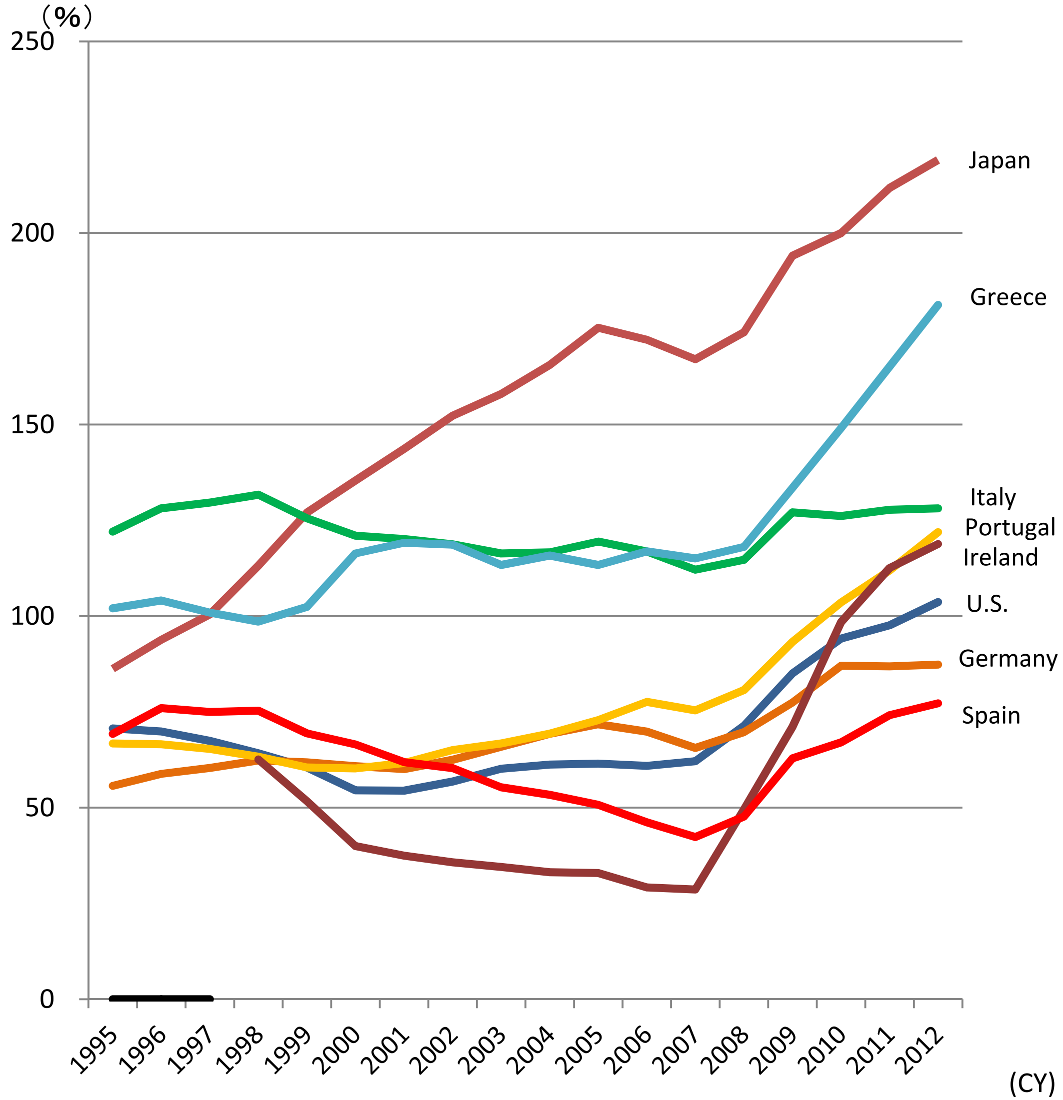
Appendix

December 2011
Ministry of Finance

International Comparison of General Government Gross Debt

According to the projection by OECD, Japan's general government gross debt to GDP ratio is more than 200%, reaches the worst level among major advanced countries and exceed the ratio of GIIPS countries considerably.



(as percentage of GDP)

CY	1995	1996	1997	1998	1999	2000	2001	2002	2003
Japan	86.2	93.8	100.5	113.2	127.0	135.4	143.7	152.3	158.0
United States	70.7	69.9	67.4	64.2	60.5	54.5	54.4	56.8	60.2
Germany	55.7	58.8	60.4	62.3	61.8	60.8	60.1	62.5	65.9
Portugal	66.8	66.5	65.3	63.3	60.5	60.2	61.7	65.0	66.8
Ireland	..	..	..	62.6	51.7	40.0	37.4	35.7	34.5
Italy	122.0	128.1	129.6	131.7	125.5	121.0	120.1	118.7	116.3
Greece	102.0	104.1	100.9	98.6	102.4	116.4	119.2	118.6	113.3
Spain	69.3	76.0	75.0	75.3	69.4	66.5	61.9	60.3	55.3

CY	2004	2005	2006	2007	2008	2009	2010	2011	2012
Japan	165.5	175.3	172.1	167.0	174.1	194.1	200.0	211.7	219.1
United States	61.3	61.5	60.9	62.1	71.4	85.0	94.2	97.6	103.6
Germany	69.3	71.8	69.8	65.6	69.7	77.4	87.1	86.9	87.3
Portugal	69.3	72.8	77.6	75.4	80.7	93.3	103.6	111.9	121.9
Ireland	33.1	32.9	29.2	28.7	49.6	71.1	98.5	112.6	118.8
Italy	116.7	119.4	116.9	112.1	114.7	127.1	126.1	127.7	128.1
Greece	115.8	113.3	116.9	115.0	118.1	133.5	149.1	165.1	181.2
Spain	53.3	50.7	46.2	42.3	47.7	62.9	67.1	74.1	77.2

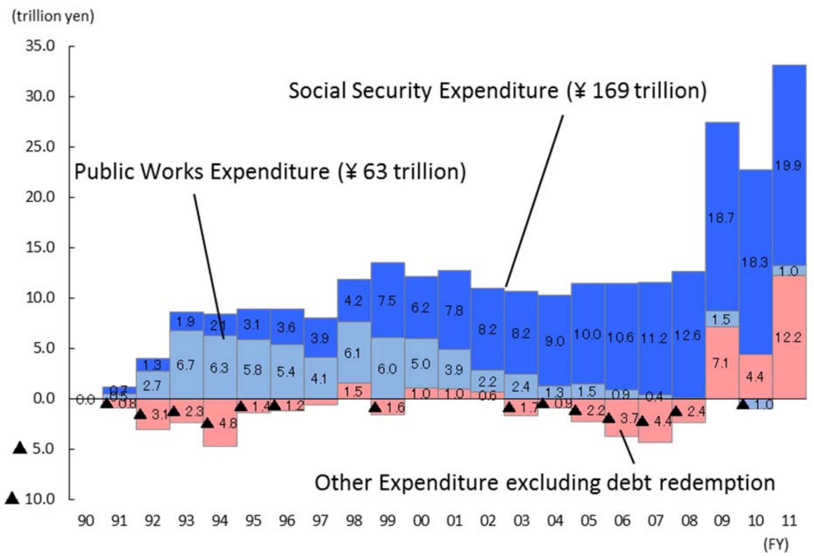
(Source) OECD "Economic Outlook 90"
(Note) Figures are general government-based data (including the central/local governments and the social security funds).

Factor Analysis of Increase in Government Bonds Outstanding with Reference to FY1990

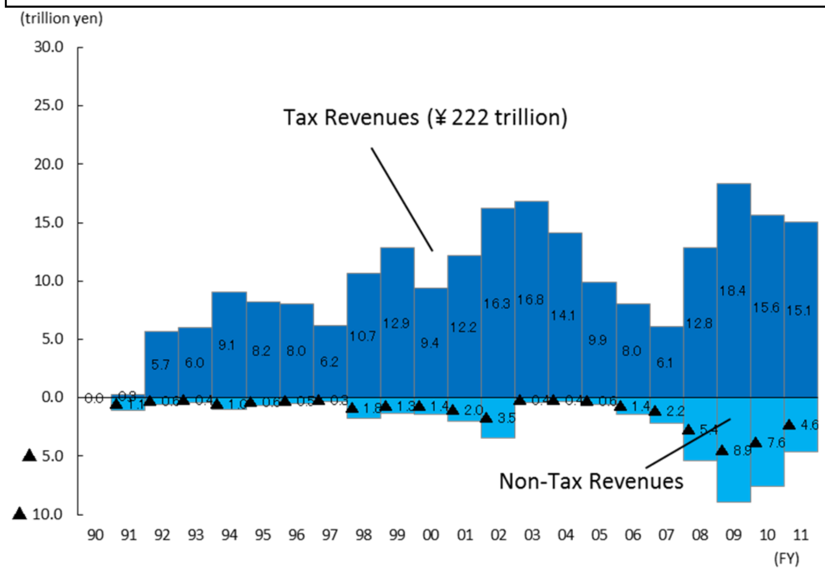
The factors of increase in government bond outstanding are summarized as follows:
Expenditure side … Increase in public works expenditure in 1990s and growth of social security expenditure of recent years associated with the progress of population aging
Revenue side … Tax revenue decline which results from economic downturn and tax cut measures for economic stimulus

Increase in Government Bonds Outstanding from FY1990 to FY2011: ¥ 510 trillion

Contribution of Expenditures : ¥ 228 trillion



Effect of receipt decline: ¥ 176 trillion



Impact from balance gap in FY1990: ¥ 60 trillion

¥ 3 trillion (Deficit in FY1990) × 21 fiscal years (FY1990–FY2001) = 60

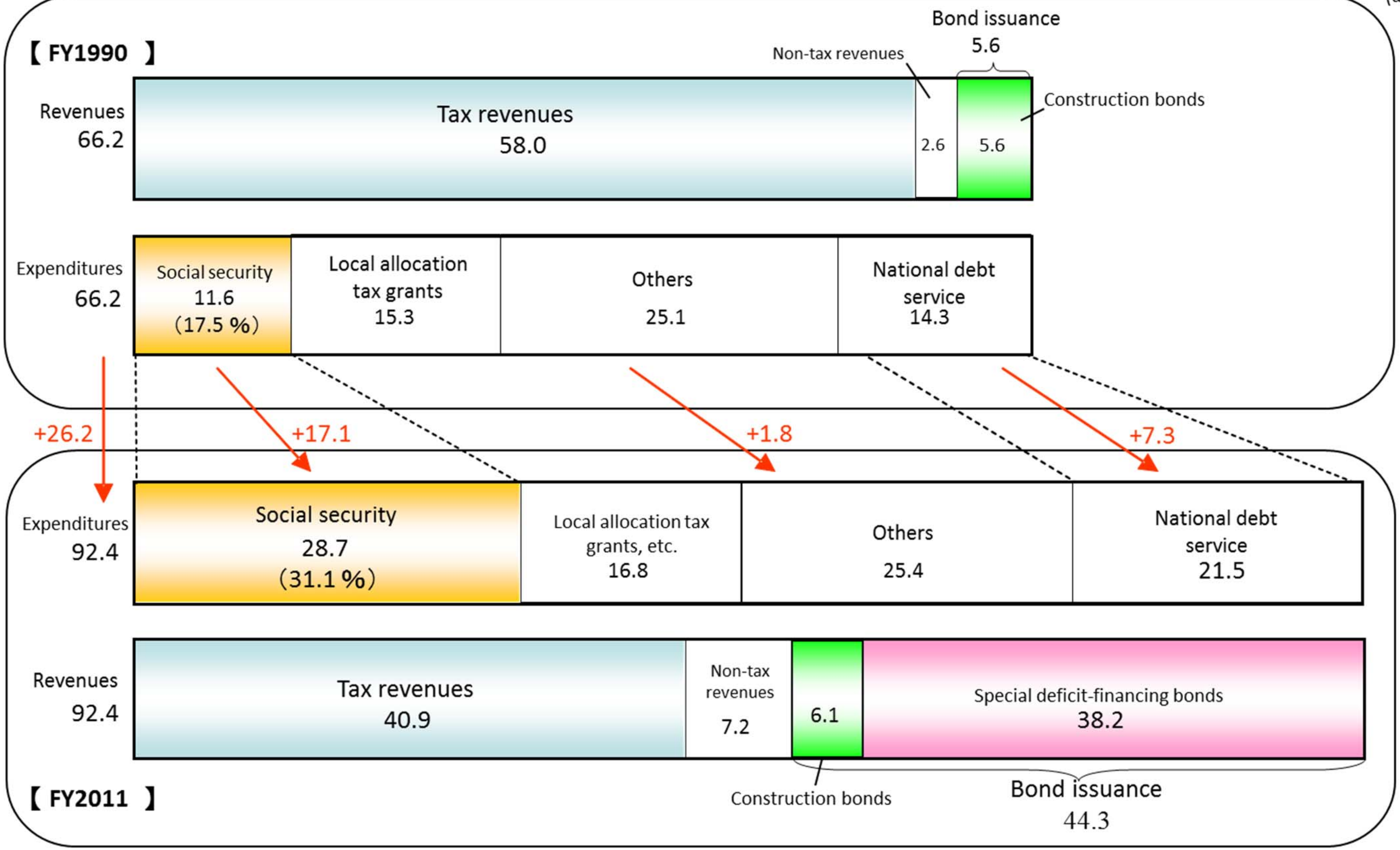
Other factors (long-term debt transferred from Japan National Railway, etc.): ¥ 46 trillion

(Note 1) FY1990-FY2010: Settlement, FY2011: 4th Revised Budget.
(Note 2) 11.6 trillion yen of Increase in government bonds outstanding from FY1990 to FY2011 is Reconstruction Bond issuance for financial resources of measures for reconstruction from the Great East Japan Earthquake. The resources for redemption of Reconstruction Bonds is secured by the revenues including the special tax for reconstruction.

Comparison of General Account Budget between FY1990 and FY2011

When you compares Japan's General Account Budget between FY1990 and FY2011, you can see most of the growth in expenditures is due to the increase in social security expenditure. The increase in government bond issuance results from the growth of social security-related expenditure as well as falling tax revenues.

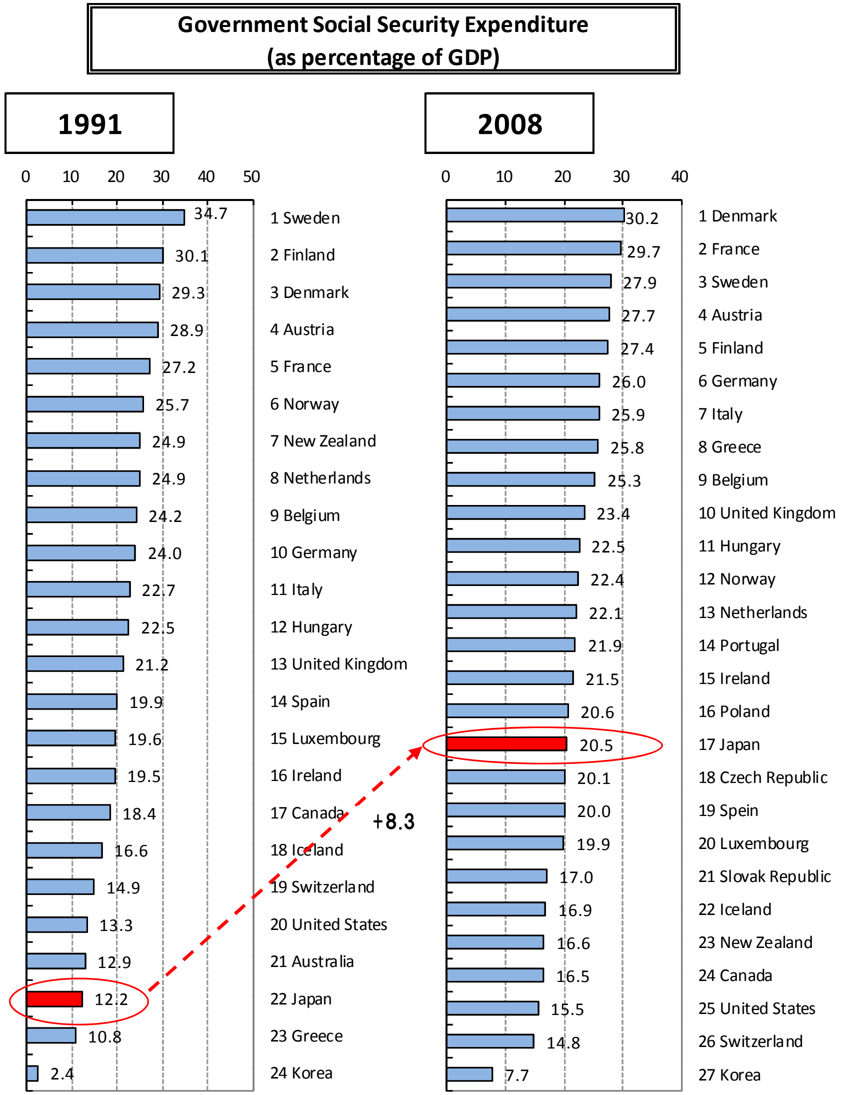
(unit: trillion yen)

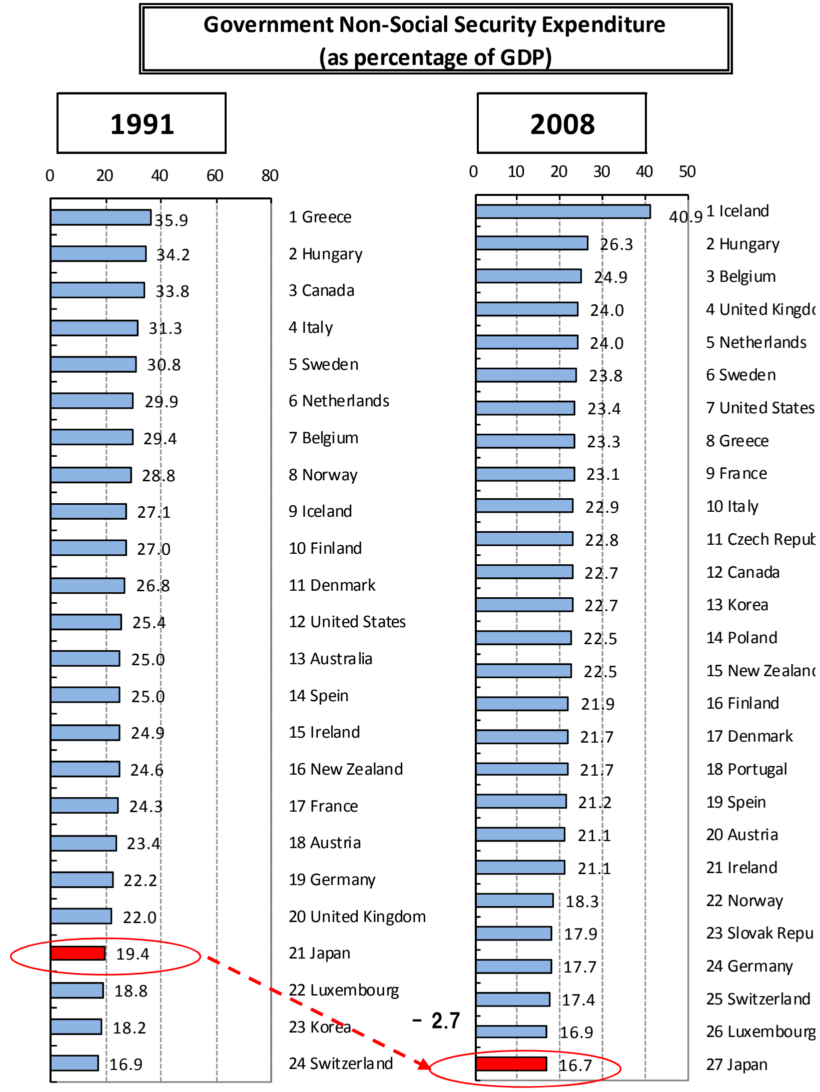


(Note) Figures are initial budget basis.

Transition of Government Expenditure (1991→2008)

In Japan, government social security expenditure is increasing along with the progress of population aging, while government non-social security expenditure is reduced to the lowest level among OECD countries.





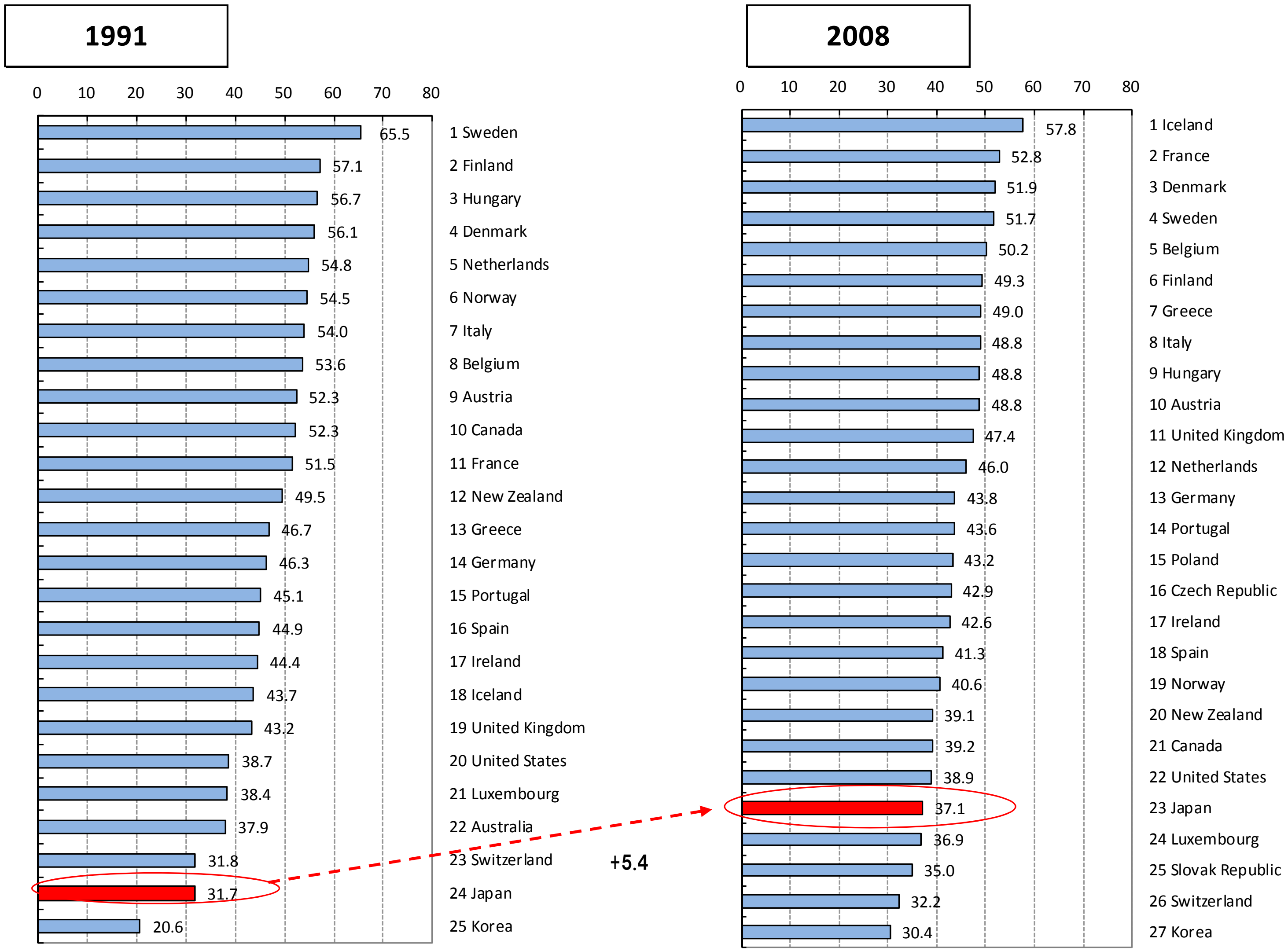
(Source) IMF "Government Finance Statistics Yearbook 2002", OECD "Economic Outlook 76", "National Accounts 2010 vol.II", "Stat Extracts National Accounts"

(Note1) Figures represent the general governmant-based data (including the central and local governments and the social security funds)

(Note2) The figures of 2008 represents data of 2005 for New Zealand and data of 2006 for Canada.

Transition of Government Expenditure (1991→2008) *(cont.)*

Government Total Expenditure (as percentage of GDP)



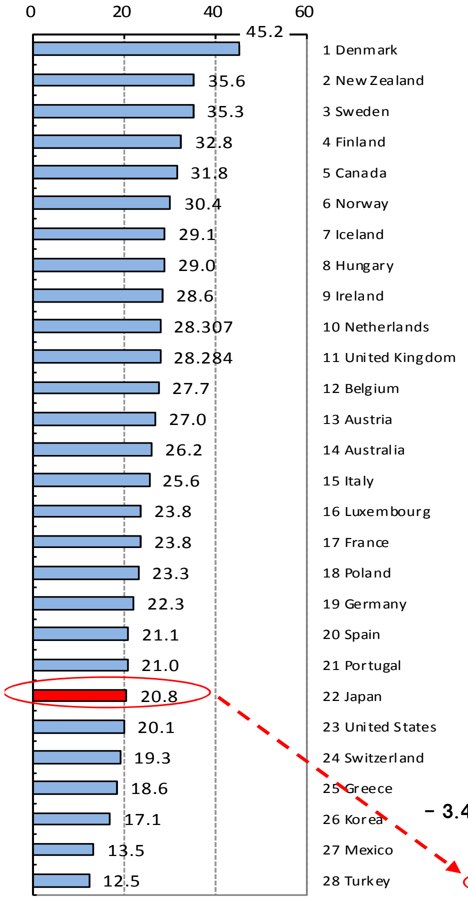
(Source) OECD "Economic Outlook 76", "National Accounts 2010 vol.II", "Stat Extracts National Accounts"
(Note1) Figures represent the general governmant-based data (including the central and local governments and the social security funds)
(Note2) The figures of 2008 represents data of 2005 for New Zealand and data of 2006 for Canada.

Transition of Government Revenue and Balance (1991→2008）

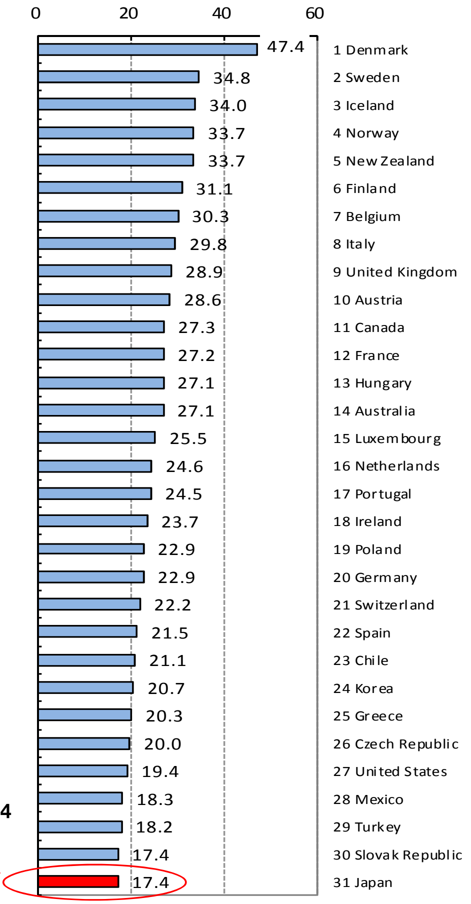
While government total expenditure is increasing, the level of tax burdens ratio is declined. This result in significant reduction of government fiscal balance.

Tax burdens ratio
(as percentage of GDP)

1991



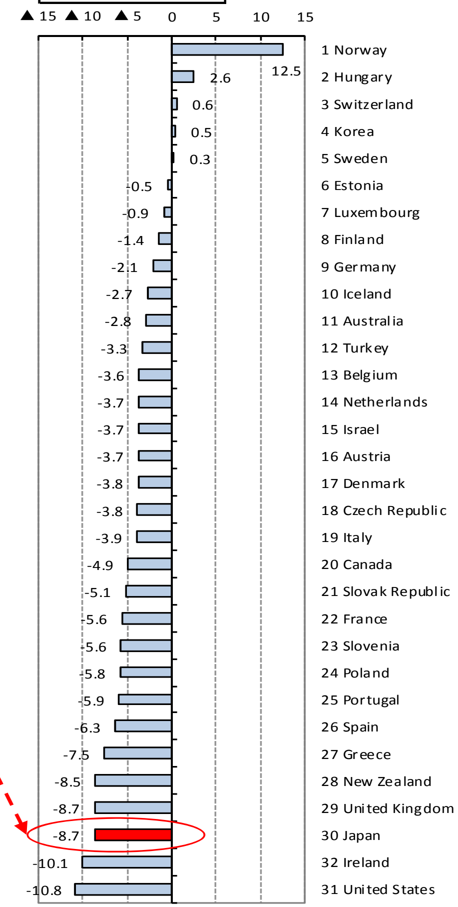
2008



Government Fiscal Balance
(as percentage of GDP)

1990

2011



(Source) OECD "Revenue Statistics", "National Accounts 2010 vol.II", "Economic Outlook 76", "Economic Outlook 89", CAO "National Accounts" etc.

(Note1) The Figures are the general government-based data (including the central and local governments and the social security funds), except for government fiscal balance of Japan and the United States where the figures of the social security funds are excluded.

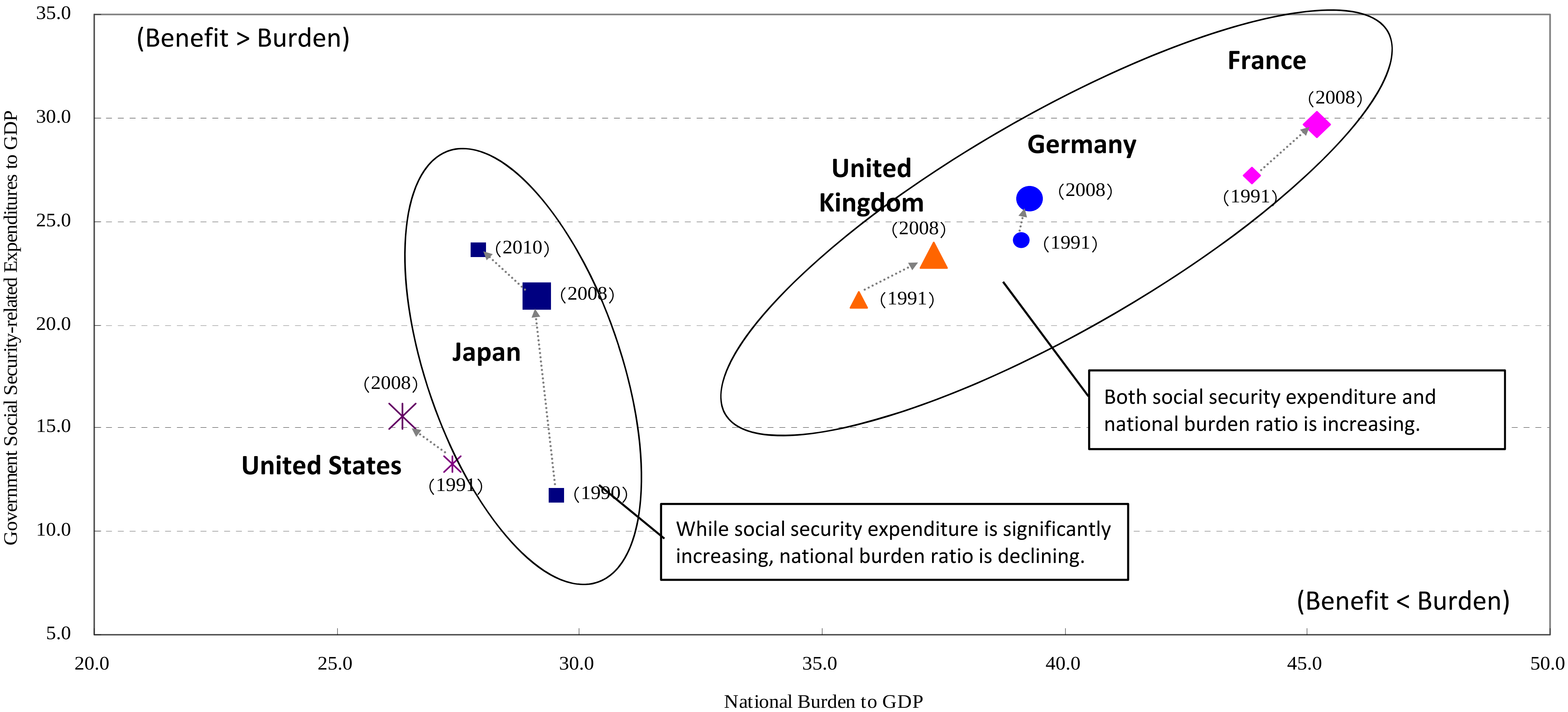
(Note2) The figures of tax burden ratio of 1991 are based on 68 SNA for Sweden.

(Note3) The figures of tax burden ratio of 2008 are the FY2008 data for Japan, the CY2007 for Switzerland.

Transitional Analysis of Social Security-related Expenditure and National Burden Ratio in Major Advanced Countries

In advanced countries,
- Especially in Japan, social security expenditure is increasing due to aging.
- As a consequence, burden is generally rising in these economies, though it has declined in Japan.

※National Burden Ratio = Total Taxes as a percentage of National Income (NI) + Social Security Contribution as a percentage of NI



(Source) Social Security-related Expenditures: IMF "Government Finance Statistics Yearbook 2002", OECD "Economic Outlook 76", "National Accounts 2010 vol.II" and "Stat Extracts National Accounts"
National Burden Ratio: OECD "National Account 2010 vol.II" and " Revenue Statistics", CAO "National Accounts" etc.

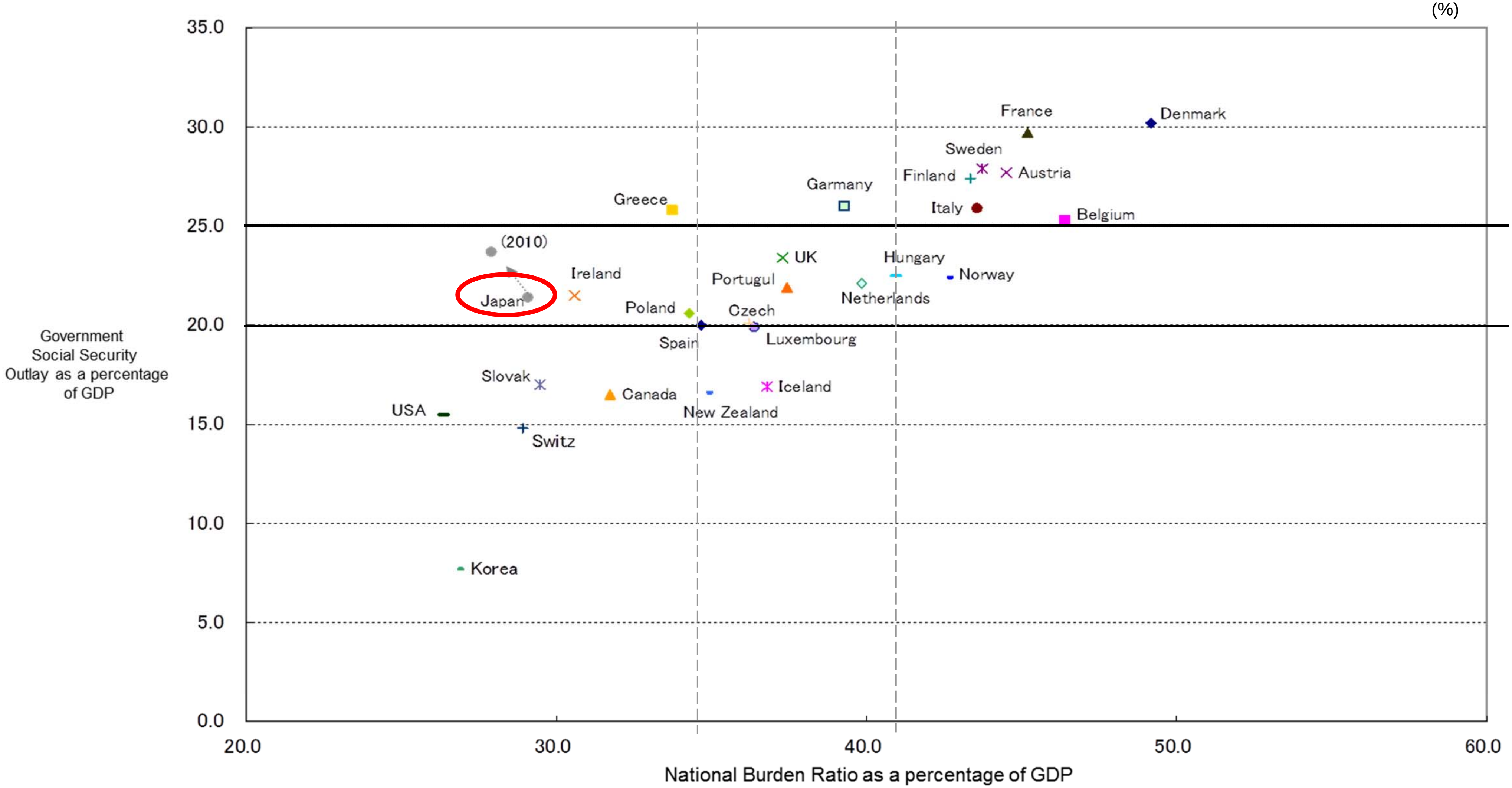
(Note 1) Figures represent the general government-based data (including the central/local governments and the social security funds).

(Note 2) National Burden Ratio: For Japan, FY1990 and FY2008 are actual, FY2010 shows the estimate. For the other countries, 1991 and 2008 are actual.

(Note 3) Government Social Security-related Expenditures: For Japan, FY1990 and FY2008 are actual, FY 2010 shows the rough estimate by MOF. For the other countries, 1991 and 2008 are actual (CY basis).

Social Security Expenditure and National Burden Ratio in OECD countries (FY2008)

Japan ranks in the middle with respect to social security expenditure but remains low in national burden ratio.



【Source】National Burden Ratio: OECD「National Accounts 2010 vol. Ⅱ」,「Revenue Statistics」, Cabinet Office「National Accounts」etc.
Social Security Outlay: OECD「National Accounts 2010 vol. Ⅱ」,「Stat Extracts National Accounts」,Cabinet Office「National Accounts」etc.

(Note 1) Figures for every country is based on the general government.

(Note 2) National Burden Ratio: Japan: FY2008 actual, FY2010 Estimates, Swiss Confederation: FY2007 actual, Other Countries; FY2008 actual

(Note 3) Government Social Security Outlay : Japan: FY2008 actual, FY2010 rough estimate by Ministry of Finance, New Zealand: FY2005 actual, Canada: FY2006 actual, Other countries: FY2008 actual.

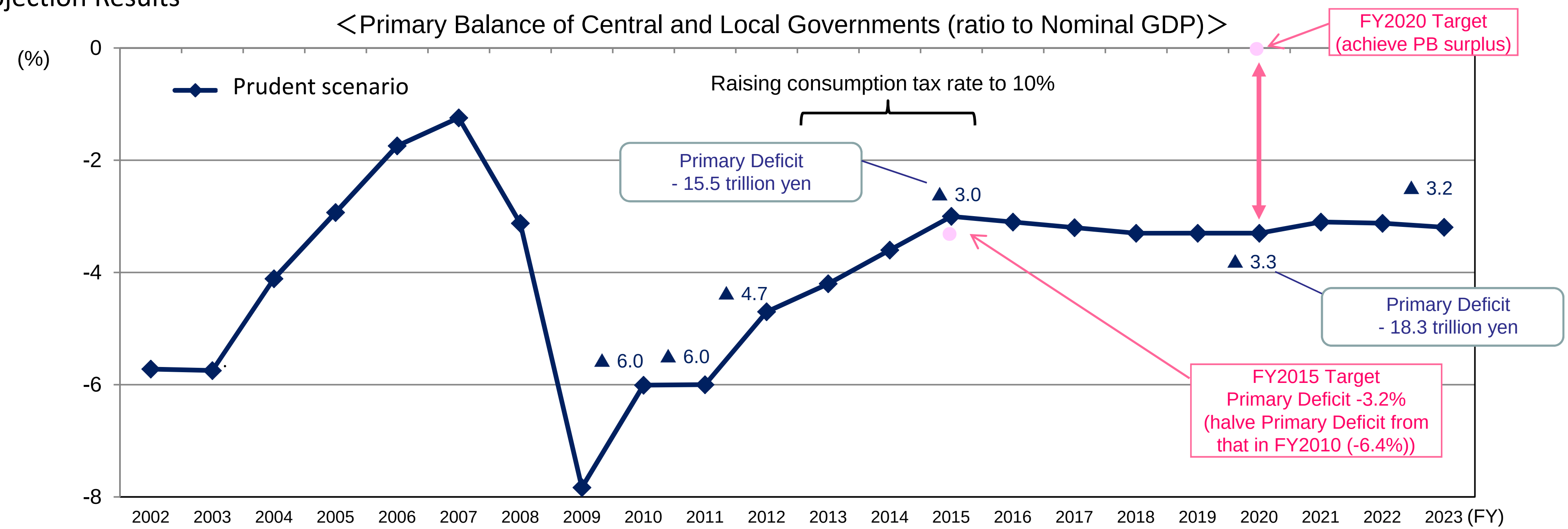
Status of the Achievement of Fiscal Consolidation Targets (Projection by CAO)

Given the severe fiscal situation, the government decided "Fiscal Management Strategy" which set the fiscal consolidation targets. The government aims to achieve fiscal consolidation steadily, through efforts on both revenue and expenditure side including the comprehensive reform of social security and tax.

The projection by Cabinet Office shows Japan's fiscal trajectory in case consumption tax rate is raised gradually in accordance with "Definite Plan for the Comprehensive Reform of Social Security and Tax". According to this projection, Status of achievement of fiscal consolidation targets is as follows.

1) Primary balance of central and local governments (ratio to nominal GDP) will be -3.0%, so the target of FY2015 (halve primary deficit from that in FY2010) will be achieved. Primary balance of central government will be destined for achievement of target.
2) To achieve the target of FY2020 (achieve primary surplus), additional 3.3% improvement of primary balance will be required.
3) This projection shows that public debt outstanding of central and local governments will increase progressively even after FY2021, stock target (start stable reduction of public debt outstanding from FY2021) will not be achieved.

Projection Results



(Note 1) According to "Definite Plan for the Comprehensive Reform of Social Security and Tax", raising the consumption tax rate to 10% gradually from the latter half of FY2013 to FY2015 is mechanically assumed.

(Note 2) Based on "Basic Guideline for Reconstruction in response to the Great East Japan Earthquake", reconstruction expenditures of approx. 19 trillion yen and the corresponding temporary fiscal resources (for 10 years) are assumed.

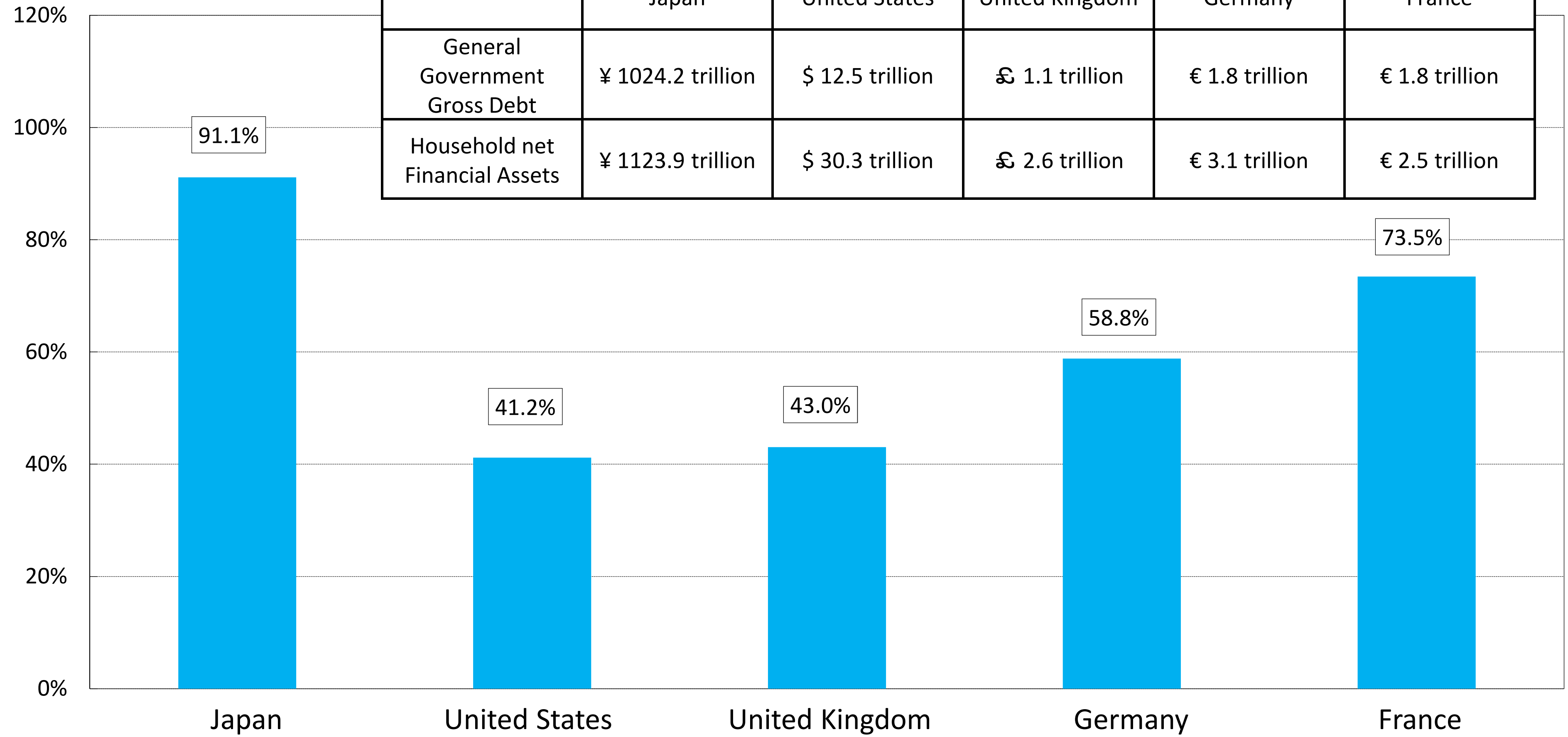
(Note 3) Figures do not include the expenses and resources of recovery and reconstruction from the Great East Japan Earthquake.

(Source) Cabinet Office "Economic and Fiscal Projection for Medium to Long Term Analysis" (2011.8)

Ratio of General government debt / Household financial assets in major advanced countries (2009)

As for ratios of general government debt to household financial assets in major advanced countries, 91.1% in Japan is on a higher level than the ratios in other countries. For Japan, this means that the domestic market's capacity to absorb new government bond issuance is diminishing while general government debt will increase further in years to come.

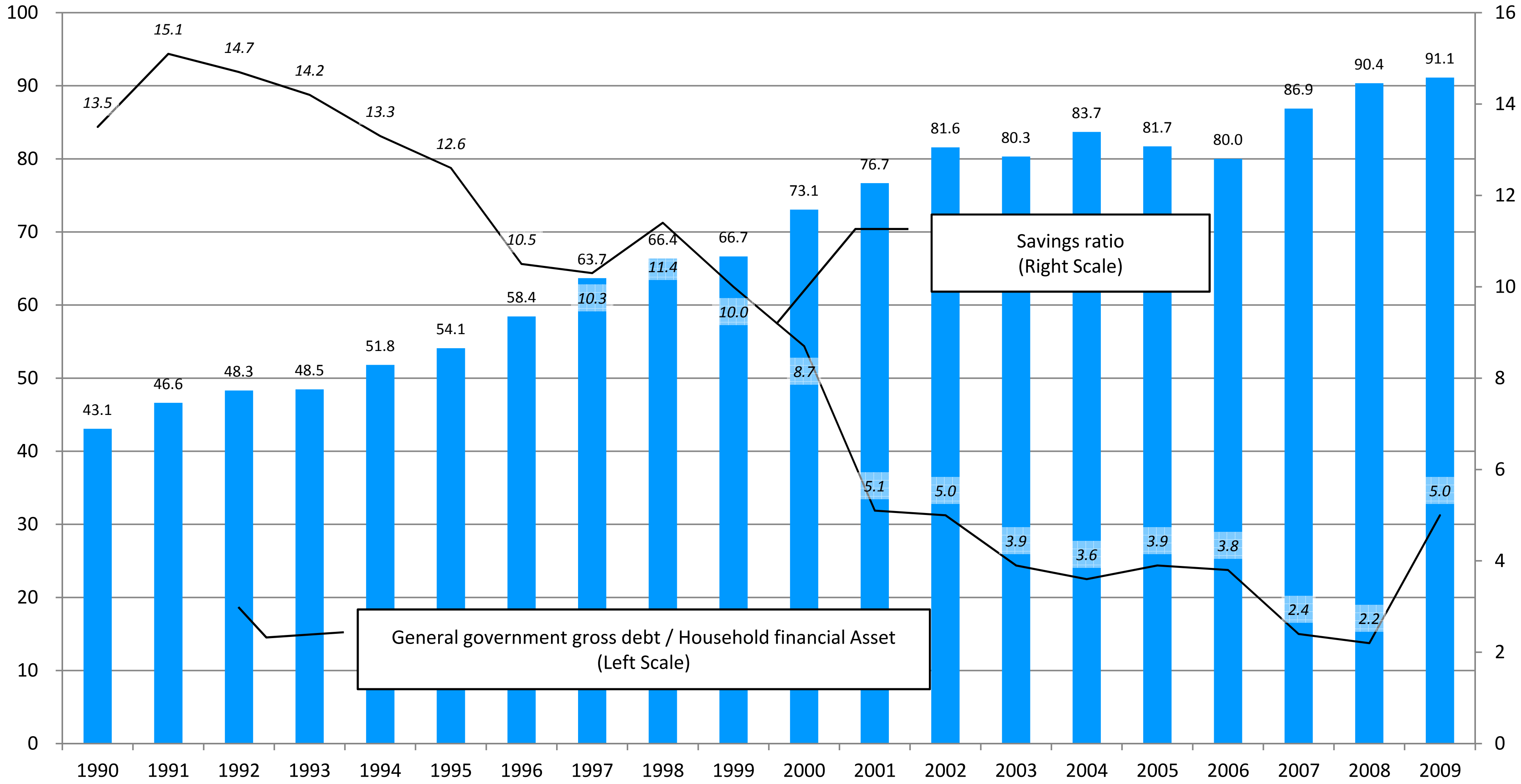
	Japan	United States	United Kingdom	Germany	France
General Government Gross Debt	¥ 1024.2 trillion	$ 12.5 trillion	£ 1.1 trillion	€ 1.8 trillion	€ 1.8 trillion
Household net Financial Assets	¥ 1123.9 trillion	$ 30.3 trillion	£ 2.6 trillion	€ 3.1 trillion	€ 2.5 trillion



(Source) OECD "National Accounts"

Trends of Savings ratio and ratio of General government debt / Household financial assets

While general government debt continues to increase, saving rate tends to decline due to the progress of population aging. The ratio of general government debt to household financial assets is going up year by year.



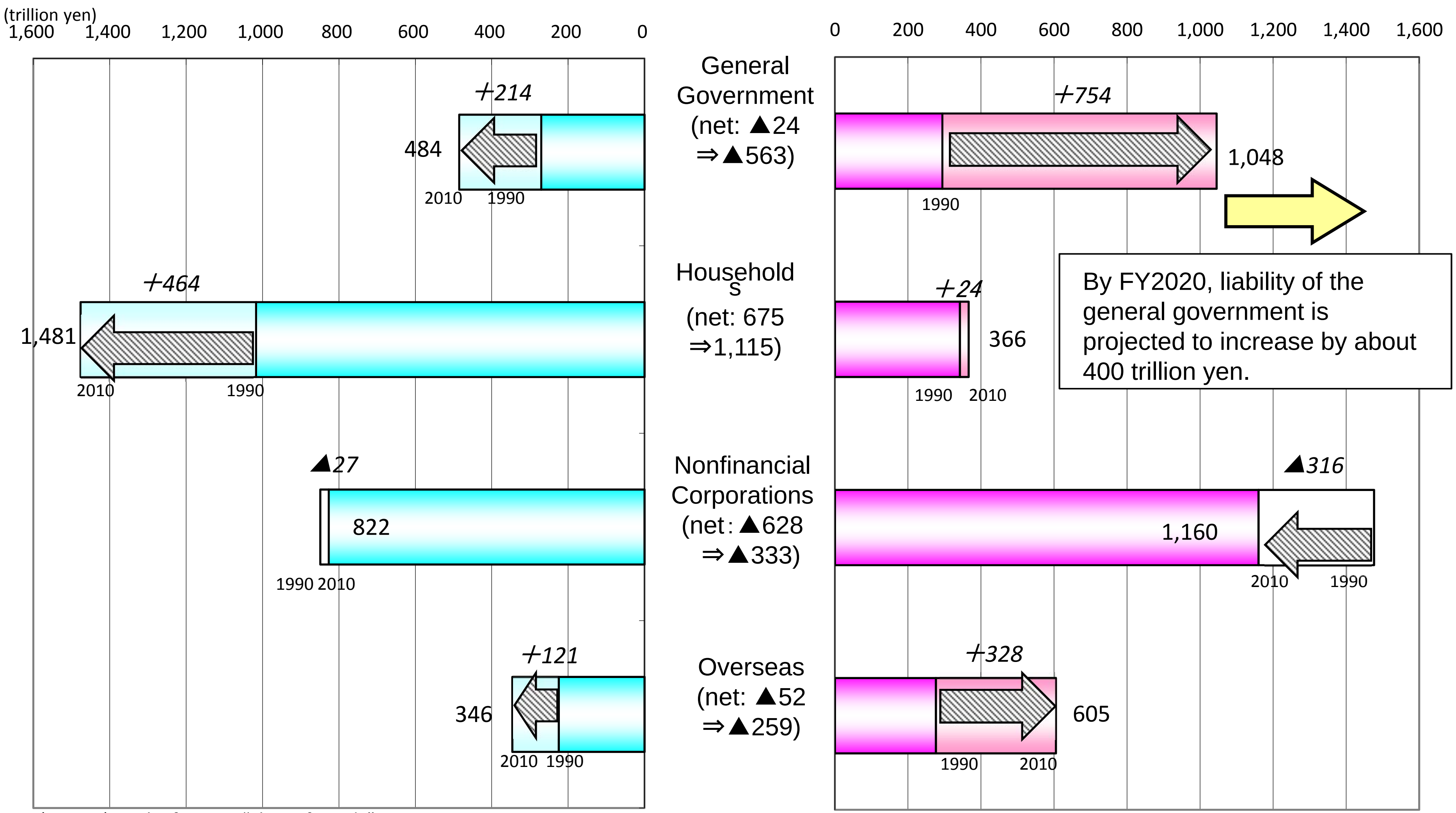
(Note) Household net financial assets are difference calculated by subtracting household gross debt from household gross financial assets.
(Source) OECD “National Accounts”, Cabinet office “National Accounts”

Japan's Flow of Funds (1990→2010)

While financial liabilities of general government are significantly increasing due to accumulation of fiscal deficit, financial liabilities of nonfinancial corporations are reduced. In the trend of low saving rate, further increase in general government liabilities (e.g. increase in financial needs of general government) may weigh on financing of corporate sector, lead to reduction of investment, or harm economic growth.

Financial Assets Total : 2,361 ⇒ 3,133 (1990→2010)

Financial Liabilities Total: 2,389 ⇒ 3,178 (1990→2010)



(Source) Bank of Japan, "Flow of Funds"

Rating Company's View about Fiscal Situation of Japan

In 2011, the major rating companies downgrade of Japan's sovereign credit rating or change its outlook to negative one after the other. The main rationale of these rating action is deterioration of Japan's fiscal situation.

S&P (2011.4.27)

- The negative outlook signals **that a downgrade is possible if Japan's public finances weaken further over the next two years in the absence of fiscal consolidation to offset them**.

Moody's (2011.8.24)

- Moody's lowered the Government of Japan's rating to Aa3 from Aa2. **The rating downgrade is prompted by large budget deficits and the build-up in Japanese government debt since the 2009 global recession.**
- Credit Triggers For a Future Rating Action

  Credit Positive Factors

  1. Well-established progress in achieving fiscal consolidation targets
  2. A robust and sustainable recovery from the recession

  Credit Negative Factors

  1. A delay in implementing the comprehensive tax and social security reform plan
  2. The economy's inability to recover from the lingering effects of the global recession and the ongoing consequences of the March earthquake, tsunami and nuclear power plant disaster
  3. A diminished home bias in the government bond market or substantial erosion in Japan's external strengths, which at some point would cause the market to price in a risk premium to government debt, making sizable annual refinancing requirements significantly more costly

R&I (2011.12.21)

- R&I can no longer consider the government's ability to adjust fiscal conditions on its own to be at a level required for the highest rating, and therefore has downgraded both the Foreign and Domestic Currency Issuer Ratings for Japan to AA+.
- While R&I positively views the firm resolve of the Noda administration to increase the consumption tax rate, critical measures of social security reform have yet to be decided, as seen in the postponement of having the public take on more of a financial burden. Prospects for economic revitalization are also uncertain. In light of such circumstances, outstanding government debt would inevitably rise for an extensive period of time even if the consumption tax rate is successfully raised.
- **Should a consumption tax rise be postponed, the rating could come under downward pressure again.**

Reference: Sovereign Credit Rating by Major Rating Company

	Moody's	S&P	Fitch	R&I	JCR
Aaa/AAA	United States(↓) United Kingdom Germany France	United Kingdom Germany(↓) France(↓)	United States(↓) United Kingdom Germany France(↓)	United States United Kingdom Germany France(↓)	Japan United States United Kingdom Germany France Spain
Aa1/AA+		United States(↓)		Japan	
Aa2/AA				Spain(↓)	Italy
Aa3/AA-	Japan China (↑)	Japan (↓) China Spain(↓)	Japan (↓) China(↓) Spain(↓)	China	Portugal(↓)
A1/A+	Spain(↓)		Italy(↓)	Italy(↓)	
A2/A	Italy(↓)	Italy(↓)			
A3/A-					
Baa1/BBB+		Ireland(↓)	Ireland(↓)	Ireland(↓)	
Baa2/BBB					
Baa3/BBB-		Portugal(↓)		Portugal(↓)	
Ba1/BB+	Ireland(↓)		Portugal(↓)		
Ba2/BB	Potugal(↓)				
Ba3/BB-					
B1/B+					
B2/B					
B3/B-					
Caa1/CCC+					
Caa2/CCC			Greece		
Caa3/CCC-					
Ca/CC	Greece	Greece(↓)		Greece	

(Note 1) Local currency long-term debt rating.
(Note 2) ↑ means positive outlook. ↓ means negative outlook.

Recent movement of Japans sovereign credit rating

2011.4.27 S&P
- Change the Outlook to Negative (Rating was affirmed at AA-).

2011.5.27 Fitch
- Change the Outlook to Negative (Rating was affirmed at AA-)

2011.5.31 Moody's
- Watch Negative

2011.8.24 Moody's
- Downgrade from Aa2 to Aa3 (Outlook: Stable)

2011.11.30 R&I
- Watch Negative

2011.12.21 R&I
- Downgrade from AAA to AA+ (Outlook: Stable)

Opinions of International Organizations about Japan's Fiscal Situation

To Japan, international organizations point out the necessity of fiscal consolidation repeatedly. OECD and IMF present the idea that measures on both revenue and expenditure sides are required. In particular, their idea include social security reform and consumption tax hike.

OECD "Economic Survey of Japan 2011" (April 21, 2011)

○ The Fiscal Management Strategy should aim at a primary budget surplus large enough to stabilise the debt ratio by FY 2020, which may require as much as a 10% of GDP improvement in the primary budget balance.

○ **A detailed fiscal plan should be accompanied by social security reform to limit spending pressures due to rapid population ageing**. **Much of the deficit reduction will have to be on the revenue side, mainly through hikes in the consumption tax**.

○ Achieving the fiscal target may require that consumption tax rate be increased to as high as 20%, even if spending (excluding social security and interest payments) is held constant in real terms.

IMF "Japan Sustainability Report" (Nov. 23, 2011)

○ **Should JGB yields rise from current levels, Japanese debt could quickly become unsustainable.**

○ Market concerns about fiscal sustainability could result in a sudden spike in the risk premium on JGBs. An increase in yields could be triggered by delayed fiscal reforms; a decline in private savings; a protracted slump in growth; or unexpected shifts in the portfolio preferences of Japanese investors.

○ **Once confidence in sustainability erodes, authorities could face an adverse feedback loop between rising yields, falling market confidence, a more vulnerable financial system, diminishing fiscal policy space and contracting real economy.**

【Addressing Imbalances (*)】

○ **Given limited scope for cutting expenditure, fiscal adjustment would need to rely mainly on new revenue sources and limits on spending growth.**

○ **Among various revenue measures, raising the consumption tax (VAT) is the most appealing**. The consumption tax rate in Japan, at 5 percent, is the lowest among the advanced G-20. Staff's analysis indicates that a gradual increase in the consumption tax from 5 percent to 15 percent over several years could provide roughly half of the fiscal adjustment needed.

(*) IMF shows the similar ideas in the 2011 Article IV Consultation Staff Report.