“The Effectiveness of Macroeconomic Policy: Evaluation of the First and Second Arrow and Implications for Europe”

Abenomics-Stock-taking and Lessons for the EU
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Kazumasa Iwata
President
Japan Center for Economic Research

JCER

Summary

1. Abenomics is the integrated package measures consisting of three arrows (the QQE, flexible fiscal policy and growth strategy).

- It was successful in changing business and household minds and achieving the inflation rate of more than 1%.

2. Three arrows are comparable to the three policy prescriptions to the President Roosevelt made by Mr. Keynes at the end of 1933(cheap money, wise spending and the exchange rate arrangement between the US and the UK to secure stable domestic price levels).

- The first and second arrow overlap with the first two arrows by Mr. Keynes.
- The third arrow by Mr. Keynes raises issue on the consistency between domestic price stability and the appropriate exchange rate level under the regime of "Bretton Woods, reversed".

Summary

3. Outcome of the first and second arrow;

- The performance in FY 2013 was excellent (2.3% growth rate and 0.8% Inflation rate).
- However, consumption tax rate hike from 5% to 8% in April 2014 exerted stronger negative impact on the Japanese economy than anticipated.
- Japan faces a risk of recession; expansion phase is likely to have peaked in January 2014 in terms of the tentative calculation of the Historical Diffusion Index.

4. The achievements of 2% inflation rate and 2% medium-term growth rate are halfway.

5. Main risks are (1)"fiscal dominance", due to the lack of fundamental reform of tax/social security system (2) "secular stagnation", if the growth strategy fails (3) "the beggar-thyself effect", due to the deterioration of terms of trade.

Ⅰ. Economic Outlook after Consumption Tax Hike: Growth

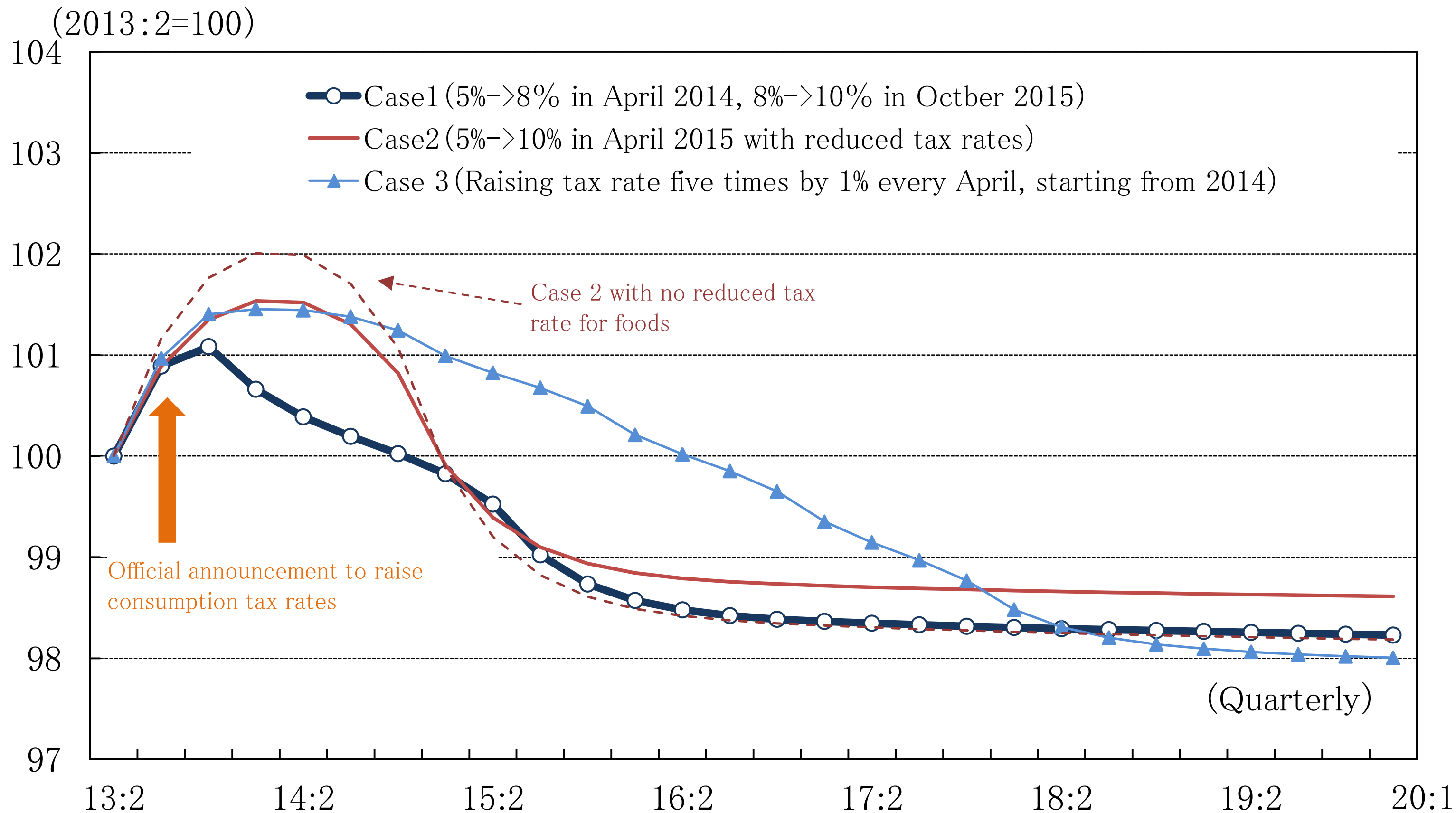
1. In April 2014, consumption tax rate was raised from 5% to 8%. Its impact on economic activity was somewhat larger than market expectation.

- GDP growth rate in the second quarter of 2014 decreased by 7.1% with a sharp fall of consumer spending, business investment and the accumulation of inventories.
- Consumer spending in July and August was weaker than market expectation, partly due to bad weather.

2. The JCER forecast envisages 0.4% and 1.3%GDP growth rate in FY2014 and FY 2015 respectively.

- They are much lower than BOJ forecast (1.1% and 1.5%).

Fig.1 The Impacts of 3 patterns of consumption tax rate hike on household expenditure and tax revenue



(Note) Dot-line shows Case 2 with no reduced tax rates for foods. Assume that consumption level remains 100 (no change) during a sample period if there is no rise in consumption tax rates.
(Source) Estimated by JCER, Aug/ 2013.

Ⅰ. Economic Outlook after Consumption Tax Hike: Growth

3. It is crucial for PM Abe to confirm the strength of recovery after the likely sharp decline of growth rate in the second quarter 2014.

4. If the JCER's forecast is correct, the average growth rate in the first three years of the Abenomics will be 1.3%, falling short of 2% growth rate target over the medium term.

Table 1 GDP growth forecasts

Real GDP growth rate, %

	JCER		ESP Forecast		Bank of Japan	
FY	June 2014	Sep.2014	Aug.2014	Sep. 2014	Apr.2014	July 2014
2012			0.7			
2013			2.3			
2014	0.8	0.4	0.6	0.5	1.1	1.0
2015	1.1	1.3	1.4	1.4	1.5	1.5

(Note)ESP Forecast shows the midian of surveyed forecasters.

Ⅱ. Economic Outlook after Consumption Tax Hike: Inflation

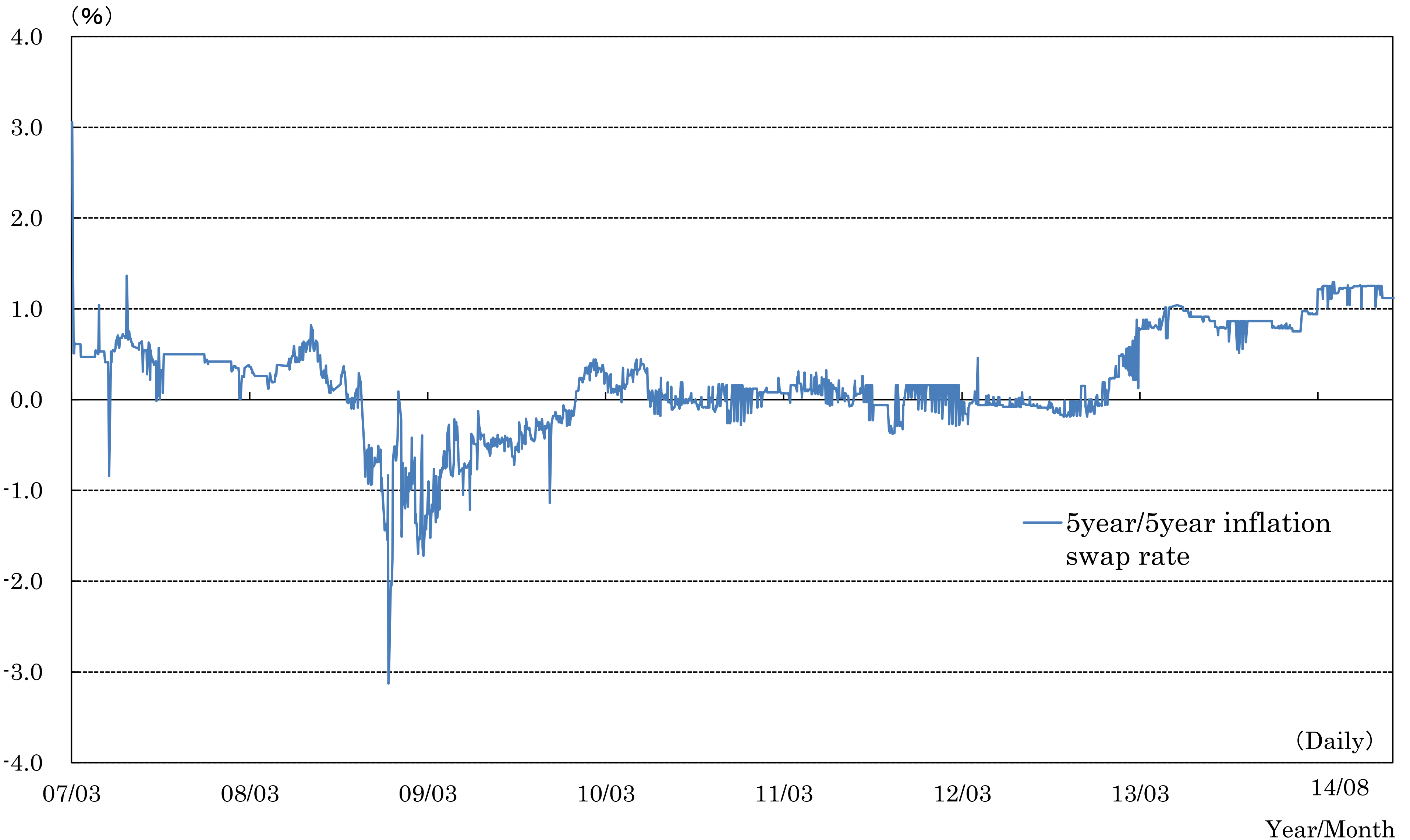
1. The inflation rate was just on track of the BOJ's expected inflation path until May 2014, but it has decelerated afterwards.

- The core CPI excluding tax factors peaked at 1.5% in April and registered 1.1% rise in August, while the core-core CPI decelerated from 0.8% in April to 0.6% in August.

2. Expected inflation rate remains at about 1%, instead of targeted 2%.

3. There remains wide divergence between the BOJ and the market consensus on inflation rate forecast in FY 2015 (about 1%).

Fig.2 Inflation Swap Rate



(Note) Data: until 12 Aug. 2014
(Sources) QUICK, Bloomberg

Ⅱ. Economic Outlook after Consumption Tax Hike: Inflation

4. In my view, the difference seems to arise from the two facts;

- The first is the assessment on the one-time effect of Yen depreciation or the import price rise on the core CPI.
- The second is the impact of negative real wage rate of changes after the tax hike on aggregate demand, although the nominal wage turns out to show positive rate of changes in recent months.

Table 2 Core CPI Forecasts(All items, less fresh food)

change rate, %

	JCER		ESP	Bank of Japan	
	Sep.2014	June 2014	Sep.2014	July 2014	Apr.2014
FY2013	0.8				
FY2014	1.0	0.8	1.2	1.3	1.3
(incl. consumption tax)	3.0	2.9	3.2	3.3	3.3
FY2015	0.9	0.7	1.2	1.9	1.9
(incl. consumption tax)	1.3	1.1	1.8	2.6	2.6

(Notes)Figures of BOJ indicate the median of the Policy Board members' forecasts. Figures of ESP show the average of forecasters.

The forecast of JCER assumes introduction of reduced tax rate for food when the consumption tax is hiked from 8% to 10% in Oct. 2015.

(Sources) Statistics Bureau, Bank of Japan, JCER

Ⅱ. Economic Outlook after Consumption Tax Hike: Inflation

5. According to the “speed limit” hypothesis, the acceleration/deceleration of inflation rate is largely determined by the changes in GDP gap and the acceleration/deceleration of import prices as the first difference of the conventional Phillips curve indicates (ANNEX I).

6. Further, the level of GDP gap and import price rise can also affect the inflation rate, although their effects are smaller under the (1950’s) adaptive expectation formation process.

Ⅱ. Economic Outlook after Consumption Tax Hike: Inflation

7. In FY 2013, the core CPI inflation rate accelerated by 1%, while the core-core CPI inflation rate accelerated by 0.8%.

8. We can decompose the cause of acceleration of inflation rate into the GDP gap changes(0.5%) and the acceleration of import price inflation (0.5%). Import price inflation accelerated by 12% in FY2013, which pushed up core CPI by 0.5%.

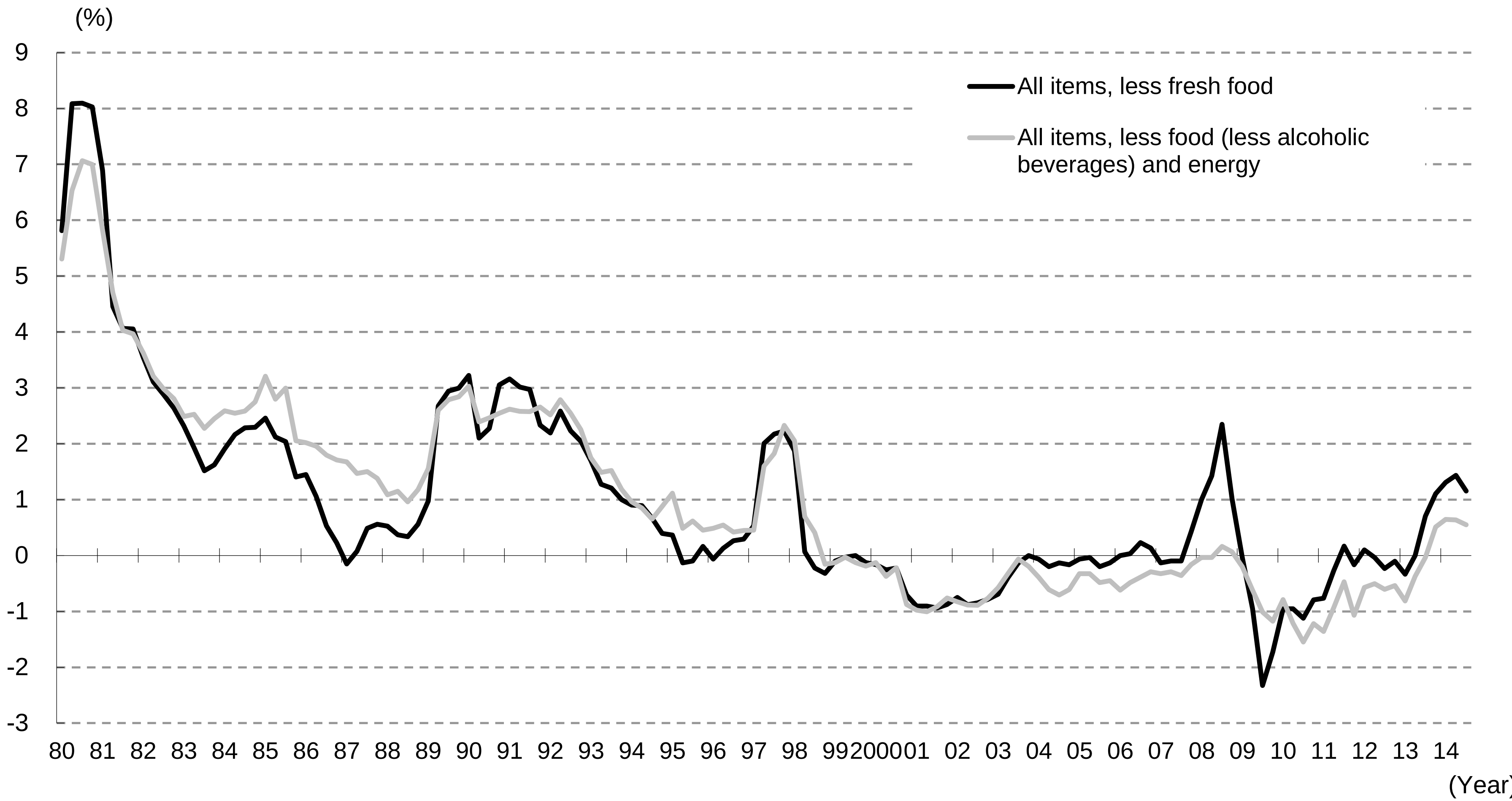
Ⅱ. Economic Outlook after Consumption Tax Hike: Inflation

9. The deceleration of import price inflation rate will negatively affect the core CPI inflation rate.

10. In addition, if the growth rate in FY 2014 will remain at the potential growth rate, there may be no change in GDP gap. The contribution of import price inflation rate will fade away, resulting in no further acceleration of the core CPI in FY 2014.

11. The IMF assessment is that 2% inflation rate will be attained in 2017 with the inflation rate of non-tradable goods and services remaining below 0.5%.

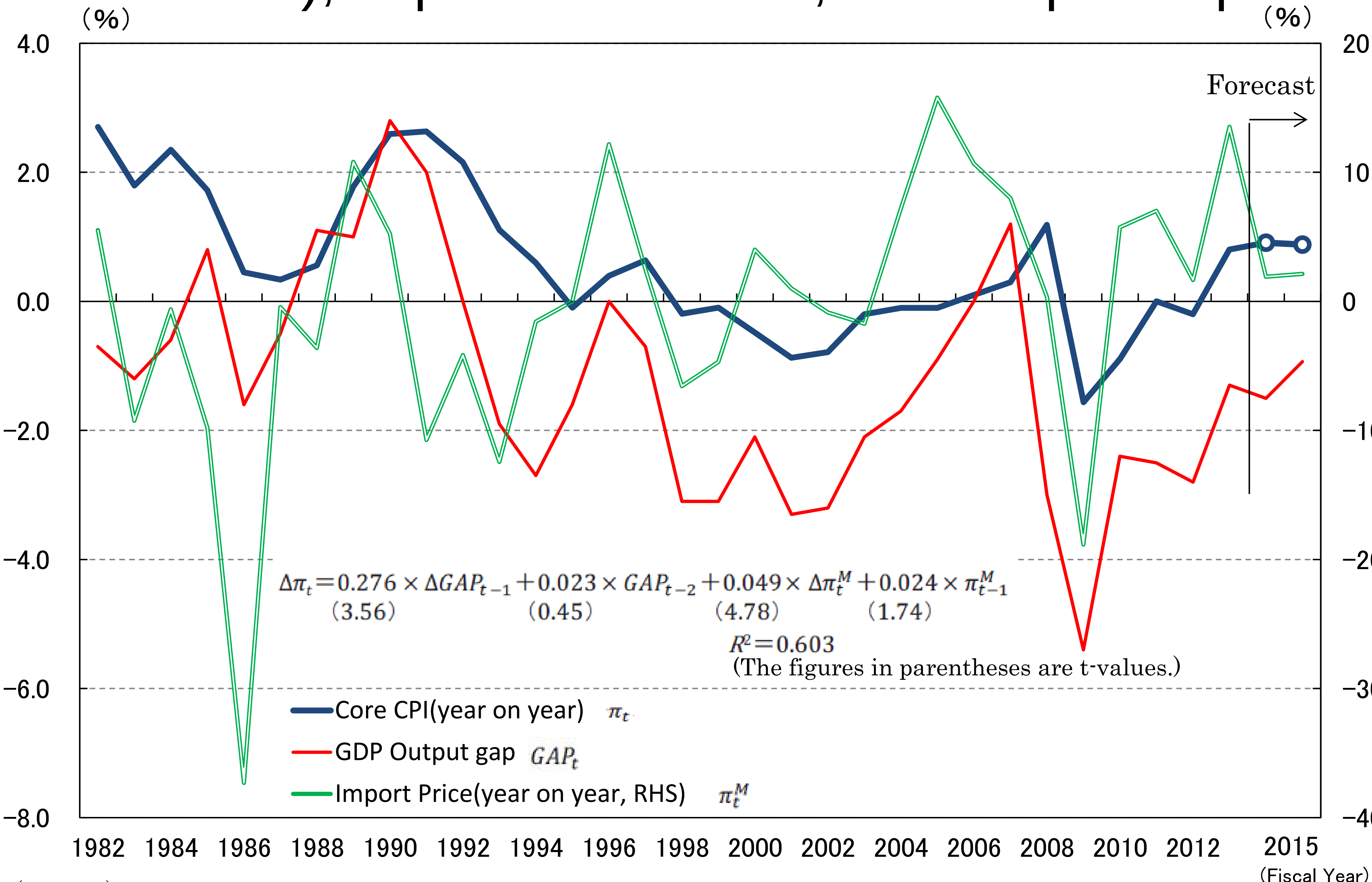
Fig.3 Year-on-Year Rate of Increase in Consumer Price Index (Quarterly)



(Note) Each rate for the third quarter in 2014 is based on the indices in July and August. The direct effects of the consumption tax hike, computed by the Bank of Japan, are subtracted for the period after April 2014.

(Sources) Ministry of Internal Affairs and Communications, *Consumer Price Index*; Bank of Japan, *Monthly Report of Recent Economic and Financial Developments* (March 2014).

Fig.4 Consumer Price Index (All items, less fresh food), Import Price Index, and Output Gap



(Sources) Ministry of Internal Affairs and Communications, Consumer Price Index; Bank of Japan, Corporate Goods Price Index; Cabinet Office, Government of Japan.

ANNEX Ⅰ: Speed Limit Hypothesis

Phillips Curve in an Open Economy

$\pi_t = a(GAP_t) + b(\pi^M_t) + c(\pi^e_t)$

Adaptive Expectation

$\triangle \pi^e_t = d(\pi_t - \pi^e_t)$: $d<1$

First difference

$\triangle \pi_t = a(\triangle GAP_t) + b(\triangle \pi^M_t) + c(\triangle \pi^e_t)$

Then,

$\triangle \pi_t = a(\triangle GAP_t) + b(\triangle \pi^M_t) + acd(GAP_t) + bcd(\pi^M_t) - cd(1-c)\pi^e_t$

If c is close to one, we can neglect the inflation expectation term.

Ⅲ. What Policy Measures Are Needed?: Monetary Policy

1. In case the core CPI inflation rate drops below 1%, then it is needed to take further monetary stimulus.
2. I anticipate that the further easing measures will be taken at the time of October-December 2014.
- The menu would be additional purchase of ETF and other bonds(local government bonds, the FILP bond and private bonds).
3. At the same time, I expect a more transparent “forward guidance” both on the quantity and the policy interest rate for FY2015 and FY2016.

Ⅲ. What Policy Measures Are Needed?: Monetary Policy

4. The recent sharp depreciation of the yen rate will help to stop the deceleration of inflation rate, yet it will cause the ”beggar-thyself effect” due to the deterioration of terms of trade and sluggish export response to the yen depreciation.

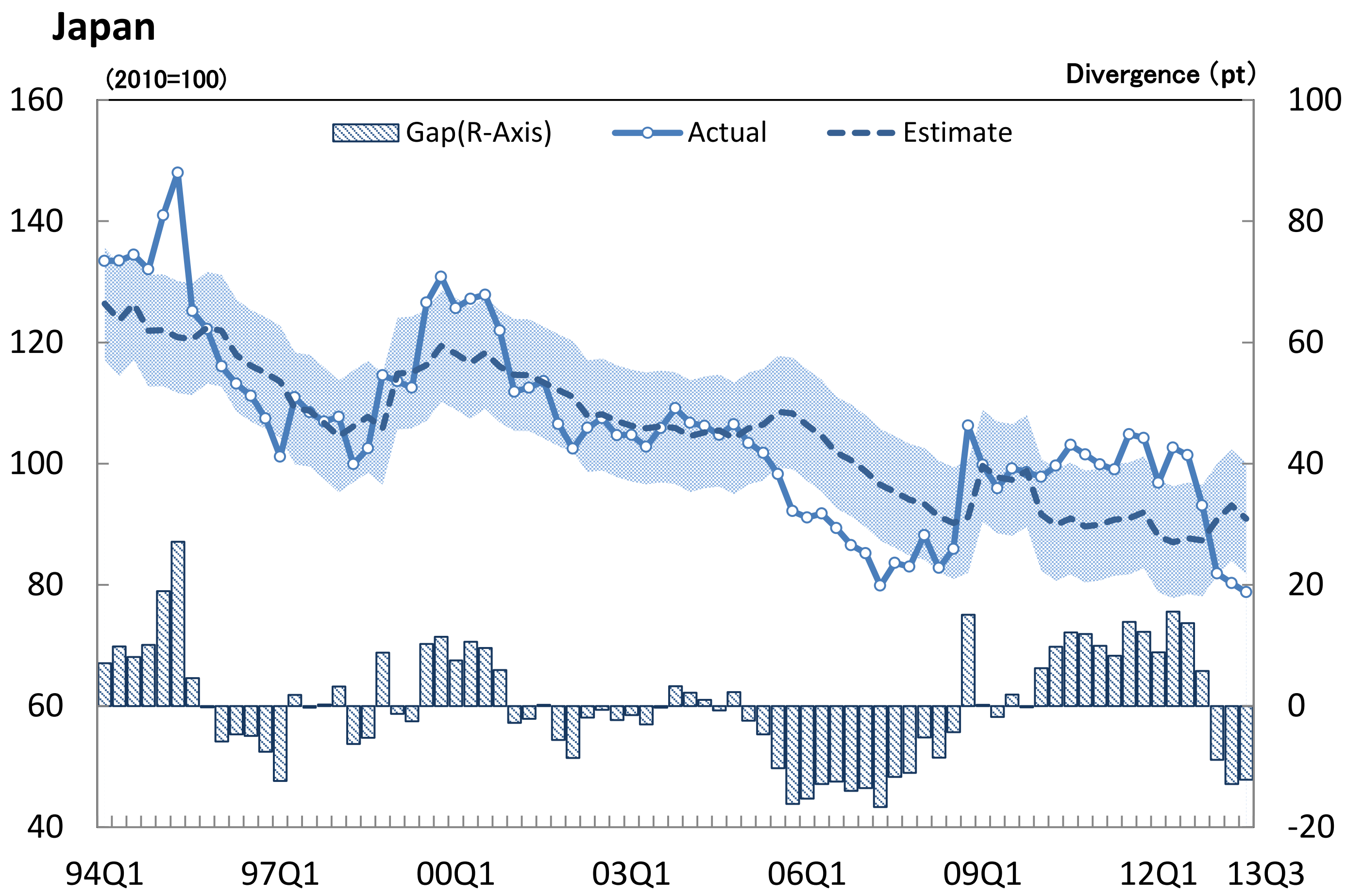
- The current real effective yen rate is lower than the fundamental rate in terms of the “behavioral equilibrium exchange rate”.
- The beggar-thyself effect appeared in the first half of 2008 when inflation rate touched at 2.4%, due to the sharp increase of oil price under the depreciated Yen rate(Yen 105-110 per dollar); At the same time, recession started in February in 2008.

Ⅲ. What Policy Measures Are Needed?: Monetary Policy

5. If the growth strategy fails, there is a risk of "secular stagnation".

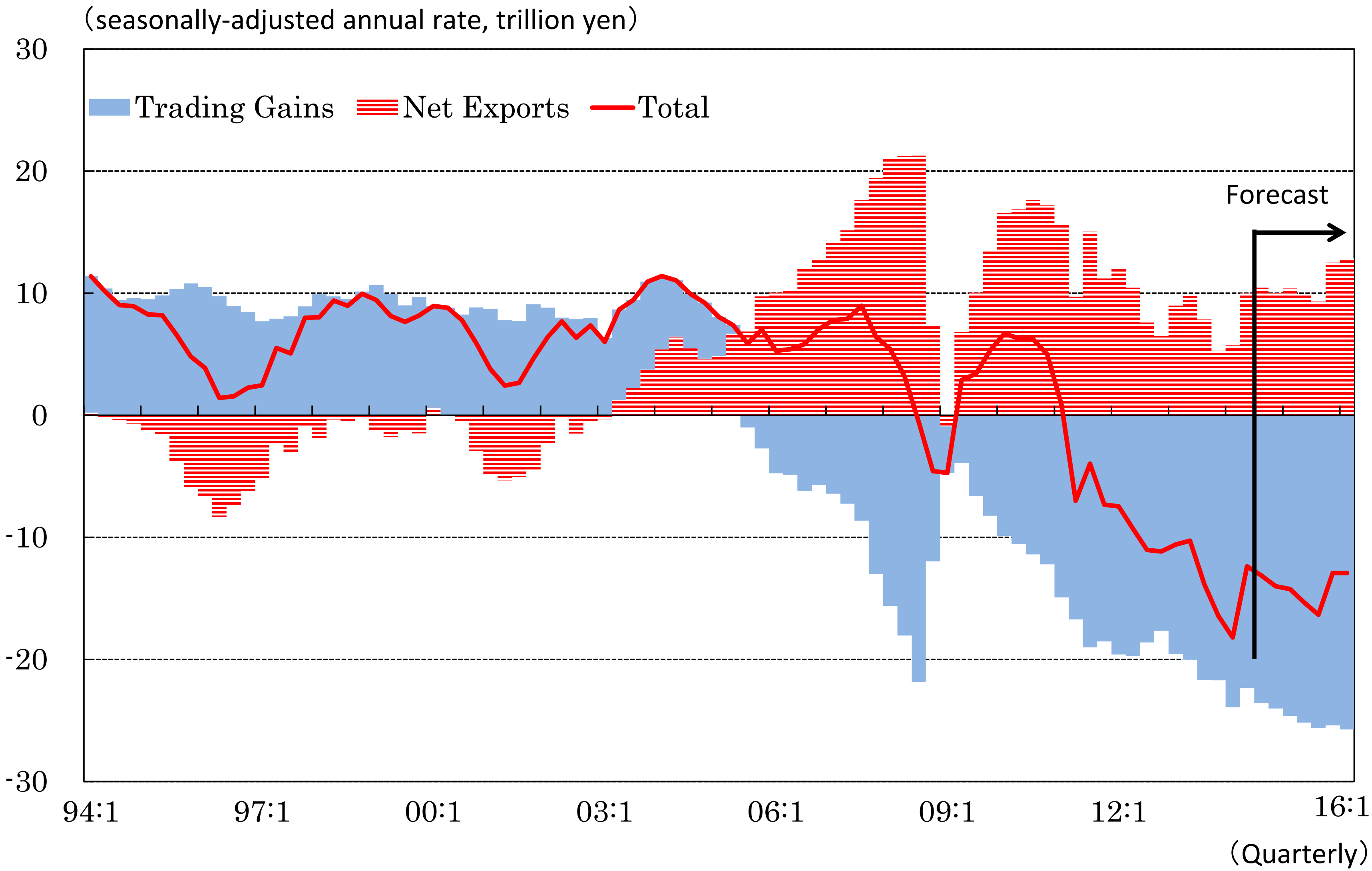
- In base/stagnation scenario, Japan implements reform in the same speed as in the past, Japan will fail to improve the real consumption, due to the rise of tax/ security burden on working age population.
- This implies a risk of negative real equilibrium interest rate.

Fig.5 Divergence from Behavioral Equilibrium Exchange Rates



(Sources) Bank for International Settlements, Japan Center for Economic Research's Estimates

Fig.6 Trading Gains and Net Export



Ⅲ. What Policy Measures Are Needed?: Monetary Policy

6. If the BOJ will continue the QQE, it will aggravate the likely loss on the BOJ Balance Sheet over the future.

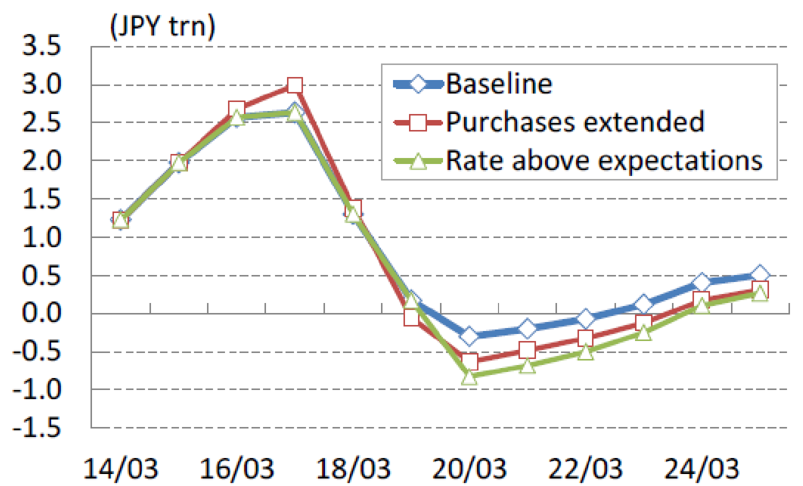
- We should be cautious that the “carry trade” is accompanied by gains at the start, resulting in the loss at the end.
- It must be noted that the 49% of the BOJ capital is owned by private sector since the establishment of the BOJ in 1882.
- The new BOJ Law in 1998 removed the Article on the loss compensation by the government which was explicitly written in the old BOJ Law.

Risk Associated with QQE Policy

Fig.7 BOJ’s Balance Sheet and Exit Strategy

Exit may drag down BOJ’s remittance to the MOF to zero

BOJ’s Current Surplus



Note: Premised on BOJ continuing to buy JPY 7 trn/month of L-T JGBs until Mar 2015, reducing purchase amount for 1 year and a half until Sept 2016, and gradually raising rates on excess reserves to 2.5% from Apr 2017.

Note: “Rate above expectations” assumes rate to rise to 3%, while “purchases extended” assumes L-T JGB purchases to continue to Sept 2016.

- In an exit, current surplus will temporarily turn negative, with possibility national treasury payments halted for 3 years
- Loss of confidence in BOJ (BOJ banknotes)?

(Source) JCER’s Japan Financial Report ”Quantitative and Qualitative Monetary Easing Effects and Associated Risks ”

Ⅳ. What Policy Measures Are Needed?: Fiscal Policy

1. In view of achieving 2% growth rate over the medium term, we need a strong growth/renewal strategy.

2. At the same time, the additional 2% consumption tax hike is unavoidable, given the large size of budget deficit and the debt-GDP ratio (the risk of "fiscal dominance").

Ⅳ. What Policy Measures Are Needed?: Fiscal Policy

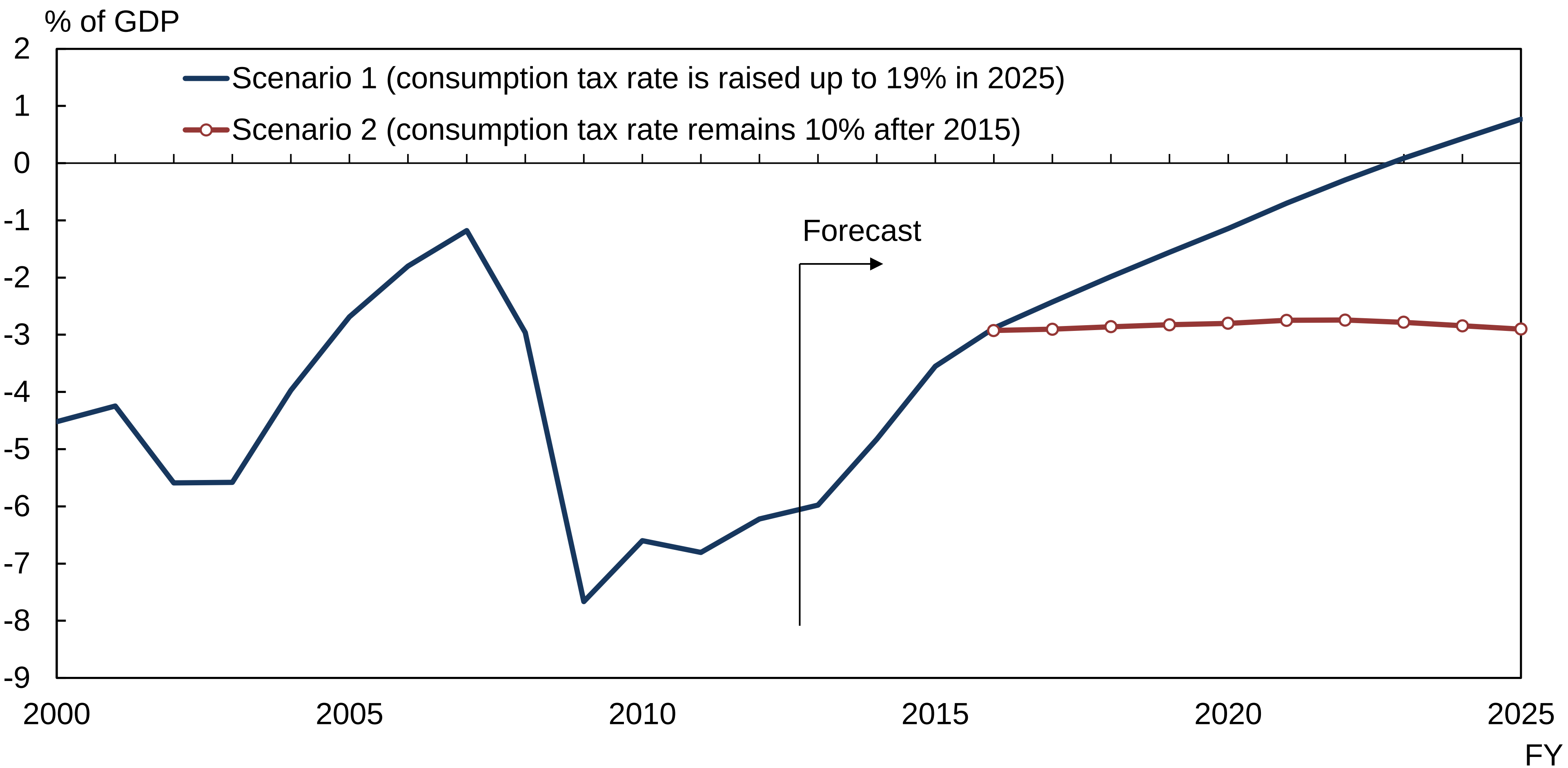
3. To mitigate the negative impact arising from additional 2% consumption tax rate hike, a number of measures consistent with growth strategy must be implemented;

- Sizable cut of corporate tax from 35% to 25% within three years is absolutely needed.
- Significant policy package measures are needed to maintain the size of the Japanese population at 100 million within 50 years: Yen 13 trillion to raise the fertility rate from 1.4 to 2.1 in the early-2030s.
- To enhance the improvement of total factor productivity, the measures to stimulate the investment on knowledge-based capital and promote “open innovation” are needed.
- Tax cut for low income class is also necessary.

V. Fiscal Outlook

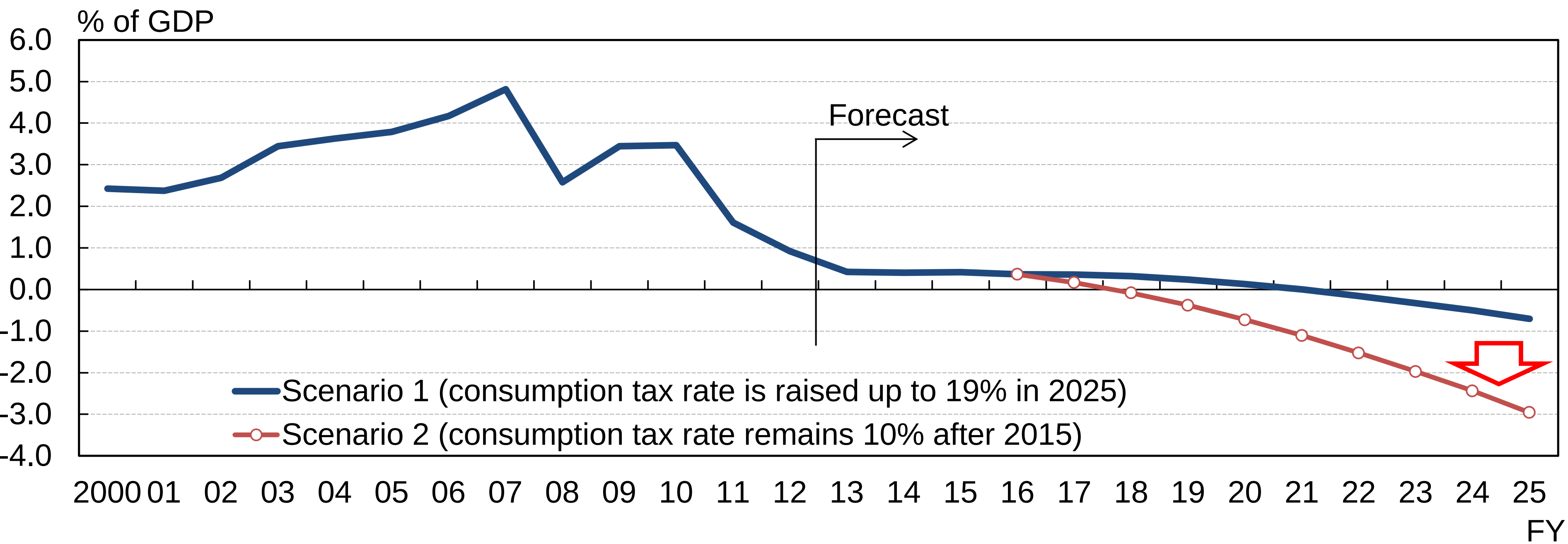
1. In order to achieve the primary budget balance surplus and stabilize the debt/nominal GDP ratio at 200%, we need to raise the consumption tax rate from 10% to 19-25%.
2. The public burden ratio to national income will increase from 37% to 55%.
3. It is likely that Japan's current account balance will turn into deficit in the early-2020's, reflecting the sharp decrease of household saving ratio.

Fig.8 Primary balance of state and local government



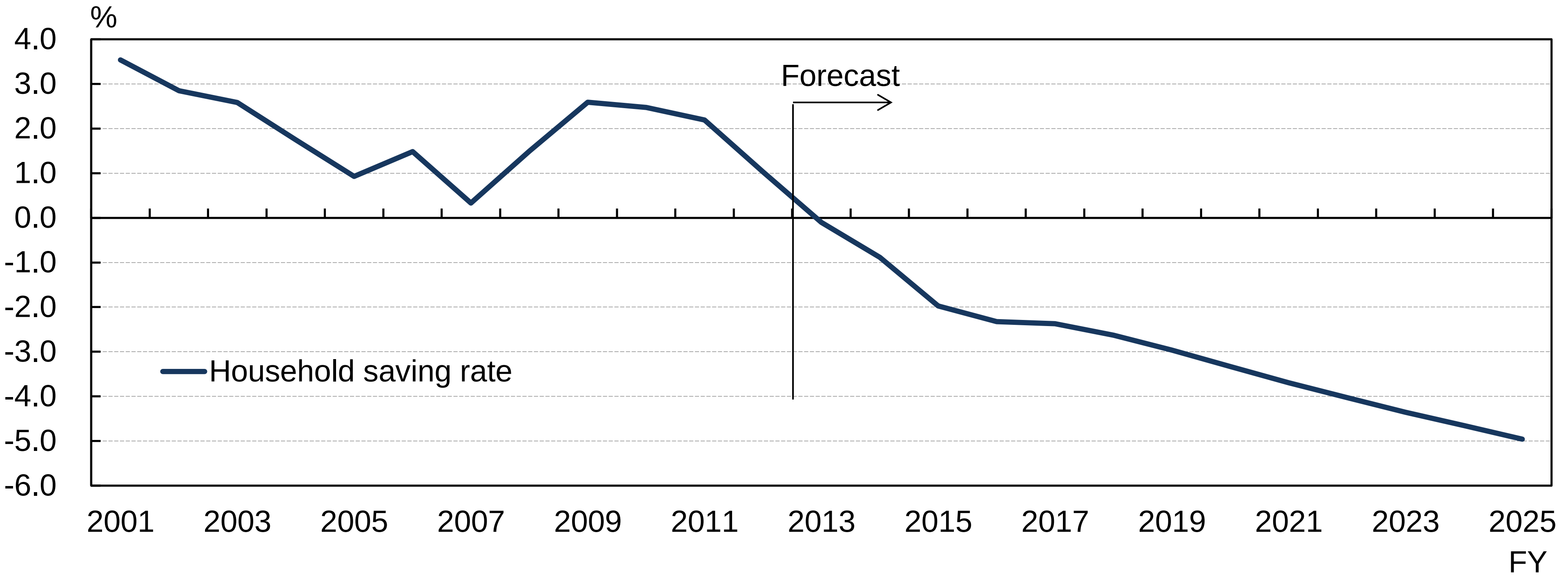
(Sources) Cabinet Office "Annual Report on National Accounts." Forecasts are by JCER.

Fig.9 Current account balance



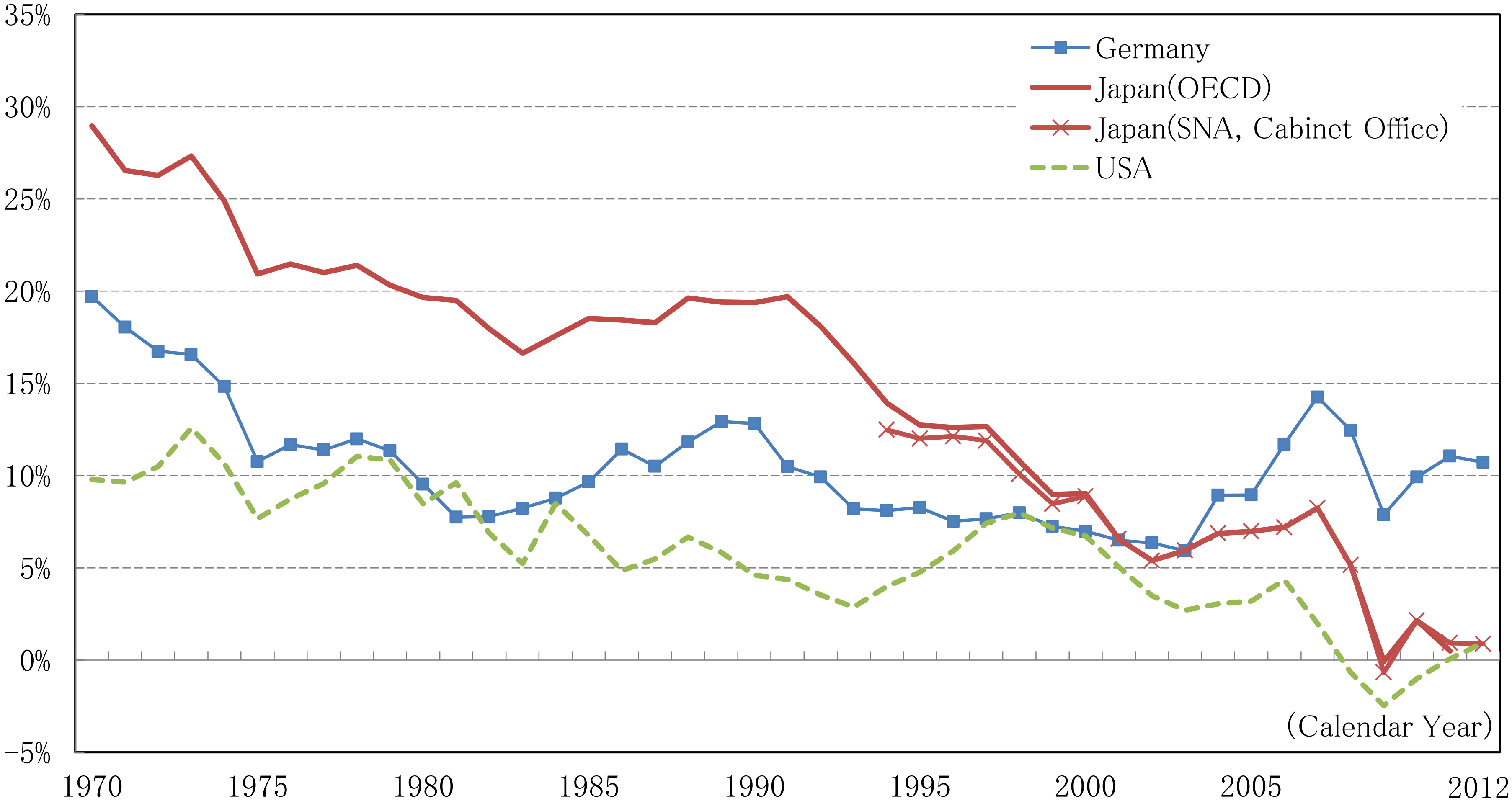
(Sources) Ministry of Finance and Bank of Japan "Balance of Payments Statistics", Cabinet Office"Annual Report on National Accounts"

Fig.10 Household saving rate



(Source)Cabinet Office, "Annual Report on National Accounts"

Fig.11 Net National Saving Ratios



(Note) Net National Savings/Net National Disposable Income
(Sources) OECD/System of National Accounts,Cabinet Office

Annex Ⅱ: Demographic Policy

1. We need to stop declining tendency of total population as a national policy, in order to make the social security system/fiscal balance sustainable and achieve higher living standards.

- Population decline implies not only the decrease in labor input, but also the cut in capital inputs(due to the lower saving ratio and diminished demand for capital stock, increasing social security burden and lower productivity (0.3% decline of TFP associated with the 1% reduction of working age population).

2. The JCER recommended to maintain the total population at 90 million in 2060, by raising the birth rate from 1.4 to 1.8 and increasing the number of immigrants to 200 thousand by 2050 (JCER), while the government adopted in the revised growth strategy to maintain the total population at 100 million in 2060 by raising the birth rate from 1.4 to 2.1(the Committee for Japan's Future).

Annex Ⅱ: Demographic Policy

3. It is possible to raise the birth rate from 1.4 to 1.8 by mobilizing all the policy measures for child care which have been employed by the French government.

- However, it costs about Yen 8 trillion.

4. In order to raise the birth rate further to 2.1, we need to pay additional Yen 5 trillion for child care services.

ANNEX Ⅲ: Japan’s Three Choices in 2050

1. The JCER has presented three scenarios for Japan in 2050 in February 2014.

2. In growth/reform scenario (“Japan is back” scenario) , it is possible to achieve “90 thousand dollars of per capita GNI” in 2050 from “42 thousand dollars GNI” in 2010.

3. In base/stagnation scenario, where Japan implements reform in the same speed as in the past, Japan will fail to improve the real consumption.

4. Further, there is a risk of fiscal bankruptcy scenario: It is needed to raise consumption tax rate to 25% if we want to stabilize the government debt/nominal GDP ratio at 200% in 2050.

ANNEX Ⅲ: Japan's Three Choices in 2050

5. Lawrence Summers pointed out the risk of negative natural interest rate for advanced economies after the Lehman's collapse .

:In order to avoid stagnation under deflation, we should maintain the level of the "natural interest rate" above the real long-term market interest rate,

: The natural interest rate = the equilibrium real interest rate = per capita real consumption growth rate plus time preference rate (in the neo-classical growth model)

: Japan can succeed in overcoming deflation over long-term only in the case of growth/reform scenario, given the rising public burden on household sector from 37% to 55%.

ANNEX Ⅳ: “Fiscal Dominance”

1. Japan faces a risk of “ the Day of Reckoning ” in FY 2018-FY2028 . It is needed to introduce the fourth arrow in the Abenomics on the growth-friendly fiscal consolidation over the medium term based on fundamental reform of tax-social security system(partial privatization and the prefunding).

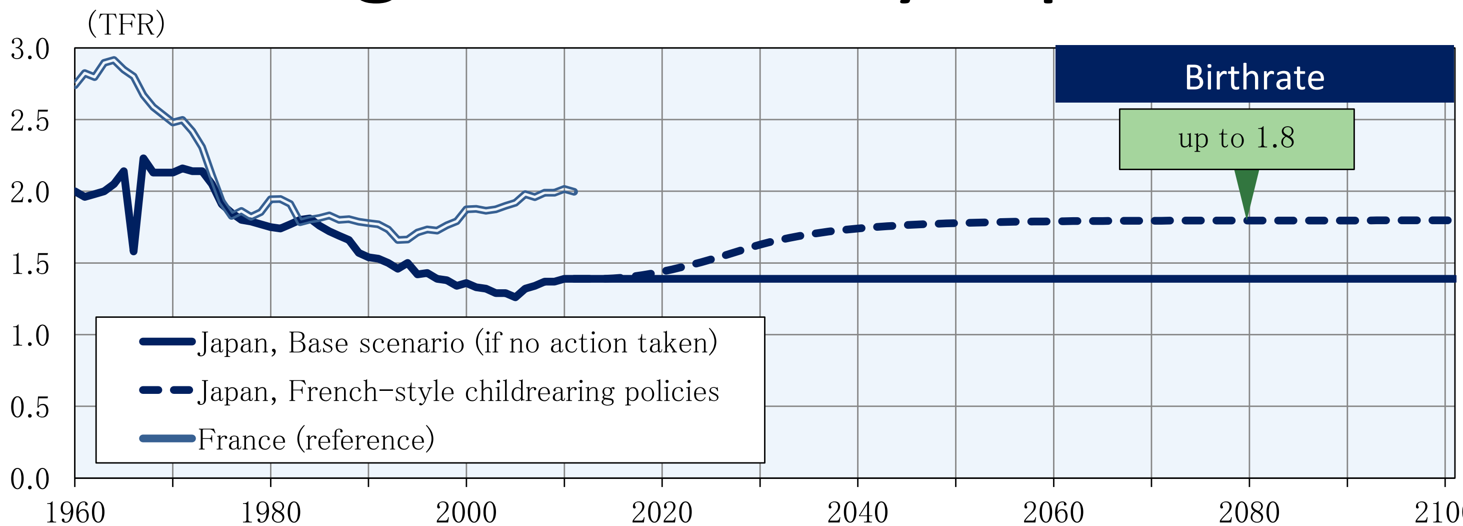
: There is a risk of “fiscal dominance” (Sargent=Wallace(1981)) over the medium term :

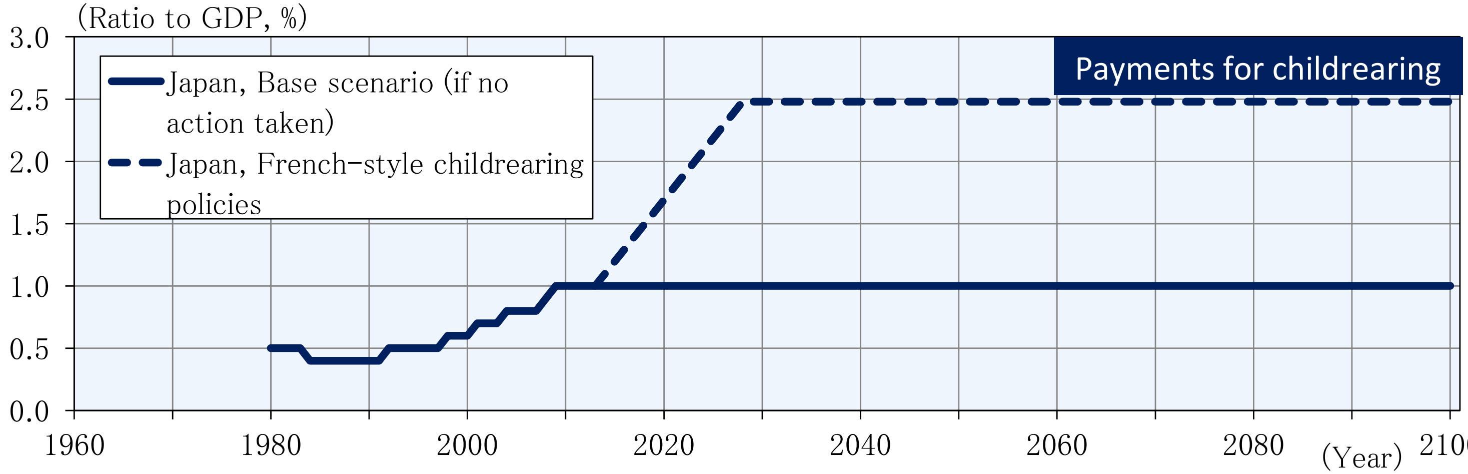
- There is a limit on domestic private absorption capacity of newly issued bonds.
- Fiscal policy or “unpleasant debt dynamics” dominates monetary policy in affecting long-term interest rates and inflation rate.

ANNEX Ⅳ: “Fiscal Dominance”

2. In order to avoid fiscal dominance, it is needed to implement fiscal consolidation over the medium term, while at the same time achieving sound growth.

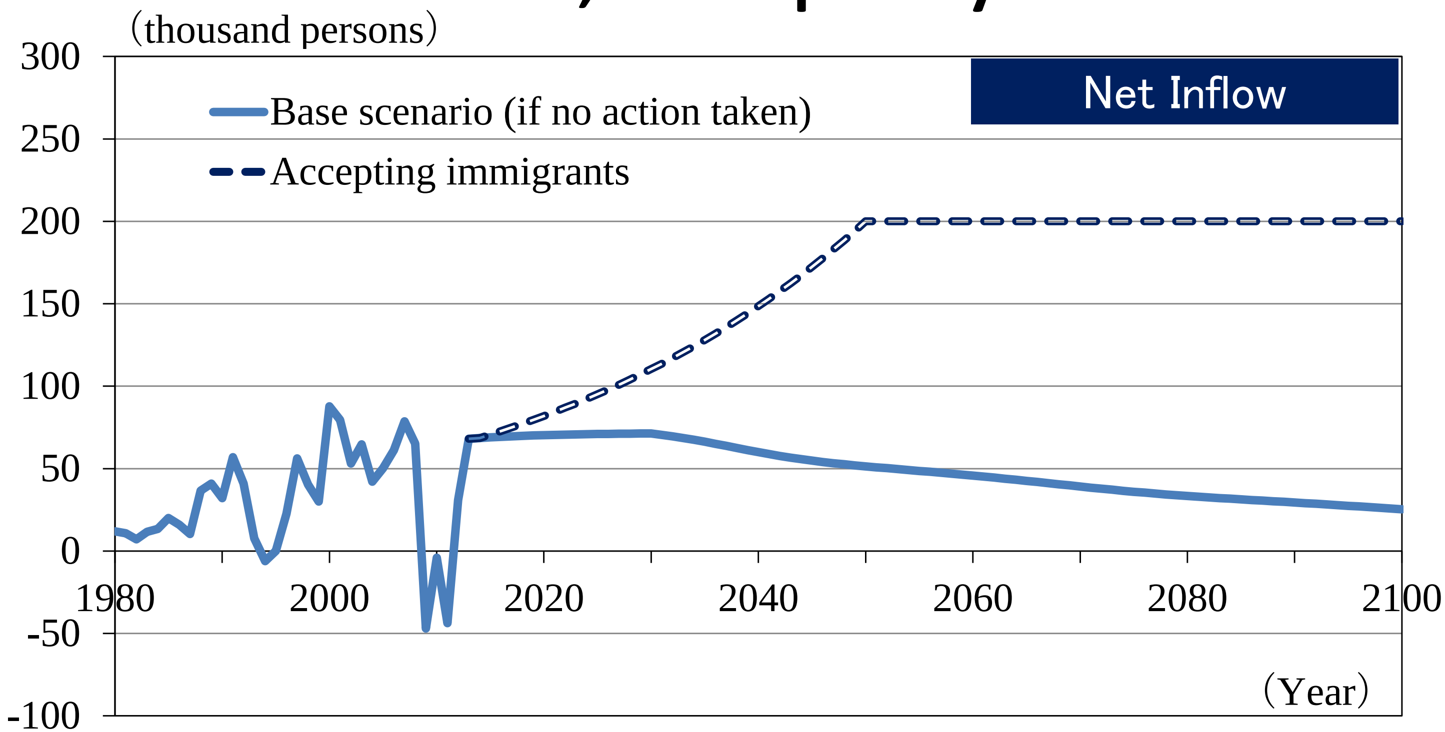
Fig.12 Raise birth rate through French-style policies





(Source) JCER Long-Term Forecast:Vision2050

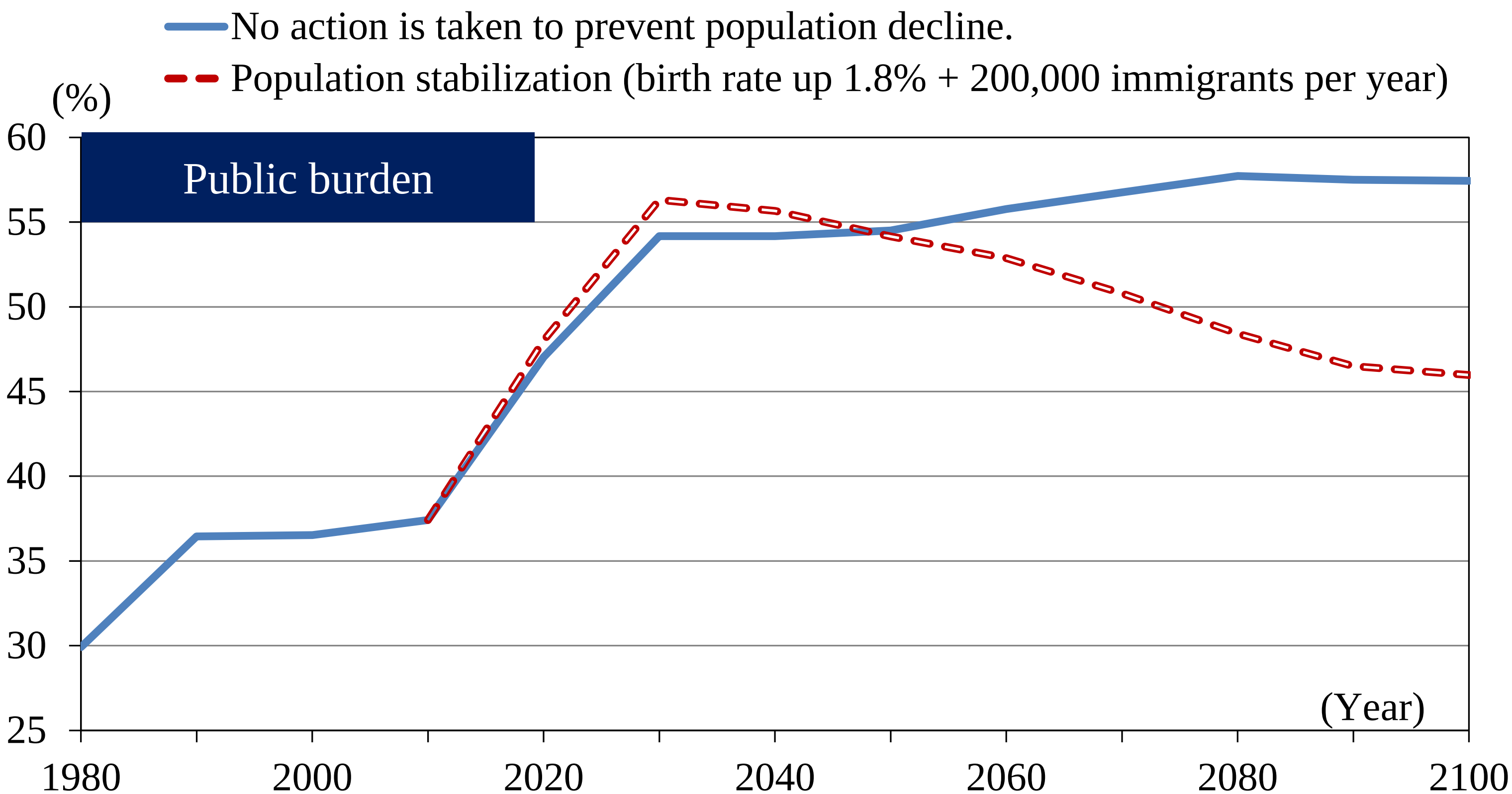
Fig.13 Increase intake of immigrants to 200,000 per year



(Note) In the base scenario, the path until 2030 is the 2012 projection by National Institute of Population and Social Security Research, Japan. After 2031, a projection by JCER. In the accepting immigrants scenario, immigrants are assumed to increase to 200,000, which correspond to half of immigrants accepted by the United Kingdom in recent years after adjusting population size.

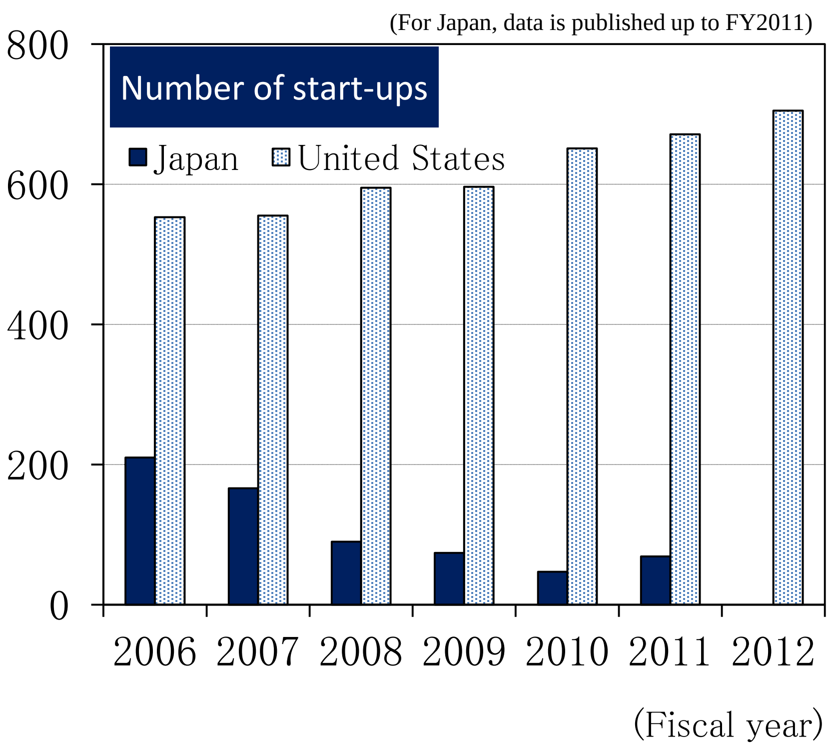
(Source) JCER Long-Term Forecast:Vision2050

Fig.14 Public burden will decline due to population stability

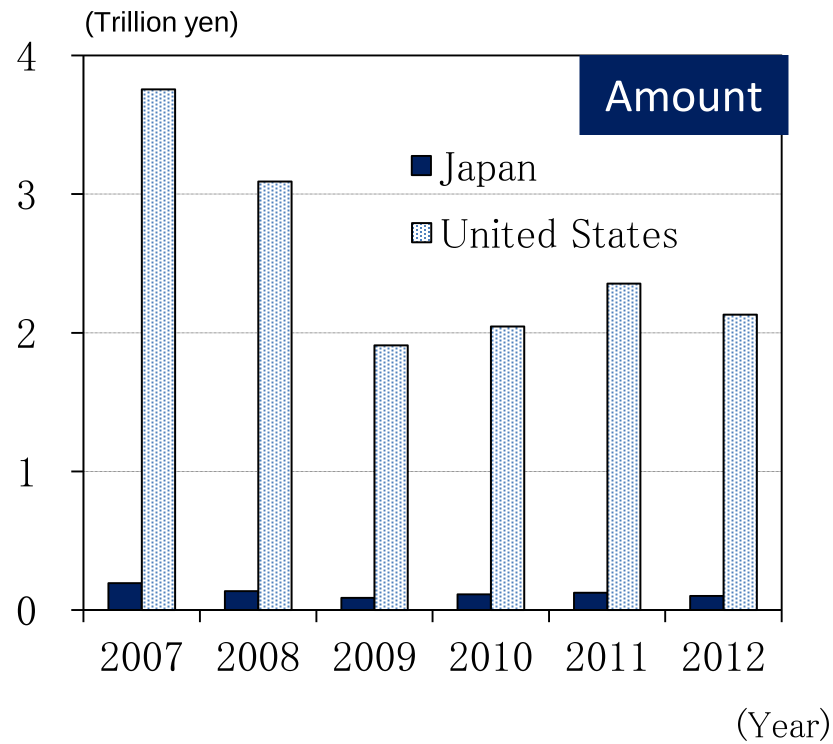


(Note) Both cases are based on the scenario where growth accelerates as a result of system reforms. In the Stagnation Scenario, the burden would be higher. The fiscal burden to increase the birth rate (family allowance) is taken into account. Assumes that toward 2030, consumption tax is raised to 25%.
(Source) JCER Long-Term Forecast:Vision2050

Fig.15 Difference in venture investment between US and Japan



(Source) "FY2011 Status of Academia-Industry Cooperation at Universities" prepared by the MEXT
AUTM U.S. Licensing Activity Survey



(Source) "FY2013 Survey of Venture Capital Investment Trends" prepared by Survey Venture Enterprise Centre

Reference

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[2] Iwata,K., and Fueda-Samikawa I.(2013), “Quantitative and Qualitative Monetary Easing Effects and Associated Risks,” Japan Financial Report, JCER

[3] JCER(2014), "Long-term Forecast:Vision2050”, February

[4] John Maynard Keynes(1933),"An Open Letter to the President Roosevelt," The Collected Writings of John Maynard Keynes, Volume XXI Activities 1931-39, Chapter 4 The New Deal, pp.289-297,Macmillan,1982

[5] John Maynard Keynes(1934),"President Roosevelt’s Gold Policy”, The Collected Writings of John Maynard Keynes, Volume XXI Activities 1931-39, Chapter 4 The New Deal ,pp.309-317, Macmillan,1982

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