

New Standards for GDP Calculation to Comprehensively Define Investment

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1. The Real Economy

Japan has made the changes in national accounting methods (GDP calculation) to reflect an update of international guidelines, known as the System of National Accounts 2008 (“2008 SNA”) which was adopted by the United Nations Statistical Commission in 2009. These revisions to the GDP calculation methods started to be applied to the second preliminary estimate of GDP for the Jul-Sep 2016 quarter that was announced on December 8, 2016. The largest change from the 1993 SNA is the “capitalization of research and development (R&D)”. With this change, R&D costs in companies and such are re-classified from “consumption expenditure (mainly intermediate consumption)” to “investment expenditure (gross fixed capital formation)” that creates assets to generate added value in the future, and the level of Japan’s nominal GDP in the most recent fiscal year, FY 2015, was increased by 19.2 trillion yen. In compliance with the 2008 SNA, a wide range of revisions were made to other statistical factors, such as “changes in treatment of patent related services, “capitalization of weapons systems” and “elaboration of treatment of ownership transfer costs”. These revisions resulted in pushing up the nominal GDP in FY2015 by 31.6 trillion yen from 500.6 trillion yen to 532.6 trillion yen, which helped advance toward achieving the government’s goal “nominal GDP of 600 trillion yen” (see chart 1).

Past real GDP growth rates have also been revised this time, and all the figures under Abe administration were revised upward, with +2.6% YoY (up by +0.6% pt from the figure before the revision) for FY2013, -0.4% YoY (up by +0.5% pt) for FY2014 and +1.3% YoY (up by +0.4% pt) for FY2015. These revisions highlight the changes in the growth of real capital expenditure. According to the GDP data compiled by the conventional 1993 SNA requirements, capital expenditure has shown its weak growth even though corporate earnings hit a record high under Abenomics; however, as the R&D investment costs are included in capital expenditure under the new treatment, past capital expenditures show significant growth and the current capital expenditure recovers to a level close to its peak observed before the Global Financial Crisis (see chart 2). This suggests that Japanese companies have made necessary investments for their sustainable growth, including R&D investments, although they took a cautious stance on real investments such as production and distribution facility. The capital expenditure data based on the 2008 SNA methodology should be an effective and comprehensive indicator for predicting the future competitiveness of Japanese companies.

Chart 1: Nominal GDP Growth Rate Required to Achieve FY2020 Nominal GDP Target of 600 Trillion Yen

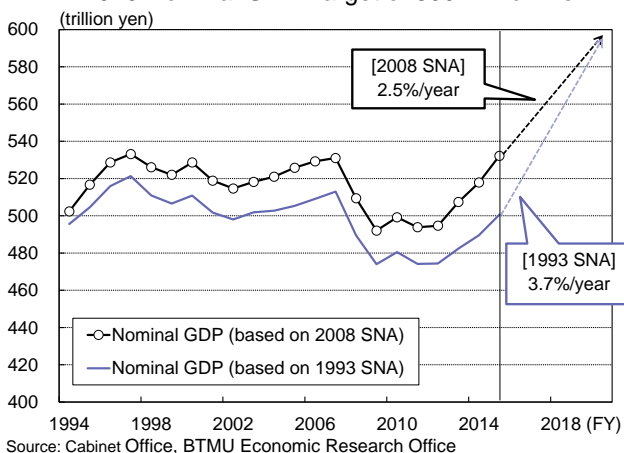
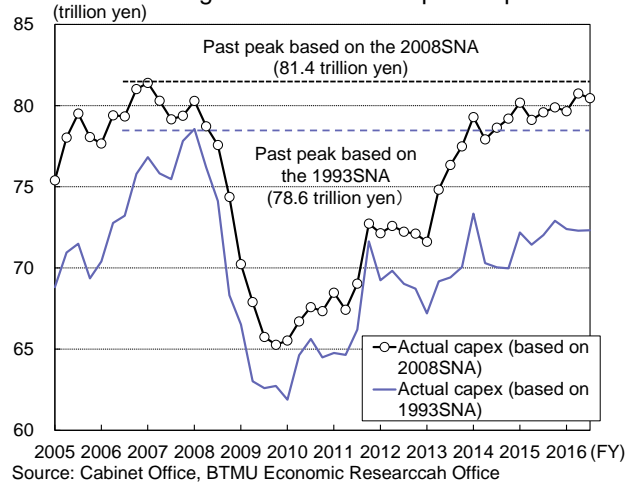


Chart 2: Changes in Growth of Capital Expenditure



2. Financial Markets

(1) Monetary Policy and Long-Term Yields

The Bank of Japan (BoJ) decided to keep its monetary policy unchanged at its policy meeting on December 19-20. Amid the significant rise in US interest rates following the presidential election, BoJ governor Kuroda expressed his view at a press conference after the policy meeting that the operation target for the long-term interest rate will not be influenced by external factors, as stating, “We certainly do not think that Japan’s long-term interest rates may rise following the rise in overseas interest rates and that we will raise the operating target of long-term interest rates”. In fact, the BoJ has recently made its efforts to hold down soaring interest rates by: i) conducting its first fixed-rate operation to curb rising yields on Japanese 2-year and 5-year government bonds (JGBs), when the yields on JGBs with maturity less than 10 years rose in the middle of November 2016 due to the spike in US interest rates, and ii) increasing purchases of JGBs with maturity over 10 years during a bond-buying operation, when the yields on JGBs with maturity over 10 years rose in the middle of December (see table 1). The comprehensive assessment published by the BoJ explains that the effects of monetary easing on the real economy are measured based on the gap between the “natural yield curve”, which extends the idea of the natural interest rate to all maturities, and the actual yield curve. It should indicate that, if a rise in nominal interest rate is allowed in the absence of the rises in the natural yield curve and inflation expectations, the effects of monetary easing would be smaller. The BoJ is expected to maintain the current interest rate level of around zero percent without raising the operation target of long-term interest rate, unless definite economic recovery and improvement in inflation expectations continue with steady rise in prices toward achieving the 2% target.

(2) Exchange rate

Following the Fed’s rate hike announcement, the USD appreciated further against the JPY, with USD/JPY hitting the 118 yen level on December 15. When looking at the volatility of currencies against the USD after the US presidential election, the depreciation rate of the JPY is larger than the currency depreciation of emerging countries with concerns about money outflow (see chart 3). This seems to be due to the BoJ’s yield curve control to curb surges in

interest rates which could widen the gap in interest rates between Japan and the US more easily than in other countries. Going forward, USD/JPY is expected to move generally in line with the real interest rate gap between Japan and the US; however, since the rise in US interest rates is driven by forward-looking expectations and the excessive rise is likely to be corrected, the JPY would be appreciated against the USD accordingly.

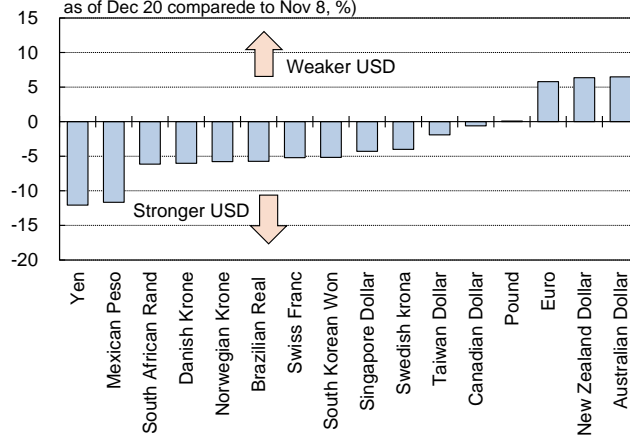
Table 1: BoJ's Action after Introduction of QQE with Yield Curve Control

Date	Action	Targeted JGBs	Details
Sep 30	Reduce JGB purchases	5-to10- year JGBs	Reduced JGB purchase amount from 430 billion yen to 410 billion yen.
Oct 4	Reduce JGB purchases	10-to 25- year JGBs	Reduced JGB purchase amount from 200 billion yen to 190 billion yen.
	Reduce JGB purchases	JGBs with maturity over 25 years	Reduced JGB purchase amount from 120 billion yen to 110 billion yen
Nov 17	Conduct fixed rate operation	2 year JGBs	Offered to buy 2 year JGBs by designating the yields at -0.09%.The offer attracted no bids.
	Conduct fixed rate operation	5 year JGBs	Offered to buy 5 year JGBs by designating the yields at -0.04%. The offer attracted no bids.
Dec 14	Increase JGB purchases	10-to 25- year JGBs	Increased JGB purchase amount from 190 billion yen to 200 billion yen.
	Increase JGB purchases	JGBs with maturity over 25 years	Increased JGB purchase amount from 110 billion yen to 120 billion yen.
	Announce the date to offer to buy JGBs	-	Made prior announcement to offer to purchase JGBs on Dec 16.

Source: BoJ, BTMU Economic Research Office

Chart 3: Volatility of Currencies against USD

(Change in the exchange rate against the US dollar as of Dec 20 compared to Nov 8, %)



Source: Bloomberg data, BTMU Economic Research Office

MAIN ECONOMIC AND FINANCIAL INDICATORS (JAPAN)

1. Main Economic Indicators

As of Dec. 27, 2016

	Fiscal	Fiscal	2016			2016				
	2014	2015	1Q	2Q	3Q	JUL	AUG	SEP	OCT	NOV
Real GDP Growth Rate <% changes from previous period at SA annual rate>	-0.4	1.3	2.8 (0.4)	1.8 (0.9)	1.3 (1.1)	***	***	***	***	***
Index of All Industries Activity	-1.1	0.9	0.0 (0.4)	0.4 (0.1)	0.5 (0.8)	0.2 (-0.7)	0.2 (1.7)	0.0 (1.2)	0.2 (-0.2)	
Industrial Production Index	-0.5	-1.0	-1.0 (-1.6)	0.2 (-1.8)	1.3 (0.4)	-0.4 (-4.2)	1.3 (4.5)	0.6 (1.5)	0.0 (-1.4)	
Production										
Shipments	-1.2	-1.2	-2.0 (-2.4)	0.2 (-2.0)	0.7 (-0.6)	0.7 (-4.0)	-1.1 (1.6)	1.8 (0.7)	2.0 (-2.0)	
Inventory	6.1	1.8	2.4 (1.8)	-1.3 (0.0)	-2.6 (-2.0)	-2.4 (-1.8)	0.3 (-1.6)	-0.5 (-2.0)	-2.1 (-3.0)	
Inventory/Shipments Ratio (2010=100)	112.0	115.0	116.3 [113.0]	116.5 [113.8]	115.3 [114.7]	117.3 [112.7]	113.6 [116.3]	114.9 [115.1]	114.2 [113.0]	115.5
Domestic Corporate Goods Price Index	2.7	-3.2	-1.5 (-3.5)	-0.6 (-4.4)	-0.2 (-3.6)	0.0 (-4.0)	-0.3 (-3.6)	0.0 (-3.2)	-0.1 (-2.7)	0.4 (-2.2)
Consumer Price Index(SA, total, excl.fresh foods)	2.8	0.0	-0.7 (-0.1)	0.4 (-0.4)	-0.2 (-0.5)	-0.2 (-0.5)	0.0 (-0.5)	0.0 (-0.5)	0.1 (-0.4)	0.1 (-0.4)
Index of Capacity Utilization (2010=100)	100.6	98.0	97.3 [101.4]	95.4 [98.0]	97.2 [97.6]	96.2 [97.7]	98.7 [97.4]	96.7 [97.7]	98.1 [98.4]	98.2
Machinery Orders(Private Demand, Excl.Electric Power and Ship building)	0.8	4.1	6.7 (3.4)	-9.2 (-6.5)	7.3 (6.5)	4.9 (5.2)	-2.2 (11.6)	-3.3 (4.3)	4.1 (-5.6)	
Manufacturing	7.0	6.2	13.7 (4.3)	-13.4 (-12.9)	4.5 (-0.5)	0.3 (-1.4)	-4.0 (2.0)	-5.0 (-1.5)	-1.4 (-9.0)	
Non-manufacturing Excl.Electric Power & Ship building	-3.3	2.5	3.5 (2.6)	-5.0 (-1.0)	8.2 (11.8)	8.6 (11.3)	-1.9 (19.6)	-0.9 (7.8)	4.6 (-3.9)	
Shipments of Capital Goods (Excl.Transport Equipment)	4.4	-2.3	-2.4 (-5.5)	3.4 (-2.7)	1.0 (0.4)	0.6 (-4.9)	0.2 (2.5)	0.3 (3.3)	2.1 (1.7)	
Construction Orders	8.2	-0.9								
Private	4.8	7.9								
Public	22.9	-15.6								
Public Works Contracts	-0.3	-3.8								
Housing Starts 10,000 units at Annual Rate, SA	88.0 (-10.8)	92.1 (4.6)	94.7 (5.5)	100.5 (5.4)	98.2 (7.1)	100.5 (8.9)	95.6 (2.5)	98.4 (10.0)	98.3 (13.1)	
Total floor										
Sales at Retailers	-1.2	0.8								
Real Consumption Expenditures of Households over 2 persons (SA)	-5.1	-1.2	0.5 (-2.6)	-0.2 (-1.2)	-0.5 (-2.4)	2.5 (-0.5)	-3.7 (-4.6)	2.8 (-2.1)	-1.0 (-0.4)	-0.6 (-1.5)
Propensity to Consume (SA, %)	74.2	73.6	72.8 [74.3]	72.9 [74.2]	70.6 [73.4]	69.3 [71.9]	70.4 [74.1]	72.0 [74.3]	70.9 [73.2]	72.9 [73.0]
Overtime Hours Worked (All Industries, 5 employees or more)	2.0	-1.3	-1.2 (-2.1)	0.0 (-1.2)	-0.2 (-1.5)	-0.9 (-1.9)	-0.8 (-2.0)	1.9 (-0.9)	-0.1 (-0.9)	
Total Cash Earnings (Regular Employees Only; All Industries, 5 employees or more)	0.5	0.2								
Employment Index(Regular Employees Only;All Industries, 5 employees or more) (Change over the M/Q/Y)	77	98	98	93	102	97	106	105	101	
Ratio of Job Offers to Applicants (SA, Times)	1.11	1.23	1.29 [1.15]	1.36 [1.18]	1.37 [1.22]	1.37 [1.21]	1.37 [1.22]	1.38 [1.23]	1.40 [1.24]	1.41 [1.26]
Unemployment Rate (SA, %)	3.5	3.3	3.2	3.2	3.0	3.0	3.1	3.0	3.0	3.1
Economy Watcher Survey (Judgment of the present condition D.I.%)	46.6	48.8	45.6 [49.3]	42.6 [52.6]	45.2 [49.5]	45.1 [51.6]	45.6 [49.3]	44.8 [47.5]	46.2 [48.2]	48.6 [46.1]
Bankruptcies (Number of cases)	9,543 (-9.4)	8,684 (-9.0)	2,144 (-5.6)	2,129 (-7.3)	2,088 (-0.2)	712 (-9.5)	726 (14.9)	649 (-3.6)	683 (-8.0)	693 (-2.5)

(Notes)

Unless otherwise indicated, tabulated figures and those in parentheses show % changes from previous quarter/month as applicable.

The figures in () indicate % changes from previous year.

[] show the comparable figure of the previous year.

2. Balance of Payments

As of Dec. 27, 2016

	Fiscal	Fiscal	2016			2016				
	2014	2015	1Q	2Q	3Q	JUL	AUG	SEP	OCT	NOV
Customs Clearance (Exports in Yen Terms)	5.4	-0.7	(-7.9)	(-9.5)	(-10.2)	(-14.0)	(-9.6)	(-6.9)	(-10.3)	(-0.4)
Value	3.9	2.1	(-4.7)	(-8.3)	(-11.1)	(-11.9)	(-10.3)	(-11.1)	(-9.0)	(-7.3)
Volumes	1.3	-2.7	(-3.2)	(-1.3)	(1.0)	(-2.4)	(0.8)	(4.7)	(-1.4)	(7.4)
Imports (In Yen terms)	-1.0	-10.3	(-15.7)	(-18.8)	(-19.5)	(-24.6)	(-17.2)	(-16.2)	(-16.4)	(-8.8)
Value	1.2	-8.5	(-14.9)	(-17.6)	(-18.9)	(-21.5)	(-20.2)	(-14.9)	(-14.3)	(-12.0)
Volumes	-2.1	-1.8	(-0.8)	(-1.3)	(-0.7)	(-4.0)	(3.8)	(-1.5)	(-2.4)	(3.6)
Current Account (100 mil. yen)	87,245	180,028	59,636	45,955	57,599	19,382	20,008	18,210	17,199	
Goods (100 mil. yen)	-65,890	5,419	8,534	14,959	14,995	6,139	2,432	6,424	5,876	
Services (100 mil. yen)	-27,252	-11,451	2,414	-4,951	-3,865	-2,223	-525	-1,118	-1,719	
Financial Account (100 mil. yen)	137,595	238,095	90,136	71,315	97,490	36,737	29,220	31,533	7,446	
Gold & Foreign Exchange Reserves (\$1mil.)	1,245,316	1,262,099	1,262,099	1,265,402	1,260,145	1,264,750	1,256,053	1,260,145	1,242,792	1,219,291
Exchange Rate (¥/\$)	109.92	120.13	115.45	108.17	102.40	103.90	101.27	102.04	103.82	108.18

3. Financial Market Indicators

	Fiscal	Fiscal	2016			2016						
	2014	2015	1Q	2Q	3Q	JUL	AUG	SEP	OCT	NOV		
Uncollateralized Overnight Call Rates	0.068	0.063	0.035 [0.073]	-0.050 [0.067]	-0.046 [0.074]	-0.043 [0.074]	-0.043 [0.076]	-0.052 [0.073]	-0.037 [0.076]	-0.049 [0.078]		
Euro Yen TIBOR (3 Months)	0.194	0.157	0.122 [0.171]	0.060 [0.169]	0.057 [0.169]	0.058 [0.169]	0.058 [0.169]	0.056 [0.169]	0.056 [0.169]	0.056 [0.169]		
Newly Issued Japanese Government Bonds Yields (10 Years)	0.400	-0.050	-0.050 [0.400]	-0.230 [0.455]	-0.085 [0.350]	-0.195 [0.410]	-0.070 [0.380]	-0.085 [0.350]	-0.050 [0.300]	0.020 [0.300]		
Average Contracted Interest Rates on Loans and Discounts(City Banks) (% changes from previous period)	1.006	0.924	0.924 (-0.032)	0.886 (-0.038)	0.865 (-0.021)	0.885 (-0.001)	0.880 (-0.005)	0.865 (-0.015)	0.866 (0.001)			
The Nikkei Stock Average (TSE 225 Issues)	19,207	16,759	16,759 [19,207]	15,576 [20,236]	16,450 [17,388]	16,569 [20,585]	16,887 [18,890]	16,450 [17,388]	17,425 [19,083]	18,308 [19,747]		
M2(Average)	(3.3)	(3.6)	(3.2)	(3.4)	(3.4)	(3.4)	(3.3)	(3.5)	(3.7)	(4.0)		
Broadly-defined Liquidity(Average)	(3.3)	(3.9)	(3.4)	(2.2)	(1.6)	(1.7)	(1.5)	(1.6)	(1.6)	(1.9)		
Principal Figures of Financial Institutions												
Loans and Discount (Average)	Banks & Shinkin	Banks & Shinkin	(2.3)	(2.4)	(2.2)	(2.1)	(2.1)	(2.1)	(2.0)	(2.2)	(2.4)	(2.4)
		Banks	(2.5)	(2.5)	(2.2)	(2.1)	(2.1)	(2.1)	(2.0)	(2.2)	(2.4)	(2.4)
		City Banks etc.	(1.4)	(1.2)	(0.9)	(0.8)	(0.7)	(0.7)	(0.5)	(0.8)	(1.1)	(1.2)
		Regional Banks	(3.8)	(3.7)	(3.4)	(3.4)	(3.5)	(3.5)	(3.4)	(3.5)	(3.6)	(3.7)
		Regional Banks II	(2.9)	(3.2)	(3.2)	(3.2)	(2.9)	(2.9)	(2.8)	(2.9)	(3.1)	(3.1)
	Shinkin	(1.4)	(2.2)	(2.3)	(2.2)	(2.3)	(2.3)	(2.2)	(2.3)	(2.3)	(2.3)	
Deposits and CDs (Average)	Total(3 Business Condition)		(3.3)	(3.7)	(3.0)	(3.3)	(3.4)	(3.5)	(3.3)	(3.6)	(3.9)	(4.3)
	City Banks		(3.4)	(4.5)	(3.6)	(4.7)	(4.8)	(4.9)	(4.4)	(5.1)	(5.6)	(6.1)
	Regional Banks		(3.3)	(3.0)	(2.4)	(1.9)	(2.2)	(2.1)	(2.2)	(2.1)	(2.2)	(2.5)
	Regional Banks II		(3.1)	(2.5)	(2.1)	(1.9)	(1.9)	(1.8)	(1.9)	(2.1)	(2.2)	(2.2)

(Notes)

Newly Issued Japanese Government Bonds Yields and Interest rates are averages. The Nikkei Stock Average is as of month-end. Unless otherwise indicated, tabulated figures and those in parentheses show % changes from previous quarter/month as applicable. The figures in () indicate % changes from previous year. [] show the comparable figure of the previous year.

(Sources)

Cabinet Office, National Accounts, Machinery Orders; METI, Indices of Tertiary Industry Activity, Industrial Production, Current Survey of Commerce; MOF, Trade Statistics, Balance of Payments; MPMHAPT, Consumer Price Index, Family Income and Expenditure Survey, Labour Force Survey; MHLW, Monthly Labour Survey; Ministry of Land, Infrastructure, and Transport, Economic Construction Statistics; BOJ, Corporate Price Index, Financial and Economic Statistics Monthly, etc.

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