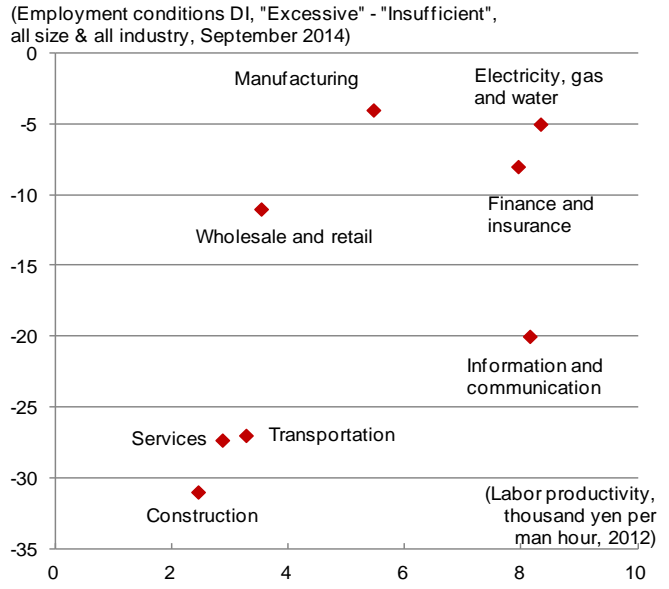
Fig. 5: Labor productivity (2)



Note: Labor productivity = real GDP (at 2005 prices) / (number of persons employed x hours worked per person). Real GDP for the period through 1993 has been backcalculated using the growth rate for real GDP at 2000 prices.

Source: Nomura, based on Cabinet Office data

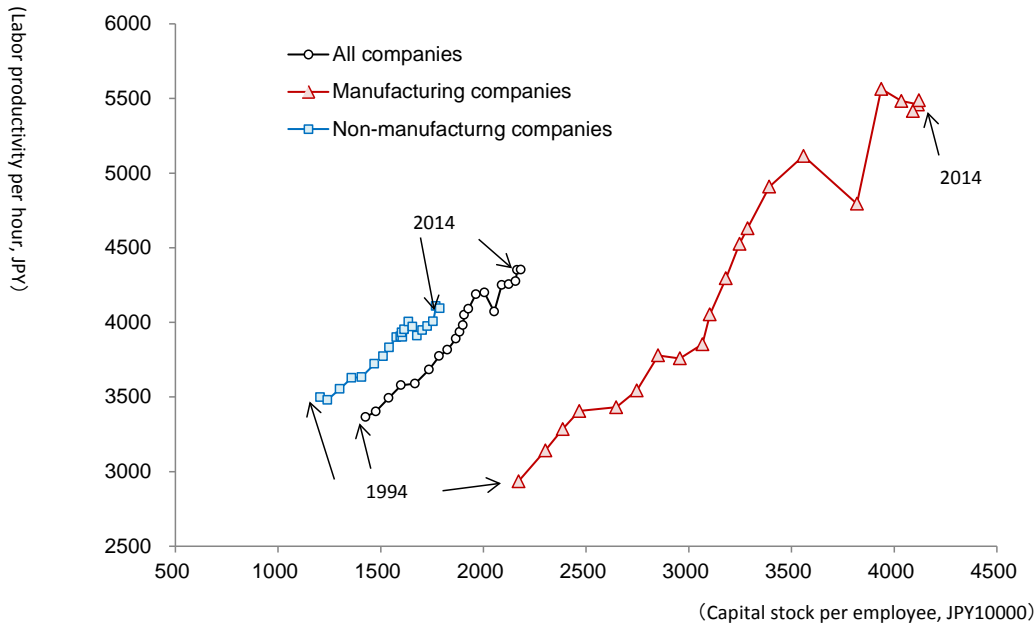
Fig. 6: Labor productivity and labor shortages



Note: Labor productivity = real GDP (at 2005 prices) / (number of persons employed x hours worked per person). The employment conditions DI for services is the average for business services, personal services, and hotel/catering services.

Source: Nomura, based on the BOJ and the Cabinet Office data

Fig.7 : Relationship between labor productivity and per capita capital stock



Source: CEIC data, Nomura

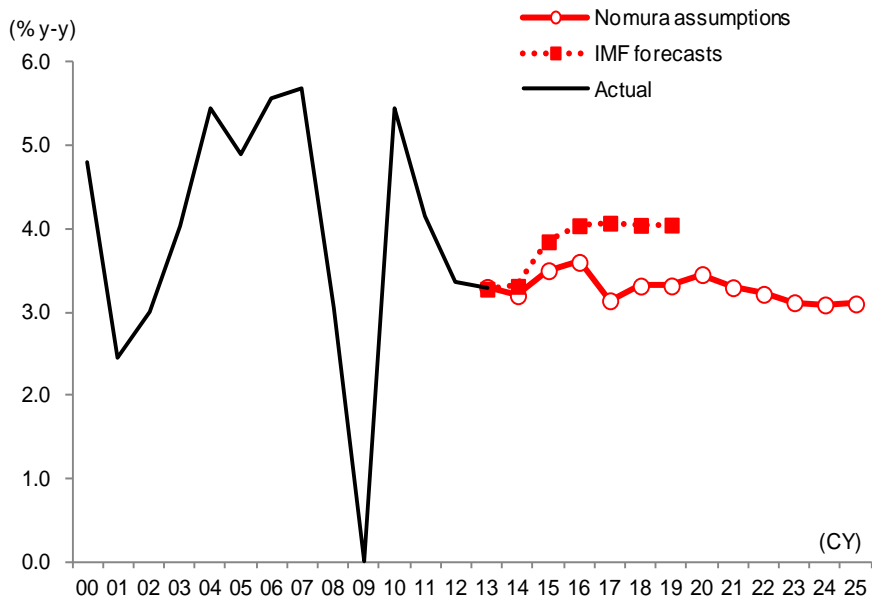
Fig. 8: Evaluation of progress in growth strategies and need for further improvement and expansion

Individual area of the growth strategies	Aim and nature of strategy					Achievement up to now (relatively major achievements are underlined)	Future challenges
	Promotion of technological innovation	Securing labor force	Improving falling birth rate	Revitalizing regional economies	Fiscal consolidation		
1. Industry Revitalization Plan							
1. Accelerating structural reform program (Vitalizing industries)							
Enhancing corporate governance, support for ventures businesses, etc.	✓					<u>Progress in strengthening corporate governance, with putting together of Japanese version of Stewardship Code and law passed to promote appointment of external directors</u>	TSE expected to put together Corporate Governance Code in time for 2015 general shareholders' meeting season
2. Reforming the employment system and reinforcing human resources capabilities							
2-1. Labor movement without unemployment / Enhancing matching function / Realizing various ways of working Reforms such as diversifying working patterns, introduction of system of evaluation not based on working hours but on performance		✓	✓			Policy of introducing white collar exemption was decided in June 2014, but still only half done overall	Moving toward promotion of measures such as expanding system of diversified regular workers (for whom working hours, place or type of work are restricted) and revitalizing the external labor market, but in future regulations on firing employees need to be relaxed
2-2. Promoting active social participation by women / Promoting active social participation by the young and the elderly / Utilizing foreign human resources Elimination of waiting lists for childcare, increasing proportion of women in managerial posts, etc.		✓	✓	✓		<u>Measures already in place to secure places for 400,000 children by end-2017 through budget measures. Policy of ensuring 300,000 after-school club places for 300,000 children by end-2019 also announced</u>	Moves to ease regulations for taking on foreign workers are still inadequate; this is a challenge for the future
2-3. University reforms / Strengthening human resources Aiming for at least 10 Japanese universities to be ranked in world's top 100, etc.	✓						Training of staff needed for globalization should be expanded
3. Promoting innovation in science and technology / Becoming the world's leading intellectual property-based nation							
Shorten patent examination process, etc.	✓						Should steadily move forward with measures to expand the robot market
4. Becoming the world's leading IT society							
Use of big data, etc.	✓						Moving toward disclosure of public data
5. Further strengthening Japan's international competitiveness as a							
5-1. Realizing National Strategic Special Zones / Opening up rights to operate public facilities, etc. to the private sector (expanding utilization of PPP/PFI) / Improving infrastructure such as airports, ports and harbors / Improving competitiveness of cities Setting up of National Strategic Special Zones, lowering of corporation tax, etc.	✓	✓	✓	✓	✓	<u>Six areas selected as National Strategic Special Zones, specific projects being discussed at committees for the zones. On subject of cutting corporation tax, policy decided to lower it to below 30% over several years</u>	Further deregulation needed in National Strategic Special Zones and need to aim to lower corporation tax rate to around 25%. Measures in regard to PPPs/PFIs also need to be strengthened
5-2. Stimulating financial and capital markets / Management of public and quasi-public funds, etc. GPIF investment reforms, etc.	✓					<u>Major achievement of change to GPIF's investment asset allocation</u>	Steps need to be taken to strengthen Tokyo's international financial center functions
5-3. Overcoming constraints of environmental/energy Electricity system reforms, etc.	✓			✓		<u>Major progress in electricity reforms via two rounds of legislation, retail market to be deregulated in 2016, reforms to be completed by 2020</u>	Need to steadily carry out electricity reforms on top of achievements to date
6. Achieving regional revitalization and regional structural reform / Achieving reform among mid-ranking companies, SMEs and micro							
Compilation of regional growth strategies				✓		Discussion at Regional Industrial Competitiveness councils still at preparatory stage	Growth strategies for each region need to be put together and implemented

2. Strategic Market Creation Plan							
Theme 1: Extending the nation's healthy life expectancy							
Internet sales of over-the-counter drugs, etc.	✓				✓	Online sales of OTC drugs broadly implemented	Policy decided to establish not-for-profit holding company system to enable management of several healthcare and nursing care companies and reforms to introduce patient-proposed healthcare service system (combination of insured and uninsured healthcare services). Need to be steadily implemented in future. ICT also needs to be used in healthcare
Theme 2: Realizing clean and economical energy supply and demand							
Renewable energy, hydrogen-based society, etc.	✓						
Theme 3: Building safe, convenient, and economical next-generation infrastructure							
Formulation of the Basic Plan for Life Extension of Infrastructure, etc.	✓				✓		Focus on moves to promote automated driving systems
Theme 4: Building regional communities that use their unique local resources to appeal to the world							
Theme 4-1: A rich rural society which produces the world's highest-quality agricultural, forestry and fishery products and food produce Reform of agricultural cooperatives, "sixth industrialization," promotion of exports, etc.	✓				✓	Legislation in place for Public Intermediate Organization for Farmland Consolidation with aim of concentrating agricultural land in the hands of leading farmers. Plan to end policy of rice acreage reduction in 2018 too	Reforming agricultural cooperatives and agricultural committees is an important task
Theme 4-2: A society which makes use of potential such as Promote tourism with view to Olympics, etc.					✓	Major achievement of a large increase in overseas visitors to Japan, partly owing to easing of visa requirements, mainly for visitors from ASEAN countries	Further relaxing of visa requirements and establishment of integrated resorts, including casinos, is an issue for the future
3. Strategy of Global Outreach							
1. Build strategic trade relationships, promote economic partnerships							
Promotion of economic partnerships as base for global economic activity	✓						
2. Strategic measures to secure overseas markets							
(1) Infrastructure exports, securing natural resources	✓					Broad EPA agreement between Japan and Australia, progress also on infrastructure exports through summit diplomacy	TPP agreement would bring major opportunities, broad agreement expected in mid-2015
(2) Priority support for SMEs with potential				✓			
(3) Promotion of Cool Japan	✓						
3. Establishment of a base for funds and personnel to support							
(1) Boost foreign direct investment	✓				✓		
(2) Strengthen human resources to cope with	✓						

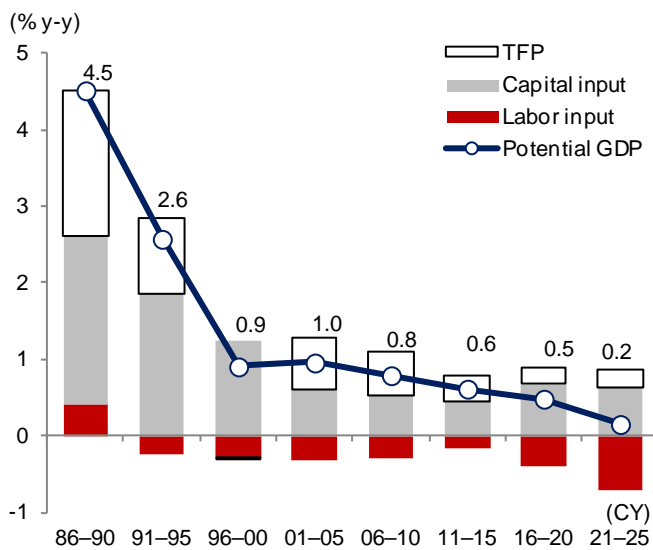
Source: Nomura, based on revised Japan Revitalization Strategy and Prime Minister of Japan and His Cabinet's website

Fig. 9: Assumptions for global economic growth



Source: IMF data, Nomura

Fig. 10: Real GDP growth outlook (downside scenario)



Downside scenario: assumptions underlying our potential growth rate forecast

- We expect average annual growth in TFP to slow from 0.3% in 2011–15 to 0.2% in 2016–25.
- We estimate the population aged 15 and over using the midpoints of the ranges for birth and death rates supplied by the National Institute of Population and Social Securities Research. We estimate this population falling from 110.80mn in 2013 to 107.40mn in 2025. We assume the labor force participation rate (by gender and five-year age categories) holding steady from 2013. We estimate the labor force participation rate for the overall population will decline from 59.3% in 2013 to 56.0% in 2025 as the percentage of older workers (where the labor force participation rate is low) increases.
- Assuming a capital depreciation rate of 4.1% (the average value since 2000), we expect capital stock to grow on increased capex.

Note: (1) Shows average growth for each period. (2) Potential growth rate estimated based on Cobb-Douglas production function as described as follows: $Y = AK^{1-\alpha}L^{\alpha}$. Y = total production (GDP), K = capital stock, L = labor force, A = TFP, and α = labor's relative share (fixed at 0.65).

Source: Nomura, based on Cabinet Office, MHLW, MIC, and National Institute of Population and Social Security Research data

Fig. 11: Economic data (downside scenario)

	CY:	13	14E	15E	16E	17E	18E	19E	20E	21E	22E	23E	24E	25E	16E–20E	21E–25E
Real GDP (% y-y)		1.6	0.2	1.5	1.5	0.4	0.9	1.1	0.9	0.3	0.1	0.3	0.1	0.2	1.0	0.2
<Key demand items>																
Private-sector consumption		2.1	-1.1	0.3	1.5	0.4	0.8	0.9	0.7	0.8	0.6	0.8	0.6	0.8	0.9	0.7
Private-sector housing investment		8.7	-4.7	-7.1	-1.2	-8.4	-9.3	-6.2	-8.9	-7.3	-7.1	-5.9	-6.2	-5.9	-6.8	-6.5
Private-sector capital expenditure		0.4	4.7	3.1	4.5	3.4	4.0	3.7	3.8	-1.7	-2.2	0.3	0.5	1.0	3.9	-0.4
Growth in private-sector inventories		-0.4	0.1	-0.1	0.0	-0.2	0.0	0.1	-0.1	0.1	-0.1	0.1	-0.1	0.0	0.0	0.0
Government final consumption exper		1.9	0.3	1.4	1.3	1.7	1.6	1.5	1.4	1.3	1.2	1.1	1.1	0.9	1.5	1.1
Public fixed capital formation		8.0	3.1	-0.2	-7.4	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.9	-3.0
Change in public-sector inventories		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net exports (ppt contribution y-y)		-0.3	0.3	0.6	0.1	-0.1	-0.2	-0.2	0.0	-0.1	0.1	-0.4	-0.3	-0.4	-0.1	-0.2
Exports		1.5	7.9	5.7	4.4	2.2	3.7	4.2	4.5	4.0	3.7	2.9	2.9	2.9	3.8	3.3
Imports		3.1	6.9	2.2	4.7	3.5	5.3	6.0	5.2	4.8	3.3	5.1	4.5	5.1	4.9	4.6
Nominal GDP (% y-y)		1.1	1.7	3.0	2.3	2.0	1.8	1.8	2.4	1.7	1.9	1.8	2.0	1.7	2.1	1.8
Current account balance (as % of nomin		0.2	0.9	1.6	1.4	-0.5	-0.4	-1.1	-1.7	-0.7	-0.3	-0.4	-1.0	-1.1		
Primary fiscal balance (as % of nominal		-6.2	-5.1	-3.6	-3.5	-2.9	-2.6	-2.6	-2.3	-2.2	-1.9	-1.9	-1.7	-1.7		
Fiscal balance (as % of nominal GDP)		-6.7	-5.9	-5.9	-5.5	-4.8	-4.5	-4.5	-4.3	-4.4	-4.5	-4.9	-5.2	-5.6		
Fiscal deficit (¥trn)		240.7	244.0	243.5	244.4	245.3	246.0	246.8	246.2	247.2	247.6	248.8	249.9	251.9		
CPI (ex fresh food) (% y-y)		0.4	2.7	1.4	1.2	2.4	1.6	1.4	2.2	2.2	2.7	2.3	2.7	2.3		
CPI (ex impact of consumption tax hike,		0.4	1.2	0.9	1.2	1.3	1.3	1.4	1.7	2.0	2.1	2.1	2.1	2.1		
GDP deflator (% y-y)		-0.5	1.5	1.5	0.8	1.5	0.9	0.7	1.5	1.4	1.9	1.5	1.9	1.5		
Uncollateralized overnight call rate		0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.75	1.75	2.25	2.25	2.25		
JGB yield (10-year)		0.74	0.50	0.70	0.80	0.91	1.17	1.49	1.69	2.02	2.45	2.65	2.65	2.65		
Dollar/yen rate		105	120	125	130	122	114	117	119	121	123	126	128	130		
North Sea Brent (\$/bbl)		110.8	83.3	82.3	84.8	92.9	92.8	92.0	91.4	90.4	90.5	90.5	90.4	90.5		

Note: (1) Units are % unless otherwise indicated. Y-y growth for real GDP, nominal GDP, CPI, and GDP deflator. Main demand components for real GDP are private-sector

inventory growth, public-sector inventory growth, and y-y change in contribution from net imports. Current account balance, primary fiscal balance, fiscal balance, and fiscal

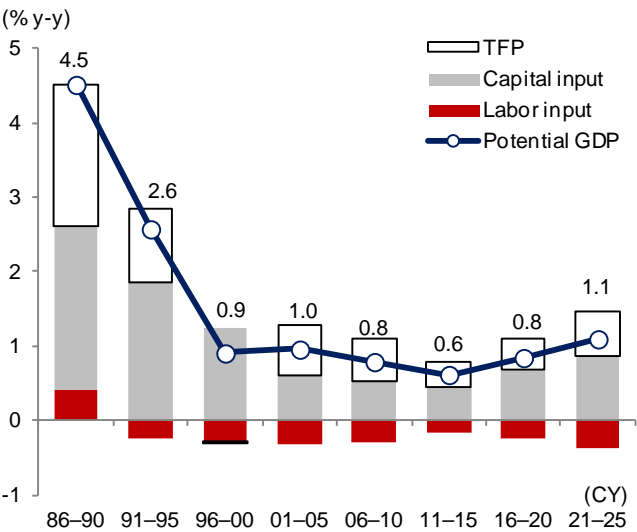
deficit are percentages of nominal GDP. Uncollateralized overnight call rate, 10-year JGB yield, USD/JPY, and North Sea Brent crude price are end-period. (2) Current account

balance, primary fiscal balance, fiscal balance, and fiscal deficit on fiscal year basis. Other data on calendar year basis. (3) Fiscal deficit on IMF basis. (4) We assume

consumption tax rate will be hiked 2ppt in April 2017 and 1ppt each in April 2020, April 2022, and April 2024. (5) Data show average growth rates for 2016–20 and 2021–25.

Source: Nomura, based on Cabinet Office, BOJ, MOF, and MIC data

Fig. 12: Real GDP growth outlook (main scenario)



Main scenario: assumptions underlying
our potential growth rate forecast

- We expect average annual growth in TFP to speed up from 0.3% in 2011–15 to 0.4% in 2016–20 and 0.6% in 2021–25.
- We estimate the population aged 15 and over using the midpoints of the ranges for birth and death rates supplied by the National Institute of Population and Social Securities Research. We estimate this population falling from 110.80mn in 2013 to 107.40mn in 2025. We divided the labor force participation rate into gender and five-year age categories and for those showing a strong correlation with real GDP growth, regressed the labor force participation rate on the outlook for real GDP growth. For women aged 25–64, labor force participation rates have been rising regardless of economic circumstances and we assume this trend will continue. Also, under the revised Act Concerning Stabilization of Employment of Older Persons, it will become mandatory from 2025 for companies to offer continuing employment to all employees who wish to stay on after reaching 60, up to the age of 65. We accordingly assume the overall labor force participation rate for men and women aged 60–64 will increase from 61% in 2013 to 66% in 2025. Based on the above, we expect the labor force participation rate for the overall population to decline from 59.3% in 2013 to 58.3% in 2025.
- Assuming a capital depreciation rate of 4.1% (the average value since 2000), we expect capital stock to grow on increased capex.

Note: (1) Shows average growth for each period. (2) Potential growth rate estimated based on Cobb-Douglas production function as described as follows. $Y = AK^{1-\alpha}L^\alpha$. Y = total production (GDP), K = capital stock, L = labor force, A = TFP, and α = labor's relative share (fixed at 0.65).

Source: Nomura, based on Cabinet Office, MHLW, MIC, and National Institute of Population and Social Security Research data

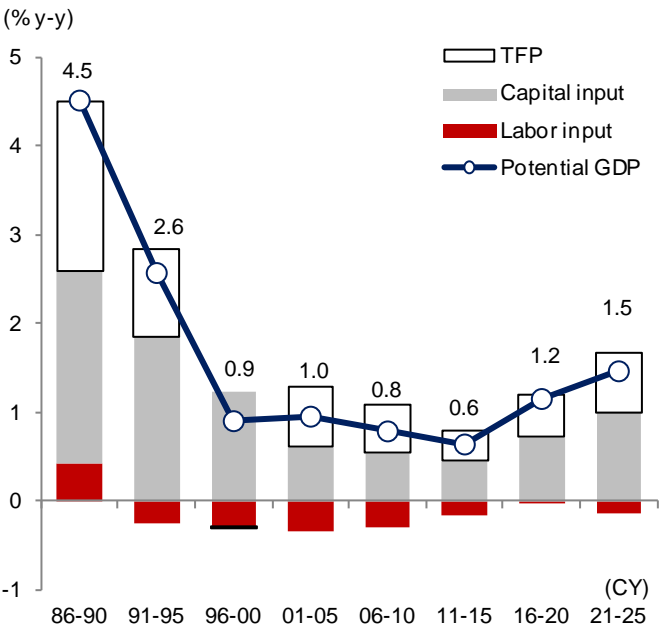
Fig. 13: Economic data (main scenario)

	CY:	13	14E	15E	16E	17E	18E	19E	20E	21E	22E	23E	24E	25E	16E–20E	21E–25E
Real GDP (% y-y)		1.6	0.2	1.5	1.5	0.7	1.2	1.4	1.2	1.4	1.1	1.2	1.0	1.2	1.2	1.2
<Key demand items>																
Private-sector consumption		2.1	-1.1	0.3	1.5	0.5	0.9	1.0	0.9	1.1	0.9	1.2	1.0	1.3	1.0	1.1
Private-sector housing investment		8.7	-4.7	-7.1	-1.2	-7.4	-8.3	-5.2	-6.9	-4.8	-4.6	-3.4	-3.7	-3.4	-5.8	-4.0
Private-sector capital expenditure		0.4	4.7	3.1	4.5	3.8	4.5	4.2	4.5	3.8	3.3	2.8	2.5	2.5	4.3	3.0
Growth in private-sector inventories		-0.4	0.1	-0.1	0.0	-0.2	0.0	0.1	-0.1	0.1	-0.1	0.1	-0.1	0.0	0.0	0.0
Government final consumption expenditure		1.9	0.3	1.4	1.3	1.7	1.6	1.5	1.4	1.3	1.2	1.1	1.1	0.9	1.5	1.1
Public fixed capital formation		8.0	3.1	-0.2	-7.4	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.9	-3.0
Change in public-sector inventories		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net exports (ppt contribution y-y)		-0.3	0.3	0.6	0.1	0.0	0.0	0.0	0.1	-0.1	0.1	-0.1	0.0	-0.1	0.0	0.0
Exports		1.5	7.9	5.7	4.4	2.4	3.9	4.4	4.7	4.2	4.2	3.9	3.9	3.9	4.0	4.0
Imports		3.1	6.9	2.2	4.7	3.0	4.7	5.3	5.0	5.1	4.3	4.9	4.2	4.7	4.5	4.6
Nominal GDP (% y-y)		1.1	1.7	3.0	2.3	2.2	2.1	2.0	2.5	2.4	2.6	2.6	2.7	2.5	2.2	2.6
Current account balance (as % of nominal GDP)		0.2	0.9	1.6	1.4	2.0	2.0	1.3	0.8	0.6	0.2	0.3	0.4	0.4		
Primary fiscal balance (as % of nominal GDP)		-6.2	-5.1	-3.6	-3.5	-2.8	-2.5	-2.5	-2.1	-1.8	-1.4	-1.2	-0.9	-0.7		
Fiscal balance (as % of nominal GDP)		-6.7	-5.9	-5.9	-5.5	-4.8	-4.4	-4.4	-4.1	-4.0	-3.7	-3.8	-3.8	-3.9		
Fiscal deficit (¥trn)		240.7	244.0	243.5	244.4	244.8	245.0	245.4	244.5	243.6	242.1	240.8	239.2	238.2		
CPI (ex fresh food) (% y-y)		0.4	2.7	1.4	1.2	2.3	1.6	1.3	2.0	1.8	2.3	2.1	2.5	2.1		
CPI (ex impact of consumption tax hike, % y-y)		0.4	1.2	0.9	1.2	1.3	1.2	1.3	1.5	1.6	1.8	1.9	2.0	1.9		
GDP deflator (% y-y)		-0.5	1.5	1.5	0.8	1.5	0.9	0.6	1.3	1.0	1.5	1.3	1.7	1.3		
Uncollateralized overnight call rate		0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.50	1.00	1.50		
JGB yield (10-year)		0.74	0.50	0.70	0.80	0.92	1.19	1.51	1.70	1.73	1.75	1.97	2.20	2.40		
Dollar/yen rate		105	120	125	130	120	110	110	110	110	110	110	110	110		
North Sea Brent (\$/bbl)		110.8	83.3	82.3	84.8	92.9	92.8	92.0	91.4	90.4	90.5	90.5	90.4	90.5		

Note: (1) Units are % unless otherwise indicated. Y-y growth for real GDP, nominal GDP, CPI, and GDP deflator. Main demand components for real GDP are private-sector inventory growth, public-sector inventory growth, and y-y change in contribution from net imports. Current account balance, primary fiscal balance, fiscal balance, and fiscal deficit are percentages of nominal GDP. Uncollateralized overnight call rate, 10-year JGB yield, USD/JPY, and North Sea Brent crude price are end-period. (2) Current account balance, primary fiscal balance, fiscal balance, and fiscal deficit on fiscal year basis. Other data on calendar year basis. (3) Fiscal deficit on IMF basis. (4) We assume consumption tax rate will be hiked 2ppt in April 2017 and 1ppt each in April 2020, April 2022, and April 2024. (5) Data show average growth rates for 2016–20 and 2021–25.

Source: Nomura, based on Cabinet Office, BOJ, MOF, and MIC data

Fig. 14: Real GDP growth outlook (upside scenario)



Upside scenario: assumptions underlying our potential growth rate forecast

- We expect annual average growth in TFP to speed up from 0.3% in 2011–15 to 0.5% in 2016–20 and 0.7% in 2021–25.
- We estimate the population aged 15 and over using the midpoints of the ranges for birth and death rates supplied by the National Institute of Population and Social Securities Research. We estimate this population falling from 110.80mn in 2013 to 107.40mn in 2025. The government’s growth strategies aim for greater labor force participation by women, young people, and the elderly and sets employment rate targets for these groups. The government wants the labor force participation rates for these groups to rise by 2020 to targets converted from the unemployment rate as of September 2014 and then to maintain an upward trend thereafter. For the other groups, as employment rate targets have not been set labor force participation rates for the various age groups are based on historical trends. The growth strategies’ employment rate targets for 2020 are 73% (69.5% in FY13) for women aged 25–44, 78% (75%) for men and women aged 20–34, and 65% (59%) for men and women aged 60–64. Based on the above, we expect the labor force participation rate for the overall population to rise from 59.3% in 2013 to 60.4% in 2025.
- Assuming a capital depreciation rate of 4.1% (the average value since 2000), we expect capital stock will grow on increased capex.

Note: (1) Shows average growth for each period. (2) Potential growth rate estimated based on Cobb-Douglas production function as described as follows. $Y = AK^{1-\alpha}L^\alpha$. Y = total production (GDP), K = capital stock, L = labor force, A = TFP, and α = labor’s relative share (fixed at 0.65).

Source: Nomura, based on Cabinet Office, MHLW, MIC, and National Institute of Population and Social Security Research data

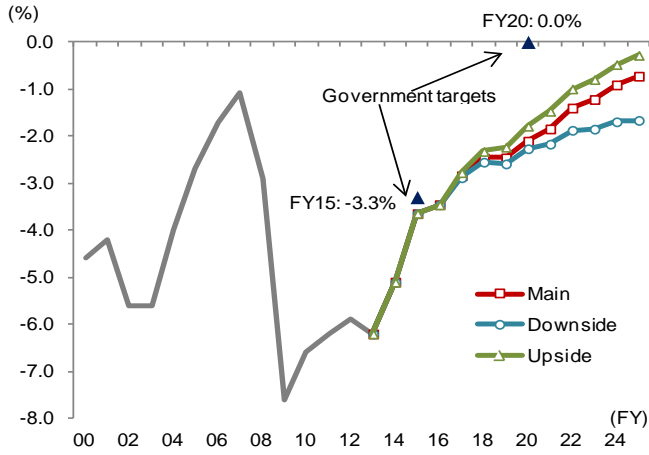
Fig. 15: Economic data (upside scenario)

	CY:	13E	14E	15E	16E	17E	18E	19E	20E	21E	22E	23E	24E	25E	16E–20E	21E–25E
Real GDP (% y-y)		1.6	0.2	1.5	1.5	1.1	1.6	1.8	1.7	1.8	1.4	1.6	1.2	1.3	1.6	1.5
<Key demand items>																
Private-sector consumption		2.1	-1.1	0.3	1.5	0.9	1.3	1.4	1.3	1.5	1.1	1.4	1.2	1.5	1.2	1.3
Private-sector housing investment		8.7	-4.7	-7.1	-1.2	-5.4	-6.3	-3.2	-4.9	-2.8	-2.6	-1.4	-1.7	-1.4	-4.2	-2.0
Private-sector capital expenditure		0.4	4.7	3.1	4.5	5.3	6.0	5.7	6.0	4.8	4.3	3.8	3.0	3.0	5.5	3.8
Growth in private-sector inventories		-0.4	0.1	-0.1	0.0	-0.2	0.0	0.1	-0.1	0.1	-0.1	0.1	-0.1	0.0	0.0	0.0
Government final consumption expenditure		1.9	0.3	1.4	1.3	1.7	1.6	1.5	1.4	1.3	1.2	1.1	1.1	0.9	1.5	1.1
Public fixed capital formation		8.0	3.1	-0.2	-7.4	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.9	-3.0
Change in public-sector inventories		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net exports (ppt contribution y-y)		-0.3	0.3	0.6	0.1	0.0	-0.1	-0.1	0.1	-0.1	0.0	-0.1	0.0	-0.1	0.0	-0.1
Exports		1.5	7.9	5.7	4.4	3.9	5.4	5.9	6.2	5.7	5.7	5.4	5.4	5.4	5.2	5.5
Imports		3.1	6.9	2.2	4.7	4.7	6.6	7.0	6.6	6.7	6.2	6.4	6.1	6.5	5.9	6.4
Nominal GDP (% y-y)		1.1	1.7	3.0	2.3	2.6	2.6	2.6	3.1	3.0	3.0	2.8	3.0	2.7	2.6	2.9
Current account balance (as % of nominal GDP)		0.2	0.9	1.6	1.4	2.0	2.0	1.3	0.8	0.6	0.2	0.3	0.4	0.4		
Primary fiscal balance (as % of nominal GDP)		-6.2	-5.1	-3.6	-3.5	-2.8	-2.3	-2.2	-1.8	-1.5	-1.0	-0.8	-0.5	-0.3		
Fiscal balance (as % of nominal GDP)		-6.7	-5.9	-5.9	-5.6	-4.7	-4.2	-4.1	-3.8	-3.6	-3.3	-3.3	-3.3	-3.3		
Fiscal deficit (¥trn)		240.7	244.0	243.5	244.4	243.9	242.9	241.9	239.6	237.4	234.9	232.9	230.5	228.7		
CPI (ex fresh food) (% y-y)		0.4	2.7	1.4	1.2	2.3	1.6	1.4	2.1	1.9	2.4	2.0	2.6	2.1		
CPI (ex impact of consumption tax hike, % y-y)		0.4	1.2	0.9	1.2	1.3	1.3	1.4	1.6	1.8	1.8	1.8	2.0	2.0		
GDP deflator (% y-y)		-0.5	1.5	1.5	0.8	1.5	0.9	0.7	1.4	1.2	1.6	1.2	1.8	1.4		
Uncollateralized overnight call rate		0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.50	1.00		
JGB yield (10-year)		0.74	0.50	0.70	0.80	0.94	1.22	1.56	1.77	1.79	1.81	1.81	2.02	2.22		
Dollar/yen rate		105	120	125	130	120	110	110	110	110	110	110	110	110		
North Sea Brent (\$/bbl)		110.8	83.3	82.3	84.8	92.9	92.8	92.0	91.4	90.4	90.5	90.5	90.4	90.5		

Note: (1) Units are % unless otherwise indicated. Y-y growth for real GDP, nominal GDP, CPI, and GDP deflator. Main demand components for real GDP are private-sector inventory growth, public-sector inventory growth, and y-y change in contribution from net imports. Current account balance, primary fiscal balance, fiscal balance, and fiscal deficit are percentages of nominal GDP. Uncollateralized overnight call rate, 10-year JGB yield, USD/JPY, and North Sea Brent crude price are end-period. (2) Current account balance, primary fiscal balance, fiscal balance, and fiscal deficit on fiscal year basis. Other data on calendar year basis. (3) Fiscal deficit on IMF basis. (4) We assume consumption tax rate will be hiked 2ppt in April 2017 and 1ppt each in April 2020, April 2022, and April 2024. (5) Data shows average growth rates for 2016–20 and 2021–25.

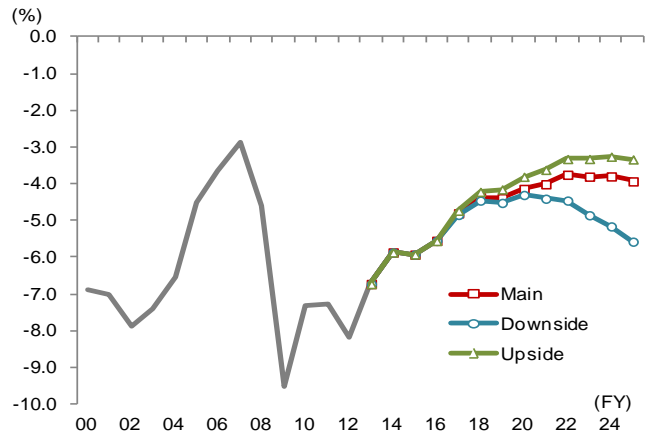
Source: Nomura, based on Cabinet Office, BOJ, MOF, and MIC data

Fig. 16: General primary balance as a percentage of GDP for each scenario



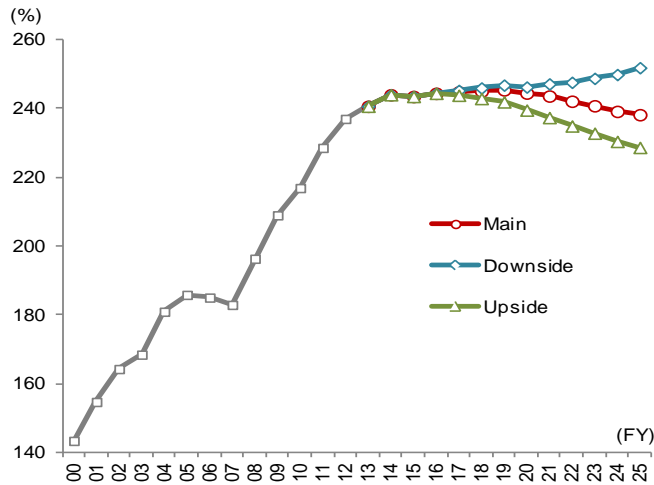
Source: Nomura, based on MOF and Cabinet Office data

Fig. 17: General fiscal balance as a percentage of GDP for each scenario



Source: Nomura, based on MOF and Cabinet Office data

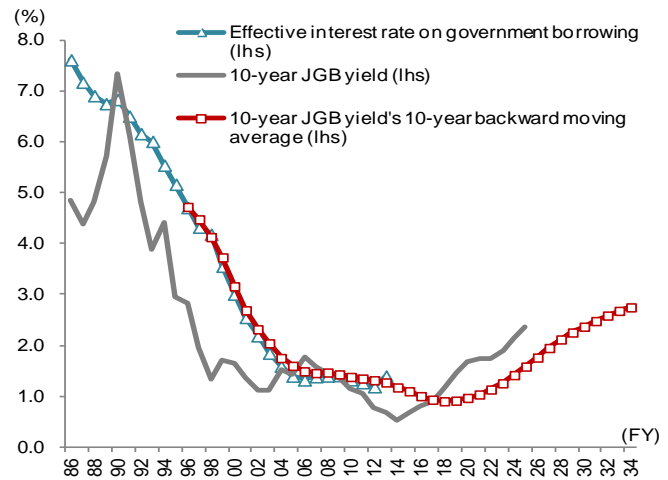
Fig. 18: General debt balance as a percentage of GDP for each scenario



Note: General debt balance based on IMF data

Source: Nomura, based on IMF, MOF, Cabinet Office, and Bloomberg data

Fig. 19: Effective interest rate on government borrowing and the 10-year JGB yield



Note: (1) Effective interest rate on borrowing = interest payments / long-term debt

balance. (2) The forward 10-year JGB yield is based on our main scenario.

Source: Nomura, based on MOF and Bloomberg data