

Corporate Capital Investment is Reviewed due to R&D Capitalization

TOORU KANAHORI
YUUSUKE YOKOTA
ECONOMIC RESEARCH OFFICE

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1. The Real Economy

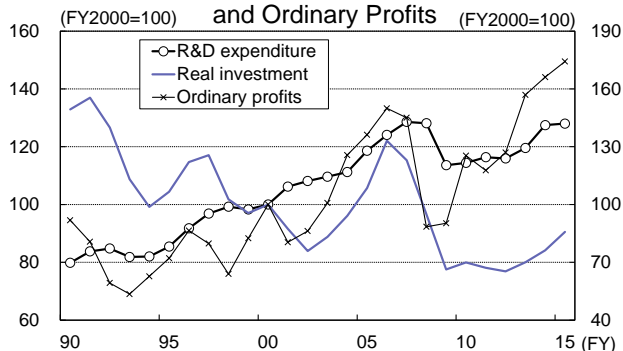
Japan has recently adopted the new standards for national accounting methods and these new standards started to be applied to the second preliminary estimate of GDP for the Jul-Sep 2016 quarter that was announced on December 8, 2016. Under the new standards, research and development (R&D) expenditure is classified as capital expenditure. According to the GDP data based on the old standards, capital expenditure has shown weak growth, but under the new standards, the current capital expenditure recovers to a level close to its peak observed before the Global Financial Crisis.

Looking at the changes in real investment and R&D expenditure, while the recovery in the real investment has remained modest even though ordinary profits have kept hitting record highs since FY 2013, R&D expenditure has been increasing steadily, suggesting that it has driven the recovery of capital expenditure (see Chart 1). A possible reason is that it is difficult to make real investments relying on a temporary increase in profits resulting mainly from a weakened yen because there is a risk of excess facilities to incur increasing maintenance costs, whereas R&D investment has a small risk of incurring continued costs and hence it is easy to flexibly allocate funds to R&D. From the perspective of medium-to-long-term trends, it is also worth noting that the real investment has been decreasing while R&D expenditure is on a rising trend. This suggests that, amid significant progress in accumulating facility assets, Japanese companies have made their efforts to innovate technologies by strengthening R&D, such as product designing, rather than making additional investments in facilities (see Chart 2). Another reason is that, while real investments are made inside and outside Japan depending on market region and cost, R&D bases tend to be located in Japan even though they are for overseas markets and hence a certain level of R&D investments have been made. The R&D investment level of Japanese companies is high, and according to the OECD's statistics showing the ratio of corporate R&D expenditure to nominal GDP by country, Japan's R&D accounts for 2.4%, ranking the third globally after the US (1.9%) and Germany (1.8%). This proves that Japan is a country that is focusing on R&D activities even from a global perspective.

The capital expenditure is likely to recover as a whole since R&D expenditure is expected to continue to increase and real investment, which has shown sluggish growth, is anticipated to

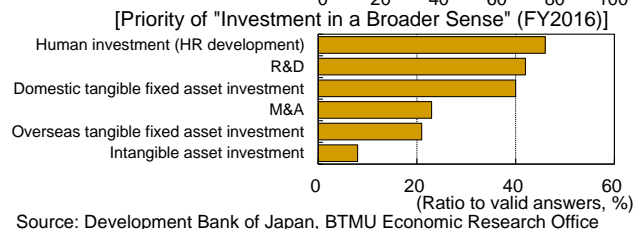
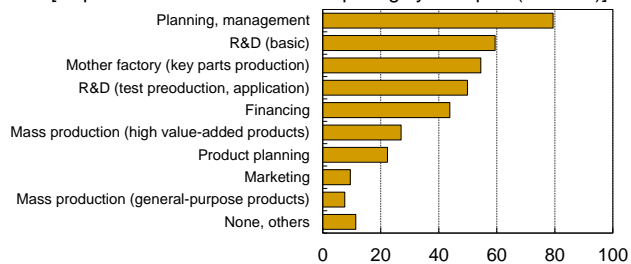
pick up gradually following a recovery in production amid expectations for bottoming out of corporate earnings.

Chart 1: Changes in Real Investment, R&D Expenditure and Ordinary Profits (FY2000=100)



Note:1. "R&D expenditure" is the total of companies' labor costs, raw material costs, lease fees and other expenses.
 2. "Real investment" is the total amount of new investments in other tangible fixed assets and new construction in progress.
 Source: Ministry of Finance, Ministry of Internal Affairs, BTMU Economic Research Office

Chart 2: Survey of Large Manufacturers [Departments/functions to be kept largely in Japan (FY2014)]



2. Financial Markets

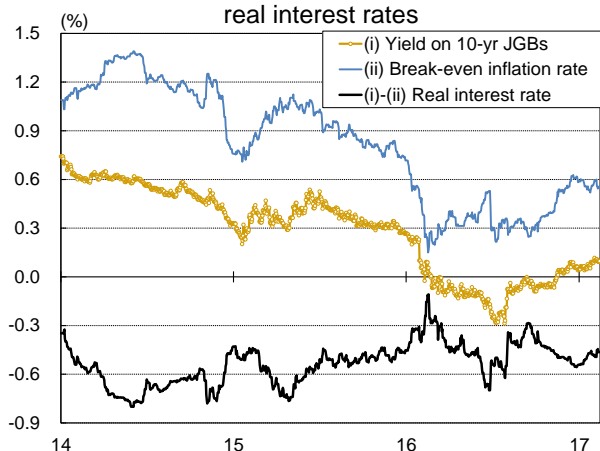
(1) Monetary Policy and Long-Term Yields

The Bank of Japan (BoJ) released on December 29, 2016 its Summary of Opinions from the previous policy meeting where it had decided to keep its current monetary policy. The summary contains some opinions expressing that the current monetary policy could produce more effects when the economy and prices improve, as it states “*The current policy is designed to take full advantage of the tailwind to enhance monetary easing effects.*” and “*When the nominal long-term rate is controlled at zero percent, positive shocks to the economy amplify the effects of monetary accommodation.*” These opinions are considered to indicate that, in a phase where inflation expectations rise in response to improvement in economy and prices, real interest rates will be lower by fixing nominal interest rates and that makes the current monetary easing measures more effective. Looking at the changes in real interest rates, which are calculated by subtracting break-even inflation rates from the yields on 10-yr Japanese government bonds (JGBs), the real interest rates did not fall despite the BoJ’s efforts to cut down long-term interest rates by expanding the quantitative easing and introducing a negative interest rate policy due to a continued weakening of inflation expectations that started in the latter half of 2014 as a result of declining oil prices and diminishing effects of a weakened yen (see Chart 3). Going forward, inflation expectations are anticipated to be pushed up as prices are expected to increase due to a rally in oil prices and a weakening yen that has progressed since the end of last year. The BoJ’s Summary of Opinions indicates Policy Board members’ stance to encourage a decline in the real interest rates by maintaining the current monetary policy until the effects of lower real interest rates feed into the real side of the economy.

(2) Long-Term Yields and Exchange rate

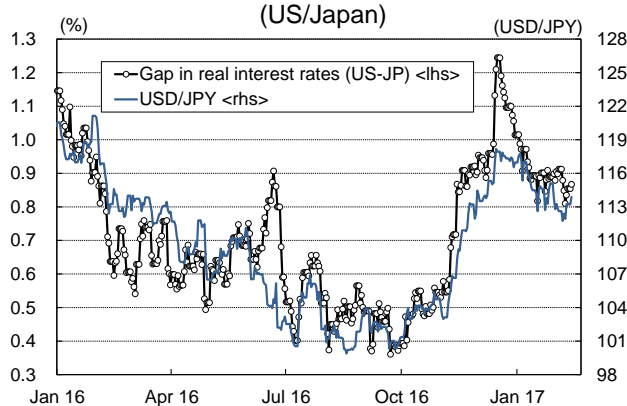
The Japanese financial markets are being affected by overseas situations. When the yield on 10-yr US Treasury bonds rose to the 2.6% level in the middle of December 2016, the yield on 10-yr JGBs also increased up to 0.1%, and the widening gap in interest rates between Japan and the US weakened the JPY against the USD, with USD/JPY hitting 118 (see Chart 4). Thereafter, however, as the US interest rate fell to around 2.4%, Japan's long-term interest rate dropped to around 0.05%, and the narrowing gap between US and Japanese interest rates as well as increased investors' risk aversion on account of Britain's withdrawal from the single European market strengthened the JPY against the USD, with USD/JPY hitting 112. Currently, the Japan's long-term interest rate is at around 0.07% and USD/JPY has returned to 115; however, as US President-elect Donald Trump will take office on January 20, such situation is likely to continue going forward.

Chart 3: Changes in US and Japanese real interest rates



Source: Bloomberg data, BTMU Economic Research Office

Chart 4: USD/JPY and Gap in Real Interest Rates (US/Japan)



Note: Real interest rate refers to the yield of 10 year government bonds - break even inflation rate.

Source: Bloomberg data, BTMU Economic Research Office

MAIN ECONOMIC AND FINANCIAL INDICATORS (JAPAN)

1. Main Economic Indicators

As of Jan. 20, 2017

	Fiscal	Fiscal	2016			2016				
	2014	2015	1Q	2Q	3Q	AUG	SEP	OCT	NOV	DEC
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 (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)	1.3 (4.5)	0.6 (1.5)	0.0 (-1.4)	1.5 (4.6)	
Production										
Shipments	-1.2	-1.2	-2.0 (-2.4)	0.2 (-2.0)	0.7 (-0.6)	-1.1 (1.6)	1.8 (0.7)	2.0 (-2.0)	1.0 (5.1)	
Inventory	6.1	1.8	2.4 (1.8)	-1.3 (0.0)	-2.6 (-2.0)	0.3 (-1.6)	-0.5 (-2.0)	-2.1 (-3.0)	-1.6 (-4.8)	
Inventory/Shipments Ratio (2010=100)	112.0	115.0	116.3 [113.0]	116.5 [113.8]	115.3 [114.7]	113.6 [116.3]	114.9 [115.1]	114.2 [113.0]	107.8 [115.5]	116.3 [116.3]
Domestic Corporate Goods Price Index	2.7	-3.2	-1.5 (-3.5)	-0.6 (-4.4)	-0.2 (-3.6)	-0.3 (-3.6)	0.0 (-3.2)	-0.1 (-2.7)	0.4 (-2.2)	0.6 (-1.2)
Consumer Price Index(SA, total, excl.fresh foods)	2.8	0.0	-0.7 (-0.1)	0.4 (-0.4)	-0.2 (-0.5)	0.0 (-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]	98.7 [97.4]	96.7 [97.7]	98.1 [98.4]	101.0 [98.2]	97.2 [97.2]
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)	-2.2 (11.6)	-3.3 (4.3)	4.1 (-5.6)	-5.1 (10.4)	
Manufacturing	7.0	6.2	13.7 (4.3)	-13.4 (-12.9)	4.5 (-0.5)	-4.0 (2.0)	-5.0 (-1.5)	-1.4 (-9.0)	9.8 (8.3)	
Non-manufacturing Excl.Electric Power & Ship building	-3.3	2.5	3.5 (2.6)	-5.0 (-1.0)	8.2 (11.8)	-1.9 (19.6)	-0.9 (7.8)	4.6 (-3.9)	-9.4 (11.6)	
Shipments of Capital Goods (Excl.Transport Equipment)	4.4	-2.3	-2.4 (-5.5)	3.4 (-2.7)	1.0 (0.4)	0.2 (2.5)	0.3 (3.3)	2.1 (1.7)	2.1 (7.6)	
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)	95.6 (2.5)	98.4 (10.0)	97.8 (13.1)	93.7 (6.7)	
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)	-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]	70.4 [74.1]	72.0 [74.3]	70.9 [73.2]	72.9 [73.0]	72.9 [72.9]
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)	-0.8 (-2.0)	1.9 (-0.9)	-0.1 (-0.9)	-0.6 (-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	106	105	101	106	
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 [1.22]	1.38 [1.23]	1.40 [1.24]	1.41 [1.26]	1.41 [1.27]
Unemployment Rate (SA, %)	3.5	3.3	3.2	3.2	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]	45.6 [49.3]	44.8 [47.5]	46.2 [48.2]	48.6 [46.1]	51.2 [48.7]
Bankruptcies (Number of cases)	9,543 (-9.4)	8,684 (-9.0)	2,144 (-5.6)	2,129 (-7.3)	2,088 (-0.2)	726 (14.9)	649 (-3.6)	683 (-8.0)	693 (-2.5)	710 (-1.6)

(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 Jan. 20, 2017

	Fiscal	Fiscal	2016			2016				
	2014	2015	1Q	2Q	3Q	AUG	SEP	OCT	NOV	DEC
Customs Clearance (Exports in Yen Terms)	5.4	-0.7	(-7.9)	(-9.5)	(-10.2)	(-9.6)	(-6.9)	(-10.3)	(-0.4)	
Value	3.9	2.1	(-4.7)	(-8.3)	(-11.1)	(-10.3)	(-11.1)	(-9.0)	(-7.3)	
Volumes	1.3	-2.7	(-3.2)	(-1.3)	(1.0)	(0.8)	(4.7)	(-1.4)	(7.4)	
Imports (In Yen terms)	-1.0	-10.3	(-15.7)	(-18.8)	(-19.5)	(-17.2)	(-16.2)	(-16.4)	(-8.8)	
Value	1.2	-8.5	(-14.9)	(-17.6)	(-18.9)	(-20.2)	(-14.9)	(-14.3)	(-12.0)	
Volumes	-2.1	-1.8	(-0.8)	(-1.3)	(-0.7)	(3.8)	(-1.5)	(-2.4)	(3.6)	
Current Account (100 mil. yen)	87,245	180,028	59,636	45,955	57,599	20,030	18,780	17,199	14,155	
Goods (100 mil. yen)	-65,890	5,419	8,534	14,959	15,220	2,332	6,762	5,876	3,134	
Services (100 mil. yen)	-27,252	-11,451	2,414	-4,951	-3,865	-453	-882	-1,719	738	
Financial Account (100 mil. yen)	137,595	238,095	90,136	71,315	105,335	31,406	33,483	7,446	10,963	
Gold & Foreign Exchange Reserves (\$1mil.)	1,245,316	1,262,099	1,262,099	1,265,402	1,260,145	1,256,053	1,260,145	1,242,792	1,219,291	1,216,903
Exchange Rate (¥/\$)	109.92	120.13	115.45	108.17	102.40	101.27	102.04	103.82	108.18	115.95

3. Financial Market Indicators

	Fiscal	Fiscal	2016			2016					
	2014	2015	1Q	2Q	3Q	AUG	SEP	OCT	NOV	DEC	
Uncollateralized Overnight Call Rates	0.068	0.063	0.035 [0.073]	-0.050 [0.067]	-0.046 [0.074]	-0.043 [0.076]	-0.052 [0.073]	-0.037 [0.076]	-0.049 [0.078]	-0.044 [0.075]	
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]	0.056 [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]	-0.070 [0.380]	-0.085 [0.350]	-0.050 [0.300]	0.020 [0.300]	0.040 [0.270]	
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)	0.880 (-0.005)	0.865 (-0.015)	0.866 (0.001)	0.864 (-0.002)		
The Nikkei Stock Average (TSE 225 Issues)	19,207	16,759	16,759 [19,207]	15,576 [20,236]	16,450 [17,388]	16,887 [18,890]	16,450 [17,388]	17,425 [19,083]	18,308 [19,747]	19,114 [19,034]	
M2(Average)	(3.3)	(3.6)	(3.2)	(3.4)	(3.4)	(3.3)	(3.5)	(3.7)	(3.9)	(4.0)	
Broadly-defined Liquidity(Average)	(3.3)	(3.9)	(3.4)	(2.2)	(1.6)	(1.5)	(1.6)	(1.5)	(1.9)	(2.1)	
Principal Figures of Financial Institutions											
Loans and Discount (Average)	Banks & Shinkin	(2.3)	(2.4)	(2.2)	(2.1)	(2.1)	(2.0)	(2.2)	(2.4)	(2.4)	(2.6)
	Banks	(2.5)	(2.5)	(2.2)	(2.1)	(2.1)	(2.0)	(2.2)	(2.4)	(2.4)	(2.6)
	City Banks etc.	(1.4)	(1.2)	(0.9)	(0.8)	(0.7)	(0.5)	(0.8)	(1.1)	(1.2)	(1.8)
	Regional Banks	(3.8)	(3.7)	(3.4)	(3.4)	(3.5)	(3.4)	(3.5)	(3.6)	(3.6)	(3.5)
	Regional Banks II	(2.9)	(3.2)	(3.2)	(3.2)	(2.9)	(2.8)	(2.9)	(3.1)	(3.1)	(3.1)
Deposits and CDs (Average)	Shinkin	(1.4)	(2.2)	(2.3)	(2.2)	(2.3)	(2.2)	(2.3)	(2.3)	(2.3)	(2.3)
	Total(3 Business Condition)	(3.3)	(3.7)	(3.0)	(3.3)	(3.4)	(3.3)	(3.6)	(3.9)	(4.2)	(4.3)
	City Banks	(3.4)	(4.5)	(3.6)	(4.7)	(4.8)	(4.4)	(5.1)	(5.6)	(6.1)	(6.3)
	Regional Banks	(3.3)	(3.0)	(2.4)	(1.9)	(2.2)	(2.2)	(2.1)	(2.2)	(2.5)	(2.3)
	Regional Banks II	(3.1)	(2.5)	(2.1)	(1.9)	(1.9)	(1.9)	(2.1)	(2.2)	(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.

For further details, please contact the Economic Research Office, Bank of Tokyo-Mitsubishi UFJ

Chief Manager Ishimaru Tel: 03-3240-3204

Written by Tooru Kanahori <tooru_kanahori@mufg.jp>

Yuusuke Yokota <yuusuke_yokota@mufg.jp >

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