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Japan's Medium-term Economic Outlook

– *August 2014* –[1]

New issues impacting Japan's growth potential

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Summary

- **We predict that Japan's economy will grow an annualized 1.5% in real terms** over the next 10 years (2.3% nominal). Growth of 1.3% in the first half will accelerate to 1.6% in the second half. The main factor dragging down economic growth will be the impact of the consumption tax hike on personal consumption.

- **Wages will begin to rise as the supply-demand balance for labor tightens.** However, increasing global competition will be a structural factor suppressing the growth of wages, and it is highly probable that the hollowing out of the domestic industry will progress further.

- **Achieving the stable 2% inflation target will prove be very difficult.** During our forecast period, we believe the Bank of Japan will continue to maintain its accommodative monetary policy. With the easing extending over the long-term, the BOJ will find it difficult to execute an exit strategy.

- **Outlook for foreign exchange rates over the next 10 years.** In the short to medium-term, the yen is likely to remain weak from the widening spread of interest rates between Japan and the US. In the long-term, however, the yen is likely to strengthen as per purchasing power parity.

- **Abe administration's improves at B+**. While significant progress has been made in agriculture-related reforms and in the expansion of mixed medical treatments, issues still remain in the area of employment. To lift Japan's potential growth rate, further growth strategies are needed regarding employment and human resources.

- **In the growth strategies, hopes are being placed on the advancement of women** and the use of foreign workers as new sources of labor. Even so, the elimination of the M-shaped curve of the labor force participation rate of women has only just begun. Employment practices require reform from top to bottom, such as the disparity in wages between men and women and the issues associated with regular and non-regular employment.

[1] Go Tanaka, Economic Research Dept., contributed to the copyediting.

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Forecast Tables

Medium-term Outlook for Japan's Economy (as of Aug 2014)

	Actual		DIR estimates		
	FY2004-08	FY2009-13	FY2014-23	FY2014-18	FY2019-23
Real GDP (y/y %)	0.6	0.9	1.5	1.3	1.6
Private final consumption	0.5	1.7	0.7	0.0	1.3
Private capital investment	1.9	-0.2	3.2	3.5	3.0
Private housing investment	-3.1	-0.8	-3.1	-5.6	-0.5
Public fixed capital formation	-7.3	3.3	-0.3	-0.9	0.4
Government final consumption	0.5	1.9	1.8	1.6	2.1
Export of goods and services	5.1	1.5	4.9	5.3	4.5
Import of goods and services	2.7	3.2	3.3	1.9	4.7
Nominal GDP (y/y %)	-0.5	-0.3	2.3	1.9	2.7
GDP deflator (y/y %)	-1.1	-1.2	0.8	0.5	1.1
Corporate Goods Price Index (y/y %)	2.2	-0.5	1.1	1.3	0.9
Consumer Price Index (y/y %)	0.3	-0.3	1.5	1.4	1.6
O/N call rate (%)	0.2	0.1	0.0	0.0	0.0
Yield on 10-yr JGBs (%)	1.5	1.0	1.4	0.9	1.8
Exchange rate (Y/$)	110.5	88.1	95.7	101.4	90.1
Current balance (% of nominal GDP)	3.8	1.9	1.6	1.7	1.5
Nominal employee compensation (y/y %)	0.1	-0.5	1.7	0.4	3.1
Unemployment rate (%)	4.2	4.6	3.5	3.7	3.3
Labor's share (ratio of employee compensation to national income)	68.5	69.6	66.8	67.1	66.6
Central & local government balance (% of nominal GDP)	-4.0	-8.5	-5.7	-6.2	-5.4
Fiscal balance					
Primary balance	-2.4	-6.7	-3.9	-4.7	-3.2
Central & local government debt (% of nominal GDP)	181.4	226.4	253.0	251.8	254.2

Source: Compiled by DIR.
Notes: 1) Period avg.
2) Some FY13 figures: DIR estimates.
3) Fiscal balance: excl. ad-hoc factors.

Main Economic Indicators

(FY)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Nominal GDP (Y tril)	489.5	473.9	480.2	473.7	472.6	481.5	493.6	500.5	509.9	518.5	528.3	540.1	554.3	570.2	587.1	604.9
(Y/y %)	-4.6	-3.2	1.3	-1.4	-0.2	1.9	2.5	1.4	1.9	1.7	1.9	2.2	2.6	2.9	3.0	3.0
Nominal GNI (Y tril)	504.8	487.0	493.5	488.4	488.0	499.4	509.4	517.9	528.4	537.8	547.3	558.7	572.3	588.0	604.4	621.9
(Y/y %)	-4.9	-3.5	1.3	-1.0	-0.1	2.3	2.0	1.7	2.0	1.8	1.8	2.1	2.4	2.7	2.8	2.9
Real GDP (chained [2005]; Y tril)	505.8	495.5	512.4	514.1	517.5	529.3	533.3	539.3	548.3	557.1	565.5	574.5	583.7	594.0	603.8	613.4
(Y/y %)	-3.7	-2.0	3.4	0.3	0.7	2.3	0.8	1.1	1.7	1.6	1.5	1.6	1.6	1.8	1.6	1.6
Domestic demand (contribution to real GDP growth; % pt)	-2.7	-2.2	2.6	1.4	1.4	2.8	-0.3	0.9	0.6	1.2	1.5	1.6	1.5	1.8	1.9	1.9
Foreign demand (contribution to real GDP growth; % pt)	-1.1	0.2	0.8	-1.0	-0.8	-0.5	1.0	0.3	1.1	0.4	0.0	0.0	0.1	-0.1	-0.3	-0.3
Per capita real GDP (chained [2005]; Y mil)	4.0	3.9	4.0	4.0	4.1	4.2	4.2	4.3	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0
(Y/y %)	-3.7	-1.9	3.1	0.4	0.9	2.5	0.9	1.3	1.9	1.9	1.8	2.0	2.0	2.2	2.1	2.1
Real GDI (chained [2005]; Y tril)	491.8	488.3	500.1	495.6	498.6	507.5	510.2	515.3	522.2	528.5	534.4	541.4	548.8	556.9	564.6	572.0
(Y/y %)	-4.4	-0.7	2.4	-0.9	0.6	1.8	0.5	1.0	1.3	1.2	1.1	1.3	1.4	1.5	1.4	1.3
Index of Industrial Production (2005 = 100)	94.4	86.1	94.1	93.2	90.0	93.4	93.5	94.3	96.2	98.0	99.6	101.5	103.4	105.7	107.8	109.8
(Y/y %)	-12.6	-8.8	9.4	-1.0	-3.4	3.7	0.1	0.9	2.0	1.9	1.7	1.9	1.9	2.2	2.0	1.9
Corporate Goods Price Index (2010 = 100)	105.2	99.8	100.2	101.6	100.5	102.4	105.5	106.4	107.7	108.6	109.3	110.1	111.1	112.1	113.2	114.5
(Y/y %)	3.2	-5.1	0.4	1.3	-1.0	1.8	3.1	0.8	1.3	0.8	0.7	0.7	0.9	0.8	1.0	1.2
Consumer Price Index (2010 = 100)	102.1	100.4	99.9	99.8	99.5	100.4	103.3	104.4	105.6	106.4	107.5	108.8	110.3	112.0	114.0	116.1
(Y/y %)	1.1	-1.7	-0.4	-0.1	-0.3	0.9	2.8	1.1	1.2	0.7	1.0	1.2	1.4	1.6	1.7	1.8
O/N call rate (%)	0.4	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yield on 10-yr JGBs (%)	1.5	1.4	1.1	1.0	0.8	0.7	0.6	0.6	0.9	1.1	1.3	1.5	1.6	1.8	2.0	2.2
Y/$	100	93	86	79	83	100	102	102	101	102	100	97	93	89	86	85
Y/EUR	143	131	113	109	107	134	135	130	124	124	121	117	113	108	105	104
Current balance (Y tril)	12.6	16.3	16.7	7.6	4.4	0.8	3.3	5.9	10.9	12.7	11.6	10.5	10.3	9.3	7.2	5.3
(% of nominal GDP)	2.6	3.4	3.5	1.6	0.9	0.2	0.7	1.2	2.1	2.4	2.2	1.9	1.9	1.6	1.2	0.9
Labor force (0000)	6,674	6,643	6,630	6,578	6,555	6,578	6,550	6,530	6,515	6,485	6,452	6,420	6,392	6,368	6,345	6,322
(Y/y %)	-0.2	-0.5	-0.2	-0.8	-0.3	0.3	-0.4	-0.3	-0.2	-0.5	-0.5	-0.5	-0.4	-0.4	-0.4	-0.4
No. employed (0000)	6,399	6,301	6,301	6,280	6,275	6,322	6,293	6,274	6,265	6,245	6,222	6,197	6,176	6,158	6,141	6,121
(Y/y %)	-0.5	-1.5	0.0	-0.3	-0.1	0.7	-0.5	-0.3	-0.1	-0.3	-0.4	-0.4	-0.3	-0.3	-0.3	-0.3
No. of employees (0000)	5,544	5,488	5,508	5,501	5,511	5,564	5,554	5,553	5,560	5,558	5,552	5,545	5,540	5,540	5,539	5,537
(Y/y %)	0.1	-1.0	0.4	-0.1	0.2	1.0	-0.2	0.0	0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	0.0
No. unemployed (0000)	275	343	328	298	280	256	238	244	244	240	231	224	217	210	205	202
Unemployment rate (%)	4.1	5.2	5.0	4.5	4.3	3.9	3.6	3.7	3.7	3.7	3.6	3.5	3.4	3.3	3.2	3.2
Nominal employee compensation (Y tril)	254	243	244	246	246	249	249	247	247	249	253	259	267	275	285	295
(Y/y %)	-0.5	-4.4	0.4	0.7	0.1	1.0	0.3	-0.9	-0.1	0.9	1.7	2.2	3.0	3.2	3.6	3.6
Nominal household disposable income (Y tril)	288	288	287	288	286	292	292	289	289	293	297	303	311	320	329	340
(Y/y %)	-0.9	-0.2	-0.2	0.2	-0.5	1.9	-0.1	-0.9	0.0	1.2	1.6	1.8	2.7	2.9	2.9	3.4
Labor's share (%)	71.6	70.6	69.2	70.4	70.1	67.9	67.9	67.7	67.0	66.5	66.2	66.2	66.4	66.5	66.9	67.1
Household savings rate (%)	1.5	2.6	2.5	2.2	1.0	-0.2	-0.8	-2.4	-3.2	-2.8	-2.7	-2.8	-2.5	-2.2	-2.2	-1.7
Central & local government																
Fiscal balance (Y tril)	-21.8	-44.1	-40.0	-40.9	-38.1	-38.4	-38.7	-34.3	-29.0	-27.5	-27.7	-28.4	-28.4	-29.5	-31.9	-34.8
(% of nominal GDP)	-4.5	-9.3	-8.3	-8.6	-8.1	-8.0	-7.8	-6.8	-5.7	-5.3	-5.2	-5.3	-5.1	-5.2	-5.4	-5.8
Primary balance (% of nominal GDP)	-2.9	-7.6	-6.6	-6.8	-6.2	-6.3	-6.3	-5.4	-4.3	-3.9	-3.7	-3.6	-3.2	-3.1	-3.1	-3.1
Central & local government debt (Y tril)	933	979	1,029	1,081	1,131	1,173	1,215	1,253	1,286	1,318	1,350	1,383	1,416	1,450	1,486	1,526
(% of nominal GDP)	190.7	206.6	214.2	228.3	239.2	243.6	246.2	250.4	252.3	254.2	255.5	256.0	255.4	254.2	253.1	252.3

Source: Compiled by DIR.
Notes: 1) Through FY13: actual; some FY13 figures: DIR estimates.
2) Fiscal balance: excl. ad-hoc factors.

Nominal Gross Domestic Expenditure (Y tril)

(FY)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Nominal GDP	489.5	473.9	480.2	473.7	472.6	481.5	493.6	500.5	509.9	518.5	528.3	540.1	554.3	570.2	587.1	604.9
(Y/y %)	-4.6	-3.2	1.3	-1.4	-0.2	1.9	2.5	1.4	1.9	1.7	1.9	2.2	2.6	2.9	3.0	3.0
Domestic demand	491.1	469.6	475.9	480.0	483.0	497.5	505.9	511.6	516.9	524.4	535.0	547.6	561.5	578.2	596.8	616.4
(Y/y %)	-2.7	-4.4	1.3	0.9	0.6	3.0	1.7	1.1	1.0	1.4	2.0	2.3	2.5	3.0	3.2	3.3
Private final consumption	288.1	284.2	284.5	286.4	288.1	295.8	298.7	300.9	303.1	305.7	310.3	316.3	323.9	332.5	342.1	352.1
(Y/y %)	-2.2	-1.4	0.1	0.7	0.6	2.7	1.0	0.7	0.7	0.8	1.5	1.9	2.4	2.6	2.9	2.9
Private housing investment	16.5	12.6	12.9	13.4	14.0	15.8	15.6	14.2	13.1	12.6	12.6	12.7	12.9	13.1	13.1	13.3
(Y/y %)	1.1	-23.5	2.3	3.7	4.7	12.7	-1.2	-9.2	-7.4	-3.8	-0.3	1.0	1.5	1.1	0.4	1.0
Private capital investment	71.0	60.7	61.9	64.3	64.7	66.9	68.4	70.8	74.4	77.6	80.3	83.0	86.0	89.5	92.9	96.7
(Y/y %)	-7.6	-14.5	2.0	3.8	0.5	3.5	2.2	3.6	5.0	4.3	3.6	3.3	3.7	4.1	3.8	4.1
Change in private inventories	1.3	-5.0	-0.3	-1.6	-1.9	-4.2	-3.1	-2.1	-1.8	-1.3	-0.7	-0.2	0.5	1.2	1.7	1.7
Government final consumption	92.9	94.2	95.5	96.7	97.1	98.5	101.2	103.1	103.9	105.2	107.2	109.8	112.9	116.4	120.4	124.7
(Y/y %)	-0.4	1.4	1.4	1.2	0.5	1.4	2.7	1.9	0.8	1.3	1.9	2.4	2.8	3.1	3.4	3.6
Public fixed capital formation	21.2	22.8	21.3	20.8	21.0	24.6	25.1	24.7	24.1	24.6	25.3	26.0	25.2	25.5	26.6	27.8
(Y/y %)	-4.0	7.7	-6.5	-2.5	1.1	17.1	2.0	-1.8	-2.2	1.9	2.9	2.9	-3.2	1.2	4.2	4.5
Change in public inventories	0.1	0.0	-0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Export of goods and services	78.6	64.5	73.8	70.9	70.4	79.9	82.2	84.0	88.8	94.9	98.8	101.3	104.1	107.0	110.1	114.6
(Y/y %)	-15.0	-17.9	14.4	-3.9	-0.7	13.5	2.8	2.2	5.7	6.8	4.2	2.5	2.7	2.8	3.0	4.1
Import of goods and services	80.2	60.2	69.5	77.3	80.8	95.9	94.6	95.2	95.7	100.7	105.6	108.9	111.3	114.9	119.8	126.0
(Y/y %)	-4.9	-25.0	15.5	11.2	4.5	18.7	-1.4	0.6	0.6	5.2	4.8	3.1	2.2	3.3	4.3	5.2

Real Gross Domestic Expenditure (chained [2005]; Y tril)

(FY)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Real GDP	505.8	495.5	512.4	514.1	517.5	529.3	533.3	539.3	548.3	557.1	565.5	574.5	583.7	594.0	603.8	613.4
(Y/y %)	-3.7	-2.0	3.4	0.3	0.7	2.3	0.8	1.1	1.7	1.6	1.5	1.6	1.6	1.8	1.6	1.6
Domestic demand	493.1	482.2	495.0	501.8	508.9	522.7	521.4	525.8	528.9	535.0	542.9	551.6	559.7	569.9	580.6	591.2
(Y/y %)	-2.7	-2.2	2.7	1.3	1.5	2.7	-0.2	0.8	0.6	1.2	1.5	1.6	1.5	1.8	1.9	1.8
Private final consumption	291.4	295.0	299.7	303.9	308.4	316.4	311.9	312.3	312.6	314.1	316.9	320.4	324.3	328.8	333.6	338.2
(Y/y %)	-2.0	1.2	1.6	1.3	1.5	2.6	-1.4	0.1	0.1	0.5	0.9	1.1	1.2	1.4	1.5	1.4
Private housing investment	15.5	12.3	12.5	12.9	13.6	14.9	14.3	12.9	11.8	11.3	11.2	11.2	11.2	11.1	11.0	10.9
(Y/y %)	-1.1	-21.0	2.2	3.2	5.3	9.5	-4.2	-9.6	-8.3	-4.5	-1.2	-0.1	0.0	-0.4	-1.3	-0.8
Private capital investment	71.1	62.5	64.9	68.0	68.5	70.3	71.6	74.0	77.6	80.8	83.6	86.0	88.6	91.5	94.0	96.8
(Y/y %)	-7.7	-12.0	3.8	4.8	0.7	2.6	1.7	3.4	4.9	4.2	3.3	2.9	3.0	3.3	2.7	3.0
Change in private inventories	1.8	-5.0	0.0	-1.5	-1.9	-4.0	-3.0	-2.0	-1.7	-1.2	-0.7	-0.2	0.5	1.2	1.6	1.6
Government final consumption	93.4	96.0	97.9	99.1	100.6	102.4	104.3	106.9	107.9	109.2	110.8	112.8	114.9	117.3	120.0	122.8
(Y/y %)	-0.4	2.7	2.0	1.2	1.5	1.8	1.8	2.5	1.0	1.2	1.5	1.8	1.9	2.1	2.3	2.3
Public fixed capital formation	19.8	22.1	20.7	20.1	20.3	23.4	23.0	22.5	21.7	22.0	22.4	22.8	21.7	21.7	22.2	22.8
(Y/y %)	-6.7	11.5	-6.4	-3.2	1.3	15.1	-1.7	-2.3	-3.2	1.1	1.9	1.8	-4.6	-0.3	2.5	2.6
Change in public inventories	0.0	0.0	-0.1	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
Export of goods and services	79.0	71.3	83.6	82.3	81.3	85.2	87.9	91.2	97.7	104.5	110.3	115.0	120.3	126.3	131.5	137.5
(Y/y %)	-10.6	-9.7	17.2	-1.6	-1.2	4.7	3.2	3.7	7.1	7.0	5.6	4.3	4.6	4.9	4.1	4.6
Import of goods and services	66.8	59.6	66.8	70.3	72.9	78.1	76.3	77.7	78.2	81.5	85.7	89.3	92.5	97.2	102.2	107.7
(Y/y %)	-4.7	-10.7	12.0	5.3	3.8	7.0	-2.3	1.8	0.7	4.2	5.2	4.1	3.7	5.0	5.1	5.5

Deflator (chained [2005])

(FY)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
GDP deflator	96.8	95.6	93.7	92.1	91.3	91.0	92.5	92.8	93.0	93.1	93.4	94.0	95.0	96.0	97.2	98.6
(Y/y %)	-0.9	-1.2	-2.0	-1.7	-0.9	-0.4	1.7	0.3	0.2	0.1	0.4	0.6	1.0	1.1	1.3	1.4
Domestic demand	99.6	97.4	96.1	95.7	94.9	95.2	97.0	97.3	97.7	98.0	98.5	99.3	100.3	101.5	102.8	104.3
(Y/y %)	0.0	-2.2	-1.3	-0.5	-0.8	0.3	1.9	0.3	0.4	0.3	0.6	0.7	1.1	1.1	1.3	1.4
Private final consumption	98.9	96.3	94.9	94.3	93.4	93.5	95.8	96.3	97.0	97.3	97.9	98.7	99.9	101.1	102.6	104.1
(Y/y %)	-0.2	-2.6	-1.5	-0.6	-0.9	0.1	2.4	0.6	0.7	0.3	0.6	0.8	1.2	1.2	1.4	1.5
Private housing investment	106.5	103.1	103.2	103.7	103.2	106.1	109.4	109.9	111.0	111.7	112.8	114.0	115.8	117.5	119.6	121.8
(Y/y %)	2.2	-3.2	0.2	0.5	-0.5	2.9	3.1	0.5	0.9	0.7	0.9	1.1	1.5	1.5	1.8	1.8
Private capital investment	99.9	97.1	95.5	94.6	94.4	95.1	95.5	95.7	95.8	95.9	96.2	96.5	97.1	97.8	98.8	99.9
(Y/y %)	0.2	-2.8	-1.7	-0.9	-0.2	0.8	0.5	0.2	0.1	0.1	0.2	0.3	0.6	0.8	1.0	1.1
Government final consumption	99.4	98.2	97.6	97.6	96.6	96.2	97.0	96.4	96.3	96.3	96.7	97.3	98.2	99.2	100.4	101.6
(Y/y %)	0.0	-1.2	-0.6	-0.1	-1.0	-0.4	0.8	-0.6	-0.2	0.1	0.4	0.6	0.9	1.0	1.2	1.2
Public fixed capital formation	106.8	103.2	103.1	103.7	103.5	105.3	109.2	109.8	110.9	111.8	113.0	114.2	115.9	117.7	119.6	121.8
(Y/y %)	2.9	-3.4	-0.1	0.7	-0.2	1.7	3.7	0.6	1.0	0.8	1.0	1.1	1.5	1.5	1.7	1.8
Export of goods and services	99.5	90.4	88.3	86.2	86.6	93.9	93.5	92.2	90.9	90.8	89.6	88.1	86.5	84.7	83.8	83.3
(Y/y %)	-4.9	-9.1	-2.4	-2.3	0.5	8.4	-0.4	-1.5	-1.3	-0.2	-1.3	-1.7	-1.8	-2.1	-1.1	-0.5
Import of goods and services	120.2	100.9	104.1	109.9	110.7	122.8	124.0	122.6	122.5	123.6	123.2	122.0	120.2	118.2	117.3	117.0
(Y/y %)	-0.2	-16.0	3.1	5.6	0.7	10.9	1.0	-1.2	-0.1	0.9	-0.4	-1.0	-1.4	-1.7	-0.8	-0.2

Source: Compiled by DIR.
Note: Through FY13: actual.

Assets and Labor and Capital Supply

(FY)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Potential GDP (real GDP chained [2005]; Y tril)	517.6	520.3	527.9	525.7	528.9	534.7	537.8	542.4	548.4	553.6	559.8	566.5	573.6	581.6	589.8	598.1
(Y/y %)	-1.1	0.5	1.4	-0.4	0.6	1.1	0.6	0.9	1.1	1.0	1.1	1.2	1.3	1.4	1.4	1.4
Hourly labor productivity (yen)	4,295	4,340	4,464	4,484	4,537	4,637	4,700	4,774	4,861	4,958	5,047	5,143	5,238	5,337	5,432	5,531
(Y/y %)	-1.3	1.1	2.9	0.5	1.2	2.2	1.4	1.6	1.8	2.0	1.8	1.9	1.8	1.9	1.8	1.8
Hours worked per annum and per capita	1,794	1,768	1,780	1,782	1,771	1,776	1,773	1,772	1,772	1,772	1,775	1,778	1,781	1,785	1,788	1,791
(Y/y %)	-1.8	-1.5	0.7	0.1	-0.6	0.3	-0.1	-0.1	0.0	0.0	0.2	0.2	0.2	0.2	0.2	0.2
Labor participation rate (%)	60.2	59.9	59.7	59.2	59.1	58.9	59.1	58.9	58.8	58.6	58.5	58.3	58.2	58.2	58.2	58.1
Net corporate sector capital stock (2000 prices; Y tril)	1,042	1,040	1,035	1,033	1,031	1,031	1,035	1,039	1,046	1,055	1,065	1,076	1,087	1,100	1,113	1,128
(Y/y %)	0.2	-0.3	-0.4	-0.2	-0.2	0.0	0.3	0.4	0.7	0.8	0.9	1.0	1.1	1.2	1.2	1.3
Household financial assets (Y tril)	1,469	1,493	1,511	1,521	1,589	1,610	1,592	1,597	1,603	1,611	1,622	1,634	1,650	1,670	1,691	1,716
(% of nominal GDP)	300.1	315.0	314.7	321.1	336.1	334.4	322.5	319.1	314.4	310.7	306.9	302.6	297.8	292.8	288.0	283.7
External assets (Y tril)	573	594	604	648	753	872	877	878	886	907	909	910	912	915	916	917
(% of nominal GDP)	117.0	125.2	125.9	136.8	159.3	181.0	177.8	175.5	173.7	174.8	172.0	168.4	164.5	160.4	156.0	151.6
Net external assets (Y tril)	236	265	258	273	309	331	334	335	339	351	353	349	343	335	331	329
(% of nominal GDP)	48.3	55.9	53.8	57.7	65.5	68.7	67.7	66.9	66.5	67.8	66.7	64.7	61.9	58.8	56.4	54.3
Stock prices (TOPIX)	1,057	904	885	792	811	1,188	1,166	1,189	1,233	1,269	1,315	1,377	1,460	1,560	1,672	1,794
(Y/y %)	-32.0	-14.5	-2.2	-10.5	2.3	46.6	-1.9	2.0	3.6	2.9	3.7	4.7	6.0	6.9	7.1	7.3
Land Price Index (nationwide; all purposes; 2000 = 100)	62.9	59.9	57.3	55.1	53.4	52.3	53.5	54.0	54.7	54.6	55.0	55.9	56.4	56.9	57.2	57.5
(Y/y %)	-2.0	-4.8	-4.3	-3.8	-3.1	-2.1	2.2	1.0	1.2	-0.1	0.6	1.6	1.0	0.9	0.4	0.7

Assumptions

(FY)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
World economic growth (PPP; y/y %)	1.9	1.0	4.9	3.8	3.2	3.0	3.3	3.5	3.4	3.6	3.5	3.3	3.4	3.5	3.4	3.5
Oil price (WTI; $/bbl)	85.9	70.7	83.4	97.3	92.1	99.0	104.6	106.6	108.5	110.3	112.0	113.6	115.1	116.5	117.9	119.1
(Y/y %)	4.5	-17.7	17.9	16.7	-5.4	7.6	5.6	1.9	1.8	1.7	1.5	1.4	1.3	1.2	1.1	1.0
Population (mil)	128.1	128.0	128.1	127.8	127.5	127.3	127.1	126.8	126.5	126.2	125.8	125.3	124.9	124.3	123.8	123.2
(Y/y %)	0.2	0.0	0.0	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.3	-0.3	-0.4	-0.4	-0.4	-0.4	-0.5
Population 15-64 (mil)	82.9	82.5	81.8	81.2	80.1	79.0	77.8	76.8	76.0	75.2	74.6	74.0	73.3	72.8	72.3	71.8
Population over-65 (mil)	28.3	29.1	29.5	29.8	30.8	31.9	33.1	34.0	34.8	35.4	35.8	36.2	36.5	36.7	36.8	36.9
Ratio of those over 65 to overall population (%)	22.1	22.7	23.0	23.3	24.2	25.1	26.0	26.8	27.5	28.0	28.5	28.9	29.2	29.5	29.7	30.0
Consumption tax rate (%)	5.0	5.0	5.0	5.0	5.0	5.0	8.0	9.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Effective corporation tax rate (%)	39.5	39.5	39.5	39.5	37.0	37.0	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6
Employees' pension contribution rate (%)	15.4	15.7	16.1	16.4	16.8	17.1	17.5	17.8	18.2	18.3	18.3	18.3	18.3	18.3	18.3	18.3

Source: Compiled by DIR.
Note: Through FY13: actual; some FY13 figures: DIR estimates.

Introduction

① World Economy Over Next Ten Years

We anticipate that the world economy will grow an annualized 3.4% over the next 10 years (2014–23) However, our outlook remains cautious. The Federal Reserve is strengthening its stance of emphasizing the improvement of the employment environment, including the quality of jobs, and we continue to believe that the Fed will begin to raise interest rates from around the end of 2015. Even so, this pace of tightening is likely to be slower than before. For the time being, the focus will be on the Fed's reconsideration of the exit strategy which is expected to be announced by year-end. Considering its decision-making process, it will be very difficult for the ECB to buy large quantities of sovereign debt, and we do not believe this will occur for some time. The main risk factor will be changes in the monetary policies of advanced economies which are anticipated in the middle years of our forecast period. Emerging-market economies could receive a major blow through changes in the global flow of money.

② Japan's Economy Over Next Ten Years

We predict that Japan's economy will grow an annualized 1.5% in real terms over the next 10 years. However, the pattern of growth will differ somewhat between the first half and second half. Growth of 1.3% in the first half will accelerate to 1.6% in the second half. The main factor dragging down economic growth will be the impact of the consumption tax hike on personal consumption. In addition to the decrease in demand after the last-minute buying spree right before the tax increase, the income effect will also place downward pressure on consumption. The growth of wages has the potential of being suppressed in the short-term from the increase in the non-regular employee ratio and from companies' revision of demand outlooks. In the medium-term, wages will begin to rise as the supply-demand balance for labor tightens. That said, increasing global competition will be a structural factor suppressing the growth of wages, and it is highly probable that the hollowing out of the domestic industry will progress further. Capital expenditure will weaken in the short-term, will accelerate in the medium-term, and will then slow in the long-term. The path to restoring government finances to health will not be easy, and achieving a primary balance surplus will prove to be difficult. In terms of energy policies, we anticipate the gradual restarting of nuclear power plants, the installation of renewable energy capacity, and the increase in electricity demand. Electricity prices will experience an upward pressure during our forecast period.

③ Outlook for Exchange Rates Over Next Ten Years

In the short to medium-term, the yen is likely to remain weak from the widening spread of interest rates between Japan and the US. In the long-term, however, the yen is likely to strengthen as per purchasing power parity.

④ BOJ will continue monetary easing

Achieving the stable 2% inflation target will prove be very difficult. During our forecast period, we believe the Bank of Japan will continue to maintain its accommodative monetary policy. With the easing extending over the long-term, the BOJ will find it difficult to execute an exit strategy.

⑤ Assessment of the new growth strategies of the Abe administration is revised upward to a B+.

While significant progress has been made in agriculture-related reforms and in the expansion of mixed medical treatments (treatments that combine procedures with and without public health insurance coverage), issues still remain in the area of employment. To lift Japan's potential growth rate, further growth strategies are needed regarding employment and human resources.

⑥ Growth will be dependent on the direction of the labor force.

Japan's employment environment is showing broad improvement, including the labor market for new graduates. The constraint of labor input, however, will be a factor placing downward pressure on the economy over the long-term. In the growth strategies, hopes are being placed on the advancement of women and the use of foreign workers as new sources of labor. Even so, the elimination of the M-shaped curve of the labor force participation rate of women has only just begun. Employment practices require reform from top to bottom, such as the disparity in wages between men and women and the issues associated with regular and non-regular employment.

⑦ Direction of corporate tax reform.

The reduction of the corporate tax rate will impact both foreign direct investment into Japan and foreign direct investment to other countries by Japanese companies, and will increase capital expenditure. Given Japan's existing economic structure, however, it is possible that its effect will be limited. To ensure that the reduction of the effective corporate tax rate has a noticeable impact, it will be important to consider reviewing the tax base, reforming other taxable items, and reducing government expenditures.

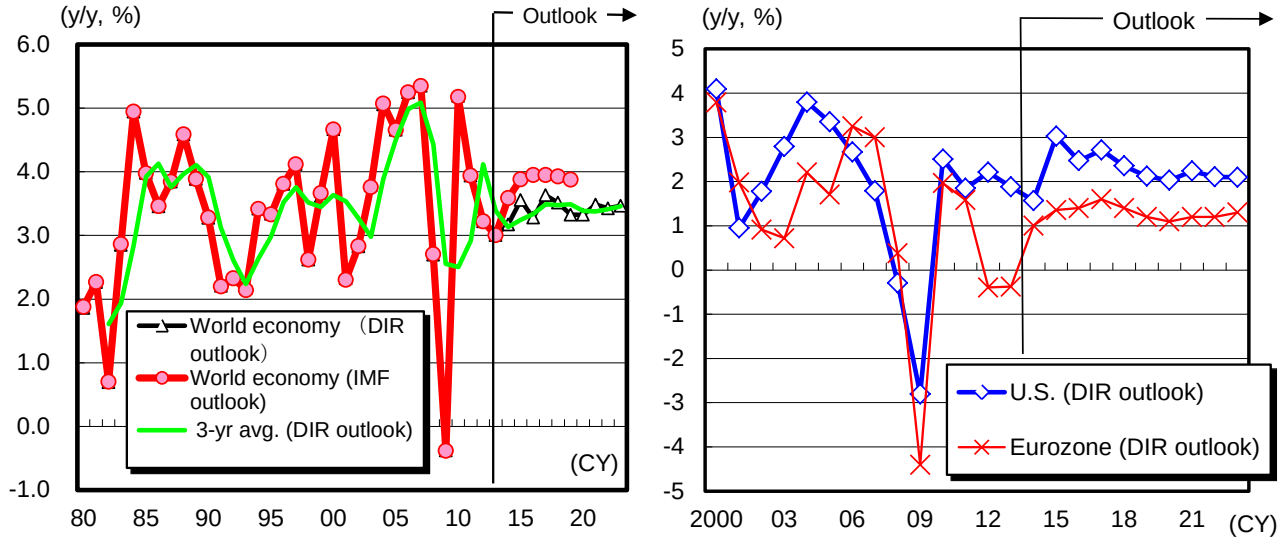
1. World Economy and Japan's Economy over Next 10 Years

1.1 World economy over the next 10 years

1.1.1 Assumptions for the world economy: A cautious stance broadly in line with our previous outlook's assumptions

In our current medium-term outlook, we assume that the world economy will grow at an annualized 3.4% rate over the next 10 years (2014–23). Growth will average 3.4% in both the first and second halves of this period. We assume that growth of 3% in 2013 will gradually accelerate to a peak of 3.6% in 2017, after which will hold at around 3.4%. Compared to our February 2014 outlook (an annualized rate of 3.5%), we have downgraded our forecast by 0.1%pt. With respect to 2014 and 2015, for which forecasting certainty is high, we raised it from 3.3% to 3.4%. For the remaining eight years, we reduced it by around 0.2%pt. This revision reflects our somewhat more cautious view of the US economy compared to our previous outlook.

World Economic Outlook **Chart 1.1.1**



Source: IMF, *World Economic Outlook*, Apr 2014; compiled by DIR.
Note: Purchasing power parity basis.

1.1.2 US Economic Outlook

Short-term growth forecast is revised downward

With guarded attitudes lingering toward emerging-market economies at the start of the year, sentiment strengthened that advanced economies would drive the growth of the world economy in 2014 and 2015. However, as the IMF indicated, affected by the special factor of bad weather, real GDP fell by an annualized 2.1% quarter on quarter in 1Q14 (after revision), the first decline recorded in three years. As a result, the outlook for the whole of 2014 was also revised downward, which became a factor behind the sluggishness of the world economy. Fortunately, the 2Q growth rate released toward the end of July turned positive and surpassed market expectations. Hence, confidence is returning, based on sentiment that the negative growth of the 1Q was due to temporary factors.

While we believe in our main scenario that the private sector will recover gradually, policy uncertainties remain a potential risk factor. The political and budgetary schedule going forward begins with the debate on the budget for the new fiscal year starting in October, followed by midterm elections in November, then by the issue of raising the debt limit in March 2015. Domestic politics remain at a standstill due to a divided Congress. Turmoil like the partial government shutdown of October 2013 will likely be avoided, however, in light of the approaching election. Political turmoil

may still resurface in 2014 depending on the results of the midterm election. With two years remaining before the presidential election of 2016, President Obama may slide further into his lame duck status.

Direction of the Fed's monetary policy

Janet Yellen became chair of the Federal Reserve in February and she has continued the basic policies of former chairman Ben S. Bernanke by reducing the size of asset purchases accompanying QE3 with each FOMC meeting. The FOMC is already expected to reduce asset purchases to zero at its October meeting. However, in its step-by-step tapering of QE3, the Fed has only slowly eased back on the pedals of aggressive monetary easing. The end of QE3 does not mean that the Fed will step on the brakes (monetary tightening). The FOMC has released a statement indicating that, while keeping a vigilant eye out for inflation, a de facto zero interest rate policy will be maintained for a considerable period of time after QE3 ends.

The interest of market participants has shifted to what the Fed's next step will be—that is to say, when the Fed will begin raising interest rates, and how it will use its exit strategy to adjust a balance sheet that has swollen to $4.5 trillion. Members of the Federal Reserve Board of Governors seem to differ in their views on what specific measures should be taken, and there appears to be a disagreement regarding the relationship between ending reinvestments to maintain the scale of the balance sheet and the timing for raising interest rates. This situation has become a cause for unnecessary market turmoil. The Fed is expected to announce a specific exit strategy by the end of the year on how assets on its balance sheet will be dealt with and how it will go about raising interest rates while being in possession of a large portfolio of assets.

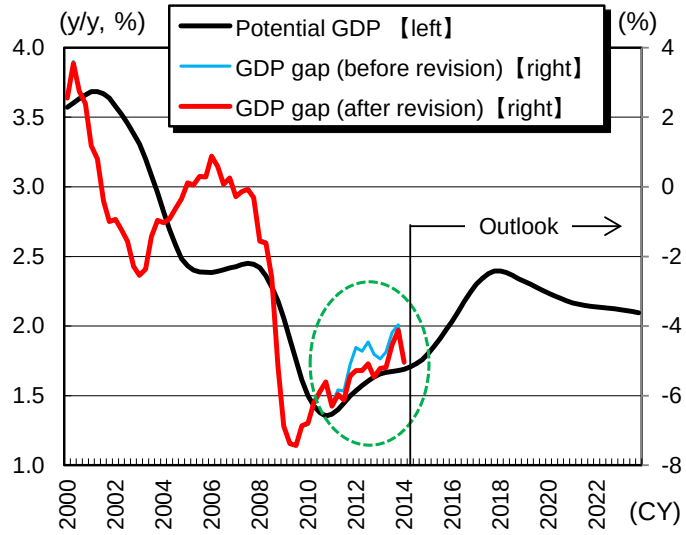
Nearly 80% of Fed governors anticipate that the zero interest rate policy will end in 2015, but there is considerable disagreement about the specifics, including the timing and the pace of raising interest rates. In addition, the median value of the long-term target rate for federal funds, or the so-called neutral interest rate, has gone down from 4.00% to 3.75%.

In our current medium-term outlook, we continue to believe that the Fed will begin to raise interest rates around the end of 2015, but we now anticipate that rates will be raised at a slower pace than before. In our previous outlook, we assumed that interest rates would be increased by 25 basis points each time as was seen between 2004 and 2006 when Alan Greenspan was the Fed chairman. In our current outlook, we assume that interest rates will be raised by 25 basis points every three months in 2016, that this pace will accelerate toward the end of the tightening phase, and that the target rate for federal funds will rise to 3.75% by the end of 2017, bringing the tightening phase to an end. We also assume that the interest rate policy will be adjusted in the second half of our forecast period. The reduction of the policy interest rate, however, will be limited since the growth of the US economy will ultimately fall in line with its potential growth rate. While the policy interest rate of 3.50% toward the final stages of the tightening phase is not high from a historical perspective, it is based on our assumption that prices will stabilize at a level slightly below the inflation target.

These revisions to our outlook take into account the cautious stances of Chair Yellen and the main faction of Fed governors. If the economy expands at a faster pace than its potential growth rate, the GDP gap will shrink and inflationary pressure will gradually mount. Chair Yellen has indicated a desire to improve the employment environment by a certain degree, even if this leads to a somewhat higher inflation rate. The Fed has changed the way it judges the employment environment from the traditional measure of the unemployment rate to a more comprehensive approach employing a range of labor indicators. Chair Yellen herself is focused on the quality of employment. The most recent FOMC statement in July states that "a range of labor market indicators suggested that there remained significant underutilization of labor resources," underscoring that, while the labor market is experiencing improvements, the improvement in quality is not enough.

The potential growth rate of the US economy has been revised downward from the deterioration in the quality of labor, as seen in the lower labor participation rate of young people, and from structural factors, such as companies maintaining their cautious attitudes toward increasing capital expenditure. However, the speed at which the GDP gap is shrinking has not accelerated.

Change in US GDP Gap **Chart 1.1.2**



Source: CBO, BEA, Haver Analytics; compiled by DIR.
Note: CBO estimates.

1.1.3 Outlook for European Economies

Revisions to our previous outlook

No major changes have been made since February 2014 to our medium-to long-term outlook for the Eurozone (annualized growth of 1.3% for 2014–23, which is the same as before). The Eurozone rebounded in 2Q13 from the downturn that followed the European debt crisis and recorded four straight quarters of positive growth to 1Q14. Annualized growth, however, has averaged less than 1% quarter on quarter during this period. In contrast to Japan, the US, and the UK, the real GDP of the Eurozone is still less than its level before the Lehman crisis. Even so, consumer sentiment and business sentiment are gradually improving, and we believe that the Eurozone will gradually recover.

The risk of another crisis, however, has not been fully eliminated. In July, financial worries intensified in Portugal, and the financial market of that nation experienced a major correction. While the possibility of such turmoil occurring sporadically cannot be ruled out, what differs from the previous crisis is that the adverse effects have not spread much to other nations, a situation that can be viewed positively. On the other hand, the outlook for the Russian economy has been substantially downgraded due to the turmoil in Ukraine and the accompanying sanctions. Given its relatively stronger ties to Russia than other regions, Eurozone's exposure to high energy prices and increased uncertainty over the future are issues that should be kept in mind.

Further easing by the ECB

One of the changes taking place in the last six months is the European Central Bank acting to ease monetary policy further in June. This was the consequence of the rise in the consumer price index slowing sharply, which served to strengthen deflationary concerns. Since then, low economic growth has been accompanied by low inflation, and market participants have been insistent in their calls for further easing. Hence, the ECB's action did not come as a surprise. In its series of measures to ease monetary policy, the ECB aims to prevent the appreciation of the euro, which will have the effect of monetary tightening against its intent and to revive the financial intermediation function of banks that transmits the ECB's monetary easing to the private sector.

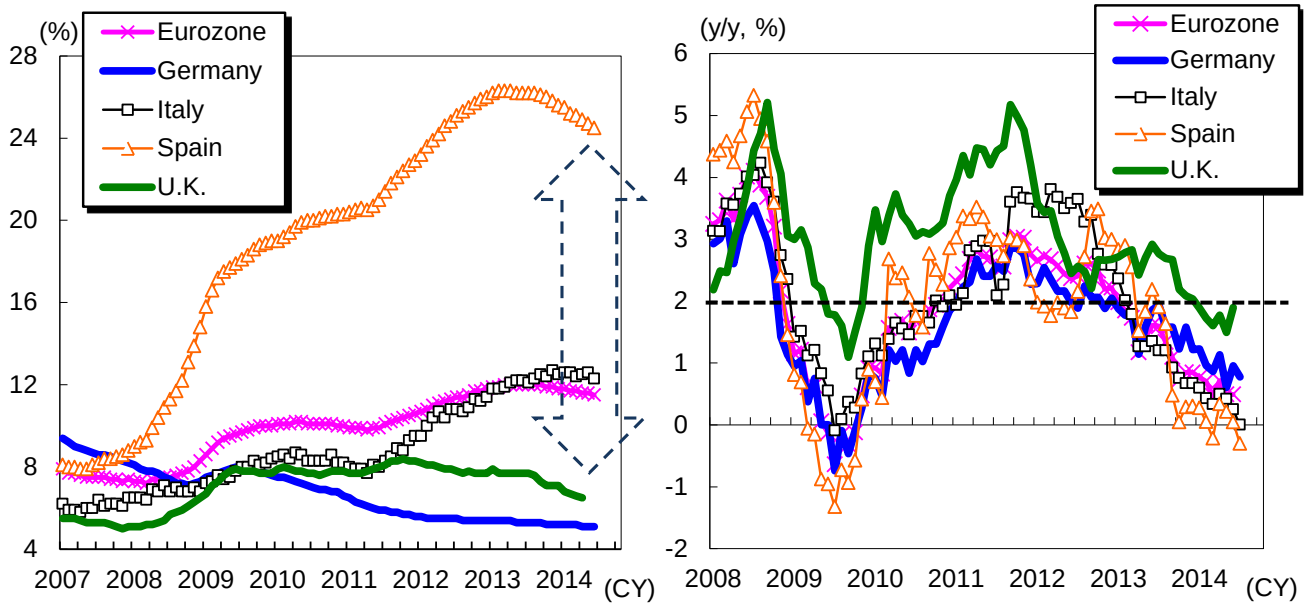
Through the series of measures to ease monetary policy, the range for the overnight money market rate was reduced for the Eurozone, and the short-term interest rate declined. In addition, the long-term interest rate has further room to fall since the ECB indicated that it would maintain an accommodative stance for a prolonged period of time. These developments were encouraged by market expectations that the ECB would begin to purchase sovereign debt in large quantities and engage in quantitative easing as Japan and the US have as it becomes increasingly difficult to see a way out of low inflation for the Eurozone. Certainly, Mario Draghi, President of the ECB, has stated that more measures are available, suggesting the possibility of further action. At present, however, the likelihood is low that the ECB will be able to satisfy market expectations quickly. Also, given the ECB's lengthy decision-making process, the actual effect on markets will likely be limited.

For banks to increase their lending to companies as the ECB desires, no matter how low yields on sovereign debt fall, companies' demand for financing will need to recover. What will be important in this context is the improvement of business confidence, and such confidence being buoyed by the sustained recovery of the world economy. If low growth continues in the Eurozone, the bad debt ratio of financial institutions will rise, which will risk curbing the activities of the private sector through a credit crunch and it more difficult for the recovery to accelerate in the near future. We believe that the ECB will implement the monetary measures which it decided on in June, and will monitor their effects in increasing lending over time.

As in our previous outlook, we believe this low interest rate condition will continue until 2016, and that the ECB will finally shift its monetary policy in 2017. The pace of raising interest rates, however, is likely to be gradual, as with the Fed. The euro's initial reaction to the announcement of monetary easing was lukewarm, but as the discussions over the Fed's exit strategy grows, the euro has depreciated. In our current medium-term outlook, we maintain our view that the euro will weaken against the yen and the dollar.

We anticipate that the monetary policies of Europe and the US will change in the middle years of our forecast period. The possibility of these changes in policy having a major impact on emerging-market economies through a shift in the global flow of money is a risk factor that should be kept in mind.

Unemployment Rates in EU Countries (Left) and Inflation Rate (Right) **Chart 1.1.3**



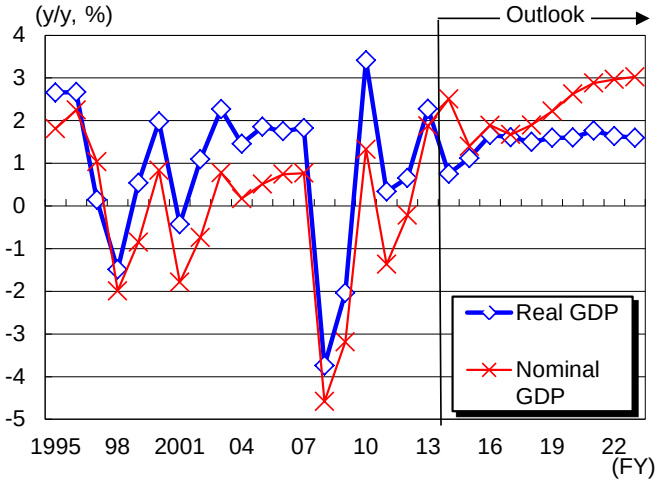
Source: Eurostat, Haver Analytics; compiled by DIR.

1.2 Ten Key Issues for Japan's Economy over the Next 10 Years

1.2.1 Overview of the outlook for Japan's economy

We predict that Japan's economy will grow 2.3% (nominal) and 1.5% (real) over the next 10 years (annualized average rates). These figures do not differ greatly from our February 2014 outlook.

Outlook for GDP Growth Rate **Chart 1.2.1**



Source: Cabinet Office; compiled by DIR.
Note: Estimate by DIR.

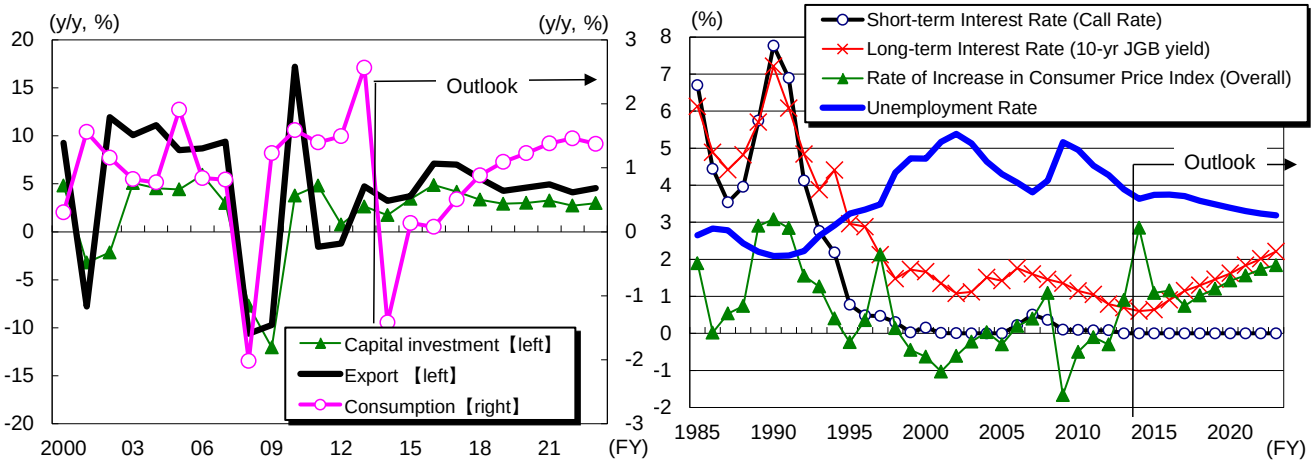
If we divide our forecast period into two halves (FY14–18 and FY19–23), real GDP will increase by an average rate of 1.3% in the first half and will accelerate to 1.6% in the second (annualized average rates). Compared to our previous outlook of February 2014 (average growth of 1.5% over the next 10 years; 1.7% in the first half and 1.3% in the second), while the overall growth rate will largely be the same for the next 10 years, the pattern of growth will differ between the first half and second half.

One reason for this contrast is the significant surge in demand ahead of the consumption tax hike in April 2014. This caused personal consumption to jump 2.6% in FY13, a pace of growth not seen since FY90. Personal consumption is expected to fall after FY14 in response, and this, combined with the negative income effect, will be factors for sluggish personal consumption in the first half of our forecast period.

Next, turning to exports and capital expenditure, while they will slow somewhat in the second half when the yen starts to appreciate, we believe that they will trend firmly on the whole. Compared to our previous outlook, we have revised downward the average growth rates of exports and capital expenditure in the first half. This is to reflect the ongoing weakness of exports, even though the yen has started to depreciate in FY13.

In our current forecast period as well, we anticipate that the trade and service balance will remain a deficit and will be, on average, -1.6% of GDP. The trade deficit may momentarily contract from the current falloff in imports from the sluggishness of domestic demand and in the middle years of our forecast period due to the effects of a weaker yen, but it will remain a substantial amount in excess of -1.0% of GDP. On the other hand, the income surplus will remain at a high level throughout our forecast period, thanks to the growth of net external assets and the improvement of the rate of return on external assets, and this is expected to offset the trade deficit. Thus, we predict that a current account deficit will be avoided. However, when changes in the contribution of domestic and foreign demand are examined, the contribution of foreign demand is likely to turn negative in the second half of our forecast period, when the growth rate of imports is expected to accelerate in line with the firm domestic demand.

Outlook by Demand Category (left), Interest Rates and Inflation Rate, and Unemployment Rate (right) **Chart 1.2.2**

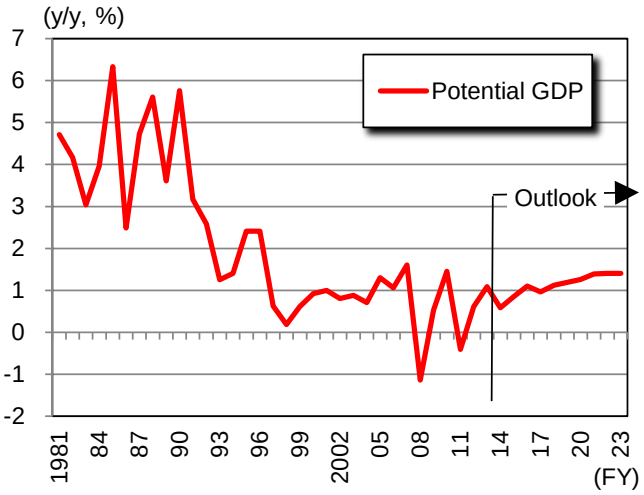


Source: Cabinet Office, Ministry of Finance, Ministry of Internal Affairs and Communication, Bank of Japan; compiled by DIR.
Note: Estimate by DIR.

We anticipate that the macroeconomic supply-demand balance will tighten with the expansion of the economy and that the deflationary pressure brought to bear by the GDP gap will gradually weaken. The Lehman crisis of September 2008 caused the GDP gap to worsen to about -5%, but we predict that it will continue to improve and will turn positive for the first time in nine years in FY16. This will mainly be due to the actual growth rate of the economy exceeding the potential growth rate. On the supply-side, the baby boomer generation (born in 1947–49) will reach retirement age and begin leaving the labor market. This decline in potential labor input will serve to suppress the potential growth rate and also contribute to the improvement in the GDP gap.

It is usually the case that, when the macroeconomic supply-demand balance improves and inflationary pressure is brought to bear by the real economy, central banks will tighten monetary policy to quell future inflation. However, it is difficult to imagine CPI (all items) sustainably exceeding the BOJ's price stability target of 2% during our forecast period. For this reason, we assume in our current outlook that the BOJ will maintain its zero interest rate policy. Should the GDP gap improve and the inflation rate rise more than our forecast toward the end of the forecast period, there is a risk that markets will become unstable from having to constantly second-guess the BOJ's exit strategy. The BOJ will be pressed to administer its monetary policy with added caution.

Japan's Potential Growth Rate **Chart 1.2.3**



Source: DIR.
Note: Estimate by DIR.

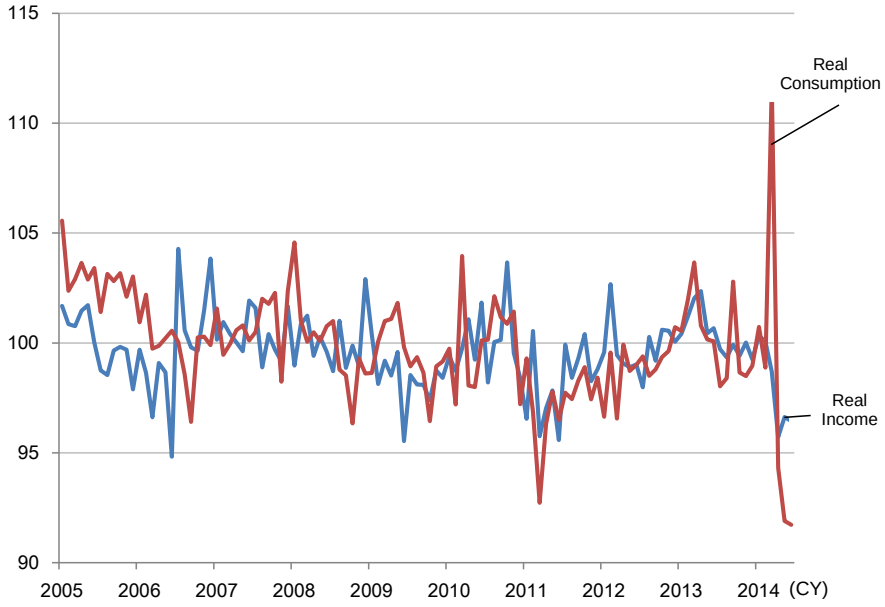
1.2.2 In addition to the anticipated substitution effect, there is also the income effect of the consumption tax hike

The consumption tax rate was raised from 5% to 8% in April 2014, and it is scheduled to be raised further to 10% in October 2015. In this section, we analyze the effect of the consumption tax hike on real consumption.

The direct impact of the consumption tax hike on consumption takes two forms: the substitution effect and the income effect. The substitution effect (between time periods) is the effect of future demand being brought forward, or the surge in demand that occurs right before the consumption tax hike, along with the subsequent fall. The rise and fall in consumption from the substitution effect are thought to be largely the same in amplitude. Hence, it is natural to think that this effect will fall within expectations. This is because the amount of decrease in consumption after the consumption tax hike will correspond to the amount of increase in consumption right before the tax hike that cannot be explained by factors other than future demand being brought forward. This is just a short-term, temporary effect.

The factor of greater significance is the income effect. This is the effect where consumption is suppressed by the decrease in real income resulting from the rise in prices attributable to the consumption tax hike. The BOJ estimates that increasing the consumption tax rate by 3%pt will boost CPI by around 2%pt, and real income will be suppressed by the same amount. It is worth noting that, unlike the substitution effect, the decrease in real income from the income effect will occur semi-permanently. Thus, when looking at consumption over the medium-and long-term, the income effect is more important.

Household Income and Consumption Expenditure **Chart 1.2.4**



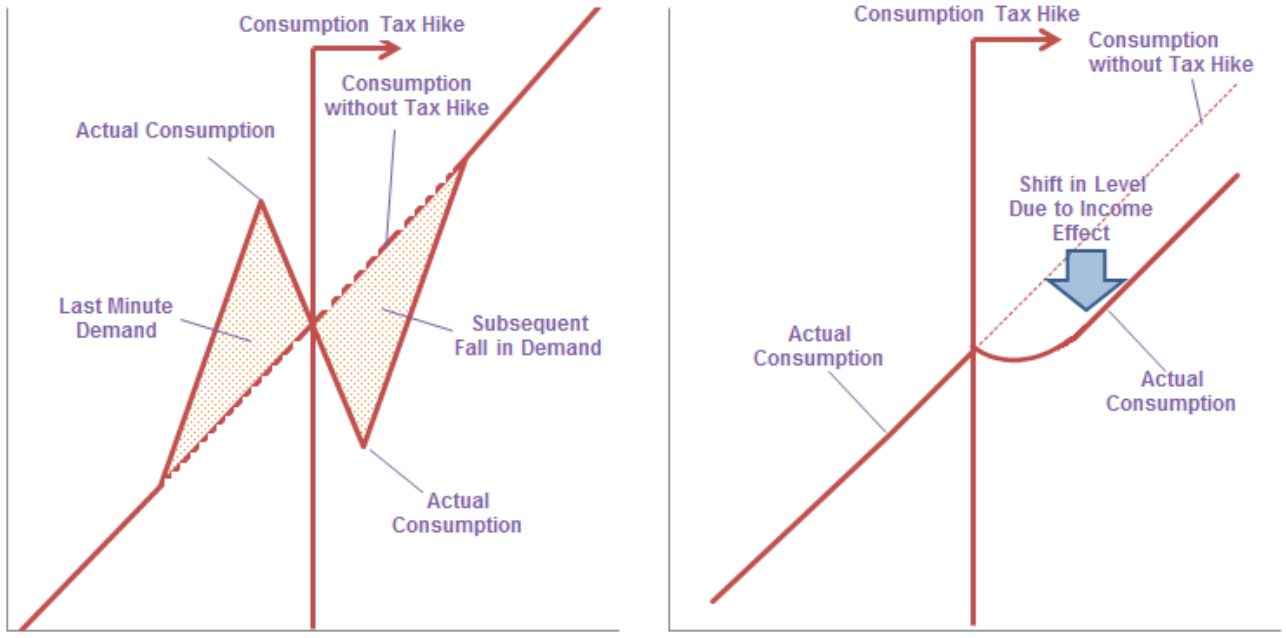
Source: Ministry of Internal Affairs and Communications; compiled by DIR.
Notes: 1) Family Income and Expenditure Survey of Workers' Households (Including agricultural, forestry and fisheries households), current income and consumption expenditure, CPI used to express in real terms.
2) Benchmark 2010 (base time = 100); seasonal adjustment by DIR.

When consumer prices shift up, given all other conditions remain the same, households will respond in two ways. First, they can reduce their real consumption, and second, they can reduce their savings rate. Actual households will respond to the decline of real income through a combination of these two methods. It is difficult in the short-term to reduce real consumption (that is to say, reduce living standards) to match the decline in real income (the so-called "ratchet effect"). Thus, it is reasonable to think that the reaction of the typical household to the change in the level of their real income is to first draw down their savings as a partial response, then gradually reduce the level of their real consumption.

The decrease in the savings rate will be a factor reducing future consumption capacity. Also, since households determine the balance between consumption and savings according to rational choices, as long as we work on the assumptions of people having a typical life-cycle and utility curve, the effect of the shift in the level of real income on the savings rate will be very small in the long-term. Thus, the decline in real income by 2%pt through the consumption tax hike will, in the long-term, suppress real consumption by the same amount.

Chart 1.2.5 summarizes the above argument. Future demand being brought forward through the substitution effect and the subsequent fall both occur in the short-term, and the size of this effect is relatively easy to predict. In regards to the income effect, real consumption will, in the long-term, be suppressed by the same amount as the reduction in real income. In the short-term, however, there will be a transition period as the adjustment of real consumption to its equilibrium state will occur gradually. The next increase of the consumption tax by 2%pt is expected to generate similar effects.

Consumption Tax Increase: Substitution Effect (Left) and Income Effect (Right) **Chart 1.2.5**



Source: DIR.

The Daiwa medium-term macroeconomic forecasting model is a model that incorporates both the long-term equilibrium state and the short-term adjustment processes and the effect of the consumption tax hike is modeled as described above. Chart 1.2.6 shows the estimated effect of the consumption tax hike using this macroeconomic model, which is also our base scenario for how the level of consumption will trend.

As we have examined above, the most important consequence of the consumption tax hike is the income effect. The temporary increase in national income from measures like additional public works spending will only negate the substitution effect, and will do nothing to offset the semi-permanent income effect. What is needed to offset the negative income effect from the higher consumption tax is an increase in real income. This is why the increase in wages, particularly the increase in regular pay (higher base pay) is emphasized as one possible response.

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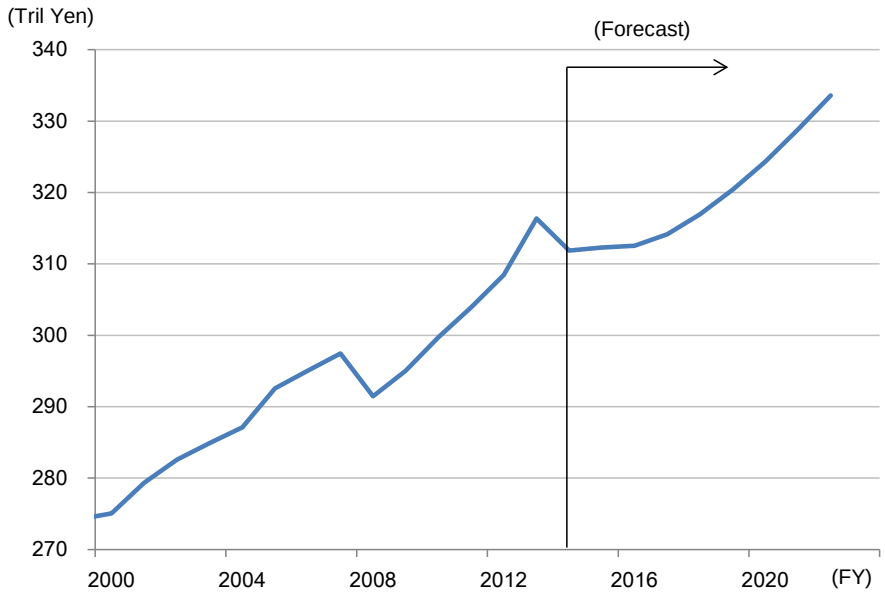
Forecast of Real Consumption **Chart 1.2.6**



Source: Cabinet Office; compiled by DIR.

1.2.3 Are wages going to rise?

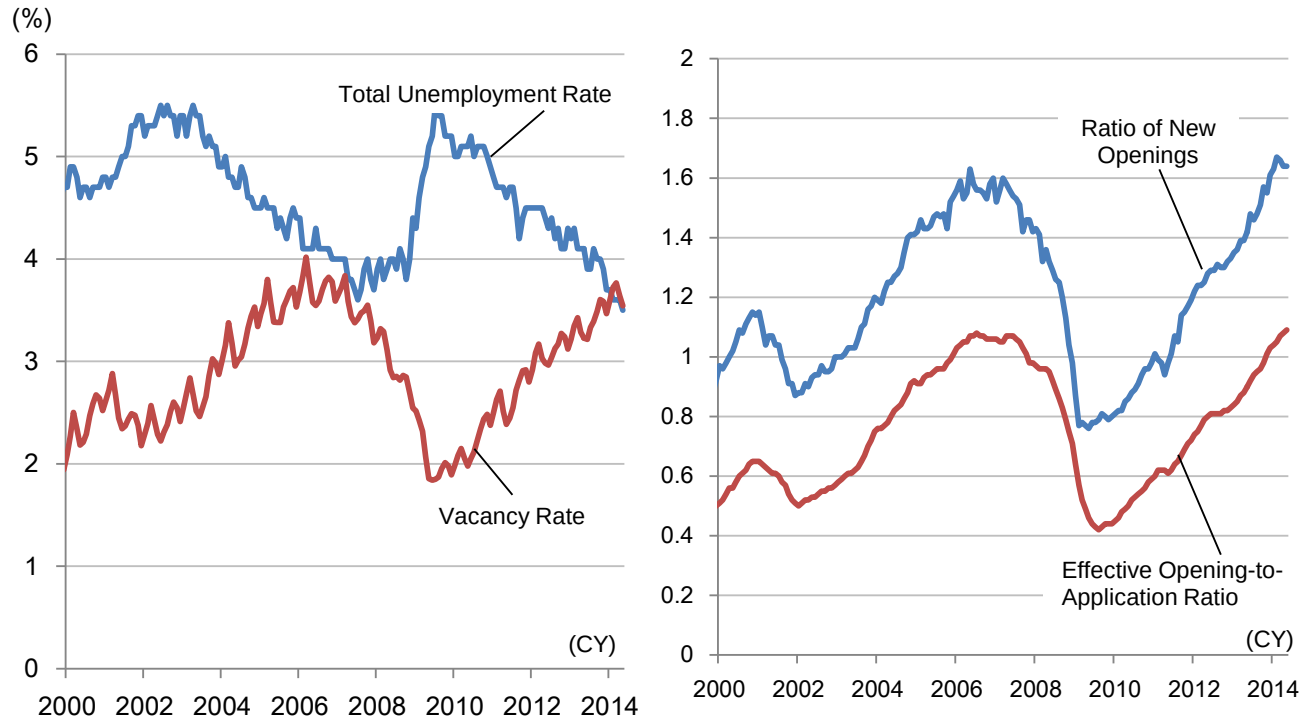
Building on the discussions above, in this section we analyze factors for determining wages from both a cyclical viewpoint (supply and demand for labor) and a structural viewpoint (international competition) and examine the outlook for wages.

Cyclical factor (supply and demand for labor)

Japan's labor market is tightening, as seen by the decline in the unemployment rate and the increase in the ratio of effective job offers to applicants. The ratio of effective job offers to applicants has surpassed 1 for the first time since 2007, and along with the ratio of new job offers to applicants, has marked new highs since the start of the 1990s when the asset bubble collapsed. Also, the unemployment rate has dropped below its level before the Lehman crisis, and it has improved to nearly the same level as the rising job vacancy rate. Hopes are being placed on the tightening of the supply-demand balance for labor to lead to higher wages.

Wages, however, are still only rising gradually. One explanation is that the supply-demand balance for labor may not be as tight as employment indicators suggest. Having experienced the difficult labor environment that followed the previous financial crisis, there has been an increase in the number of the potential unemployed (so-called discouraged workers) who have left the labor market. Because of the way the unemployment rate is defined, people leaving the labor market (a decrease in the labor force participation rate, which is defined as [employed people + unemployed people] / people who are 15 years or older) do not count as unemployed even if they do not have a job. This may be one of the reasons behind the decline in the unemployment rate.

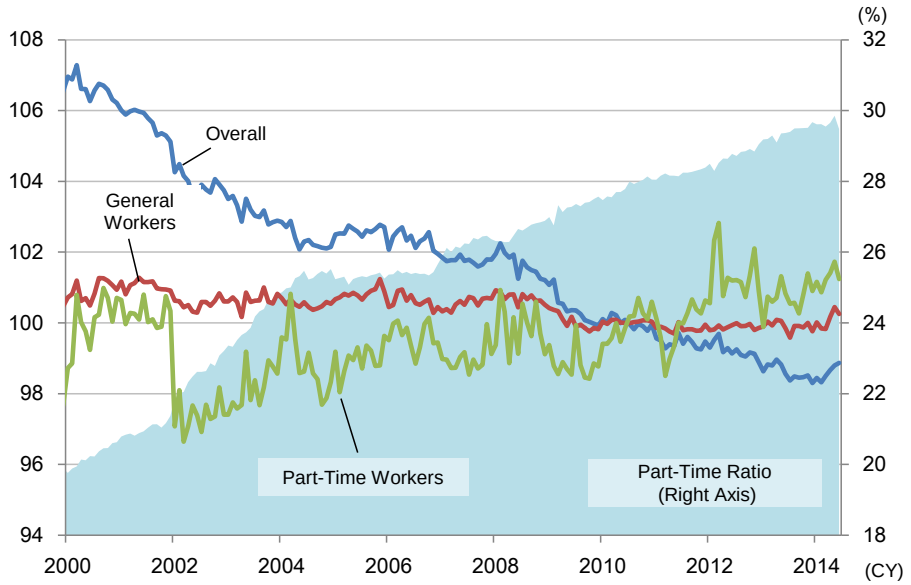
Total Unemployment Rate and Vacancy Rate (Left); Ratio of New Openings and Effective Opening-to-Application Ratio (Right) **Chart 1.2.7**



Source: Ministry of Internal Affairs and Communications, Ministry of Health, Labour and Welfare; compiled by DIR.
Note: Vacancy Rate = (Effective Opening-to-Application– Number of Jobs) / (Number of Employers + Effective Opening-to-Application– Number of Jobs)

The improvement in the labor market has been driven mainly by the increase in non-regular employees with weak negotiating power. Compared to other periods, there are a considerable number of workers who have not had sufficient opportunities to develop their skill set. Also, the number of potential job seekers willing to work in non-regular positions is thought to have risen. Thus, it is possible that the share of non-regular employees in the total number of employees will continue to go up. This change in the share of non-regular employees suggests that the supply and demand for labor has not improved as much as the statistics suggest. Thus, in the current labor environment, wage growth may be more sluggish than one would expect. Therefore, it is unlikely that wages will increase in earnest in the short-term.

Change in Regular Wages (5 employees or more, companies of all sizes) **Chart 1.2.8**



Source: Ministry of Health, Labour and Welfare; compiled by DIR.
Notes: 1) Base year 2010 (base time = 100). The part-time ratio is calculated using number of general workers and part-time wage index.
2) Seasonal adjustment by DIR.

That said, in the medium-to long-term, the demand for labor will grow as the economy continues to expand, and labor that is not being used, including the potential unemployed, will be utilized. This will then lead to higher wages as the regular employee ratio goes up. Our current outlook is based on this baseline scenario, and we forecast that wages will turn upward in the long-term.

At the same time, downside risks also deserve our attention. First, as discussed in the previous section, the reduction in real income from the consumption tax hike will suppress consumption expenditures. This will spread to the entire economy through multiple channels, like through dampening the demand for capital expenditure, causing a multiplier effect, and ultimately becoming a factor that suppresses the demand for labor in the entire economy. Next, and this relates to the discussions in the next section and beyond, the progression of the hollowing out of the domestic industry will be a factor placing downward pressure on the demand for domestic labor. Also, as the domestic industry hollows out, the growth in exports will be curbed, and there is concern that domestic production and domestic employment will also be suppressed. (This will be examined further in section 1.2.4.) Given such environment, companies have not developed an active interest in hiring more regular employees. In short, from the company's side (demand-side), Japan's economy is placed in a situation where the share of non-regular employees in the total number of employees will not readily decline. The possibility of these demand-side factors suppressing wage growth should be kept in mind.

Structural factor (international competition)

Under these conditions, the current administration is seeking to increase wages through political leadership. This initiative can be understood as having the objectives of increasing wages while companies are enjoying higher earnings from improved profit margin made possible by the depreciation of the yen, avoiding the decline in real consumption, preventing the contraction of the economic pie, and sustaining a virtuous cycle for domestic demand.

As international specialization progresses, however, wage increases that do not accompany increases in productivity have the potential of further worsening the hollowing out of domestic industry. Downward pressure is being exerted on wages, not only by the cyclical factor of the supply and demand for labor as discussed above, but structurally and as a trend through increased global competition. In particular, wages in Japan have been suppressed ever since China began to strengthen its presence in global markets, a development to which the globalization of Japanese companies also contributed. Although a classical argument, we now analyze this situation theoretically according to the Balassa–Samuelson Effect. The Balassa–Samuelson Effect is expressed by the following simple equation.

The Balassa–Samuelson Effect **Chart 1.2.9**

(1-1) $W_1 = P_{n,1} * MPL_{n,1} = P_{t,1} * MPL_{t,1}$

(1-2) $W_2 = P_{n,2} * MPL_{n,2} = P_{t,2} * MPL_{t,2}$

(1-3) $P_{t,1} = P_{t,2} \quad \therefore W_1/MPL_{t,1} = W_2/MPL_{t,2} \quad \because$ (1-2) (1-3)

Source: DIR.
Notes: 1) *W* stands for wages and *P* represents prices, while *MPL* is the marginal productivity of labor.
2) *n* stands for non-tradable goods, *t* stands for tradable goods, and the figures 1 and 2 are country codes.

Applying this equation to the cases of Japan and China, Equation 1.1 shows the determining factors for wages in Japan. Wages will eventually equal the value of the marginal product, and wages will converge between sectors. As a result, the following relationship stands:

Wage in Japan = Price of non-tradable goods in Japan * Marginal labor productivity of the non-tradable goods sector in Japan
= Price of tradable goods in Japan * Marginal labor productivity of the tradable goods sector in Japan

Based on the same assumptions, Equation 1.2 shows the determining factors for wages in China, which are determined by the following relationship:

Wage in China = Price of non-tradable goods in China * Marginal labor productivity of the non-tradable goods sector in China
= Price of tradable goods in China * Marginal labor productivity of the tradable goods sector in China

Equation 1.3 is the most important. This expresses a relationship where Japan's tradable goods price equal that of China's. Given the difficulty of transferring trade costs (costs like transportation costs and tariffs) and factors of production, this relationship would not normally materialize. China, however, has opened up to the world economy through initiatives such as joining the WTO. Barriers like tariffs and investment regulations have diminished in recent years. As a result, Equation 1.3 has become more appropriate than before. Thus, it is reasonable to think that the difference in prices in the tradable goods sector is narrowing between Japan and China. What cannot be ignored is the manner in which the suppression of growth in $P_{t,1}$ (tradable goods price of Japan) led, through Equation 1.1, to the suppression of growth in W_1 (wages in Japan). The obvious conclusion is that wages are unlikely to rise in earnest in the medium-term while this effect persists.

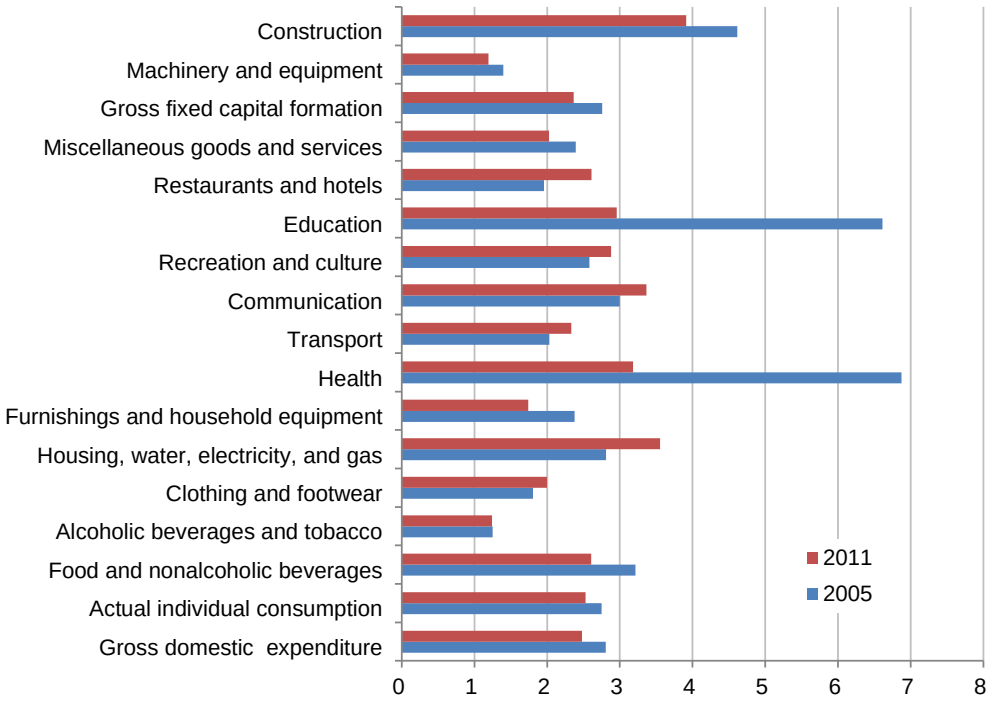
Effectiveness of China's Entry into International Markets **Chart 1.2.10**

$P_{t,1} > P_{t,2}$	$\rightarrow P_{t,1}$ suppression, $P_{t,2}$ growth	approaches to: $\rightarrow P_{t,1} = P_{t,2}$
$W_1/MPL_{t,1} > W_2/MPL_{t,2}$	$\rightarrow W_1/MPL_{t,1}$ suppression, $W_2/MPL_{t,2}$ growth	approaches to: $\rightarrow W_1/MPL_{t,1} = W_2/MPL_{t,2}$

Source: DIR.

In the long-term, the question will be how long this convergence process continues. A useful indicator for examining this question is the ratio of price levels between Japan and China. The difference in prices between Japan and China has narrowed from 2005 to 2011. Prices of overall expenditures (consumption goods), however, still differ by a multiple of about 2.5. Since this ratio of prices includes both tradable and non-tradable goods, it does not fully correspond to the range of prices that are subject to convergence. While it is difficult to limit the comparison to just tradable goods, machinery can serve as a proxy due to its relatively strong characteristic as a tradable good compared to other categories of goods. In 2011, the ratio of machinery prices between Japan and China had declined to a multiple of 1.2 from about 1.4 in 2005. This suggests that, while downward pressure of around 20% may remain on wages in accordance with international terms of convergence, it may be overly pessimistic to assume that the ratio of prices between Japan and China is more than 2, and that the downward pressure on wages will continue until it finally converges.

Comparison of Prices in Japan and China **Chart 1.2.11**



Source: World Bank; compiled by DIR.

Should this convergence of prices take its course, according to Equation 2.3 of Chart 1.2.12, the speed by which nominal wages rise in relation to the marginal labor productivity of Japan and China will also converge. In other words, until the prices of tradable goods converge (as discussed in the next section), the hollowing out of industry will continue, assuming the smooth transfer of factors of production. Also, while the growth of nominal wages in relation to Japan's marginal labor productivity will be suppressed, once the prices of tradable goods converge, nominal wages in relation to Japan's marginal labor productivity is expected to go up at the same pace as that in China. While unit labor cost is stagnant in Japan, it is rising rapidly in China. If this is primarily due to the process of price convergence as discussed above, once the prices of tradable goods converge, the growth of unit labor cost may slow in China, and accelerate in Japan.

The Balassa–Samuelson Effect (Rate of Change) **Chart 1.2.12**

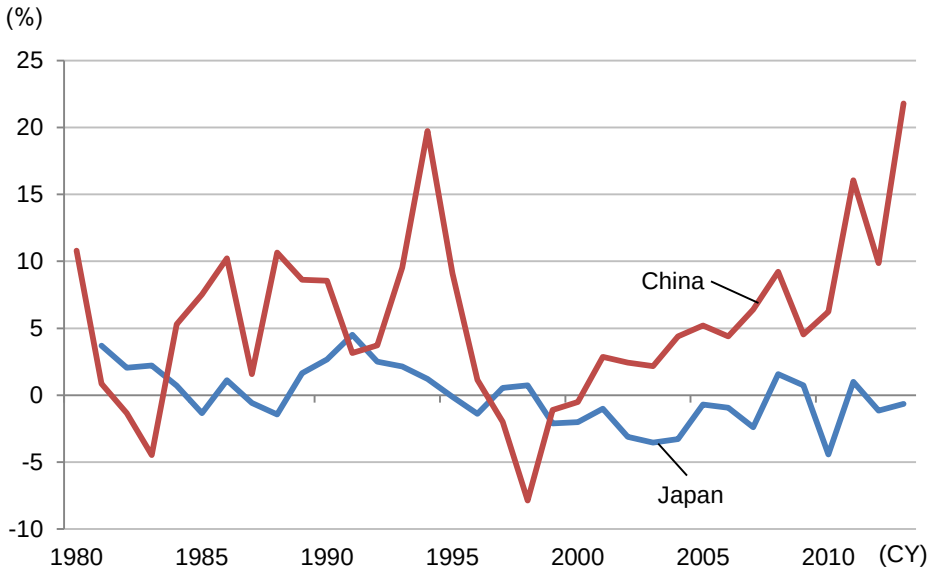
(2-1) $\Delta lnW_1 = \Delta lnP_{n,1} + \Delta lnMPL_{n,1} = \Delta lnP_{t,1} + \Delta lnMPL_{t,1}$

(2-2) $\Delta lnW_2 = \Delta lnP_{n,2} + \Delta lnMPL_{n,2} = \Delta lnP_{t,2} + \Delta lnMPL_{t,2}$

(2-3) $\Delta lnP_{t,1} = \Delta lnP_{t,2} \therefore \Delta lnW_1 - \Delta lnMPL_{t,1} = \Delta lnW_2 - \Delta lnMPL_{t,2} \quad \because$ (2-2) (2-3)

Source: DIR.
Note: Δln is the rate of change.

Rate of Change in Unit Labor Cost in Japan and China **Chart 1.2.13**



Source: Haver Analytics; compiled by DIR.
Note: This differs in two ways from the rate of change in the formula $W_1/MPL_{t,1}$ $(\Delta lnW_1 - \Delta lnMPL_{t,1})$. First, rather than being the value of the tradable goods sector alone, it is the value of the nation overall (including the non-tradable sector). Secondly, it represents wages in relation to average labor productivity, rather than marginal labor productivity. Despite these problems, due to the constraints of the data, the rate of change in unit labor cost is included above as a reference.

Such a development, however, would be one mediated by the convergence in prices ($P_{t,1} = P_{t,2}$, $\Delta lnP_{t,1} = \Delta lnP_{t,2}$). Through this process, the nominal wage (W_1) and its rate of change (ΔlnW_1) would increase, but purchasing power would not, as long as the real wage (W_1/P_1) does not increase. Should the rate of growth of non-tradable good price ($P_{n,1}$) slow in relative terms for some reason, real wages may possibly increase as a result. This is not, however, the ideal outcome of deflation being overcome in Japan through an increase in both wages and prices. As indicated by equations 1-1 and 2-1, the real wage (W_1/P_1) and their growth rate are dependent on the labor productivity and the growth rate of the entire economy—that is to say, of both the tradable and non-tradable good sectors. Thus, in overcoming deflation while simultaneously achieving a sustained rise in real wages, the key is to increase labor productivity, not hope that the price of non-tradable goods continue to stagnate.

Three approaches can be taken to increase labor productivity. The first approach is to improve the capital-labor ratio. Possible responses would include a reduction in the corporate tax and a tax break for capital investments. The second approach is to increase the total factor productivity. While this is very difficult to discuss in quantitative terms, improving the quality of labor through improvements in education and personnel policies may contribute. The third approach is "selection and concentration." In this approach, labor productivity of the entire economy is improved by shifting human resources from low labor productivity sectors to high labor productivity sectors. However, high labor productivity sectors are, by definition, sectors that do not require a great deal of labor. Artificially engaging in selection and concentration when the free market has already allocated the labor factors efficiently would distort the allocation of resources and would risk reducing the productivity of the entire economy. However, when there are sectors that are protected by regulations and where factors of production (labor) are already being artificially allocated, contracting such sectors and shifting the factors of production (labor) to sectors with higher productivity will have the potential of lifting the productivity of the entire economy.

1.2.4 Backdrop to the hollowing out of industry and its impact

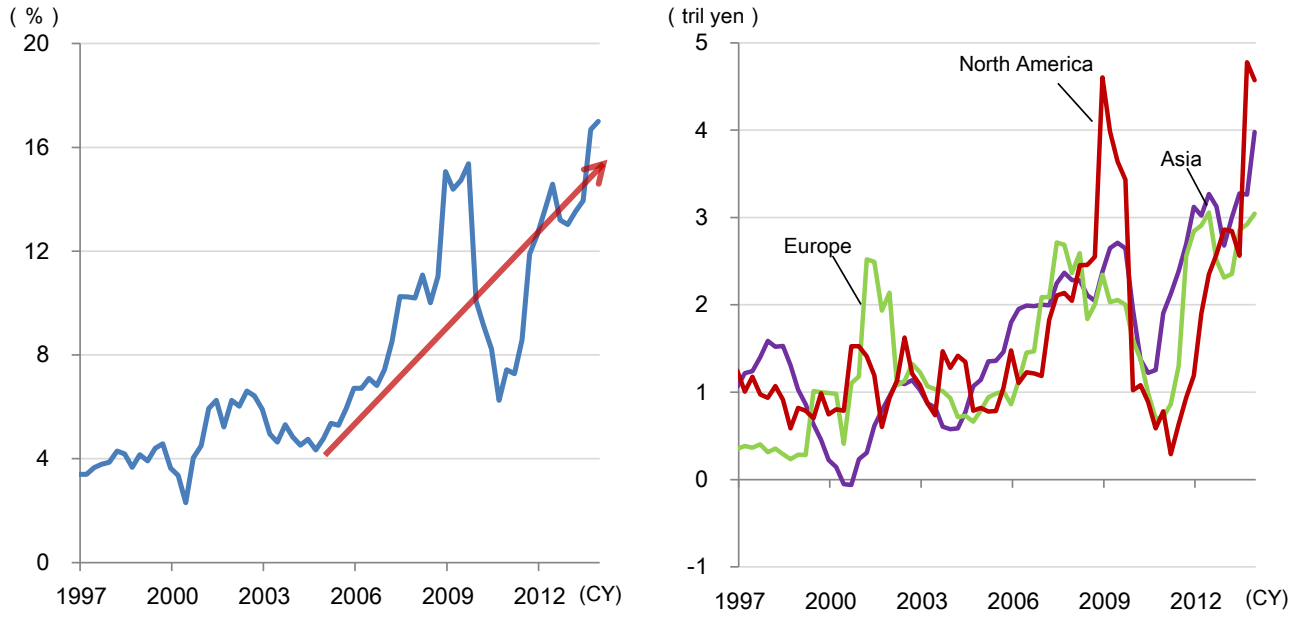
The backdrop to sluggish prices and wages in Japan (particularly in the tradable goods sector) is the existence of intense international competition, which is resulting in the hollowing out of industry. As long as there are differences in the level of wages with respect to marginal productivity, even if an economic recovery tightens the domestic supply-demand balance for labor, wages will not rise and jobs will move overseas. In this section, we provide a more comprehensive look at the hollowing out of industry and discuss its impact on Japan's economy, as well as its future outlook.

Current situation and the backdrop to the hollowing out of industry

Chart 1.2.14 (left graph) presents one piece of evidence showing the hollowing out of industry in Japan. The chart illustrates the share of FDI in the total investment of Japanese companies (FDI + domestic private-sector capital expenditure). While the graph has fluctuated from events such as the massive investments in US financial institutions by Japanese banks during the financial crisis in 2008 and the economic downturn following the Lehman crisis, in its broader trend, the share of FDI has risen sharply since the second half of the 2000s. One of the reasons for this increase is the cost advantage of overseas production that comes from the yen's sharp appreciation. A similar phenomenon was observed in the early 2000s. Bearing this point in mind, now that the yen has lost its former strength, it is reasonable to think that the hollowing out of Japanese industry from the foreign exchange factor should pause for the time being.

What deserves our attention in this context are not short-term fluctuations that comes from the foreign exchange factor, but the increase in the share of FDI to the capital expenditure of Japanese companies. This share was about 7% in the first half of the 2000s when the yen was strong, but has now climbed to about 17%. Looking at the actual amounts, domestic private-sector capital expenditure totaled Y64.7 trillion in 2013, which is about the same as the Y64.5 trillion recorded in 2002. In contrast, FDI rose by Y9.2 trillion during the same period, from Y4.0 trillion to Y13.2 trillion. It is likely that this shift represents some form of regime change.

Foreign Direct Investment Ratio (Left) and Foreign Direct Investment by Region (Right) Chart 1.2.14

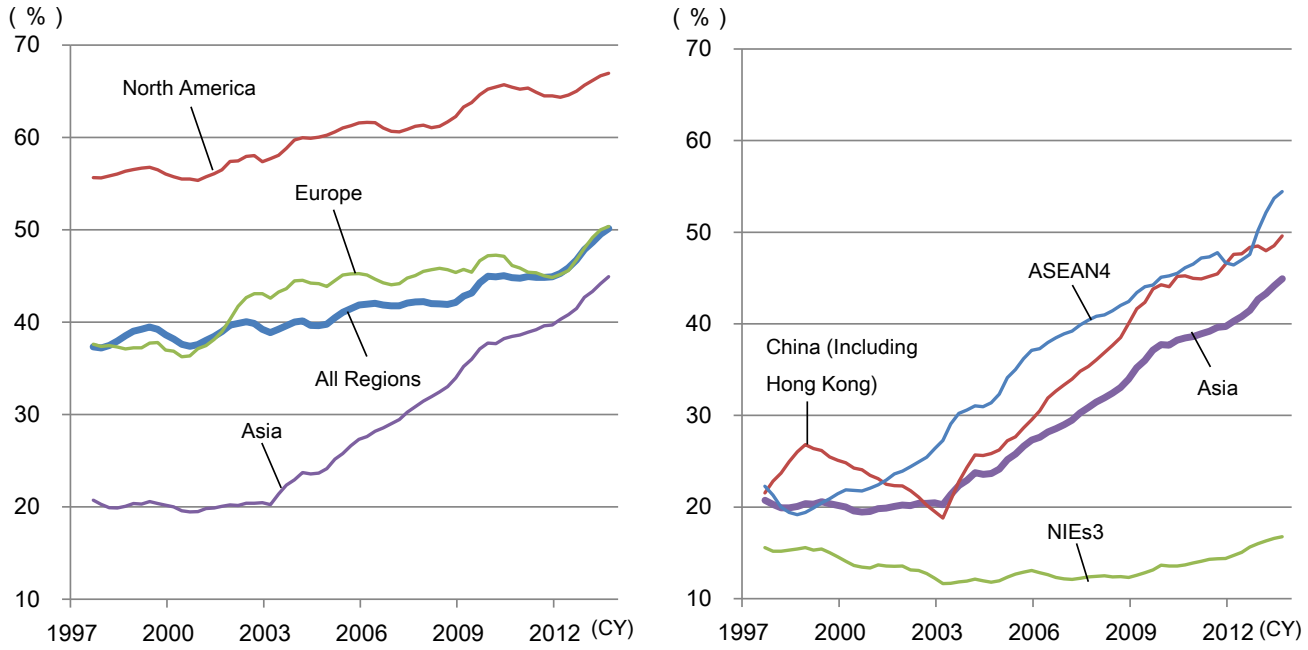


Source: Ministry of Finance, Bank of Japan, and Cabinet Office, compiled by DIR. Four-quarter moving average.
Note: Foreign direct investment ratio = foreign direct investment / (foreign direct investment + domestic private investment).

One of the reasons for this increase in the share of FDI to the capital expenditure of Japanese companies is the relative growth of foreign demand. Since the 1990s, Japan's economy has grown slowly while foreign economies, especially the emerging economies in Asia, have expanded at a relatively rapid pace. The increase in FDI to capture such foreign demand is a development that cannot be overlooked. Overseas production, however, is not the only way to respond to the relative growth in foreign demand. Companies can also respond by expanding domestic production and exports. Thus, if capturing foreign demand is the sole objective, no major shift would occur in the ratio of exports to the sales of the foreign subsidiaries of Japanese companies.

This point is examined in Chart 1.2.15 (left graph), which shows the trend of the share of foreign subsidiary sales to the total sales for the local market (local sales plus exports from Japan) for Japan's manufacturing firms. As we can see in the chart, local subsidiary sales are increasing at a pace faster than exports. Hence, the expansion of business activities in foreign markets cannot be explained just by the relative growth of foreign demand. The share of local subsidiary sales has gone up and down in response to events like the IT bubble, the real estate bubble in North America and its collapse, the adoption and expansion of the euro, and the debt crisis in Europe. However, as a general trend, the share of local subsidiary sales is on an upward trend, suggesting that the localization of production and sales activity is the outcome of not just external factors, but of Japanese companies expanding their international operations as well.

Ratio of Overseas Subsidiaries Sales — Chart 1.2.15

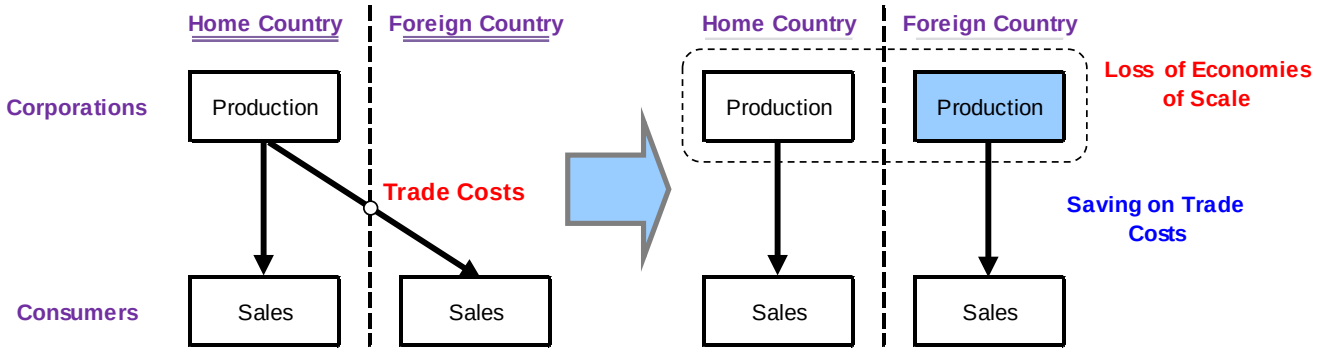


Source: Ministry of Finance, Ministry of Economy, Trade and Industry, compiled by DIR.
Notes: 1) Ratio of overseas subsidiary sales = overseas subsidiary sales (portion of sales to Japan) / (exports + overseas subsidiary sales (portion of sales to Japan)).
2) The NIEs include Republic of Korea, Singapore, and Taiwan. ASEAN countries are Indonesia, Malaysia, The Philippines, and Thailand.

The business activities of Japanese manufacturers in North America are described in the Quarterly Survey of Overseas Subsidiaries, published by the Ministry of Economy, Trade, and Industry. Transportation equipment (whose trade costs are relatively high) accounts for about half of local subsidiary sales, and nearly all of the transportation equipment sales are recorded as sales in the local markets. This is a typical case of horizontal specialization (where production occurs close to the source of demand).

One of the advantages of horizontal specialization is the reduction in trade costs, such as transportation costs, tariffs, and non-tariff barriers (see Chart 1.2.16). One of the drawbacks is the loss of the economies of scale due to the dispersion of production activities (such as having to build new factories). Bearing in mind these advantages and disadvantages, we now examine the factors behind the upward trend of the share of local subsidiary sales. First, with regard to trade costs, it is difficult to imagine that trade costs have gone up dramatically over the last 20 years or so, as there were no new major trade barriers implemented during this period, like major increases in tariffs for exports to North America, or new export quotas. Thus it is unlikely that localization has occurred due to higher trade costs.

Advantages and Disadvantages of Horizontal Specialization **Chart 1.2.16**



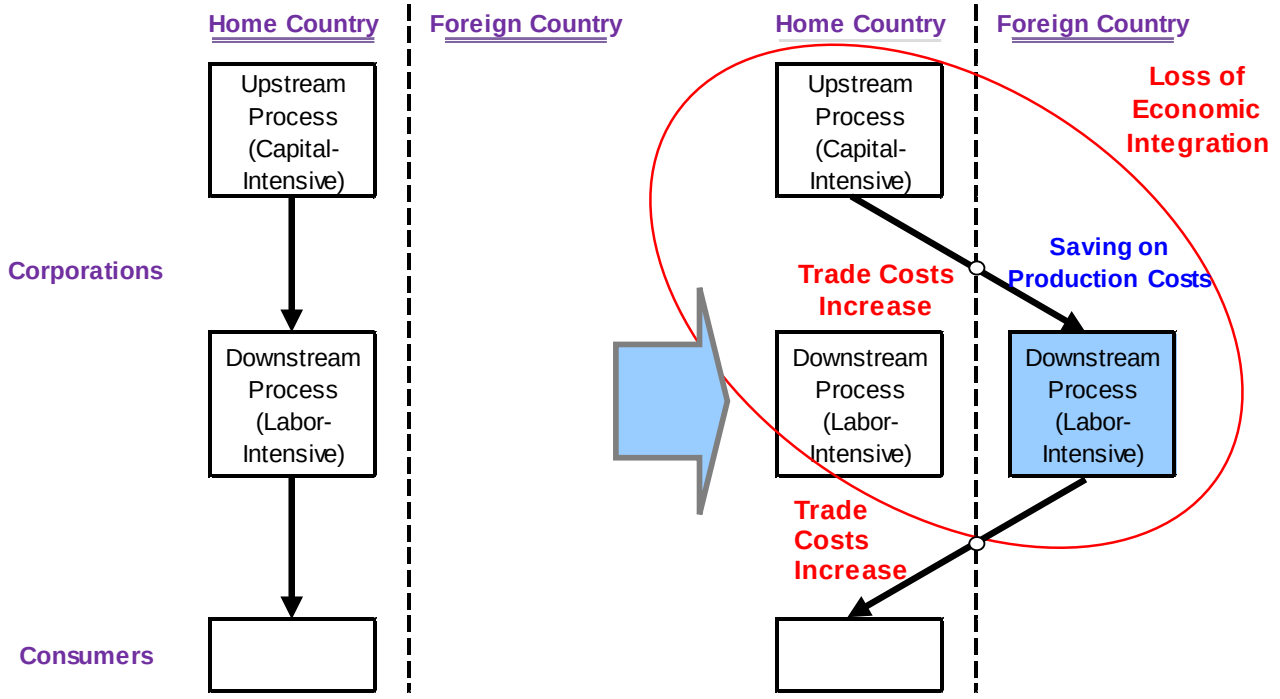
Source: "Issues and facts on overseas production shifting", Sakura and Iwasaki (BOJ research paper, 2012).

On the other hand, the increase in local production and the progression of the "clustering of industry" (parts suppliers shifting their operations overseas) has probably mitigated the loss of the economies of scale. Based on this observation, horizontal specialization will likely continue going forward, especially in industries like transportation equipment where trade costs are high, and the local production ratio will rise as local production substitutes production in Japan.

Next, examining the business activities of Japanese companies in Asia, about half of the sales of local subsidiaries are for the local market, and about one-fourth are exports back to Japan. Electrical machinery (whose trade costs are generally low) account for more than half of the sales of local subsidiaries, of which about one-third is exported back to Japan. Therefore, the business activities of Japanese companies in Asia, when compared to their activities in advanced economies, can be characterized as vertical specialization (where production processes are divided into segments according to differences in production costs and moved to different countries).

One of the benefits of vertical specialization (see Chart 1.2.17) is the lowering of production costs (lower labor costs, corporate taxes, and indirect taxes). On the other hand, drawbacks of vertical specialization are trade costs arising from the segmentation of production processes and the loss of the economies of integration between production processes. Bearing in mind these advantages and disadvantages, we now examine factors for the growth of FDI in the Asian region. First, regarding trade costs, with China joining the WTO in 2001, trade costs such as tariffs have been reduced. Next, with respect to production costs, differences in labor costs are immense. Labor costs in China and ASEAN are extremely low compared to Japan. In the Survey Report on Overseas Business Operations by Japanese Manufacturing Companies carried out annually by the Japan Bank for International Cooperation, low-cost labor is regularly cited by a majority of companies as a reason for their interest in investing in Asian economies (although the level of interest is trending downward in recent years with the increase in labor costs). Corporate tax and other taxes are also much lower than in Japan. This is a difference in the levels, and does not directly explain the upward trend for the growth in foreign operations. However, spurred by China's membership in the WTO, it is reasonable to think that differences in production costs drew renewed attention as vertical specialization progressed in the Asian region, and cost control-led optimization progressed at the global level.

Advantages and Disadvantages of Vertical Specialization **Chart 1.2.17**



Source: "Issues and facts on overseas production shifting", Sakura and Iwasaki (BOJ research paper, 2012).

Factors for the growth of Japanese companies' direct investment in the Asian region are not limited to production substitution that accompanies vertical specialization. The ratio of local subsidiary sales is increasing in all regions, and it is rising most rapidly in the Asian region. What this indicates is a growing trend to satisfy local demand with local production, rather than with exports. Not only is vertical specialization advancing, but horizontal specialization is advancing rapidly as well.

What is behind this push towards horizontal specialization? It may be that industrial clustering has intensified as direct investment and local production grew rapidly in Asia, and it has become rational in cost terms to respond to local demand through local production, rather than through exports, even when trade costs have fallen. It is also possible that the competitiveness of local production is rising not only for labor-intensive, downstream processes like the assembly of final goods, but for more upstream processes like the assembly of intermediate goods as well. A Cabinet Office report (2010, p376–377) analyzing this point using a trade specialization index reveals that Japan has not only lost its competitive advantage with the production of final goods, but also with intermediate goods where it used to dominate, and that China and ASEAN countries have gained competitiveness. In light of this point, Chart 1.2.15 (right) provides a further breakdown of the local subsidiary sales ratio in the Asian region. While this ratio has climbed rapidly in China and ASEAN nations, it remains at a low level for the NIEs. This suggests that, as direct investment for vertical specialization increased in nations with low production costs, industrial clustering accelerated. This then increased the comparative advantage of local production, leading to more direct investment for horizontal specialization.

Impact of the hollowing out of industry

As we have discussed above, the hollowing out of industry has accelerated further, not only from the trade and production cost factors, but also from the increased benefits of local production arising from industrial clustering in local markets as well. In this section, we examine the impact of this hollowing out.

First, as a simple illustration, we consider the case where an entire production line for export products, from the upstream to the downstream, is moved from Japan to another country. In this scenario, the primary impact to Japan's economy would be a decrease in exports and an increase in the income balance (primary income balance) from increased outbound investments. This increase in the income balance, however, would not offset the decrease in GDP, GNI, and the current account balance resulting from the decline in exports. This is because, while the value-added of exports is:

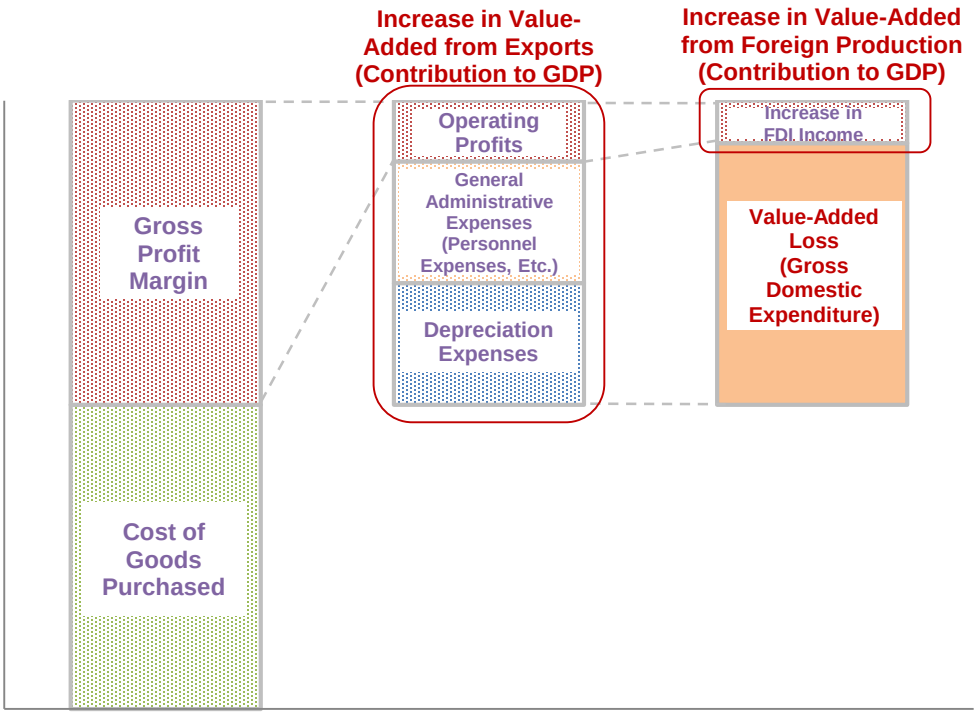
Value-added of exports = Production cost (Depreciation + Labor and other costs) + Corporate profit

The income balance of direct investment is:

Income balance of direct investment = Corporate profit * (1 - Local corporate tax rate) - Remittance cost

This relationship holds for other cases of hollowing out, such as when production lines for exported products are transferred not in whole but in part, or when a production line for products produced and consumed domestically is shifted overseas and the resulting products are exported back to Japan. Thus, the primary effect of the hollowing out of industry on Japan's economy is negative.

Loss of Value-Added Due to Hollowing Out **Chart 1.2.18**



Source: DIR.

This, however, is just the primary effect. If labor and capital resources that are freed through the hollowing out of industry are shifted to other sectors, particularly those with higher productivity and higher growth rates, the impact on Japan's economy may turn out to be positive. Sakura and Iwasaki (2012) indicated that, assuming the reallocation of domestic factors of production after the shift of production overseas occurs smoothly, national income will, in theory, increase through the following routes: According to classical economic theory, which states that as production shifts from lower-return, capital-rich countries to higher-return, labor-rich countries, corporate profits will grow at a faster pace than the pace of decline in domestic employee compensation. (This assumes however that the surplus labor resulting from the shift of production overseas will be reallocated in relation to domestic capital.) Also, based on the theory of Helpman et al. (2004), when low productivity companies are unable to survive and they go out of business, national income increases as the workers that are discharged find new employment at companies with higher productivity.

As noted by Sakura and Iwasaki (2012), this assumes that the transfer of labor occurs smoothly between sectors. Unemployed people, however, will need some time before they find new employment, and the concentration of capital in domestic corporate activities will lead to mismatches in skills in the labor market. Thus, employment may be adversely affected, and the benefit of increased national income may not be realized as suggested by the theory. Prior research on the impact of the offshoring of production on domestic employment yielded empirical support for the view that offshoring does not necessarily lead to the hollowing out of domestic industry. On the other hand, analysis by the Ministry of Economy, Trade, and Industry (2011) indicates that the expansion of overseas production by Japanese manufacturing firms has led to a decrease in the number of regular employees.

To mitigate the adverse effects of the offshoring of production, policy measures such as reductions in the corporate tax rate and tax breaks for investments can have some effect by increasing cost competitiveness (on the other hand, increasing the minimum wage may have the opposite effect from a cost competitiveness perspective). In order to compete with Asian nations at the center of vertical specialization, the corporate tax rate will need to be reduced to perhaps somewhere between 20% and 30%.

The shift of production overseas as discussed above, if it is being accompanied by the smooth reallocation of labor, has the potential of increasing national income through higher returns and higher productivity. Hence, the basic issue for Japan will be to ensure the smooth reallocation of labor. Helping workers develop skills that are useful in management jobs, like the ability to manage foreign production, the ability to develop business plans, and the ability to do research and development, as well as helping companies sharpen their ability to utilize new workers, is essential for Japan as outsourcing progresses in labor-intensive sectors. As the reallocation of labor progresses to higher productivity sectors, a forward-looking approach where FDI into Japan by highly productive companies of other advanced economies are promoted should emerge, instead of the backward-looking approach of stopping the offshoring of production by Japanese companies. The reduction in the corporate tax rate is a part of this effort.

1.2.5 Current account balance and the sustainability of government finances

As examined above, the likelihood is high that the hollowing out of industry will continue in Japan, and this will have a negative impact on the current account balance. In addition, as discussed in section 1.2.10, the growth in energy imports, which is greatly reducing current account surplus, is expected to continue climbing both in volume and in value. The decrease in the macro-level savings rate accompanying the aging of society will also continue to act as a structural trend factor reducing the current account surplus.

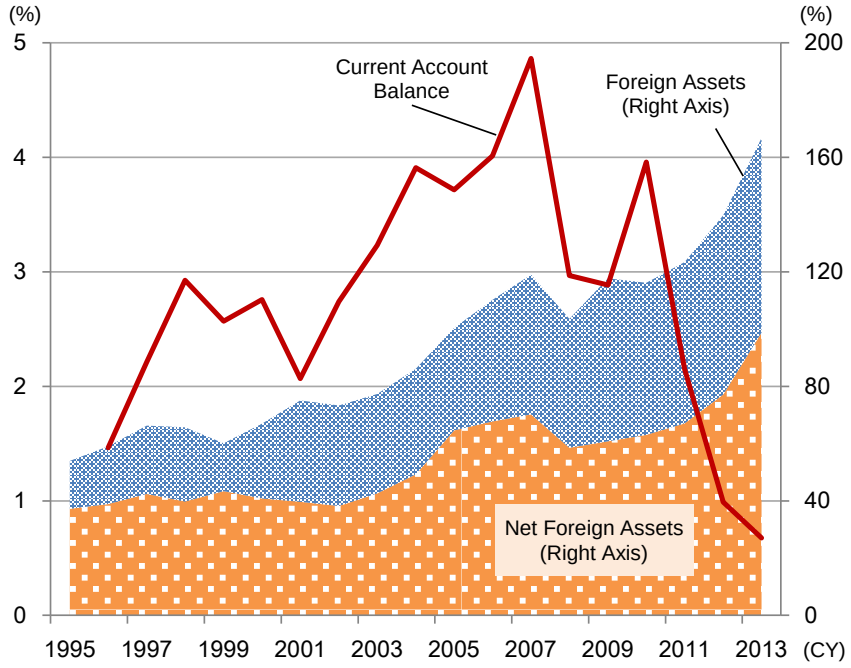
The current account balance up to FY13 reflects (1) the increase in import value from the initial effects of the depreciation of the yen and (2) the growth in imports ensuing from the surge in demand ahead of the consumption tax hike. These effects, however, will now be wearing off. Also, as noted in section 1.2.2, the negative impact of the income effect accompanying the consumption tax hike is expected to restrain the growth of consumption for the time being, and these factors will curb the growth of import value. Taking into account these factors, we do not expect the current account to fall into a deficit during the forecast period in our baseline scenario.

However, it is likely that the current account will experience a deficit at some point in the future from the structural factors discussed above. Given this outlook, some pundits have begun presenting an extreme scenario in which the government goes bankrupt when the current account turns into a deficit. The prevalent view regarding this scenario can be summarized as follows: The purchasing of JGBs is supported by domestic savings due to the strong home bias. As a result, interest rates are being held at a low level, and Japan will start having to depend on external financing when the current account falls into a deficit and the domestic savings rate turns negative. Since the prices of JGBs will be exposed to global price arbitration, interest rates will rise, and financing government debt will become difficult.

It is without a doubt that the share of JGBs being held by the domestic sector is very high. In addition, the existence of a home bias through the rational decision-making process for investments that factors in foreign exchange risk, banks' capital adequacy requirements, and the existence of information asymmetry has been pointed out by both Japanese and foreign observers. In addition, JGBs have a low credit rating compared to the government bonds of other advanced economies due to the massive debt of the Japanese government. Despite this low rating, the interest rates of JGBs are low. Thus, the claim that the home bias is holding interest rates down is consistent with the circumstantial evidence.

However, upon considering the appropriateness of this scenario, several important points must be disputed. First, the current account is a flow concept. Japan not only records current account surpluses, but it also has massive net foreign assets on the stock side. If the home bias continues to exert its effect due to the factors mentioned above, there is a possibility that foreign assets will be repatriated as interest rates rise for JGBs, and this could restrain the rise in interest rates. Thus, once the current account becomes a deficit on the flow side, rather than interest rates for JGBs skyrocketing from exposure to global price arbitration, it is more likely that the rates will gradually go up as foreign assets on the stock side are drawn down.

Current Account and Foreign Asset (Net/Gross) Share of GDP **Chart 1.2.19**



Source: Ministry of Finance, Cabinet Office, Bank of Japan; compiled by DIR.

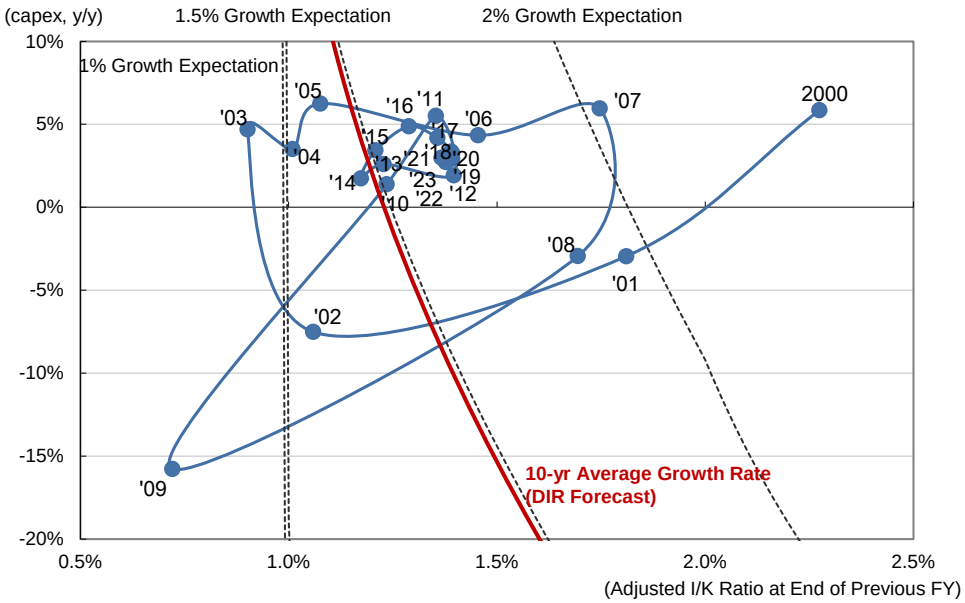
Second, is it reasonable to think that the purchasing of JGBs by the domestic sector will continue to have the effect of restraining interest rates into the future? The prevalent view is that this effect will persist as long as the current account surplus is maintained. This assumption, however, may go a bit too far. For example, in relation to the discussions in the previous paragraph, should the current account turn into a deficit on the flow side, which would have the effect of reducing foreign assets on the stock side, this could have the potential of making investors aware of the diminished capacity by domestic investors to purchase JGBs in the future, and lead to an early divestment from JGBs and invite higher interest rates. Also, domestic investors decide on what to invest by taking into consideration a range of factors, and they are not obliged to give priority to holding JGBs. If public confidence over the restoration of sound government finances declines, they too will likely make the rational decision to sell JGBs. Should such a situation come to pass, the argument will no longer be about whether the government can finance itself as long as Japan maintains a current account surplus, but about the ability of the government to pay back its debt.

Hence, while the effect of the current account balance on the sustainability of government finances cannot be ignored, this issue cannot be simplified to the point of saying that everything is fine just because the current account has a surplus, or that the government is bankrupt because the current account is a deficit. In the end, the real issue will still be about restoring sound government finances, by reducing government expenditures and raising taxes, in order to maintain confidence over the sustainability of government finances.

1.2.6 Outlook for capital expenditure

In our current outlook, we believe that Japan's economic cycle has entered a capital accumulation phase (expansion of investments). Factors suppressing capital expenditure, such as the financial crisis in the US, the European debt crisis, and the lower expected returns and the higher uncertainty accompanying the Great East Japan Earthquake, are being removed through policy measures. As a result, the capital expenditure cycle is entering an accumulation phase for capital stock, and capital expenditure is likely to recover to a level that corresponds to the expected growth rate.

Capital Stock Cycle (Adjusted) **Chart 1.2.20**



Source: DIR

However, when we divide our 10-year forecast period into the short-term (about 1 to 3 years), the medium-term (about 3 to 5 years), and the long-term (about 5 to 10 years), there are differences in the speed of capital accumulation.

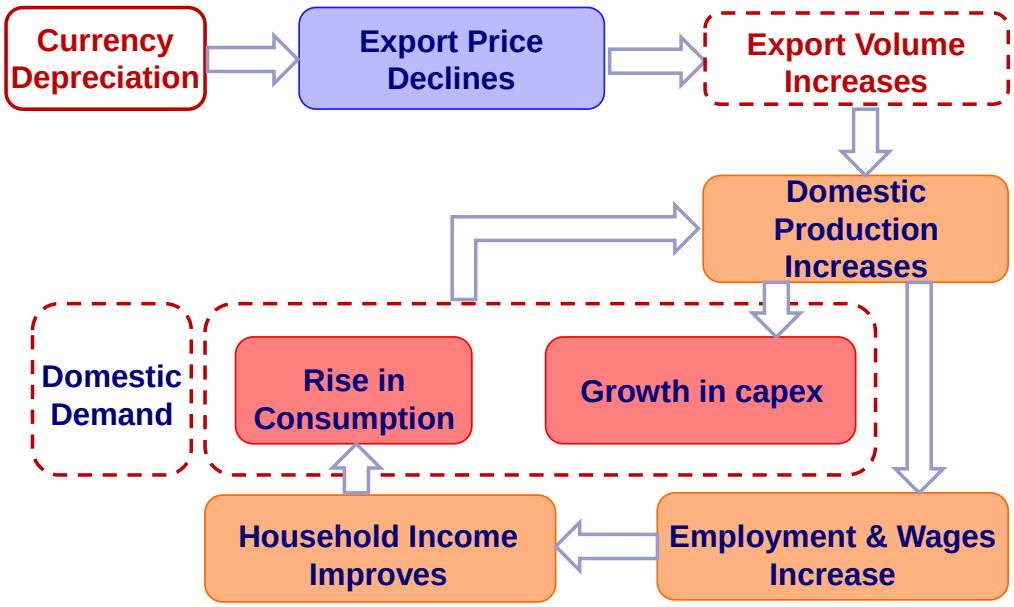
In the short-term, factors restraining capital expenditure are expected to remain. First, as discussed in section 1.2.2, consumption will be suppressed through the negative impact of the income effect from the consumption tax hike. Second, exports will grow weakly. Five reasons can be cited for why export volume will not grow in tandem with the depreciation of the yen and the recovery of overseas economies: (1) low capacity utilization in the economies that Japan exports to, (2) uncertainties about the direction of the foreign exchange rates, (3) the pricing-to-market behavior of Japanese companies, (4) the prioritization of markups (gross profit margin) by Japanese firms and (5) the decrease in exports accompanying the offshoring of production. In the short-term, each of these factors will slow the growth of export volume and will weigh on Japan's economy by reducing domestic production, capital expenditure and employment.

Factors (3) and (4), however, will improve the rate of return for companies, at the expense of export volume, when the yen is depreciating, so they are not entirely negative. It is more likely that the path by which the depreciation of the yen influences domestic demand through the tradable goods sector has changed. The path observed in past periods of yen depreciation was one where export volume rose from lower export prices and domestic production grew. This led to a higher demand for domestic capital expenditure and an improvement in household income from the growth in employment and wages, resulting in increased consumption. Due to factors like (3) and (4), the path has changed to one where the depreciation of the yen improves the rate of return for companies, which then leads to an

improvement in corporate earnings, higher share prices, higher wages, growth in household income, and increase in consumption.

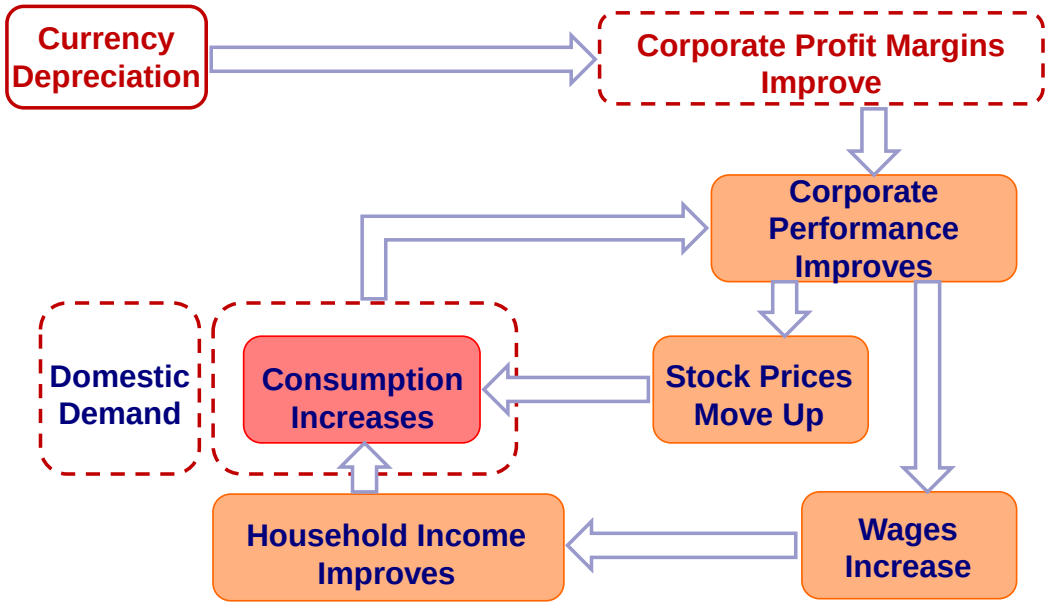
Because of these changes, the positive effect of the depreciation of the yen on the domestic economy has been greatly weakened. First, the growth in domestic added value is, in its primary effect, larger for exports and production activities than for corporate income. Second, with increased international competition, the rise in wages is being hampered by structural factors. Whether corporate earnings improve, or whether the supply-demand balance for labor tightens, as long as differences remain in the level of wages in relation to marginal productivity, companies will have an incentive to expand offshore production, rather than to raise wages to hire more people.

Impact of Yen Depreciation on Japan's Economy (Past) **Chart 1.2.21**



Source: DIR.

Impact of Yen Depreciation on Japan's Economy (Now) **Chart 1.2.22**



Source: DIR.

Although this may seem counterintuitive, the uncertainty that was created by the announcement of the corporate tax rate reduction will actually be a factor suppressing capital expenditure in the short-term. From a long-term perspective, the reduction in the corporate tax rate will support the growth of Japan's economy. At the moment, however, only the goal of lowering the corporate tax rate has been announced. When and by what amount the corporate tax rate will be reduced is still unknown. In addition, in order to make up the lost revenue from the corporate tax cut, discussions are still underway on how to make changes to the tax code, including expanding the tax base and overhauling tax incentives. When there are so many uncertainties hanging around, as is the case now, companies will likely be reluctant to actively invest in new plants and equipment.

In the medium-term, however, many of these adverse factors will begin to fade away. First, the process of consumers reducing consumption from the negative income effect of the consumption tax hike will come to an end. Also, of the five factors dragging down exports, (1) and (2) will fade away as a recovery takes place in the markets Japan exports to and with the yen maintaining its level of weakness. In addition, the uncertainties related to the reduction in the corporate tax rate will begin to disappear, as specific changes to the tax code gets decided. As the adverse effects diminish, the likelihood is high that capital expenditure will experience a period of accelerated growth, helped in part by BOJ holding interest rates low through the ongoing quantitative and qualitative monetary easing program, and from the yen's ongoing weakness and the accompanying increase in corporate earnings.

In the long-term, these positive factors will also fade away. We anticipate that interest rates will turn to rise in Japan, as inflation picks up and policy interest rates are raised in the US and in Europe. Also, the weakness of the yen in real terms that was maintained throughout the quantitative and qualitative easing program and the widening of the spread of interest rates between Japan and the US will, in the long-term, fade away as the real exchange rate converges towards purchasing power parity, and the yen will turn to appreciate. Thus, at this stage, the growth in capital expenditure is expected to slow.

Factors Determining Capital Expenditure **Chart 1.2.23**

	Short-Term (1-3 yrs)	Midterm (3-5 yrs)	Long-Term (5-10 yrs)
Positive Factors			
Overseas Economies			
Economic Recovery	○	○	○
Decreased Uncertainty	○		
Weak Yen	○	○	×
Low Interest	○	○	×
Negative Factors			
Impact of Raising Consumption Tax	×		
Stagnant Exports			
Capacity Utilization of Export Destinations	×		
Uncertainty of Exchange Rates	×		
Pricing to Market	×	△	
Prioritizing Markup	×	△	
Hollowing-Out Effect	×	×	×
Reduction of Corporate Tax Rate			
Uncertainty	×		
Effects of Tax Cut		?	?

Source: DIR.

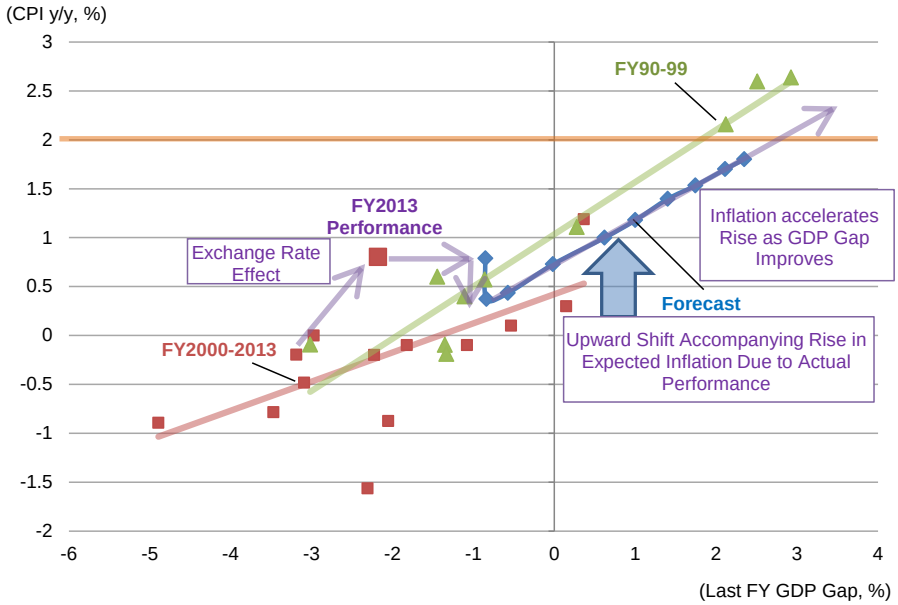
1.2.7 How long will quantitative and qualitative monetary easing last?

Building on the discussions above, in this section we examine the future direction of monetary policy. The BOJ has established a price stability target of 2% y/y for CPI (excluding the effects of the consumption tax hike), and it has introduced and has continued the quantitative and qualitative monetary easing program. This target, however, is very difficult to achieve. Given the current shape of the Phillips curve (the intercept and the slope) and the outlook for the GDP gap, the annual growth rate of the CPI will not reach 2% during our forecast period. Thus, as our baseline scenario, we foresee that the BOJ will maintain its accommodative monetary policy for the entirety of our forecast period.

This outlook assumes that the Phillips curve will retain its current shape. This shape, particularly the intercept, can shift when inflationary expectations change. Such expectations are adaptive, and should the inflation rate remain positive and accelerate in a sustained manner, inflation expectations could be bolstered by the actual inflation rate. Thus, it may be possible that the Phillips curve will shift upward and make the price stability target easier to achieve.

Actually achieving the inflation target through that path, however, will be unlikely. Looking at recent numbers, the CPI rose in FY13 from the depreciation of the yen and from the higher energy prices, but this effect is likely going to disappear in FY14 and FY15. In the longer term, wage growth, the other important factor that determines the shape of the Phillips curve, will likely be slow. Also, changes in the shape of the Phillips curve tend to take a very long time; at least they did in the past.

The Phillips Curve **Chart 1.2.24**

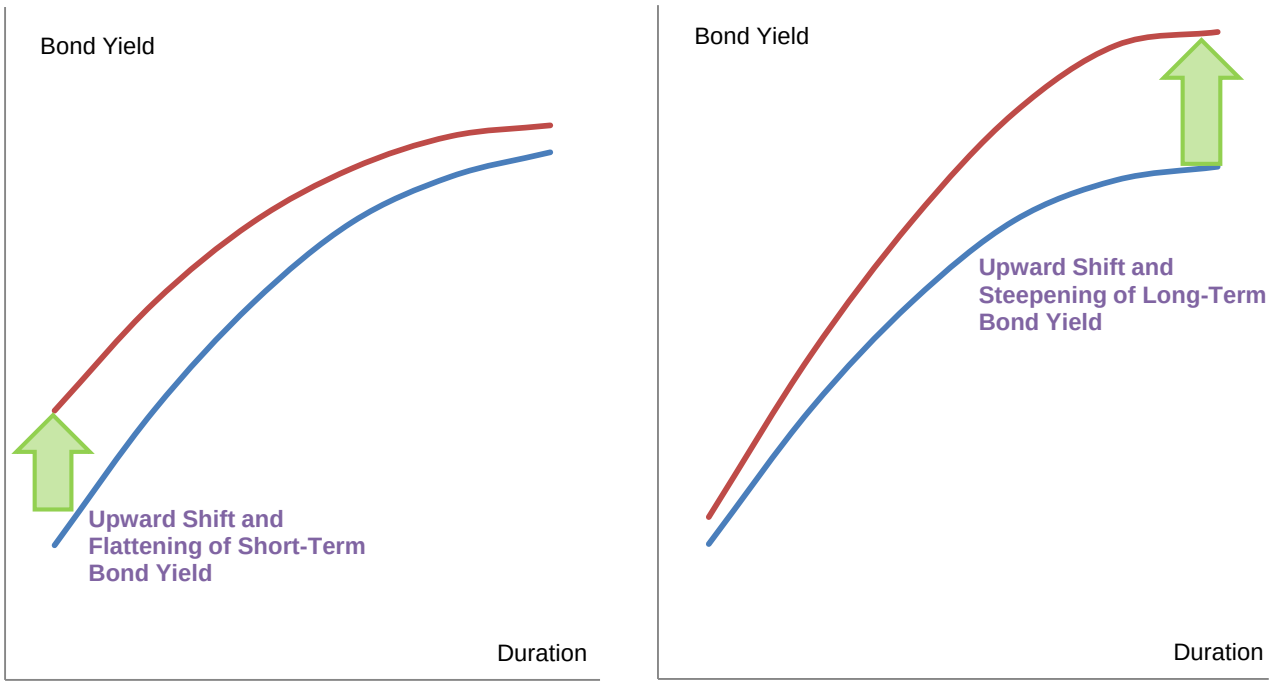


Source: Cabinet Office, Ministry of Internal Affairs and Communications; compiled by DIR.
Notes: 1) Consumer price index figures are less fresh foods and consumption tax increase.
2) GDP gap calculated by DIR.

Even if the inflation target is achieved, if the underlying cause is rising inflationary expectations, long-term interest rates will be pushed higher, ahead of the increase in the actual inflation rate. The BOJ is likely to respond by lowering real interest rates through quantitative and qualitative monetary easing. Such a response, however, will complicate the exit strategy which will eventually have to be implemented. The BOJ is already the largest participant in Japan's government bond market, and market liquidity has been diminished. Even if the inflation target of 2% is achieved, the nominal interest rate could spike without the quantitative and qualitative easing program. The sharp rise in nominal interest rate will devastate Japan's economy and harm the sustainability of government finances. Thus, the BOJ will need to proceed with great caution in announcing the start of the tapering process.

Besides tapering, the BOJ can also raise short-term interest rates (the policy interest rate and the uncollateralized overnight call rate). One of the methods that can be used is to increase the interest on excess reserves. In contrast to tapering and contracting the balance sheet, which steepens the yield curve, increasing the interest on excess reserves will have the effect of flattening the yield curve by lifting up the short end of the curve. As with the Fed, the BOJ is likely going to consider an exit strategy that combines these two methods, while monitoring the market's reaction. However, in order to prevent long-term interest rates from going up and the real economy from getting worse, raising the interest on excess reserves, rather than tapering or the contraction of the size of the balance sheet, will likely play a central role in the initial stages of the exit strategy, in order to curb speculative investments using cheap short-term funds.

Effect of Raising Interest Rates (Left) and Tapering (Right) on Yield curve **Chart 1.2.25**



Source: DIR.

1.2.8 Outlook for Exchange Rates

In our current outlook, our forecast of the exchange rate (Y/$) is mainly based on the two factors of (1) divergence of the rates of inflation of Japan and the US and (2) changes in the interest rate spread between Japan and the US.

(1) above is a long-term factor. If we assume that the divergence of the rates of inflation of Japan and the US will persist (US > Japan), this will be a factor for the appreciation of the yen over the long term. In our forecast period, we predict that Japan's rate of inflation (CPI growth rate) will be less for the most part than the rate of inflation of the US, a situation that will place upside pressure on the yen with respect to the long-term yen/dollar rate. In contrast, (2) is mainly a short-term factor. In the first half of our forecast period, when the interest rate spread between Japan and the US will widen, downside pressure will be placed on the yen. Then, in the second half of our forecast period, when the interest rate spread will shrink, upside pressure will be placed on the yen.

In addition to the above, (3) risk tolerance can be cited as a factor that determines the short-term swings of exchange rates. Given the structure of Japan's balance of payments, the possibility of the yen strengthening when risk tolerance declines should be borne in mind as an alternative scenario. As risk factors for an alternative scenario where the yen strengthens beyond expectations, we will need to pay attention to disturbances in the global flow of money should US monetary authorities turn to tighten policy excessively, the collapse of a real estate bubble in China, and the resurfacing of the European debt crisis. It is worth noting, however, that when events occur that serve to reduce the possibility of these downside risks, this will usher in an upside scenario where the yen weakens beyond expectations.

Factors Determining Exchange Rates **Chart 1.2.26**

	Forecast Period (FY 2014-18)	Forecast Period (FY 2019-23)
Long-term Determining Factors		
Purchasing Power Parity	Yen Appreciation Factor: Ongoing inflation differential (US＞Japan)	
Interest Parity	Yen Appreciation Factor: Ongoing interest differential (US＞Japan)	
Short-term Determining Factors		
Change in Interest Spread	Yen Depreciation Factor: Widening interest differential	Yen Appreciation Factor: Shrinking interest differential
Risk Appetite	Take care regarding event risk where an alternative scenario arises.	

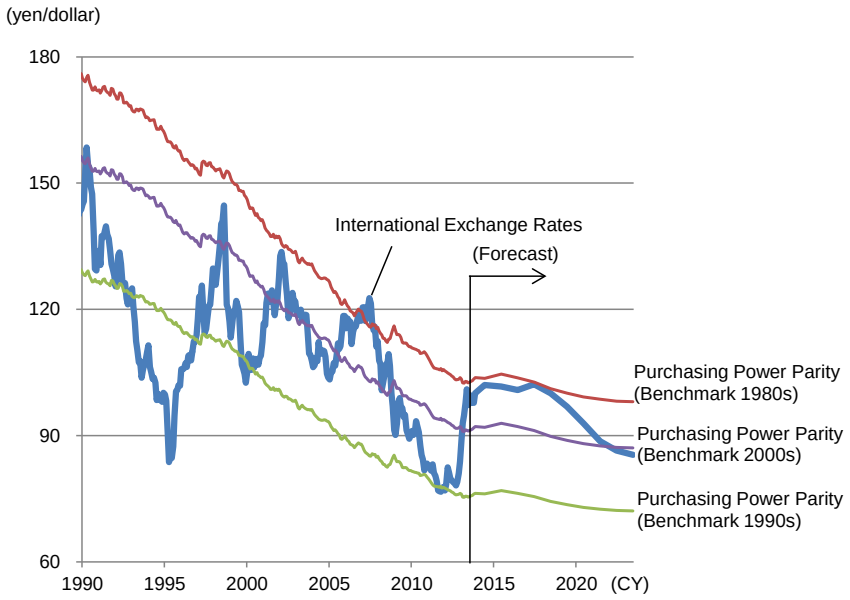
Source: DIR.

Long-term factor: The trend is toward a stronger yen

Purchasing price parity (PPP) can be mentioned as a long-term determining factor for foreign exchange rates. If we examine the future direction of the yen/dollar rate in terms of PPP, we anticipate that Japan's rate of inflation (CPI growth rate) will be less for the most part than the rate of inflation in the US during our forecast period, a situation that will place upside pressure on the yen with respect to the long-term yen/dollar rate (Chart 1.2.27).

Another long-term determining factor worth considering is uncovered interest rate parity. Given that central banks determine their policy interest rates in response to the rate of inflation and that market interest rates react to this, the broad movement of uncovered interest rate parity should in large measure coincide with PPP. In our current forecast period, we predict that interest rates in Japan will be less than interest rates in the US, a situation that will place upside pressure on the yen over the long term.

Exchange Rate Outlook with PPP **Chart 1.2.27**



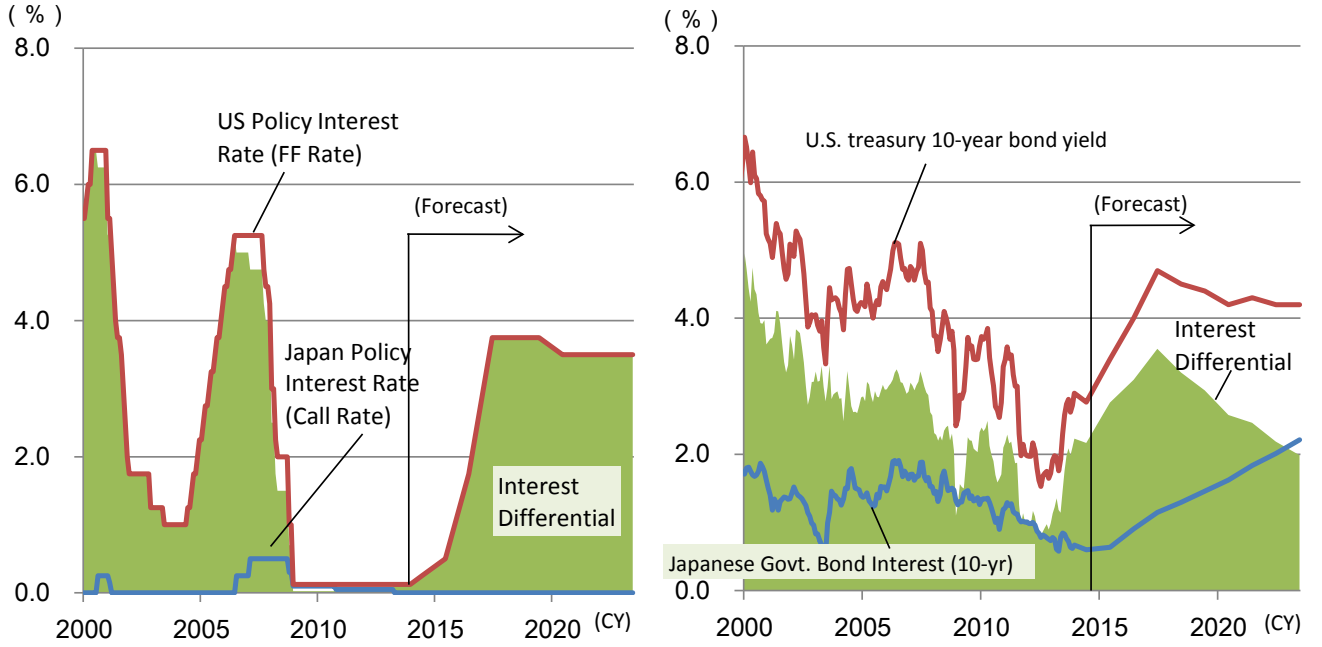
Source: Ministry of Internal Affairs and Communications, FRB, Bureau of Labor Statistics, compiled by DIR.

Short-term factor: Downside pressure on the yen in the first half of our forecast period

The two factors discussed above serve to explain the long-term equilibrium level of foreign exchange rates, and they are not factors that explain the short-term fluctuations of forex. Hence, in anticipating the future direction of exchange rates, we will need to reference PPP and interest rate parity as the long-term equilibrium level and turn to other short-term factors to account for deviations from the equilibrium level as well as cyclical changes. One short-term factor to consider is changes in the spread in interest rates between Japan and the US. The level of the spread in interest rates (US > Japan) is a long-term factor for a stronger yen mediated through interest rate parity as we have discussed above. In the short term, however, the widening of the interest rate spread between Japan and the US (not the level itself but change in the level) will be a factor for a weaker yen. This is a phenomenon known as overshooting in such economic theories as the Dornbusch model.

This factor will work to shift the actual exchange rate from its long-term equilibrium rate toward a weaker yen in the first half of our forecast period. In terms of a time series, in the period to end-FY14, while the BOJ maintains its quantitative and qualitative easing and the Fed reduces QE3, the spread in interest rates between Japan and the US will widen, generating downward pressure on the yen. Then, in 2015–17, a new factor will step in to put downward pressure on the yen. As the US raises interest rates and the spread in interest rates between Japan and the US widens, the yen/dollar rate (deviation from its long-term equilibrium level) will once again move in the direction of a weaker yen. On the other hand, in the second half of our forecast period, this same factor will work to place upside pressure on the yen. In 2018 and beyond, the increase of interest rates in the US will come to an end, and the effect of the BOJ's quantitative easing will wane. As the long-term interest rate rises in Japan, the spread in interest rates between Japan and the US will turn to narrow. As a result, the yen/dollar rate will revert toward its long-term equilibrium rate determined by the terms of PPP and interest rate parity.

US and Japan Interest Differential **Chart 1.2.28**



Source: Bank of Japan, Ministry of Finance, FRB, US Treasury Dept., compiled by DIR.

1.2.9 Difficult path to restoring government finances to health

Continuing to pursue the dual goal of tax reduction and achieving a primary balance surplus in FY20

In our medium-term outlook through FY23, after the consumption tax was raised from 5% to 8% based on the Act for the Comprehensive Reform of the Tax System in April 2014, we expect the consumption tax to be raised again to 10% in October 2015, and for it to stay at that level. The increased tax revenues from the higher consumption tax will be used to finance mounting social security-related expenses.

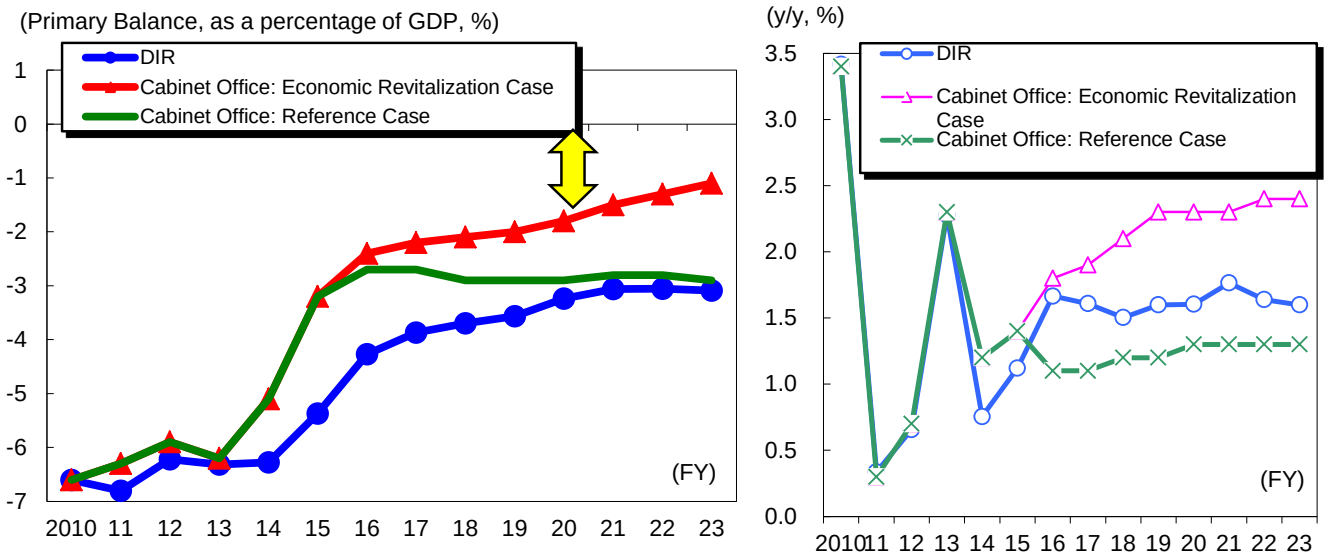
If government spending is increased, however, the tax hike will not be enough to improve the fiscal situation. While the economic stimulus measures in response to the tax hike are expected to be temporary, it is possible that there will be calls for additional measures when the consumption tax is raised again to 10%. Bloated government budgets are not easy to cut, and it could take a while for the tax hike to have a positive impact on government finances.

The Economic and Fiscal Projections for Medium-to Long-Term Analysis (subsequently "Cabinet Office projections") that the Cabinet Office presented to the Council on Economic and Fiscal Policy in July 2014 indicates that the goal of restoring sound government finances, which is to reduce the primary balance deficit of central and local governments as percentage of GDP by half from its FY10 level by FY15, will be achieved. However, achieving a primary balance surplus in FY20 will be difficult under current conditions. In the "economic revitalization case" of the Cabinet Office projections, the Cabinet Office forecasts relatively high economic growth and an end to deflation, and the GDP will grow at an annualized rate of 2.1% (real) and 3.5% (nominal) between FY14–23. Given that the potential growth rate is less than 1% at the present moment, this is the ideal world where a range of growth policies all help to grow the economy. Despite raising the consumption tax rate to 10%, reforming the social security system to some degree, and assuming high growth rates, the primary balance deficit as a percentage of GDP is still going to be -1.8% in FY20, and this deficit will continue to remain.

In our current medium-term outlook for Japan, we predict an annualized growth rate of 1.5% (real) and 2.3% (nominal) over the next 10 years. This is more conservative than the optimistic "economic revitalization case" of the Cabinet Office projections. Still, we have assumed that the implementation of effective growth strategies will boost the growth rate of productivity to some degree, and we predict that the real growth rate will accelerate to an annualized 1.6% in the second half of our forecast period (FY19–23).

In our outlook, due to the lower growth rate forecasts, our outlook for government finances is bleaker than the Cabinet Office projections. Specifically, while we project the primary balance to gradually improve through the 2010s, it would still be -3.2% of GDP in FY20, and would remain flat going forward. We should keep in mind that Japanese society will continue to age even after FY20, so even if a primary balance surplus could be achieved in FY20, it still does not mean everything will be alright.

Outlook for Primary Balance (Left) and Real GDP Growth Rate (Right) **Chart 1.2.29**



Source: Cabinet Office; compiled by DIR.
Note: Based on data from central and regional governments

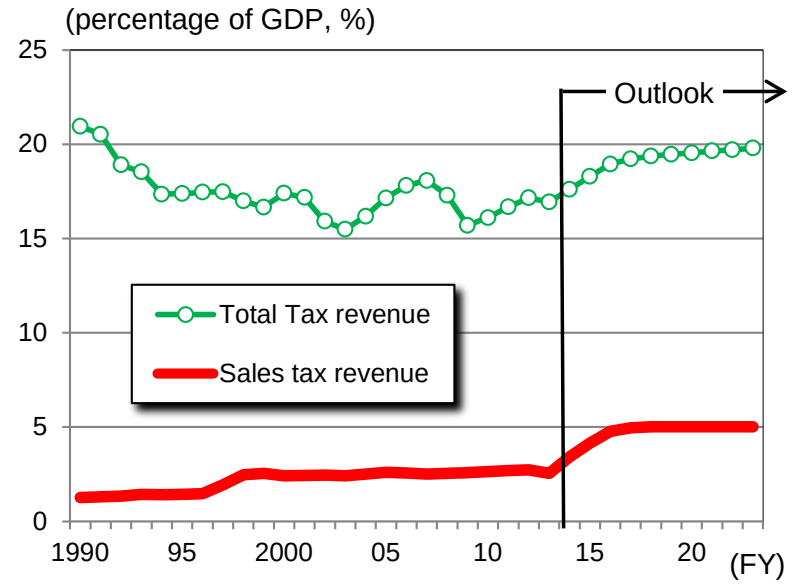
Medium-term outlook for tax revenues

While the nominal growth rate has averaged to zero over the last 20 years, with deflation coming to an end, we predict that it will go up to an annualized rate of 2.3%, and this will have a positive impact on tax revenues. Assuming that the consumption tax is increased, we anticipate that the total tax revenues, including that of national and local governments, will grow from the current Y80 trillion level to more than Y120 trillion in FY23. Tax revenues will gradually climb from around 17% of GDP to about 20% of GDP.

The supplementary provisions for the Act for the Comprehensive Reform of the Tax System include a flexibility clause regarding the state of the economy, which states that the economic conditions are to be reviewed before the decision to raise the consumption tax again to 10%. Similar to when the consumption tax hike to 8% was approved by the cabinet on October 1, 2013, six months before the actual hike took place, a final review will likely need to take place by the end of 2014 with regard to increasing the consumption tax to 10%. The Chief Cabinet Secretary have reportedly stated that the decision on raising the consumption tax to 10% will be made around December, when the second preliminary estimate of the July-September GDP will be released.

The Cabinet Office projections above states that the FY15 goal of restoring sound government finances can be achieved, assuming that the consumption tax would be raised again as scheduled. If the consumption tax is not raised, tax revenues will be about Y2.5 trillion (about Y2.5 trillion * 2% * half year = about Y2.5 trillion) less for each percentage point that was not increased. Furthermore, a reduction in the corporate tax rate is promised in FY15. Lowering the corporate tax rate by one percentage point is said to decrease tax revenues by around Y500 billion. Thus, if the consumption tax is left unchanged and the corporate tax rate is reduced, a double blow will be dealt to tax revenues, and the goal of reducing the budget deficit will become even more difficult to achieve. Of course, the decision to postpone the consumption tax hike will likely be the result of deteriorating economic conditions at the time, so the incentives might lean towards cutting the corporate tax rate as a means to stimulate the economy. Under this scenario, programs for restoring government finances to order may be shelved indefinitely.

Outlook for Tax Revenues **Chart 1.2.30**



Source: Cabinet Office; compiled by DIR.

The debate over lowering the effective corporate tax rate

Meanwhile, there is renewed focus on cutting the corporate tax rate. One main objective specified in the Basic Policies for the Economic and Fiscal Management and Reform 2014 and the new growth strategy is "Restoring Japan's 'Earning Power.'" Specifically, it states the goal of reducing the effective corporate tax rate down to international levels in order to boost Japan's competitiveness and making Japan a more attractive place to build new plants and factories. By being specific, like stating that the effective corporate tax rate will be reduced "starting in FY15" and that it will be lowered to a rate between "20% and 30% within a few years," the administration is affirming its commitment to both the domestic and the foreign audience.

The debate on reducing the corporate tax rate has become popular in countries all over the world in the aftermath of the Lehman crisis, even though government finances are weak for most countries. There is a clear need to engage in comprehensive tax reform, like changing the tax treatment of companies recording losses, introducing a factor-based corporate tax, adjusting the balance between taxes on individuals and corporate taxes, and reforming the taxation of property. However, the simplified argument of "Japan's effective corporate tax rate is too high compared to other countries and should be reduced to strengthen corporate competitiveness" is much easier for ordinary people to understand and support.

Furthermore, the reduction of the corporate tax rate will benefit not only Japanese companies, but also foreign companies, and will provide an incentive for them to do business in Japan. The cost of doing business is in fact the biggest obstacle cited by foreign companies looking to set up operations in Japan. Specific obstacles that are mentioned are labor costs, followed by taxes, office lease expenses, and social security expenses. Thus, reducing the corporate tax rate can be viewed as a measure that is in line with the growth strategy that aims to gradually increase the amount of FDI into Japan in order to create more domestic employment and promote the development of new technology.

The new growth strategy, however, has postponed making decisions on critical issues such as the amount of the tax cut, which companies will be eligible, and how the tax cut is going to be paid for. Also, the growth strategy lacked specifics on how long the tax cuts will take. All that was mentioned was that the cuts will take place "over a few years," and commentators have been offering a range of opinions on what it could actually mean. This being the case, we have not factored in the reduction of

the effective corporate tax rate specified in the new growth strategy in our current medium-term forecast. How tax revenues will be affected if the corporate tax rate is reduced will depend on how the tax base gets revised and the degree to which business sentiment improves. In general, if the tax cut takes place without securing alternative funding to pay for it, tax revenues will go down dramatically as the corporate tax is a general tax. The new growth strategy takes note of this point and emphasizes the importance of achieving the goal of restoring sound government finances (a primary balance surplus) in FY20.

1.2.10 Energy Policy

On April 11, 2014, a new Basic Energy Plan (subsequently, "basic plan") drafted by the Abe administration was approved by the cabinet. The specifics of the basic plan are based on the environment and energy policy as described in the Japan Revitalization Strategy (growth strategy) announced in June 2013, hence there was no major surprise. The basic plan does not specify numerical targets for the proportion of power to be supplied by different sources of power like coal and water. Thus, like in our previous outlook, we referred to the draft proposal on energy mix choices (published June 19, 2012; subsequently, "government proposal") announced by the previous administration in building our baseline scenario, and added in the recent developments.

Assumptions Behind Energy Policy **Chart 1.2.31**

	Assumptions
Nuclear Energy	● Decommission older reactors such as Fukushima Dai-ni. ● Decommission reactors built more than forty years ago. ● New construction to be limited to Shimane-3 (Chugoku) and Ohma-1 (J-Power). ● Operations to gradually resume at twenty plants which have passed NRA inspection and completed paperwork as of July 2014. ● New calculation of government cost to generate electricity estimates 10.2 yen/kWh, including damages of ￥20 tril related to use of nuclear power plants.
Thermal Power	● Increase operating rate as needed to respond to demand for electrical power. ● According to new calculation, cost of generating electricity with oil, LNG, and coal fluctuate depending on operating rate.
Cogeneration	● To increase yearly until it reaches 15% of total power generation by 2030 (original government proposal of June 19, 2012).
Renewable Energy	● Renewable energy to reach 22% of total power generation by FY2023, 25% by FY2030. (Original government proposal to be followed with adjustments.) ● Solar power technology to improve and use become more widespread by FY2023 when price for buying electrical power is expected to drop to 70% of present day.
Demand for Electrical Power	● Linked to midterm model growth rate. Growth in demand for electrical power expected to drop off gradually due to energy saving efforts. Demand can be decreased by around 7% by FY2023.

Source: Compiled by DIR.

Specifically, in July 2014, two power plants in Kyushu Electric Power's Sendai nuclear power station passed an inspection based on the new safety standards (released in July 2013) by the Nuclear Regulation Authority. As for the 18 other nuclear power plants for which applications have been submitted already, we believe it will take a considerable amount of time to restart the power plants because, after undergoing careful inspections, new safety facilities will have to be built and approval from local governments will be required. In the longer term, we assumed that nuclear power plants that have operated for over 40 years will be decommissioned, and nuclear power stations such as the

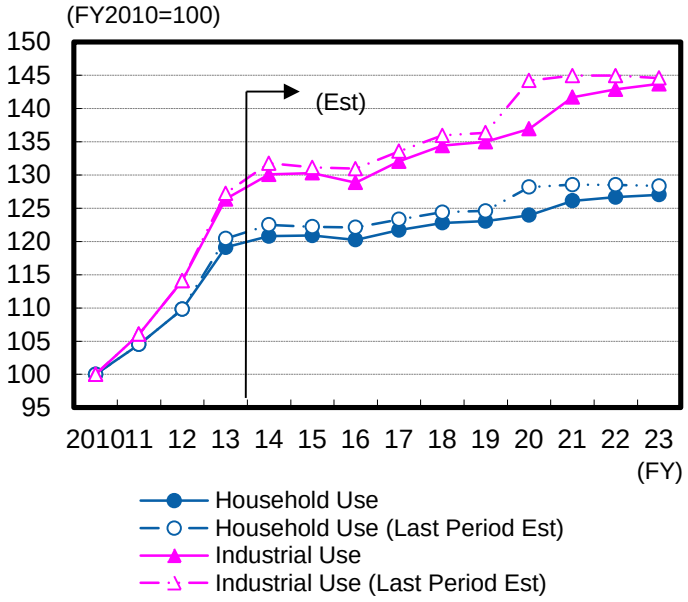
Fukushima Dai-ni will not be restarted even in the medium-term. However, we have also assumed that of the nuclear power plants still under construction, two whose constructions are well under way will be brought online.

While we have assumed that the amount of power generated from renewable energy will increase as the feed-in tariff system launched on July 1, 2012 will support the increase in related investments, we maintain the view that the growth in solar power will lag behind, which is also the view expressed in the basic plan. This is because installing massive amounts of new capacity for renewable energy sources like wind and solar, which tend to produce energy in a more unstable and unpredictable manner than traditional sources of energy, will cause transmission grid issues and require the installation of costly new storage batteries and backup power sources (including the construction of new thermal power stations and other power generation facilities that will be required to fill in for renewable power during times when they cannot produce any energy). For this reason, we have assumed that renewable energy will have a 25% share of all power generation in FY30, the lower limit of the government proposal. In FY23, the final year of our forecast period, we anticipate that the proportion of power coming from renewable sources will be about 22% of the total, and that installed capacity will be twice the level in FY10, which is a more cautious outlook than the government proposal.

The government proposal also assumes that the demand for electricity will fall substantially in the future, compared to FY10. In our electricity demand forecast, given the strong correlation between the demand for electricity and economic growth, we have assumed that electricity demand will continue to grow by the economic growth rate forecasted by our medium-term macroeconomic forecasting model. However, because of the wide range of nationwide efforts to conserve electricity, we anticipate that electricity demand will be about 7% less in FY23 than expected.

Based on the above, we forecast that the restarting of nuclear power plants and the installation of new renewable energy capacity will occur at a relatively slow pace, while electricity demand will keep increasing. Thus, the dependence on thermal power will remain in place for a considerable amount of time. As a result, electricity prices will remain high during the first half of our forecast period from the costs of high fuel prices. Furthermore, since we have revised our outlook for the yen downward from our previous outlook, fuel costs for thermal power generation will rise further, offsetting the positive effect from the restarting of the nuclear power plants in lowering electricity prices. Then, in the second half, the electricity surcharge of the feed-in tariff (FIT) system will have a significant impact. In addition to the effects of having fewer nuclear power plants in operation and the rise in electricity demand, the feed-in tariff will put additional, long-term upward pressures on electricity prices. It should be kept in mind, however, that these circumstances could change dramatically in response to changes in the political situation or in the health of the power companies.

Simulation: Cost of Electrical Power **Chart 1.2.32**



Source: "Report of the Committee for Verification of Costs" (Dec. 19, 2011); compiled by DIR.

Notes: 1) Demand for electrical power used in assumptions are actual figures from 2010-2013. Figures used for 2014 on are DIR estimates.
2) Estimates for 2030 are Renewable Energy 25%, Nuclear Energy 14% (including construction costs), Coal 21%, LNG 36% (includes 15% cogeneration).

2. What Will Happen to Japan's Growth Capacity?

2.1 Overview of the new growth strategy

In June 2014, the cabinet approved the Japan Revitalization Strategy, 2014 revision—Japan's challenge for the future (subsequently, "new growth strategy"), an updated version of the administration's growth strategy. The new growth strategy puts forth a set of bold reform measures for industries that the last year's growth strategy did not touch, including agriculture and healthcare, sectors that are heavily protected by regulations. It also addresses strengthening Japanese companies' "earning power." These initiatives in the new growth strategy are highly commendable. On the other hand, the new growth strategy could have done more in reforming employment practices and labor market regulations. Therefore, we believe this year's new growth strategy deserves a B+, an improvement from the last year's growth strategy's rating of B-.

Broadly speaking, factors that determine the potential growth capacity of the economy are labor input, capital input, and total factor productivity. If labor and capital inputs are increased, potential GDP will also go up. However, in order for the growth in potential GDP to be sustainable, an economic environment is needed where total factor productivity continues to increase.

Japan, however, has major issues in this area. Because of competition-restricting market entry regulations and the lack of a flexible employment system, innovation has been absent, and the allocation of factors of production (labor and capital) to higher productivity sectors has been hampered. As a result, wages and the return on assets do not go up, and labor and capital do not grow in a sustainable manner, so Japan's potential growth capacity does not increase.

For example, workers with a range of capabilities are not being adequately utilized due to factors such as the shortage of opportunities for women in the workplace, the decline in the use of highly skilled foreign workers, the falling labor force participation rate for young and older male workers, and the inflexibility in the labor market. In addition, there is a lot of frictional unemployment where workers cannot find the jobs they want and employers cannot find the workers they need, also contributing to the labor shortage. Furthermore, the effective corporate tax rate is very high compared to other nations, and the weakness in corporate governance is leading to a lack of discipline in business management. There are also strong regulations making market entry difficult in sectors such as agriculture. These factors are hindering the efficient use of capital in Japan, which is leading to sluggish capital expenditure growth, stagnant wages, and slow job growth.

Reforming these regulations and institutions that prevent the efficient use of the factors of production (like labor and capital) and block innovation, is required for the economy to break through the ceiling on supply that comes from the labor shortage due to the hyper-aging of society with a declining birth rate, and for productivity to increase for the entire economy. In light of the new growth strategy, we undertake in our current outlook the following analyses of policies for increasing Japan's potential growth capacity.

In this section we begin by evaluating the new growth strategy and discuss future issues, centered on reforming institutional problems, that will contribute to an improvement in total factor productivity. In the second section we examine in greater detail the labor input, and follow up in the third section with an analysis of the corporate tax reform that will affect capital input.

Japan Revitalization Strategy Revised 2014 – Roadmap to Growth **Chart 2.1.1**

Enhancement of Earning Power

① Enhancement of Corporate Governance
- Drafting of corporate governance code
- Strengthen management support function of financial institutions

② Reform of Public and Quasi-public Funds
- Revision of policy asset mix and enhancement of governance structure of GPIF

③ Corporate Structural Reforms, Promotion of Ventures, Provision of Risk Money
- Support in conjunction with large enterprises, preferential treatment in the government procurement, provision of risk money such as equity

④ Pro-growth Corporate Tax Reform
- Aim to reduce the percentage level of the effective corporate tax rate down to the twenties in several years.

⑤ Promotion of Innovation and "Robot Revolution"
- Establishment of a "National System" that creates business from innovative technology
- Addressing the social challenges of robots and the new industrial revolution

Handling of Pending Issues

Employment Environment

① Promotion of Women's Participation
- Enhancement of childcare services for elementary school kids
- Tax and social security systems which are neutral to women's participation in work
- Draft new law to accelerate women's participation.

② Achieve flexible and diverse work styles
- Measures against overwork
- A new working-hour system which place value on performances rather than the hours worked
- Establishment of a transparent labor dispute dispute scheme

③ Utilization of Foreign Human Resources
- Review of training programs for foreign workers
- Make use of foreign human resources in construction and shipbuilding
- Acceptance of foreign household workers in the Special Zones
- Utilization of foreign students in nursing care services

Agriculture, Medical Care, and Nursing Care

① Develop aggressive agriculture
- Review rice production adjustment practices
- Integrated reform of agricultural committees, agricultural corporations and agricultural co-ops
- Diversification of distribution channels for dairy farmers
- Connecting domestic and overseas value chains (promotion of "sixth industry" and exports)

② Vitalization of Health Industry and Provision of High-quality Healthcare Services
- Establishment of a new non-profit holding-company style corporation system
- Introduction of incentives for health promotion and prevention
- Expansion of insurance scheme for both covered and non-covered medical treatments

Spreading Benefits of Growth Nationwide

① Regional Vitalization / Innovation of SMEs and Small Businesses
- Establishing a platform to implement measures for regional vitalization as one package
- Promotion of regional specialties by SMEs and small business; development of strategic industries
- Promotion of agricultural "sixth industry" as regional movement, new approaches to dairy farming
- Development of regions to attract tourists
- Realization of infrastructure management utilizing PPP/PFI

② Structural Reform of the Regional Economies
- Consolidation/accumulation and networking of city functions, industries and employments

Source: Compiled by DIR from "Japan Revitalization Strategy Revised 2014 – Roadmap to Growth" (June 24, 2014).

2.1.1 Employment system reform does not go far enough

The new growth strategy establishes three pillars for undertaking major reforms. One of these is the response to the remaining issues related to regulations strongly defended by vested interests. The reform menu includes employment policies to further promote opportunities for women in the

workplace, realizing flexible and diverse ways of working, and utilizing foreign human resources so as to achieve a world-leading workplace environment.

"Three-in-one" reform of the labor hour system suffers setback

The new growth strategy places emphasis on providing more opportunities for women in the workplace. There is a tendency for per capita income (standard of living) to be higher in nations where the income disparity between men and women are smaller. Some have argued that the growth capacity of Japan will depend on how well exceptional and diverse human resources can be utilized, and promoting opportunities for women is a critical part of this effort. There is a need to reform the existing employment system, a system which centers on regular employees in unrestricted positions doing whatever work is assigned, and having to work overtime and having to transfer to other corporate locations and subsidiaries, in exchange for stable employment and guaranteed wages. This system makes it difficult for women to hold full-time jobs.

In the Council for Regulatory Reform, the need for "three-in-one" reform of labor hour system was discussed, including the need to (1) set an upper limit to working hours, (2) make it mandatory to acquire sick days and paid leaves, and (3) create a labor management system that determines compensation based on results, rather than hours worked, in order to promote creative work (so-called "white-collar exemption"). The council has also debated promoting the spread of position-limited regular employment ("job-defined regular employment") to reduce the long working hours.

The new growth strategy, however, has grown more vague about setting an upper limit to working hours, and the "three-in-one" reform debate appears to have retreated. The point of white-collar exemption is to provide compensation that does not depend on labor hours. It provides an incentive for workers to limit their long working hours and has the benefit of boosting worker productivity by linking compensation to results. However, without an upper limit on working hours, employers have a strong incentive to overwork their employees as they no longer have to pay overtime. Thus, to maintain the health of workers, there needs be tight regulations on working hours. Currently, a system for providing extra pay for overtime hours worked does exist, but the direct regulation for limiting overtime hours relies solely on private labor-management agreements based on Article 36 of the Labor Standards Act, and these agreements are not very effective in restricting working hours.

If the white-collar exemption program starts before an effective system to limit working hours can be set in place, the results may actually make the problems worse.

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Comprehensive measures are needed to promote the social advancement of women

To make it easier for women to hold full-time jobs, not only do the employment system need to be changed, but other reforms must also be undertaken at the same time in related areas, such as the expansion of day care centers and after school care, and the establishment of a tax and social insurance system that is more fair towards women. These reforms are included in the new growth strategy. In addition, in order to achieve the goal of having women fill 30% of all leadership positions by 2020, the new growth strategy makes a request to stock exchanges to have listed companies disclose their share of female directors and managers in their marketable securities reports, and report the situation surrounding the appointment of women to management positions in their corporate governance reports. The new growth strategy also suggests rewarding companies that actively provide opportunities for women, by giving those companies more public procurement orders and subsidies.

What is needed now is the acceptance of highly skilled foreign workers

Utilizing foreign workers is another focal point in the new growth strategy, and it is important from the perspective of maintaining a diverse pool of talent. While the revision of the Technical Intern Training Program for foreign workers is mentioned as a way to resolve the labor shortage, looking at the structural trends Japan's economy is facing, it will be important to actively accept highly skilled foreign workers who can help raise productivity. On the other hand, if we let unskilled, manual laborers work in the country, Japan will risk losing the opportunity to raise domestic wages and productivity. The government has announced that it would set up a headquarters to examine the possibility of accepting of foreign workers by FY15. During this process, there will be a need to come up with a long-term vision, and multiples issues will have to be sorted out.

Reforms that let unfair dismissal claims be resolved ex-post through monetary compensation have been postponed

An important issue in reforming the employment system is increasing the flexibility of the labor markets, in order to promote innovation and to enable the efficient allocation of labor and capital resources to highly productive sectors.

In the case of Japan, there are substantial discrepancies between labor laws and actual conditions on the ground, and this creates the impression that Japan's employment rules lack transparency compared to other countries. For example, there are no clear standards for determining whether dismissals were appropriate. Courts decide on a case-by-case basis according to judicial precedent whether companies have adequately sought to avoid dismissals, such as reassigning and transferring the employee,

according to each company's employment practices. As a result, when disputes are brought before the courts or before labor tribunals, the results are unclear. Also, the lack of rules for resolving labor-management disputes through monetary compensation creates the problem of having differing amounts of compensation between cases, depending on the balance of power between labor and management in each case.

To make the world-leading employment environment that the government is aiming for possible, it is essential for Japan to adopt rules for resolving disputes through monetary compensation, which is common in most advanced economies (rules for offering appropriate monetary compensation in exchange for cancelling employment agreements when the courts decide that dismissals were unfair). The new growth strategy promotes building a highly predictable conflict resolution system and, like the Council for Regulatory Reform, we also believe that the government should come up with its conclusion within a year.

Private operators should support labor turnover

To promote greater flexibility in labor markets, the government will begin making the information held by the Public Employment Security Offices available to private job placement centers in September 2014, to make it easier to match unemployed workers with potential employers. The current growth strategy also mentions the adoption of performance evaluations for the Public Employment Security Offices as early as FY15.

The functions of the Public Employment Security Offices are those that can be performed by the private sector. What the government should be doing instead is strengthening existing measures that have proven to be effective. These include shifting government personnel to institutions like the Labor Standards Inspection Offices that monitor working conditions and protect the rights of worker, setting a strict upper limit on working hours, and actively enforcing that limit. This is the role that the government should assume, as the private sector cannot.

Going forward, detailed regulations will be drafted by the Labor Policy Council, an advisory body to the Ministry of Health, Labor, and Welfare, and it remains to be seen whether effective regulations can actually be put in place.

2.1.2 Have Japan's "rock-solid regulations" finally crumbled?

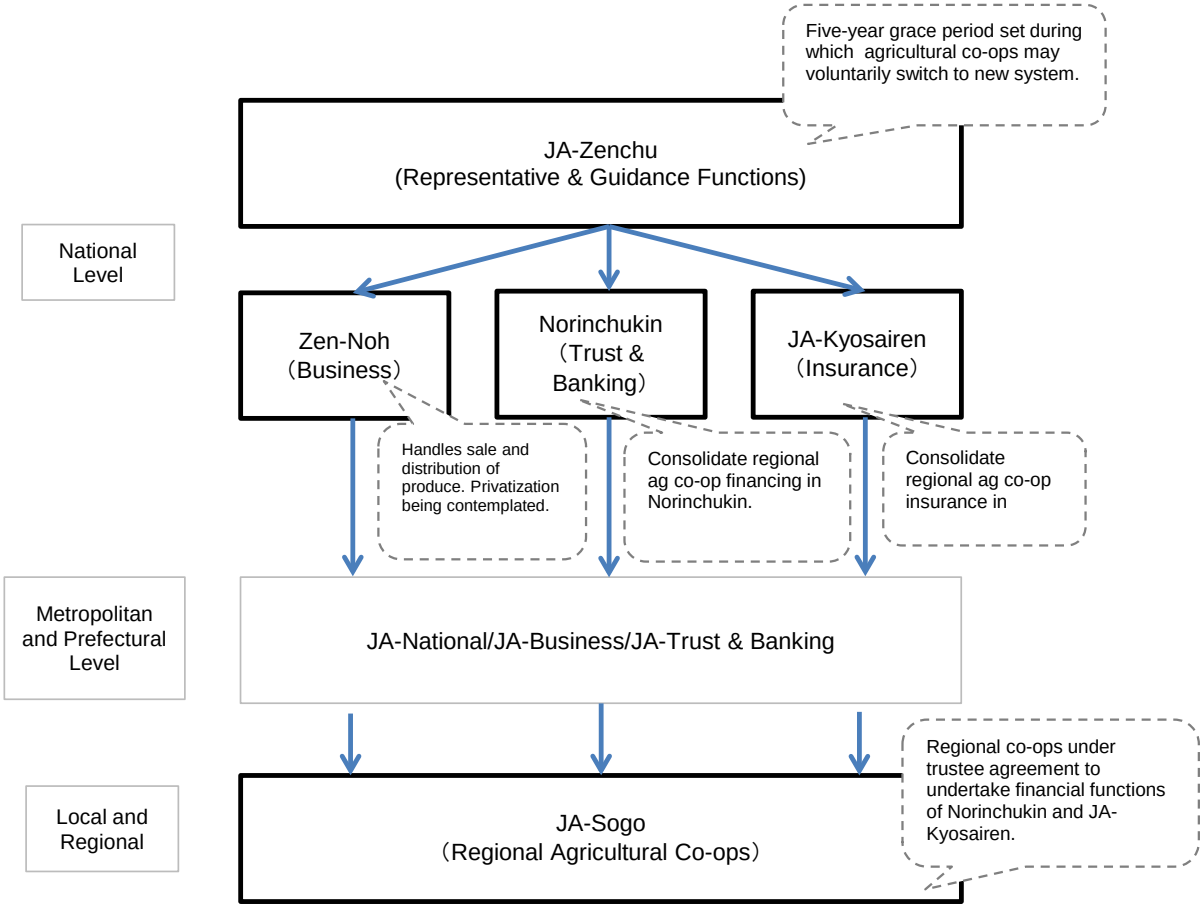
Besides employment regulation reforms, the new growth strategy mentions reforming regulations strongly defended by vested interests, such as those associated with agriculture and medical and nursing care. The list of reforms suggested in these areas is highly commendable.

Major changes to strongly defended agriculture regulations

Reforms to agriculture regulations involve the agricultural cooperatives, the agriculture production corporations, and the agricultural committees. In the agricultural cooperatives reform, the current Central Union of Agricultural Co-operatives (JA-ZENCHU) will be given a five-year grace period to convert into a new organization aimed at managing agricultural cooperatives in accordance with local circumstances. In addition, the National Federation of Agricultural Cooperative Associations (JA-ZEN-NOH), which is responsible for the sale and distribution of agricultural products, will be allowed to become incorporated in order to improve management efficiency and reduce distribution costs. Since agricultural cooperatives are cooperative associations, they are currently exempt from the Anti-Monopoly Act. That means even when agricultural cooperatives use their monopolistic power to reduce the purchase prices of agricultural products for farmers or to raise the selling prices of agricultural products and agricultural equipment for consumers and farmers, regulators cannot intervene. If JA-ZEN-NOH becomes incorporated, it becomes possible to restore the market mechanism. Also, the banking and insurance businesses performed by individual agricultural

cooperatives will become consolidated under the Norinchukin Bank, which is responsible for managing the funds collected from the individual agricultural cooperatives, and under the National Mutual Insurance Federation of Agricultural Cooperatives (Zenkyoren). Individual agricultural cooperatives will become agencies for the Norinchukin Bank and the Zenkyoren, and sell their financial products in exchange for commissions.

Agricultural Co-Op Reform **Chart 2.1.2**



Source: JA-Zenchu website, "Japan Revitalization Strategy Revised 2014 – Roadmap to Growth"; compiled by DIR.

As for the agricultural committees, which have the authority to approve the sale of farmland, there are reforms included in the new growth strategy that would replace the current system of farmers electing their own committee members amongst themselves, to one where the heads of local governments elect the committee members, and mandate that the majority of the committee members are to be actively involved in management. With respect to the agricultural production corporations, the upper limit on the equity ratio will be raised from 25% to "less than 50%" in order to promote large-scale, efficient agricultural production.

Allowing corporations to acquire farmland, which is currently prohibited, and reforming the tax system that favors small farmland owners and provides a disincentive to existing farmland owners from selling their land, are measures that are left to be addressed in the future. Although the further easing of the requirements for setting up agricultural production corporations and the overhaul of the overall farmland system will be up for discussions again in five years, these reform measures should be pushed forward as quickly as possible.

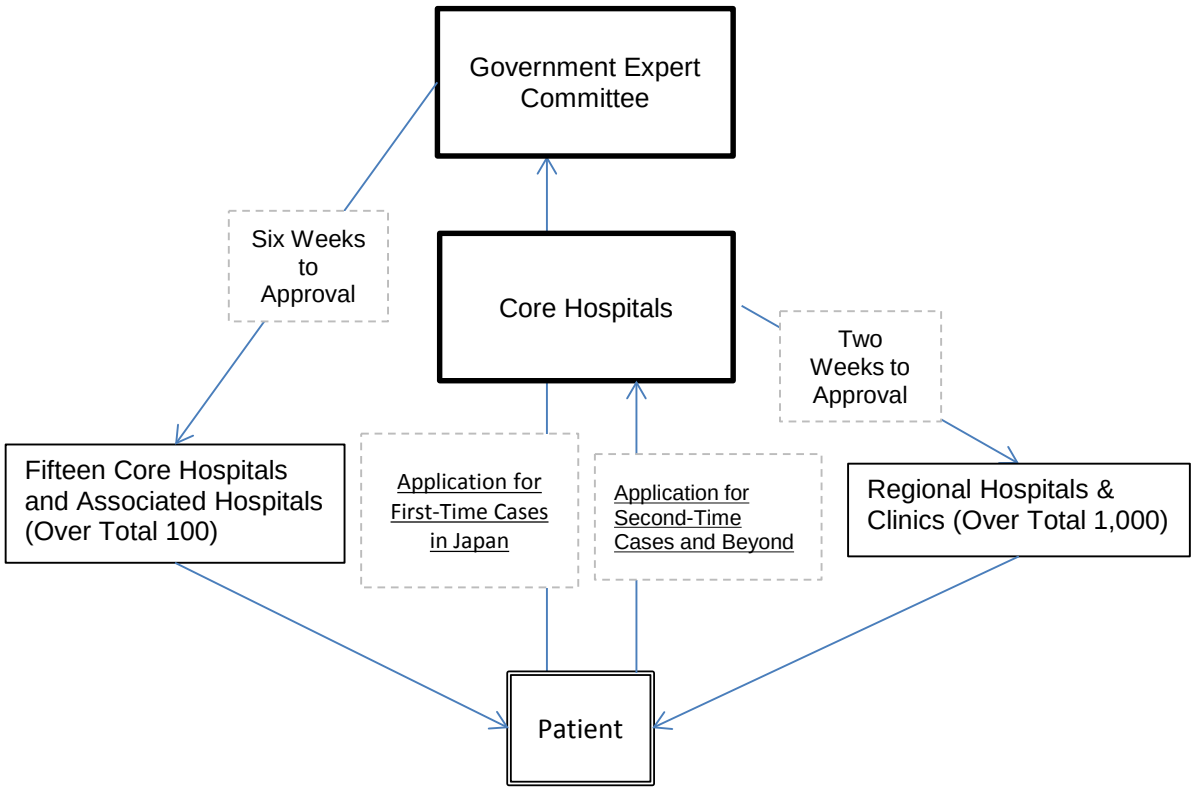
Medical care takes a step towards expanding mixed medical treatments

In the area of medical care, a new program will be introduced where patients are allowed to request the use of unapproved medication not covered by public health insurance alongside drugs that are covered

(called “mixed medical treatments”). Currently, this is not allowed, and patients who use drugs not covered by insurance are forced to pay for all of the costs, even including the cost of drugs that are normally covered by health insurance. Under the new program, when patients strongly request the use of drugs that have not been approved in Japan, not covered by public health insurance, and not eligible under the existing mixed medical treatment program (very few drugs are currently eligible for the existing program), these drugs will be approved for use alongside drugs that are covered by public health insurance, given that their safety and effectiveness can be verified by a specialist committee which is going to be created or by existing major hospitals. Through these measures, patients’ access to advanced medical care will improve and innovations in advanced medical care can be promoted. The new growth strategy also mentions the creation of a nonprofit holding company system where several medical institutions and social welfare corporations can be managed as a single group.

A major issue going forward in the medical and nursing care sectors is whether an effective management system can be established for newly introduced mixed medical treatments. For example, if the specialists in the specialist councils make overly conservative judgments and constantly deny access to new medications, they could impede the treatment process. Also, if the number of hospitals or clinics that are allowed to participate in this program is very limited, it will be difficult for patients to benefit from the expansion in mixed medical treatments. We need to keep a close eye on how discussions will unfold in advisory bodies like the Central Social Insurance Medical Council, where detailed regulations will be drafted.

Organization of Patient-Requested Treatment System **Chart 2.1.3**



Source: "Implementation Plan for Regulatory Reform" （Cabinet Office decision, June 26, 2014); compiled by DIR.

2.1.3 Strengthening Japan’s earning power

The second major pillar of the new growth strategy is creating a world-leading business environment to strengthen Japan’s earning power.

Specifically, in addition to “Japan’s Stewardship Code,” which aims to improve corporate management through promoting active dialogue between institutional investors and Japanese companies, and was included in last year’s growth strategy, the new growth strategy mentions

establishing a new "corporate governance code," which lists the principles for the governance of listed companies. Specific clauses that are likely going to be in the final version includes having listed companies "comply or explain" (comply with the code or explain their reasons for not doing so) and limiting the terms of office for outside directors to ensure that they are independent. Debate could start as early as this summer and the final version should be released by the middle of 2015.

Other points of discussion surrounding corporate governance and increasing the earning power of companies include whether or not to force companies to appoint outside directors by changing the Companies Act, and whether to force companies to appoint two or more outside directors using securities exchange regulations.

In addition, measures like creating a business venture creation council by autumn 2014 to support business ventures by matching startups with large companies, and promoting venture businesses to participate in government procurement orders, are also mentioned.

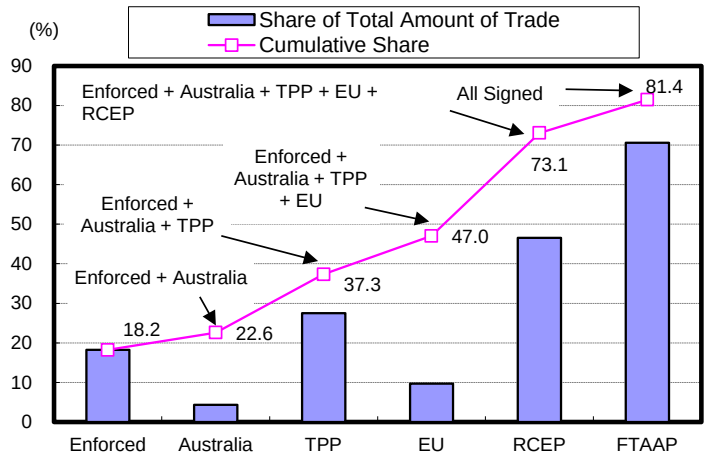
The new growth strategy is highly commendable in that it stated that the effective corporate tax rate will be reduced over the next several years, starting in FY15. Uncertainties will remain, however, with respect to the degree of the reduction and how fast the reduction takes place, until tax reform proposals are finalized at the end of the year. With the need to restore sound government finances, the discussions over comprehensive tax reform, including making changes to taxes other than the corporate tax, and over how to reduce government spending, are likely to continue over the next few years.

The previous growth strategy rolled out plans to double the amount of FDI into Japan by 2020 from their current level. Building on this plan, the new growth strategy puts forth the establishment of a FDI council comprised by the Minister of State for Economic and Fiscal Policy among others to serve as the headquarters for increasing FDI into Japan.

The new growth strategy also includes reforms to the Government Pension Investment Fund (GPIF) and measures to support venture businesses. A center for supporting startups will be newly established to serve as a one stop shop for completing all the required procedures when starting a new business in the national strategic economic growth areas. It will also become possible to complete administrative procedures through the Internet through a website called "Company Portal," starting in January 2017, which will utilize the standardized codes scheduled to be given out to all companies (the corporate version of the national identification number ("my number") program) starting in January 2016. These are measures that will simplify the administrative procedures, a problem that has been raised in the past, and is a great program that could lead to more FDI in Japan.

While not addressed in the new growth strategy, efforts to further strengthen economic partnership agreements, including the Trans-Pacific Strategic Economic Partnership Agreement (TPP), will not only contribute to the reduction and elimination of tariffs, but also will be important for achieving the harmonization and convergence of domestic and foreign rules, such as rules over investment, government procurement, intellectual property, and state-owned companies. It is also essential for driving the push to reduce the non-tariff barriers and to reform existing regulations. The growth strategy the government released last year established a target of having 70% of all trade be covered by free trade agreements by 2018 (18% was covered by FTAs in 2013). This share, however, will not even reach 50%, even if the TPP and the Japan–EU Economic Partnership Agreement are concluded and take effect along with the Japan–Australia Economic Partnership Agreement that is scheduled to take effect next year. If the target of 70% is to be achieved, the Regional Comprehensive Economic Partnership (RCEP) will also need to be concluded and take effect by 2018. Thus, the key issue will be the negotiations over RCEP, which will include both China and South Korea.

Share of Total Trade Value of FTA Countries (2013) Chart 2.1.4



Source: Ministry of Finance; compiled by DIR.
Notes: 1) Total trade value = total amount of exports and imports.
2) Countries with which trade agreements have been enforced are ASEAN, Mexico, Chile, Peru, Switzerland, and India.

2.1.4 Regulatory reform, strengthening human resources, and bringing more flexibility to the labor market are all crucial for innovation to take place

Global competition is growing. Before reaching the peak years of the hyper-aged society, Japan, with its declining birth rate, will need to strengthen its human resources in order to promote innovation, and also create a supportive environment for it to occur. What is needed is a growth strategy that goes one step further in the areas of employment and human resources, including policy incentives for investments in education and for the utilization of human resources. For example, the movement of workers across national borders has accelerated globally in recent years, and going forward it will become more important to think about ways to strategically rebuild the tax regime in the face of increased global competition. Reducing the taxes on highly skilled foreign workers, factors of production with relatively small transfer costs which can flee very quickly, down to international levels, should be up for discussions, just like how the effective corporate tax rate is going be reduced for capital, which can also flee very quickly.

The third pillar of the new growth strategy is strengthening the growth capacity of local communities and small and medium-sized businesses. Few specifics are mentioned, however, with the exception of tourism. Prime Minister Abe has indicated his desire to discuss ways to revitalize local communities by creating a new headquarters ahead of the local elections in spring 2015. The hopes are that this headquarters will develop specific policies to revitalize the local communities suffering from the blunt of Japan's declining population.

2.2 Labor Force Trends Affecting the Growth Ceiling

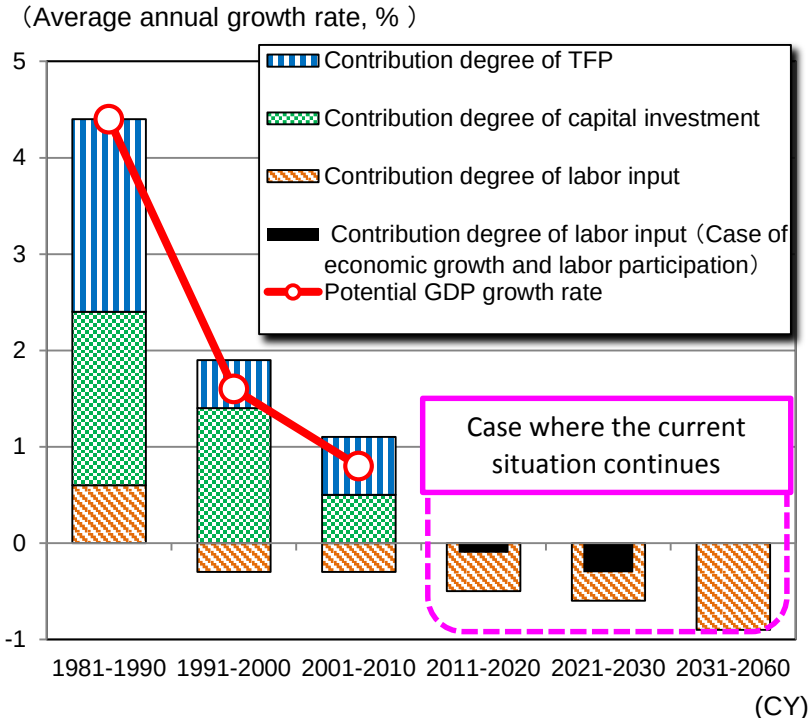
2.2.1 Introduction

Promoting a more important role for women in the workforce ("empowering women") is given a central role in the policy framework made public by the Cabinet Office in June 2014 (Outline of Basic Policies for Economic and Fiscal Management, and Reform 2014 – Ending Deflation and Revitalizing the Japanese Economy), as well as in the government's new growth strategy. The declining birth rate and the aging of the population are progressing at a rapid pace, and this trend threatens to further exacerbate the labor shortage. Some industries are already facing serious shortages in manpower and human resources. The reality Japan faces today is that the working age population is shrinking at the same time social security related costs to care for the elderly are exploding. This situation is only expected to get worse in the future.

Japan's potential growth rate (according to information provided by the Cabinet Office), fell from 4.4% during the 1980s to 1.6% in the 1990s, then slowed even more dramatically in the 2000s to just

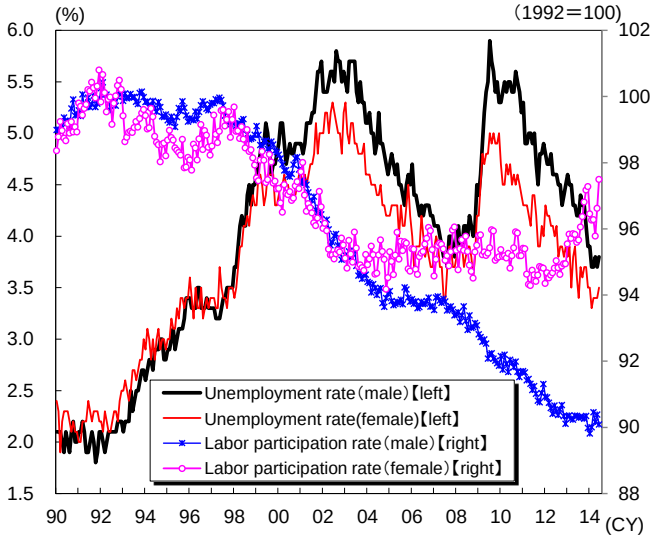
0.8%. A factor analysis of the various elements making up potential growth rate shows us that, since the 1990s, the rate of the contribution of labor input to potential growth has fallen into the negative, while capital input has remained positive. The numbers for labor input decrease even more dramatically during the 2000s. According to the government's calculations, assuming that the labor force participation rate and working hours remain constant into the future, and assuming that the current levels are maintained, the negative contribution of labor input to potential growth will continue to get larger until they eventually manage to push down the potential growth rate by an average of one percentage point between 2031 and 2060. Even if these trends are reversed from the successes of Abe's revitalization strategy and an increase in labor participation, they will still not disappear completely. Hence it will be difficult for Japan to reach the government's target of real growth of 2% (nominal growth of 3%) as long as the contribution from labor input continues to be negative. In order to achieve real growth of 2% under current conditions, growth in labor productivity would have to be nearly 3% — a difficult challenge.

Factor Analysis of Japan's Potential Growth Rate Chart 2.2.1



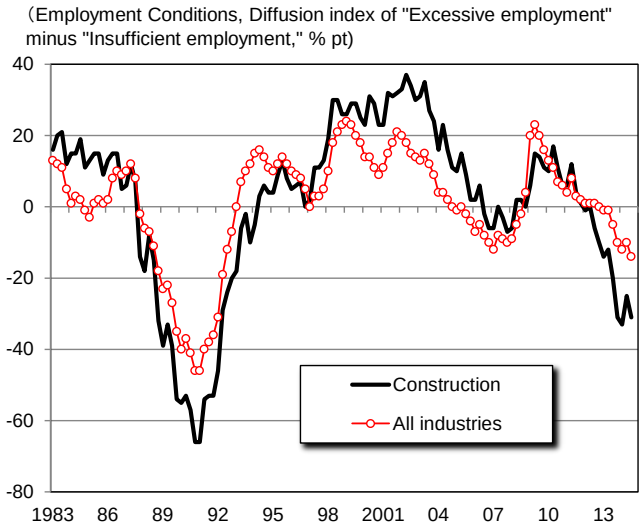
Source: Committee for Japan's Future; compiled by DIR.
Note: Case of economic growth and labor participation is only 2011-20, 2021-30. Regarding labor force population in the case where the current situation continues, labor force participation and working hours are assumed to remain the same as in 2012.

Changes in Labor Force as Gender Gap Widens
Chart 2.2.2(Left)



Source: Ministry of Finance, Ministry of Internal Affairs and Communication; compiled by DIR.

Increasing Manpower Shortage
Chart 2.2.2(Right)



Source: Bank of Japan; compiled by DIR.
Note: Sep 2014: Forecast in June 2014 Survey.

2.2.2 Manpower shortage or human resources shortage?

A prevailing sense of deficiency

For some time now Japan's population has been expected to decrease rapidly due to its declining birth rate and aging population, and now there are increased fears that the labor shortage will drag down economic growth. However, in the period since Japan's economic bubble burst in the 1990s, and throughout the long period of the downturn that followed, often referred to as Japan's "lost decades," this concern never surfaced. This may be due to the long series of global economic crises which Japan had to weather during that time, including the Asian currency crisis, the bursting of the IT bubble, and the US financial crisis which brought with it a downturn of the global economy. During this time, Japan suffered from a level of deflation it had never experienced before, which may be the reason why the labor shortage concerns never really materialized.

During the period when the effects of the US financial crisis were being felt, there was actually an employment surplus, but this was quickly swept away during the years 2012-2013 when the economy grew at a fairly steady rate of 1.4-1.5%. First in the construction industry, then spreading to a broad range of industries, concerns over manpower shortage are beginning to be voiced. The shortages are occurring not only in the elderly care and childcare sector, which were long projected to face structural shortages due to the declining birth rate and the aging population, but also in the construction industry as well, due to the increase in public works projects in response to reconstruction demand after the Great East Japan Earthquake, in projects related to the 2020 Tokyo Olympics, and in private sector demand due to the economic recovery (new offices, hotels, and other commercial facilities are being built). The economy is beginning to expand again, and there is a lack of workers in labor-intensive industries such as retail and restaurants, as well as lack of truck drivers and pilots. Various measures to deal with the shortages are being considered, including hiring more women in jobs which were traditionally thought of as being men's work, as well as raising the age limit and simplifying tests for licensing (i.e. easing regulations).

The economic growth ceiling

Japan's population peaked in 2008 and has been declining ever since. According to the population projection of the National Institute of Population and Social Security Research (IPSS) (Projection as of January 2012, medium variant for births and deaths), the population is expected to gradually decline in

the future, with 120 million people by the year 2025, then falling below 110 million by 2038, then down to 100 million in 2048, and finally by 2060, the population is expected to decline by around 30% of its current total. Japan's working-age population (aged 15 to 64), the part of the population most directly associated with economic activity, gradually began decreasing after 1995, and then have begun declining more rapidly since 2012. As of December 2012, the working-age population fell below 80 million for the first time since 1982. Meanwhile, the percentage of the working-age population to the total population fell to 62%, from 70% in the 1990s. In comparison, the percentage of people over the age of 65 (i.e. the population aging rate) was 23% in 2010 and grew to 25.1% in 2013.

According to IPSS projections, the population aging rate will reach 30% by the year 2024, and by 2039, the year Japan's second baby boomer generation (people born between 1971-74) reaches age 65 and over, the working-age population will have fallen below 60 million, and the population aging rate will be over 35%. Then by the year 2060, two out of every five people in Japan will be age 65 or older. In addition, the percentage of people age 75 or older (referred to as the latter-stage elderly), will jump from the current 10% to over 25%, at which point Japan will become a super-aged society. Not only does Japan face the major problem of having less people, but the pace at which its population ages and the pace of the decline in its birth rate is more rapid than has ever been seen in the entire world. This puts an incredible amount of stress on the entire structure of the society.

Generally speaking, an "aging society" is one where the population aging rate is over 7%. Once that ratio hits 14%, society is considered to have become an "aged society". If that ratio exceeds 21%, then society is considered to be a "super-aged society." Japan has become the first super-aged society in the world. If we look at the time it took for society to become aged, it only took 24 years for Japan to go from an aging society to an aged society (from 1970 to 1994). It then took only ten more years for it to become a super-aged society. When we consider the fact that it took France 100 years to reach that point, while it took 40 to 50 years for Germany and England, we can see how rapid this change has been.

Dealing with a multifaceted manpower shortage

In this section, we consider ways to deal with the manpower shortage, which is expected to become more serious from two different ways – one from the quantity side, and the other from the quality side. One aspect of this question focuses on people who undertake labor, which in certain respects is purely a quantitative issue (i.e. the sheer number of workers). If the problem is having too many or too few employees, companies can simply adjust the number of workers by increasing new hiring or providing work for unemployed people (people who are unemployed but are capable of working and are currently seeking employment). However, even though the supply-demand balance for labor is tightening, the extent of the wage increases is still small. One of the explanations for this is that the mismatch between the types of skills companies are looking for and ones workers are offering is creating a supply-demand gap. The mismatch between the locations companies want to hire in and the locations workers want to work is also widening this gap.

Another solution is to increase the working hours of each worker. The problem with this is that an excessive amount of overtime can lead to various problems, including workers quitting. In order to avoid losing workers to competitors, the turnover rate must be kept under control through bold new measures such as raising wages and hiring part-timers and contractors as full-time employees (in other words, hiring non-regular employees as regular employees). From the worker's point of view, this can improve compensation and increase purchasing power. For companies, this can push costs higher, and may require them to change their current business model. However, these measures will become necessary in order to avoid missing out on increased demand due to the shortage of workers, and to keep its reputation and not be branded as companies that exploit workers.

Companies can also choose to make use of the non-labor force population made up of people who have left the labor market. The argument for utilizing women and older people has now become widely

accepted. However, there are obviously more difficulties for women and the elderly looking to enter the workforce, compared to others looking for work or those who are already working.

Factors hindering the participation of women and older people in the labor market

Women are a promising source of labor, but in order to make use of more female workers, the problem of the "M-curve" must first be resolved. (The "M-curve" is the curious M-shape observed in the line graph of the female participation rate by age group. Japanese women tend to leave the workforce to give birth and to raise their children. Meanwhile, participation rates are higher for the younger generation who have not yet had a child and for the older generations who have come back to the labor force after their kids have grown up. Thus, the graph has two peaks and a dip in the middle, forming an M-shaped curve.) Some companies have already addressed this issue by providing a working environment which is more responsive to the needs of women, and the employment rate for women aged 25 to 30 has increased. The retail industry has been the first amongst the service industries to hire more female employees, which leads us to believe that the working environment provided by this industry better allows women to work and raise children at the same time. However, average hours worked per week have shrunk for this age group, meaning that the percentage of women with jobs with shorter working hours has also increased. Therefore, focusing only on the fact that more women are working is not very meaningful. We need more working environments that allow women who want to work more to do so without constraint.

Another major barrier to bringing more women into the workforce is the fact that women tend to carry the greatest burden in the areas of childcare and caring for the elderly. As Japan becomes more and more aged, there will be an increased demand for nursing assistants. Efforts must be made toward creating an environment which allows both men and women to work and care for the elderly at the same time. There is a lack of nursing homes and elder care services in Japan. There are many cases in which people are forced to quit their jobs in order to provide care for their elderly parents. Building more nursing homes and providing more elderly care services would not only prevent the loss of potential workers from the workforce, but would also create new opportunities for employment. At the same time, there are also concerns that there simply is not enough people available to cover all the needs of an aging society. In order to deal with this issue, improvements must be made in employment conditions to resolve the mismatch between workers and employers, and productivity must be increased in related areas.

As discussed above, a variety of measures can be used to resolve the manpower shortage problem. In the long-term, it will be difficult to completely solve the problem of the shortage in manpower without a dramatic recovery in the birth rate. Growth in productivity is therefore key in reducing the negative effects of the decline in the population. This is more than a question of simple head count; there are many qualitative issues at work here as well, and we need qualitative solutions to solve this manpower shortage problem.

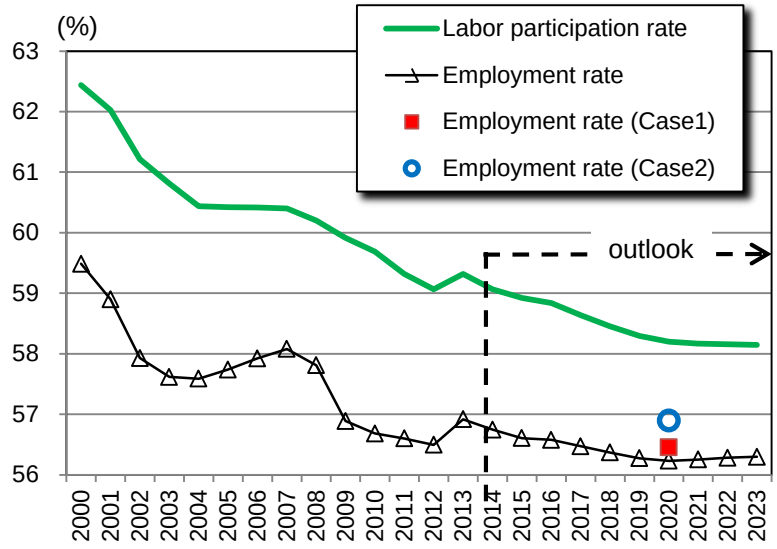
2.2.3 The new growth strategy

The government announced its growth strategy, *Japan Revitalization Strategy – JAPAN is BACK*, in June 2013. On the issues of employment system reform and how to secure quality human resources, it states as follows: "In the midst of economic globalization and aging population combined with the diminishing number of children, in order to lead the economy to new growth, recognizing that human resources are the greatest resource for Japan, the government has to formulate drastic policies and clarify goals and deadlines of the policies to secure the number of workers (quantity of labor) and improve labor productivity (quality of labor)." The government's policy also lists employment system reform, university system reform, promoting the empowerment of women, and utilizing younger people, older people, and highly skilled foreign workers. The government aims to increase the employment rate of people aged 20 to 64 from 75% in 2012, to 80% by 2020. In regards to women, the

growth strategy aims to resolve the "M-curve" issue within the same timeframe, and increase the employment rate of women aged 25 to 44 from 68% in 2012, to 73% by 2020. Individual targets for younger and older people call for the employment rate of people aged 20 to 34 to be increased from 74% in 2012, to 78% by 2020, and for people aged 60 to 64 to be increased from 58% in 2012, to 65% by 2020.

The new growth strategy has had a good start, with the employment rate of women aged 25 to 44 having grown to 69.5% in 2013, and employment rates for younger people and older people each growing by 1% over the past year. In order to achieve these goals, there must be record growth in employment rates for all age groups, which is not an easy task to accomplish. Our midterm outlook sees the labor force participation rate and the employment rate gradually decline as the result of the aging of the population. The pace of this decline will be quite gradual and it is expected to level off by the second half of the outlook period. On the other hand, our assumptions for the year 2020 are not so different from the government's scenario, where targets according to the growth strategy are actually achieved. (For age groups not included in the targets, like men aged 35 to 59, the employment rate is assumed to stay at the same level as in 2013.) In other words, in order to raise employment rates even further, we must get a clearer sense of the trend for the one demographic group which has been left out of the government's growth strategy: working-age men. It is fair to say that the real key to raising the labor force participation rate and the employment rate lies in increasing workplace participation by men in the prime of their working life.

New Growth Strategy **Chart 2.2.3**



Source: Ministry of Internal Affairs and Communications, Cabinet Office, DIR.
Note: DIR estimates.
Case1: Both sexes age 15-19 and over 65, male ages 35-59 assuming the same level as in 2013.
Case2: Both sexes age 15-19 and over 65, male ages 35-59 assuming the same level as in 2001.

2.2.4 Promoting Work Force Participation of Both the Younger and Older Generations

To promote workforce participation by the elderly, we could broaden the range of ages to be included in the definition of "working-age population". For instance, the Committee for Japan's Future established by the government's Council on Economic and Fiscal Policy brought together a midterm assessment in May 2014 in which they suggested raising the retirement age to 70, and stated that efforts should be made to create opportunities for older people to work and participate in society. According to IPSS population projections, the "new working-age population," defined as people between ages 20 to 70, is estimated to total nearly 48 million by the year 2060. This is 3.6 million more than the estimates for the current working-age population. The increase in numbers alone will

contribute to economic growth. However, considering the fact that the difference between the two definitions of working-age population was 4.3 million in 2013, the committee is merely playing with the numbers by changing the age range which does nothing to impact the trend of population decline. However, the committee is working toward increasing the birth rate by promoting programs to provide support for childbirth, childcare and parenting, as well as empowering women. As a result, "if the total fertility rate quickly recovers to the replacement rate of fertility of 2.07 by 2030 and maintains that level," the new working age population would be about 55.5 million as of the year 2060, and is expected to stay at about the same level.

Considering how average life expectancy and healthy life expectancy are both growing, there is no need to arbitrarily set the cutoff age for working years at age 65. In fact, the labor force participation rate and the employment rate for people over the age of 65 are already growing. People generally feel that life is worth living more when they are working, and many older people are still willing to work, although there are some who are forced to continue working to support themselves.

2.2.5 Making Use of Foreign Labor

Making use of skilled foreign workers

There were approximately 720,000 foreigners working in Japan as of the end of October 2013, according to forms submitted to the government by business owners. This is the highest number since reporting became a requirement. This number represents a growth of 5% in comparison to the previous year, and is thought to be due in part by the rapid increase in the hiring of highly skilled foreign workers, as well as the hiring of foreign students. In fact, the number of foreign workers with professional and technical skills has grown by 6.7% compared to the previous year, to a total of 133,000. However, they only make up 18.5% of the total number of foreign workers in Japan, and their numbers are still less than the number of foreigners who have come to Japan to receive technical training (19%).

Japan's revitalization strategy has called for the reevaluation of the point system which gives special visa privileges to skilled foreign workers, and this has led to an easing of the approval standards. The point system was introduced in May 2012, and during the first 11 months, a total of 430 skilled foreign workers were given authorization and had come to Japan. The accumulated total came to 995 as of February 2014. This is still very far from the "exponential growth" that the government aims for. The new growth strategy sets up a new target of giving authorization to 5,000 skilled workers by the end of 2017. But at the current pace of 500 authorizations per year, special measures will have to be taken if that target is to be achieved. For instance, preferential treatment regarding taxes could be given inside the national strategic economic growth areas to provide more incentives for foreigners to come and work in Japan.

Foreigners working as nurses

Over the long-term, the problem of shortage in manpower is expected to occur in a wide variety of areas, starting with nursing care for the elderly. Currently, Japan accepts workers from countries like the Philippines, Indonesia, and Vietnam, countries which Japan has signed economic partnership agreements (EPA) with, to work as nursing home assistants, attendants and registered nurses. However, candidates must first pass Japan's licensing exam, given in Japanese, so it is not an easy-to-use program. Of the 1,832 candidates arriving in Japan between FY08 and FY13, only 20% were able to pass the test, and, as of April 1, 2014, about 20% of those who passed the test are unemployed. The retention rate of existing workers in the current program is not very high either, and it is unclear if the new program in the new growth strategy, aimed at utilizing foreign students who have obtained licensing, would work. In any case, more drastic measures are required, as it is currently expected that within 10 years, up to one million additional nursing assistants will be needed in Japan.

One of the issues that needs to be considered going forward is the fundamental rethinking of the Technical Intern Training Program for foreigners. This includes increasing the number of occupations covered by the program and extending the period of stay, while keeping in mind the primary objective of the program, which is to contribute to the international community through accepting and training workers from developing countries. Specifically, the discussions will be centered in the area of nursing care, and the government has said that they will come to a conclusion by the end of the year. At the same time, it has to be kept in mind that the area of nursing care is beginning to suffer from chronic manpower shortages, as workers refuse to work in an industry with notoriously low wages (by Japanese standards) and terrible working conditions, much like construction, an industry that workers avoid due to the hard work, occupational dangers, and low wages. One of the main characteristics of Japanese nursing care industry is that these shortages occur every time the economy starts to recover, and people start leaving for better jobs. The nursing care industry should first create an environment where wages reflect the supply and demand for labor and introduce normal market mechanisms so manpower shortages lead to wage increases, before turning to foreign workers to fill in the gap.

Prospects for accepting immigrants in the future

Whether it be bringing in skilled foreign workers from abroad or hiring students from the Technical Intern Training Program, these efforts only aim to use the foreign workers temporarily. There has been no serious public debate on the prospect of foreign workers settling down and living in Japan permanently. Japan's population is going to continue to decline for the foreseeable future, and the debate on the acceptance of unskilled foreign laborers and immigrants is unavoidable. We must also keep in mind that it will not be easy to tell the foreign workers to leave if the arrangement becomes inconvenient at some point in the future. The experiences of other countries which have accepted foreign workers in the past tell us that, in addition to the economic benefits, the social cost of bringing in and assimilating foreign workers and immigrants must also be taken into consideration. The government will ultimately be forced to make a political decision on these questions at some point in the future.

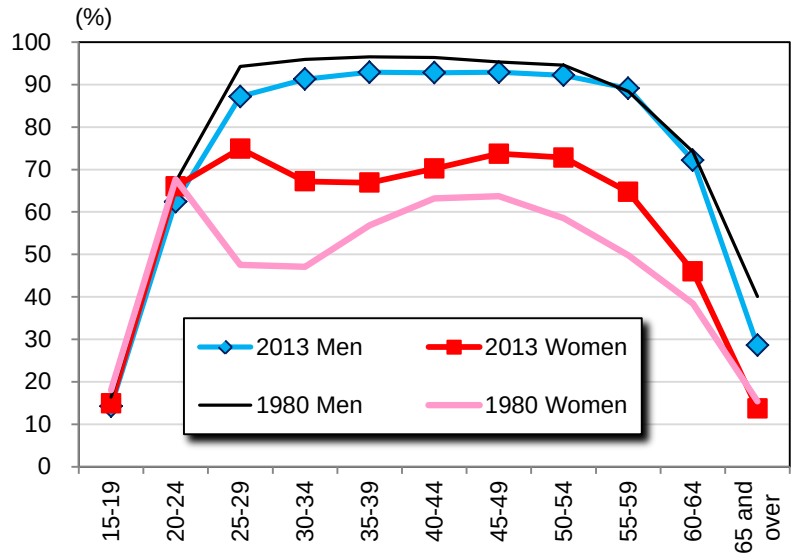
2.2.6 The Realities Surrounding Women's Employment

Behind the government's push to have more women in the workforce is the desire to have Japan shake off years of deflation and get back on a path to strong economic growth. Bringing more women into the labor market after years of not having made sufficient use of their talents is necessary as a means of quickly dealing with the shortage of labor. It is often pointed out that Japan's "M-curve" is deeply rooted. The M-shape in the graph of female labor force participation rate by age group has disappeared from Western nations, due to the recognition of the importance of workplace diversity. Introducing more diversity into Japan's labor market will act as a catalyst for innovation and increase workplace productivity.

It has been nearly thirty years since the Equal Employment Opportunity Law was passed in 1985. The number of people employed in Japan (both men and women) has peaked in the latter half of the 1990s, and has since been in decline. However, the share of women in the total number of employed people has grown from 40% in 1985, to 43% in 2013, so the share of women in the workforce has gone gradually. However, if we compare the employment rates for people aged 25 to 44 by age, we see that it is only 69.5% for women, compared to 91.3% for men (2013 average). Although women are at a better position than they used to be, the M-curve still remains in the female employment rate graph. The dip in the employment rate in the middle of the curve is for the 25 to 44 age group, the group most likely to have to juggle between giving birth, taking care of the kids and building a career. The Childcare and Family Care Leave Act was implemented on April 1, 2005 to relieve some of the burden by letting both male and female workers take a leave of absence to take care of their children and/or their elderly parents. Still, women tend to leave the labor market more often than men. This probably suggests that there are other reasons besides the obvious difficulty of having to balance work and

family, the shortage of daycare facilities, and issues such as taxes and the social security system, that motivate women to leave the workforce more so than men.

Employment Rates by Gender **Chart 2.2.4**



Source: Ministry of Internal Affairs and Communication; compiled by DIR.

Effects of the wage disparity between men and women

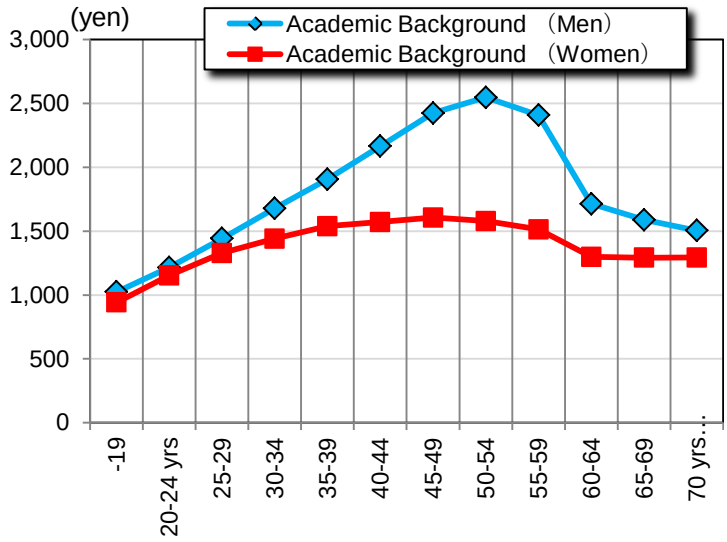
Taking into consideration the changes in the hourly wages of employees by gender and age group (regular salary divided by the number of regular working hours), we see that the wage levels for men increase at a fixed rate until they reach the ages of 50 to 54. In comparison, wage levels for women tend to stay roughly the same for all ages.

Next, looking at the changes in the hourly wage for just the regular employees, we see that the wage disparity between men and women keeps slowly widening until age 50 to 54. Even in cases where both the men and then women are regular employees and they both hold have the same education background (either having a bachelor's or a master's degree), while hourly wages start out at about the same level when employment begins at age 20 to 24 (women earn 98.5% of what men earn), as they age, wages for women keeps falling behind that of men, and the wage gap widens over time.
While conservative beliefs about the role of men and women do play an important factor, if both parents are working and one of them has to quit their job to take care of the children, obviously the one that makes the more money would likely continue working, and the one that makes less would quit. The average age of the parents at the time of their first child birth was 32.3 for men and 30.3 for women as of 2012. The wage disparity between men and women aged 30 to 34 is nearly 10%, even for those who are regular employees and have the same educational background. Meanwhile, benefits provided by companies (including housing allowance and dependent family allowance) are paid only to the primary earner, and in most cases, payments are halted when he/she takes a leave of absence. In addition, many companies refuse to include periods of childcare leave in their calculation of retirement benefits. Hence if the primary earner takes a childcare leave, the amount he would lose from his future retirement benefits would be larger than if his spouse making less were to take the same time off from work.

Because of the way the system is structured, even if they do not go so far as to leave the labor market altogether, women are still more likely than men to take childcare leaves due to their relatively lower wages. In April 2014, the amount of benefit payments paid during childcare leaves were increased from 50% of the wage paid to the employee at the start of the leave period, to 67%. The intent was to make it easier for both men and women to take childcare leaves, but as long as there remains a

significant difference in the level of compensation between men and women, not just in wages, but also in the availability of other benefits and differences in the amount of retirement payments, the percentage of men who take childcare leaves is not likely to increase in the near future.

Hourly Wage by Age Group (2013, Regular Workers) **Chart 2.2.5**



Source: Ministry of Internal Affairs and Communication; compiled by DIR.

The move away from regular employee status spurs further widening the wage gap

When women take childcare leaves for 1 to 3 years, the wage disparity between men women widens further. This causes men to become the main source of household income, and forces women to reduce their working hours in order to do housework and take care of the kids. Meanwhile, the need to balance work and household/childcare responsibilities makes working as a regular employee difficult for women. Under these circumstances, the percentage of women switching to non-regular employment increases, and the wage disparity between men and women widens further.

Wage disparity, including the structuring of corporate benefits and retirement funds, leads to most of the burdens of household chores and childcare being placed on women. It is not easy for women to remain in the labor market as regular employees after giving birth to children, due to the long working hours. The only way to solve this problem and to prevent women from leaving the labor market after giving birth is to close the wage gap between men and women by reforming corporate benefits and retirement payments that tend to benefit men. If men and women earn equal pay, there will be more options available, such as sharing the burden of raisings kids by each taking one year of childcare leave. This will also make it possible for more men to experience those special early years of their child's life.

Assessing the government's new growth strategy

The government's new growth strategy includes policy measures to promote the empowerment of women and proposes new laws to accelerate those reforms. Measures include: (1) Upgrading and expanding childcare facilities and housekeeping services, (2) Reviewing and reforming the tax and social security system to make it more fair towards women, and (3) Disclosing more information about women who have been promoted to management positions.

Policies Under New Growth Strategy Promoting Women's Empowerment **Chart 2.2.6**

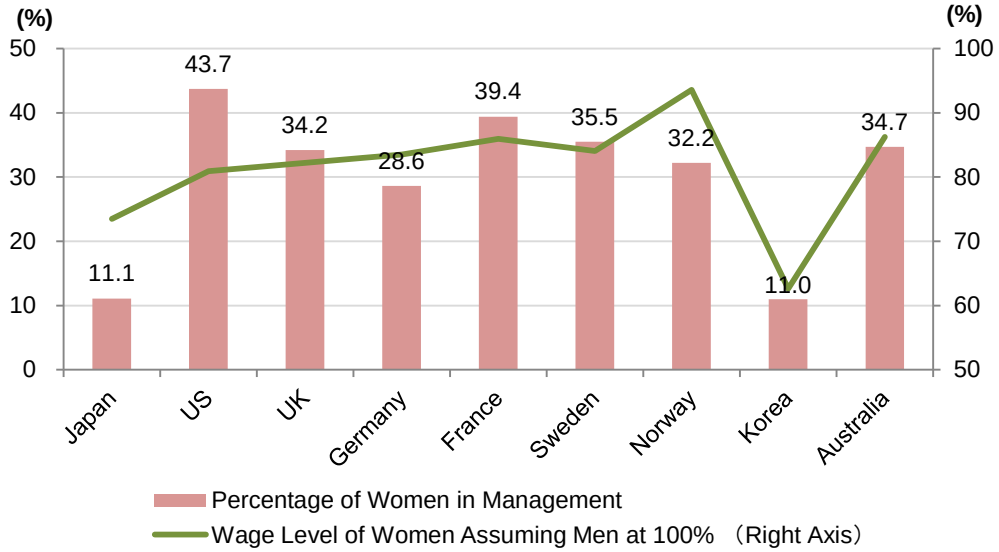
①	Implement Policy Measures during FY2014	Formulate After-School Plan for Children	Remove 1st grade barrier. After-school care programs for 300,000 children by end FY2019.
		Accelerate the zero childcare waiting list project	After-school care programs for 200,000 children by end FY2014, for 400,000 by end FY2017.
		Plan to hire more childcare workers	Indicate target number of daycare staff required nationwide and deadline.
		Establish child-rearing support program	Make use of housewives and mothers with experience in child-rearing.
		Upgrade and expand house-keeping assistance (Make use of foreign house-keeping personnel)	For a trial run, create system for providing house-keeping support services at a low price in National Strategic Special Zones.
②	Complete Study by End 2014	Create policy which does not produce barriers to women's desire to work.	Review tax exemption for spouse.
			Review Category III Insured Status under social security and national health insurance systems.
			Review spouse allowance.
③	Reach Conclusions During FY2014 and Submit Bill to Diet	Build new legal framework.	Obtain data on current status of women's recruitment in national and regional public and private corporations, and publicize targets.
		Make corporate recruitment of women more visible.	Require corporations to increase ratio of women directors at a level high enough for names to appear on company's financial statement. Request that all major financial markets report status of women's recruitment and their efforts to promote recruitment of women in corporate governance reports.
			Provide support to corporations which aggressively pursue program. Implement some form of public recognition for corporations that utilize more women (make women more visible).
		Plan for Boosting Women's Empowerment	Establish child-rearing support organization. Provide job search and extended education programs for mothers (global network).
		National Civil Service	National government to take initiative in increasing hiring and recruitment of women.
		Promote career-oriented educational programs. More women researchers and engineers.	Provide support for universities which aggressively pursue recruitment of women.
2020 Numeric Targets		Boost women's employment rate (between ages of 25 and 44) to 73%.（Reached 69.5% as of FY2013）	
		Increase percentage of women in leadership positions to 30% （7.5% as of 2013）	
		Increase number of women continuing to work after giving birth to their first child to 55% （was at 38% as of 2010）	
		Increase percentage of men taking childcare leave to 13%.（was at 2.63% as of 2011）	

Source: Compiled by DIR from "Japan Revitalization Strategy Revised 2014 – Roadmap to Growth" (June 24, 2014).

If the only goal is to increase the number of female employees, the first measure alone should be enough. The second measure may not have a large impact, as the percentage of people making "work adjustments" (adjusting working hours and pay to save on income tax) was only 34.5%, compared to 57.0% who don't, according to the Survey on the Diverse Working Conditions of Part-Time Workers. The most popular reasons for not making work adjustments (multiple answers) were "I do not make enough money for my earnings to have an impact on my taxes/tax write-offs/social security payments/etc." (28.4%) and "I would like to make as much money as possible, regardless of the impact it might have on my taxes/tax write-offs/social security payments/etc." (26.0%). Therefore, the percentage of women making "work adjustments" to save on income taxes and social security payments appears to be small. It is therefore unlikely that changes to the social security system would be effective in encouraging more women to remain in the workforce.

There is more to the government's policy than simply increasing the number of women in the workforce; the policy actually calls for "building a society where women can shine," and creating a "world-leading employment environment that meets global standards." To do so, reforms must be made to Japan's current employment practices, where companies place the majority of the burden on male regular employees, and efforts must go towards achieving measure (3).
In countries with the least amount of wage disparity between men and women, like Sweden, Norway, France, and Australia, the percentage of women in management positions tend to be higher than in other countries. In contrast, Korea and Japan, which both have large wage disparities between men and women, also have low percentages of women in management positions. In other words, we see a direct link between the wage disparity between men and women and the share of women in management positions. The government says that it will raise the ratio of women in leadership positions to 30% by the year 2020. However, this will be difficult to accomplish under current conditions in Japan, where the wage gap between men and women remains substantial.

Percentage of Women in Management Positions in Various Countries and Wage Levels in Comparison to Men (2012) **Chart 2.2.7**



Source: The OECD Employment and Labour Market Statistics Database, Databook of International Labour Statistics 2014, Japan Institute for Labor Policy and Training; compiled by DIR.
Note: Statistics on the level of women's wages in comparison to men's wages from Germany and Sweden make use of figures from 2011, while figures from 2010 are used in the case of France.

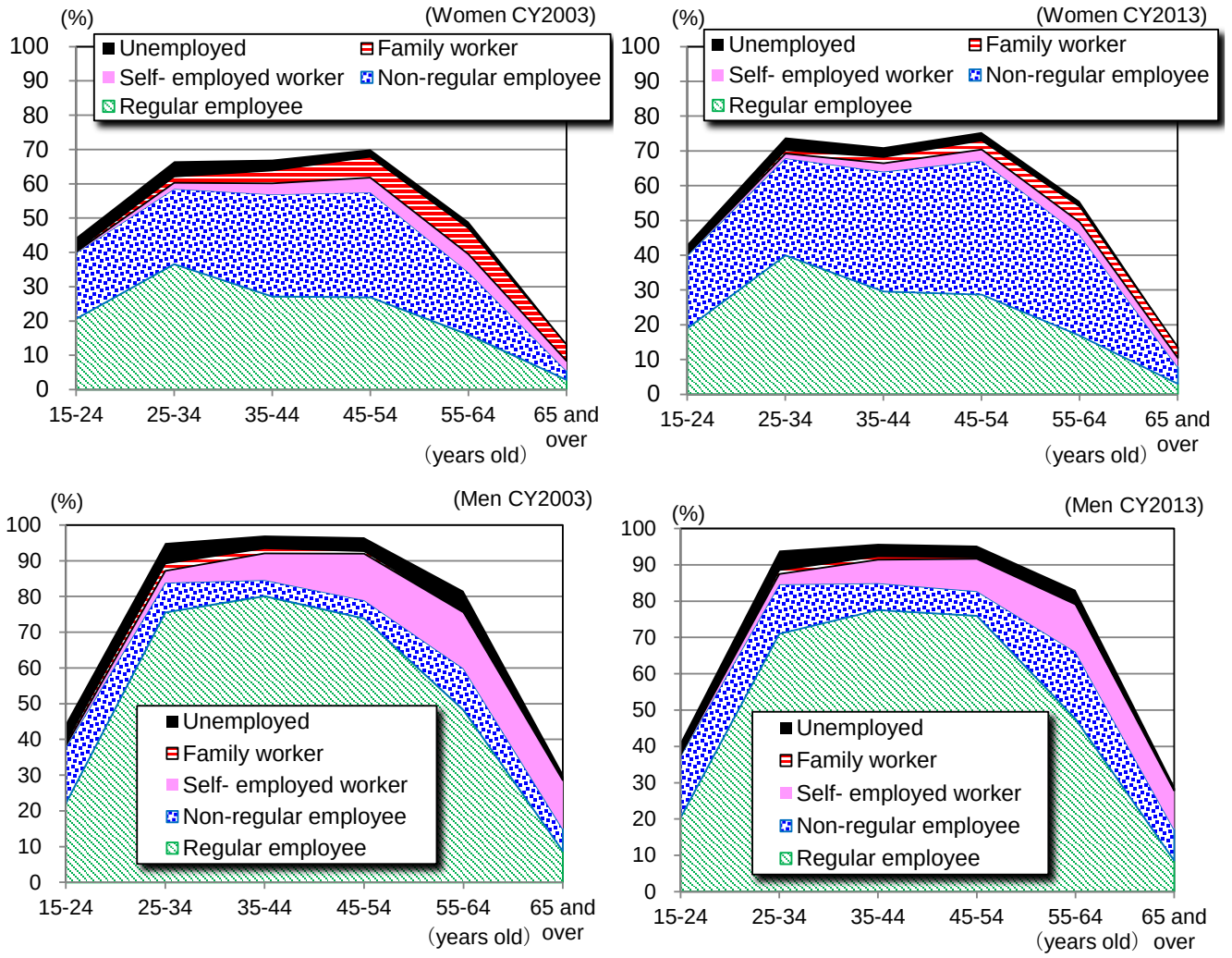
2.2.7 Japan's Forgotten Men

So far, we have discussed the government's new growth strategy on helping women achieve more. The employment rate for women has been getting closer to the government's target rate since 2013. But what about the men? The male employment rate has been declining since 1973, when it was at 81.0%. This figure had fallen to 67.5% by 2013, a decline of 13.5%pt over the past 40 or so years. During the same time period, the female employment rate has been fluctuating within a narrow range of less than 5%pt. If we look at just the employment rate for men between the ages of 25 to 54, it is over 90% (of course this number fluctuates along with the movements in the business cycle). Still, the male employment rate has been in constant decline for all age groups since Japan's economic bubble burst in 1992. If we compare statistics from 1992 and 2013, we find that the younger the age group, the larger the rate of the decline in the employment rate.

During the 1970s, the employment rate of men aged 25 to 44 averaged out to 96.2%. The rate has since declined in recent years, to a five-year average of 91.1%. During the same period, the female employment rate has risen from an average of 50.6%, to 67.3%. If the male employment rates were to have remained at the same level as they had been in the 1980s and the 1990s, the number of men

between ages 25 and 44 who are employed would have been 700,000 more than the actual numbers in 2013.

Work Force Participation Rates by Employment Type (Comparison of Men & Women, Years 2003 & 2013) **Chart 2.2.8**



Source: Ministry of Internal Affairs and Communication; compiled by DIR.
Note: Regular employees are made up of the total of regular employees, non-regular employees, and directors.

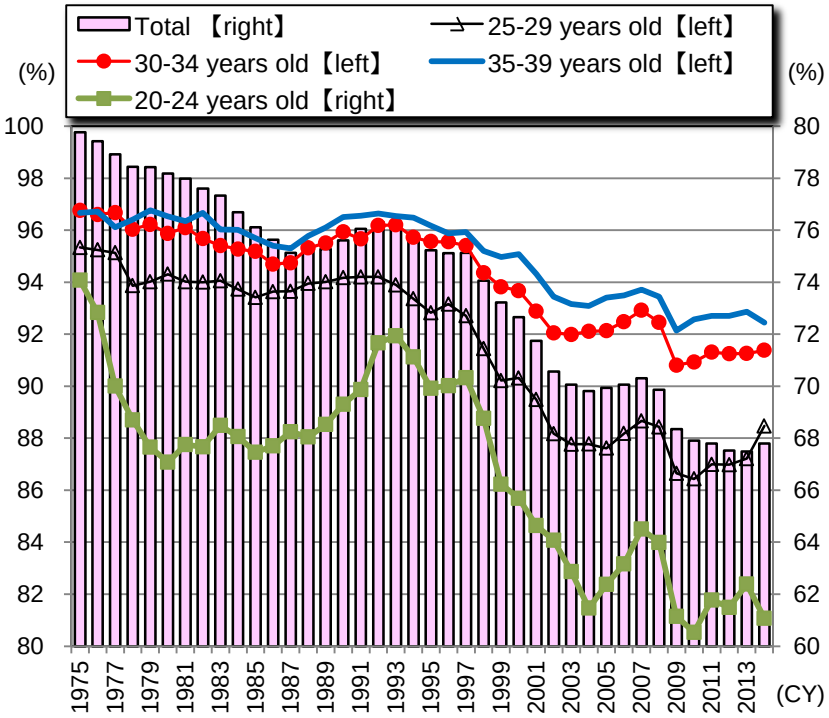
In the past, a larger number of older people were still working

Besides women, the government's strategy also focuses on getting more older people into the workforce. If we look at just the past ten years, the employment rate for men in the 60 to 64 age range has increased by 7%pt, while for the 65 to 69 age range it has increased by 5%pt. This may be due in part to the fact that the age at which individuals can start receiving social security benefits has been raised, and changes have been made in corporate personnel policies to reflect this hike. In addition, some older individuals may have chosen to continue working beyond retirement, which may have contributed to these numbers. However, if we look at the employment rates for older people in the 1970s, figures were much higher than the recent statistics, for both the 60 to 64 age group (average of 76.2% in the 1970s) and the 65 to 69 age group (60.8% in the 1970s). The decline in the employment rates for older people since then may have been due to a number of factors, including the expansion of the social security system and the shift away from self-employment (which has no set retirement age) to finding employment at a company (which usually has a mandatory retirement age).

There is no doubt that the employment rate for women is lower than the employment rate for men. With the unavoidable long-term decline in population and the need to secure workers for the future,

new policies are required to raise the employment rates for women and older people, which have room to be raised further. However, this will involve changes to a variety of systems (with the ultimate goal being to increase the birth rate), so it is likely going to take a long time before results could be seen. It will probably be easier to deal with the current shortage in manpower (the need to have more workers), as well as the shortage in human resources (the need to have better workers), by first concentrating on increasing the employment rate of people with experience, and on increasing the employment rate for men, which has been in a downward trend. There should be even more focus on the unemployed, who represent the difference between the employment rate and the labor force participation rate, as there are probably fewer barriers for them to return to the workforce compared to the others, and there is no need make any additional changes to the current system. Also, people who are currently actively looking for work probably have a stronger desire to work than those who are not even in the labor market.

Younger Men's Employment Rates **Chart 2.2.9**



Source: Ministry of Internal Affairs and Communication; compiled by DIR.
Note: Figures from the year 2014 are from the first quarter only (Jan-Mar).

2.3 Where is Corporate Tax Reform Headed?

2.3.1 Introduction

One of the highlights of the Basic Policies for Economic and Fiscal Management and Reform 2014 announced by the government in June was tax system reform, and corporate tax reform drew the most attention. The new policy states that active measures will be taken to reduce the effective corporate tax rate to levels that are in line with international standards, in order to increase the competitiveness of Japanese companies and to make Japan a more attractive place to invest in. Specifically, the government has made the following statement. "We aim to reduce the percentage level of the effective corporate tax rate down to the twenties in several years. We will start the first phase reduction from the next fiscal year."

One of the unique characteristics of the Abe administration is in labeling tax reform as a growth strategy. In the past, it has been more common for Japanese politicians to discuss the tax code in terms of fairness, neutrality and simplicity, and in recent years, the major theme has been the increase the

consumption tax to reduce the budget deficit. In this section, we take a closer look at the effect of corporate tax reform, especially corporate tax rate cuts.

2.3.2 Four Effects of Lowering the Corporate Tax Rate

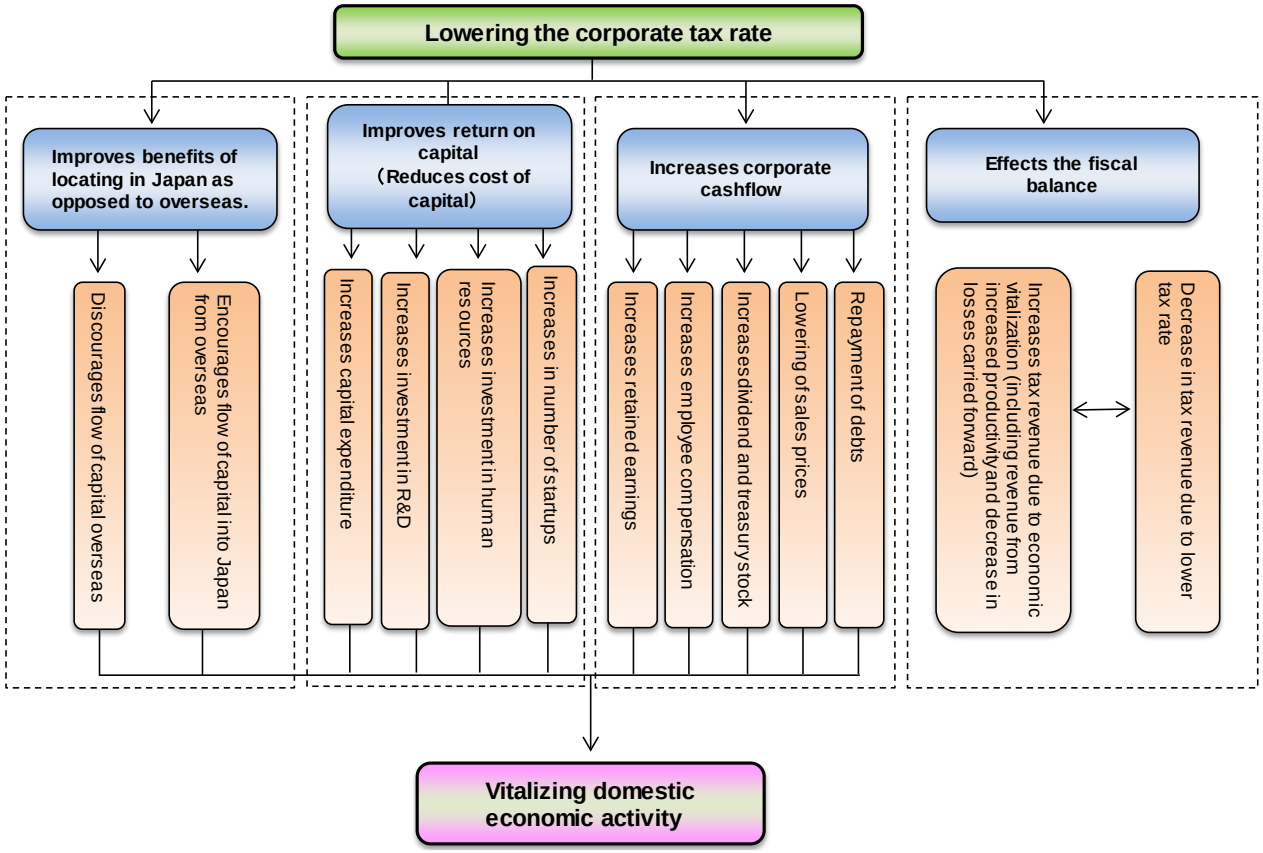
Chart 2.3.1 illustrates the four ways in which a reduction in the corporate tax rate could benefit the economy. They have been stated in as detailed a manner as possible. Reducing the corporate tax rate will affect companies' decisions on where to invest and will also have an effect on fiscal balance. Lowering the corporate tax rate would make it more attractive to produce in Japan, allowing Japanese companies to bring back their production facilities from abroad and reestablish operations in Japan. Lowering the rate would also encourage more foreign direct investment (FDI) in Japan. The reduction in Japanese investments overseas will also mean less factor income from abroad, but the increase in domestic investments will generate more domestic employment and will lead to an increase in exports and raise productivity.

In addition, the reduction in corporate tax rates will benefit companies (that pays taxes) by improving their return on capital and reducing their cost of capital, and it will also increase their cash flow. This will allow companies to make investments that they had postponed. Increased cash flow will also make it easier for companies to buy more financial assets, repay loans, boost employee compensation (which could come in the form of increased wages and/or the hiring of more workers), increase dividends, buy back stock, and reduce the price of their products.

As for the impact on fiscal balance from these three effects, although the government's tax revenue will initially decrease due to the corporate tax cut, if economic activity picks up, revenues may eventually increase. The size of these two effects will determine the impact of the tax cut on fiscal balance, and the impact could be either positive or negative. If, hypothetically, deterioration in fiscal balance leads to an increase in real interest rates, capital expenditure and private housing investment would be suppressed, and the tax cut would have a negative effect on the economy. However, if vitalizing the economy improves the fiscal balance, the tax cut could have a positive effect on the economy.

It should be kept in mind that Chart 2.3.1 does not mention the secondary effects of the reduction in the corporate tax rate, such as the increase in personal income (which would in turn increase personal consumption) and the increase in stock prices (which would increase personal consumption through the wealth effect), both of which would create more demand. We must also consider these secondary effects on the economy when analyzing the effects of the corporate tax reduction.

Major Effects of Lowering the Corporate Tax Rate **Chart 2.3.1**

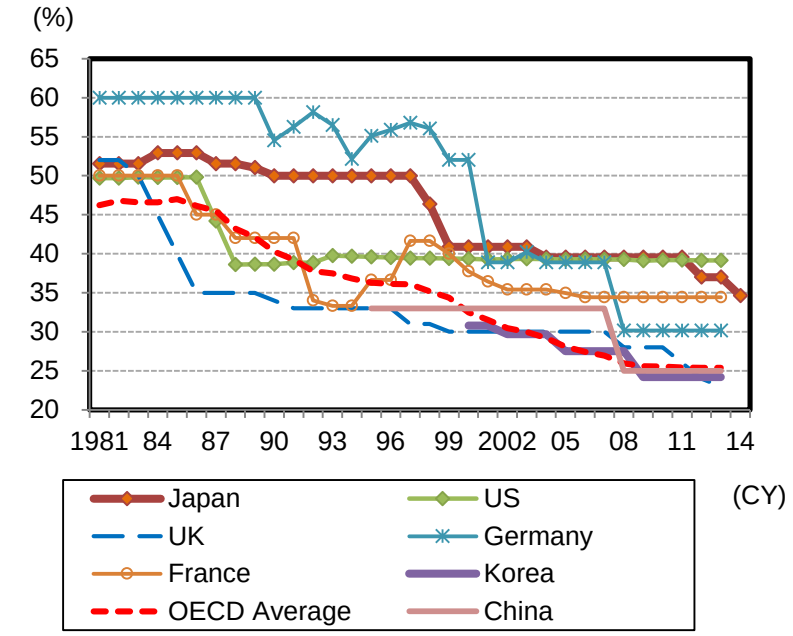


Source: DIR.

2.3.3 Corporate Tax Reduction and Companies' Location Strategy

Japan's effective corporate tax rate was around 50% at the beginning of the 1980s, which seems fairly high compared to the current level. However, at the time, it was not much different from the corporate tax rates in other countries. But then, in the middle of the 1980s, countries like the US and the UK began reducing their tax rates, and these efforts gradually widened the gap between tax rates in Japan and those in other countries. There were increased calls to lower the effective corporate tax rate in Japan in order to maintain global competitiveness and to bring more vitality to Japanese companies. As a result, the effective corporate tax rate was lowered from 49.98% to 46.36% in 1997, and again to 40.87% the following year, bringing it to a level close to that of the US. However, the international trend of lowering corporate tax rates continued, causing the gap between the tax rate in Japan and the rest of the world to widen again. In 2012, the Kan administration (which was in power at the time) lowered the tax rate to 34.62% (excluding the special corporate tax for reconstruction), but this was still high compared to other major competing exporters such as Germany (30.18%), and Korea (24.20%). In addition, the tax rate in Japan is still much higher than in China, one of the major destinations for Japanese FDI, whose rate is at 25%.

Effective Corporate Tax Rate: International Comparison 2.3.2



Source: OECD, Ministry of Finance, compiled by DIR.
Note: Combined corporate income tax rate from OECD Tax Database used with the exception of Japan and China.

Of course, the corporate tax rate is only one of the many factors that companies take into consideration when deciding on the place to build their new factories or their new headquarters. There are a wide variety of factors to consider when choosing an optimal location to invest in, including personnel expenses, cost of raw materials, quality of the workforce, the availability of industrial infrastructure like distribution centers and power stations, the regulatory environment, the security situation, the scale of the market and the degree of industrial accumulation, which is required in a global base of production. The daily changes in exchange rates, which affect the relative prices in domestic and foreign markets, is also an important factor to consider. Thus, the difference in tax rates is not the only thing that affects investment decisions.

Therefore, while it is true that corporate tax rates do have some influence on FDI, accurately measuring the relationship between FDI and the effective corporate tax rate requires paying attention to factors other than just the tax rate. Reducing Japan's corporate tax rate will no doubt make it a more attractive place to do business, but the important part is examining the effects of the tax rate cut quantitatively. Numerous past studies have concluded that a reduction in the corporate tax rate in a particular country leads to an increase in foreign investment to that country.

A quantitative analysis of the relationship between the effective corporate tax rate and Japan's FDI to other countries using panel data gave the following results: A reduction in the effective corporate tax rate of 1%pt would reduce Japanese FDI to other countries by 2.9%. The money that is not being used for foreign investment would then be used to invest in businesses in Japan, which would by then have become a more attractive place to do business in. This would stimulate domestic capital expenditure and M&A activity, and lead to an increase in the number of venture startups. If the tax rate was reduced by 10%pt, that would be the equivalent of about 30% of Japanese FDI, or just under 5% of domestic capital expenditure.

Further analysis of the relationship between the effective corporate tax rate and FDI in Japan finds that a 1%pt reduction in the effective corporate tax rate would increase FDI into Japan by about 3.5%. While the coefficient for FDI into Japan in the estimation equation exceeds the coefficient for Japanese FDI to other countries, in terms of the absolute values, total FDI into Japan, which stood at $1.7 billion

in 2012, is far less than the amount of Japanese FDI to other countries ($120 billion in 2012). It would be difficult to significantly increase the amount of FDI into Japan with just the reduction in the corporate tax rate. In addition, the estimation equation for FDI into Japan shows less fit than that for FDI to other countries in terms of R-squared. One of the main reasons for this is the failure to include systemic factors like the ease of starting new businesses into the estimation equation. According to "Doing Business 2014" by the World Bank, Japan was placed 15th in terms of business environment out of 34 OECD member nations. The main factor dragging down Japan's ranking was the complexity of the paperwork required to set up new businesses and pay taxes. In order to increase FDI into Japan, it will become necessary to carry out a complete review, not just of the corporate tax rate, but of all systemic factors affecting businesses.

2.3.4 Corporate Tax Reduction and Capital Expenditure

Next, we performed a quantitative analysis on the effects of reducing the corporate tax rate on domestic capital expenditure. Capital expenditure is itself a form of demand, and it also brings about a multiplier effect. From the short-term point of view (i.e. in terms of the economic climate), the question is whether Abenomics and the current accommodative monetary policy will encourage more capital expenditure spending. Also, looking at it from the supply-side, capital expenditure forms capital stock and increases potential growth capability. From a long-term point of view, the biggest issue Japan faces is whether the investments needed to increase productivity can be effectively carried out within an environment where the labor force is constantly shrinking. Therefore, capital expenditure is very important in determining the future of the economy, both from the demand-side and the supply-side.

Chart 2.3.3 shows the results of a simulation performed using a macroeconomic model in which the corporate tax rate was reduced by 10%pt. In comparison to the base scenario where the corporate tax is not reduced, the level of capital expenditure rose by a maximum of 2.5% in the 4th or 5th year after the tax cut was implemented. In addition, such a tax cut according to the simulation would also improve the unemployment rate and increase personal income, and lead to an increase in personal consumption. Meanwhile, an expanding economy would improve the balance of supply and demand (improve the GDP gap) and exert upward pressure on prices. These effects combined cause real GDP to grow 0.3% more than the base scenario. On the other hand, the fiscal balance-to-GDP ratio would become worse by little more than 1%pt compared to the base scenario. This is because while the expanding economy would increase the total tax revenue, the decrease in direct revenue associated with the corporate tax cut would exceed that effect.

Effect on Economy of 10%pt Reduction in Corporate Tax Rate **Chart 2.3.3**

(Rate of Deviation from Scenario with No Cut in Corporate Tax Rate)

	Real GDP	Real Private Sector capex	Potential GDP	GDP Gap	Unemployment Rate	Inflation Rate (CPI Based)	Long-Term Interest Rate	Fiscal balance (% GDP)	After Tax Profits of Private Sector Corporations (% GDP)
	%	%	%	%pt	%pt	%pt	%pt	%pt	%pt
1st Year	0.20	2.24	0.07	0.13	-0.03	-0.01	0.05	-1.12	1.25
2nd Year	0.29	2.27	0.15	0.14	-0.04	0.03	0.08	-1.08	1.20
3rd Year	0.32	2.41	0.20	0.12	-0.04	0.04	0.10	-1.09	1.16
Fourth Year	0.34	2.47	0.25	0.09	-0.03	0.04	0.09	-1.09	1.12
5th Year	0.34	2.47	0.29	0.06	-0.02	0.03	0.07	-1.09	1.09

Source: Compiled by DIR based on a macroeconomic model.
Note: Fiscal balance is based on data from central and local governments.

Assuming the existing economic structure remains in place, real GDP would not grow by the same amount as the increase in cash flow resulting from the reduction in the corporate tax rate because some of the money that has been moved from the government to the corporate sector goes to retained earnings. This is because, even though capital expenditure usually expands when the cost of capital goes down as investment projects become profitable, after optimum allocation of resources is achieved, additional expenditures will not be made as long as the existing economic structure remains the same. In order for the corporate tax cut to produce a major change in business sentiment and encourage the dynamic growth of capital expenditure, there needs to be systemic and regulatory reforms, an improvement of corporate economic outlooks, and a review of the corporate governance structure. This is why the government is not only focused on cutting the corporate tax rate, but is trying to come up with an all-encompassing growth strategy package.

If the only aim is to increase capital expenditure, simply expanding the investment tax credit would make more sense from a fiscal point of view. Based on our macroeconomic model, we find that giving investment tax credits brings the same effect as a reduction in the corporate tax rate, with just one-fifth of the fiscal burden. However, expanding the investment tax credit would disproportionately benefit capital-intensive industries, and companies with large amounts of capital expenditure. Therefore, the possibility of resource allocation becoming distorted needs to be kept in mind. Also, the expansion of investment tax credits would have to be limited time, in order to avoid vested interests from forming.

2.3.5 Comprehensive Analysis of the Effects of Corporate Tax Reduction on Japan's Economy

Results of the analysis of the possible impact a reduction in the corporate tax rate could have on Japan's economy would differ greatly, depending on whether one assumes that this takes place within the framework of the existing economic structure, or under an entirely new regime in which improvements are made to the economic structure from the growth strategy package, which includes corporate tax reform. In the case studies below, we calculated what the dynamic and comprehensive impact on the economy might be. Using the results of the above calculations and adding in several new additional assumptions into the macroeconomic model.

Case 1: Suppression of Japanese FDI to Other Countries and the Increase in FDI into Japan + Improvement in Return on Capital

In Case 1, we look at the combined effects of the suppression of FDI overseas (which will be replaced by domestic investments in Japan), the increase in FDI into Japan, and the improvement in the return on capital, all leading to an increase in domestic capital expenditure. Here, we assume that the entirety of the FDI to other countries that gets suppressed from the reduction in the corporate tax rate would be replaced by domestic capital expenditure.

The reduction in the cost of capital would bring about an expansion of demand centered on capital expenditure, and this, along with the increase in capital expenditure from Japanese companies returning to the domestic market, and from foreign companies newly entering the Japanese market, would cause a reduction in the effective corporate tax rate of 10%pt to push GDP up by 1.2% within five years. On the other hand, the fiscal balance-to-GDP ratio would get worse by 0.8-0.9%pt within several years, and the so-called "corporate tax paradox" (corporate tax revenue as a percentage of GDP actually increasing after a reduction in the corporate tax rate) cannot be observed by the reduction in the tax rate alone.

Case 2: Same Factors as in Case 1 + the Increase in Cash Flow Goes Towards Investments and Employee Compensation

In Case 2, we assume that, in addition to the factors in Case 1, private sector companies experiencing the increase in cash flow as the result of the reduction in corporate tax rate will use the extra cash to carry out capital expenditure and increase employee compensation, rather than to use it on increasing their cash position. A 10%pt reduction in the corporate tax rate would increase the after-tax profits of private sector companies by an amount that is little more than 1% of the GDP. Therefore in our simulation, we assumed that companies would invest 0.5% of GDP in capital expenditure, and spend 0.5% of GDP on increasing employee compensation. The results of the simulation shows growth in personal consumption and capital expenditure (absent from Case 1) and, taking into account the ripple effect, real GDP exceeds that of the base scenario by 2.20% five years after the tax cut. However, the effect is not enough to turn the fiscal balance into a surplus. It will not deteriorate as much as Case 1, but the fiscal balance-to-GDP ratio will still be about -0.7%pt in five years. This result reflects not only the expected decline in tax revenue after the reduction in corporate taxes, and the increase in revenue from the increase in taxpayer incomes, but also changes in overall government expenditures and interest rates as real GDP rises.

Comprehensive Effect on Economy & Fiscal Balance of 10%pt Reduction in Effective Corporate Tax Rate **Chart 2.3.4**

(Rate of Deviation from Scenario with no Cut in Corporate Tax Rate)

	Case 1		Case 2	
Assumptions	・Decline in cost of capital brings increase in investment. ・Less disparity in tax rates suppresses foreign direct investment and encourages more domestic direct investment.		・Decline in cost of capital brings increase in investment. ・Less disparity in tax rates suppresses foreign direct investment and encourages more domestic direct investment. ・Private sector corporations use increased cash-flow to carry out more capex and increase employee compensation.	
Effects	Real GDP	Fiscal balance (% GDP)	Real GDP	Fiscal balance (% GDP)
	%	%pt	%	%pt
1st Year	0.65	-0.92	1.06	-0.83
2nd Year	0.97	-0.82	1.67	-0.66
3rd Year	1.14	-0.81	2.01	-0.63
4th Year	1.22	-0.83	2.18	-0.65
5th Year	1.24	-0.86	2.20	-0.71

Source: Compiled by DIR based on a macroeconomic model.
Notes: 1) Fiscal balance is based on data from central and regional governments.
2) The effect of suppressing FDI and encouraging more domestic direct investment assumes that the amount arrived at by multiplying 2012 foreign and domestic direct investment with the elasticity value of the cut in corporate tax rate will be the amount flowing into domestic capex.
3) The amount of increase in cash-flow of private sector corporations is assumed to be 1% of GDP with half of that going to capex and the remainder going toward employee compensation.

As was mentioned earlier, in order for companies to redirect the increase in cash flow to new expenditures, there must be changes in the external environment and improvements in the expected growth rates for companies. Case 2 represents the "structural change scenario," in which the reduction in the corporate tax rate leads to a more optimistic business sentiment where companies will decide to spend more on employee compensation and capital expenditure to maximize their profits. Therefore, it is reasonable to assume that the reduction in the corporate tax rate would produce results that fall somewhere between the results in Case 1, and Case 2, the case in which the maximum desirable results are achieved.

It is unclear how much corporate tax reform will actually improve business sentiment, but if we consider the reduction of the effective corporate tax rate as the symbol or the test case of the Abe

administration's growth strategy, then there is the distinct possibility that boldly implementing what had been promised will have a positive effect on business sentiment.

The real economy being boosted by more than 1.5% is no small thing. However, an important point to keep in mind is that these simulations assume that the reduction in corporate taxes will take place without any new revenue to replace it, and they do not take into consideration the government's fiscal problems. It is unclear how successful the current attempts to cut corporate taxes will be in a country with massive government debt. The results of these simulations show how difficult it is to offset the lost revenue from the tax cut from the increase in economic activity under the current structure of the fiscal deficit. In order to guarantee the results of the reduction in the effective corporate tax rate, it will be important to also implement other measures, such as broadening the tax base and reforming other tax items, as well as making cuts in government spending.