



Medium-term economic prospect for Japan

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See Appendix A-1 for analyst certification, important disclosures and the status of non-US analysts.

Any authors named on this report are research analysts unless otherwise indicated.

Labor market tightens further (1)



Current employment conditions DI by industry (all company sizes)



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

Note: Final data point is future employment conditions DI as of September 2014. Source: Nomura, based on BOJ data

Labor market tightens further (2)

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

Productivity increase has been subdued in nonmanufacturing sectors



Labor productivity (1)



Labor productivity (2)



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

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Relationship between labor productivity and per capita capital stock



Individual area of the growth strategies	Achievement up to now (relatively major achievements are underlined)	Future challenges					
1. Industry Revitalization Plan							
Accelerating structural reform program (Vitalizing industries)							
Enhancing corporate governance, support for ventures businesses, etc.	Progress in strengthening corporate governance, with putting together of Japanese version of Stewardship Code and law passed to promote appointment of external directors	TSE expected to put together Corporate Governance Code in time for 2015 general shareholders' meeting season					
Reforming the employment system and reinforcing human resources capabilities							
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					
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	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	Moves to ease regulations for taking on foreign workers are still inadequate; this is a challenge for the future					
Further strengthening Japan's international competitiveness as a business hul							
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	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	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					
Stimulating financial and capital markets / Management of public and quasi-public funds, etc. GPIF investment reforms, etc	Major achievement of change to GPIF's investment asset allocation	Steps need to be taken to strengthen Tokyo's international financial center functions					
Overcoming constraints of environmental/energy Electricity system reforms, etc	Major progress in electricity reforms via two rounds of legislation, retail market to be deregulated in 2016, reforms to be completed by 2020	Need to steadily carry out electricity reforms on top of achievements to date					





Individual area of the growth strategies	Achievement up to now (relatively major achievements are underlined)	Future challenges
2. Strategic Market Creation Plan		
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
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 tourism 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		
Build strategic trade relationships, promote economic partnerships Promotion of economic partnerships as base for global economic activity	Broad EPA agreement between Japan and Australia,	TPP agreement would bring major opportunities, broad

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



Japanese economy: medium-term real GDP forecast



Note: Calendar year basis. Figures through 2016 based on Nomura's short-term outlook.

Source : Nomura

Expected real growth rate and inflation

Growth potential depends on investment and labor market reform



Potential rate of growth



Source: Japanese government, Nomura

Tighter labor market to generate wage growth

Employee compensation (main scenario) Real disposable income (main scenario) (% y-y) Employee compensation 8 Per-capita wages (% y-y) Social benefits No. of employees Social contribution 5 6 Taxation 4 Net property income Other 4 3 Inflation ------Real disposable income 2 2 1 0 0 -1 -2 -2 -4 -3 (FY) -4 -6 96-00 01-05 06-10 11-15 16-20 91 93 95 97 99 01 03 05 07 09 11 13 15 17 19 21 23 25

Source: Nomura, based on Cabinet Office and MIC data

Note: Shows average growth for each period Source: Nomura, based on Cabinet Office and MIC data (FY)

21-25

Inflation will likely be key determinant of timing of rate hike

Medium-term outlooks based on differing scenarios for monetary policy



Source: Nomura

If current rate of JGB purchases continues through 2025, BOJ would own entire JGB market

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BOJ holdings of outstanding JGBs



Note: Amount of JGBs outstanding in main scenario. Amount of BOJ holdings assumes that the BOJ continues to purchase ¥80trn of long-term JGBs each year. Source: Nomura, based on BOJ and MOF data

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Overnight call rate under three scenarios

JGB 10-year yield under three scenarios



Source: Nomura, based on Bloomberg data

Long-term interest rates to have major impact on fiscal balance





General fiscal balance as a percentage of GDP for each scenario





General debt balance as a percentage of GDP for each scenario



Note: General debt balance based on IMF data Source: Nomura, based on MOF, Cabinet Office and IMF data





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

Thoughts on fiscal conditions beyond 2025

 With the consumption tax rate fixed at 13% from FY26, government debt exceeds household financial assets in FY36. To avoid that from happening, a consumption tax rate of 22% would be necessary.

Consumption tax rate stays at 13% from FY2026 Consumption tax rate raised to 22% in FY2025 (¥trn) (¥trn) 4,000 4,000 Household financial asset balance Household financial asset balance 3,500 General debt balance 3,500 General debt balance 3,000 3,000 2,500 2,500 2,000 2,000 1,500 1,500 1,000 1,000 500 500 (FY)(FY)0 0 00 20 25 30 35 45 50 05 10 15 40 05 10 15 25 30 35 50 00 20 40 45

Note: Data points up to FY25 based on our main scenario. From FY26, real GDP grows 1% and core CPI rises 2%. At that time, we assume nominal GDP growth of 2.2%. Source: Nomura

Household assets and government debt (2)

Household assets and government debt (1)



Economic outlook (downside scenario)

CY:	13	14E	15E	16E	17E	18E	19E	20E	21E	22E	23E	24E	25E	16E–20E2	1E–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=""></key>															
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 (¥tm)	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



Economic outlook (main scenario)

CY	13	14E	15E	16E	17E	18E	19E	20E	21E	22E	23E	24E	25E	16E–20E 2 ²	1E-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=""></key>															
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 (¥tm)	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



Economic outlook (upside scenario)

	Y: 13E	14E	15E	16E	17E	18E	19E	20E	21E	22E	23E	24E	25E	16E-20E 2	1E–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=""></key>															
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	-	-	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



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