



Japan's Economy and Monetary Policy

June 27, 2012

Round-table Discussion with
Canadian Business Leaders in Tokyo

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FAQs about the Bank of Japan's Monetary Policy

- 1. Is the New Framework “Inflation Targeting” ?***
- 2. Why 1 Percent instead of 2 Percent ?***
- 3. Will the Large-Scale Purchase of Government Bonds Undermine Their Credibility ?***
- 4. Should Monetary Policy be More Aggressive ?***
- 5. Role of Monetary Policy for Enhancing Growth Potential ?***
- 6. Other Policies for Enhancing Economic Growth ?***

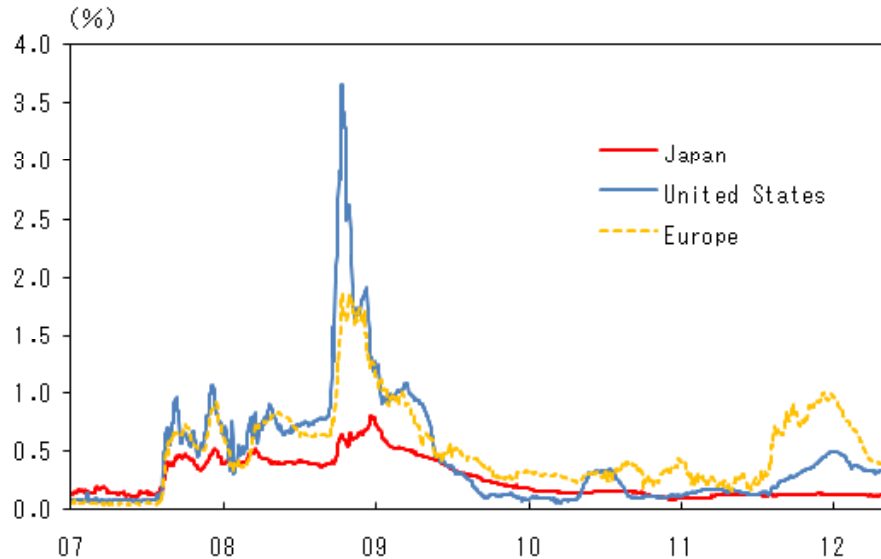
Views expressed hereafter are those of mine and do not necessarily represent those of the Bank of Japan.

If you have any questions or comments, please do not hesitate to contact me at shuuji.kobayakawa@boj.or.jp.

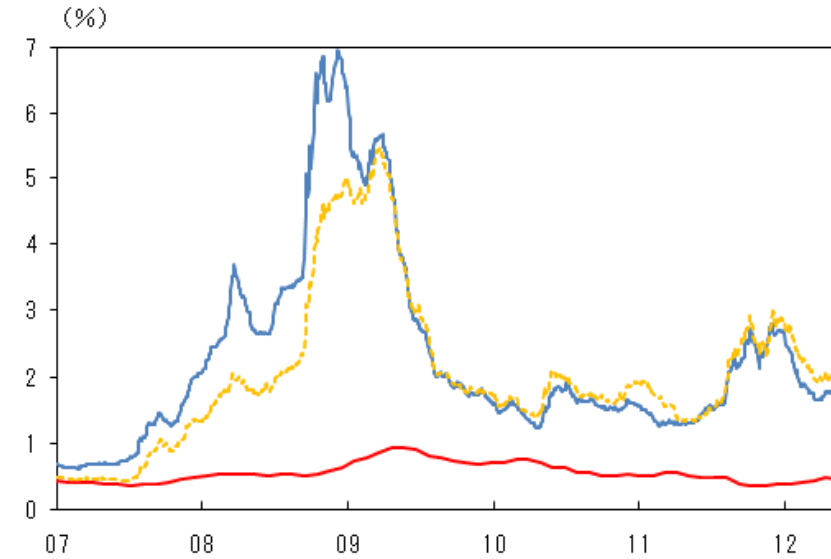
0. OVERVIEW

Financial Conditions

Degree of Strain in Funding Markets



Spreads on Corporate Bonds

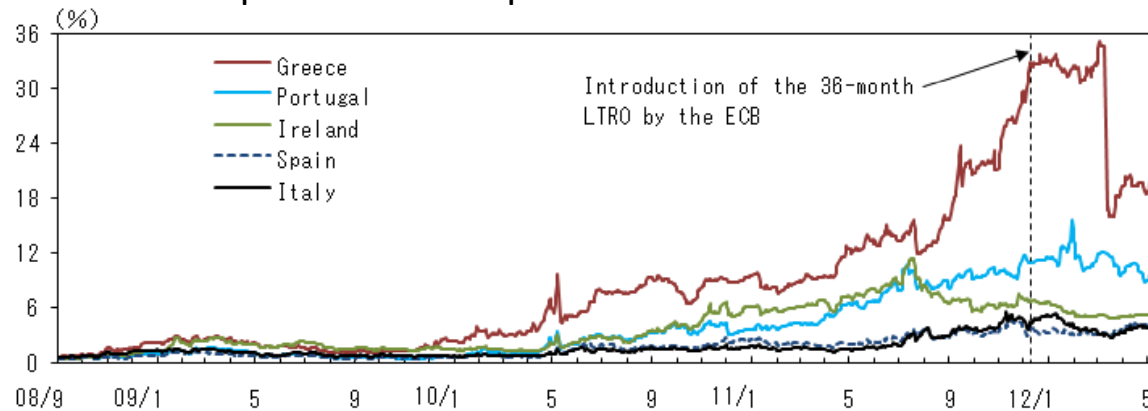


Notes: 1. The degree of strain in funding markets is 3-month Libor minus yields on 3-month government securities. Data for German government securities are used for Europe.

2. The spreads on corporate bonds (rated AA) are corporate bond yields minus government bond yields. Data for Japan are the issuance spreads for corporate bonds.

Sources: Japan Securities Dealers Association; Capital Eye Ltd.; I-N Information Systems; Bloomberg.

Spreads for European Government Bonds



Notes: 1. The spreads for gov. bonds are the yields spreads for 10-yr gov. bonds issued by each country minus those by Germany.

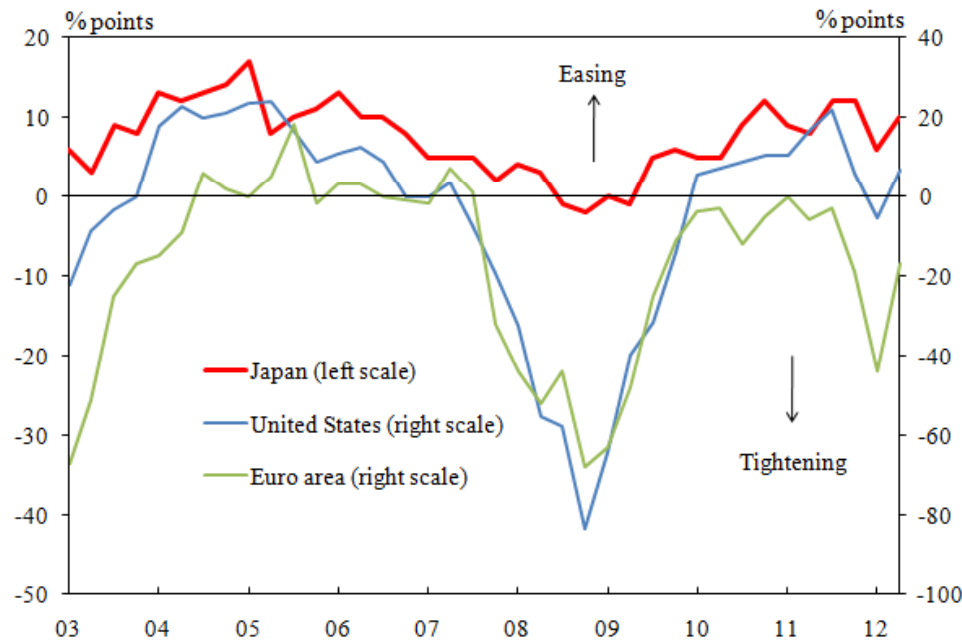
2. The spreads for Irish bonds after Oct. 12, 2011 were calculated using 9-yr gov. bonds due to the suspension of market issuance.

3. The spreads for Greek bonds narrowed significantly after the restructuring of gov. debt on March 12, 2012.

Source: Bloomberg.

Bank Lending

Bank Lending Attitude to Large Firms

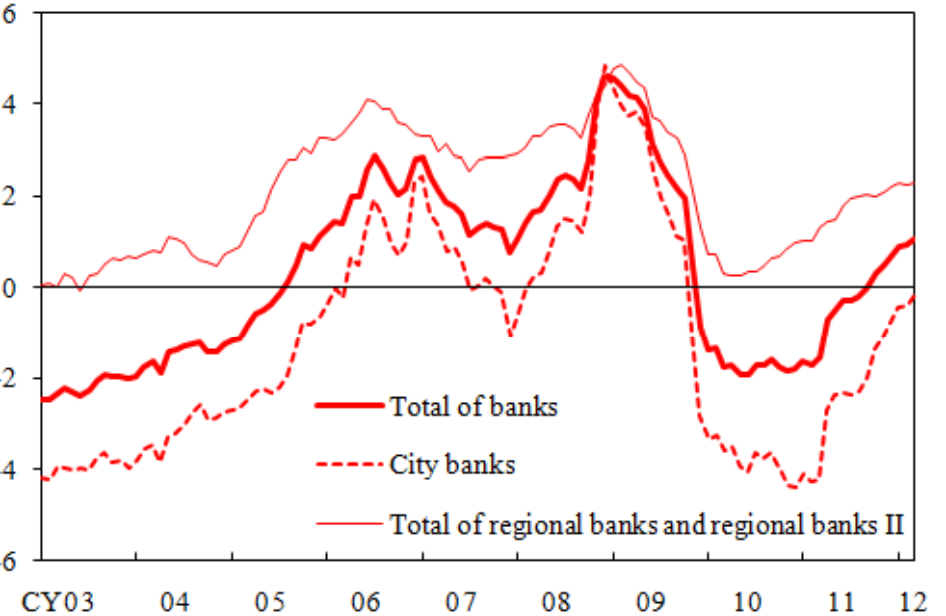


- Notes:
1. For the United States, large and medium-sized firms basis.
 2. Japan: "eased considerably" + $0.5 \times$ "eased somewhat" - $0.5 \times$ "tightened somewhat" - "tightened considerably"
 3. The United States and the Euro area: "eased considerably" + "eased somewhat" - "tightened somewhat" - "tightened considerably"

Sources: Bank of Japan, "Senior Loan Officer Opinion Survey on Bank Lending Practices at Large Japanese Banks"; Federal Reserve Board; European Central Bank.

Amount Outstanding of Bank Lending in Japan

avg. amount outstanding, y/y % chg.

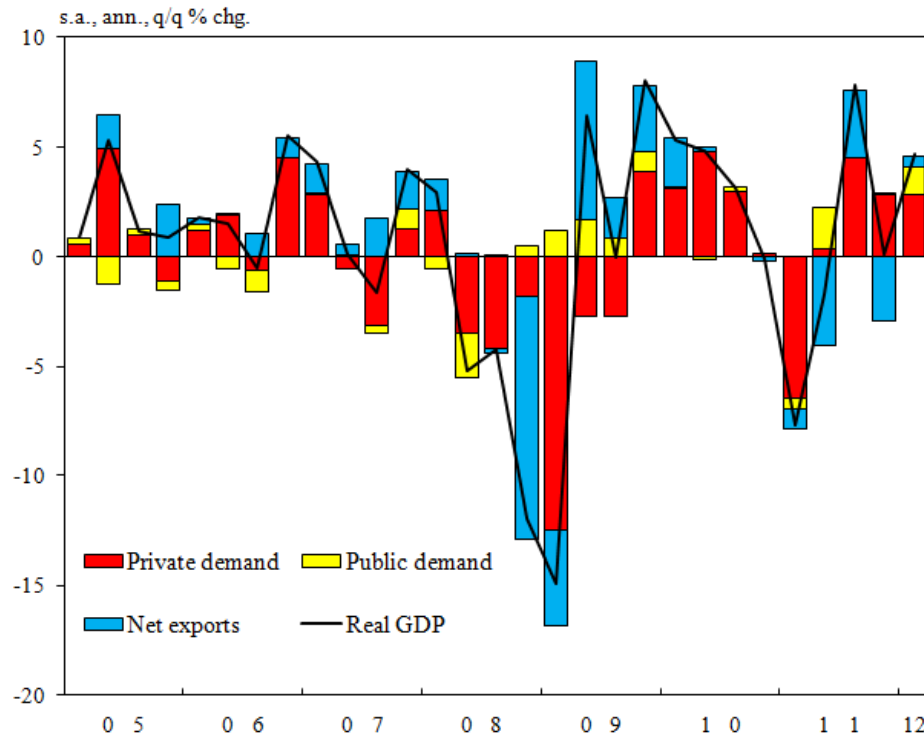


- Notes: Lending by domestic commercial banks in Japan. Fluctuations from liquidations of loans, loan write-offs, etc., are excluded.

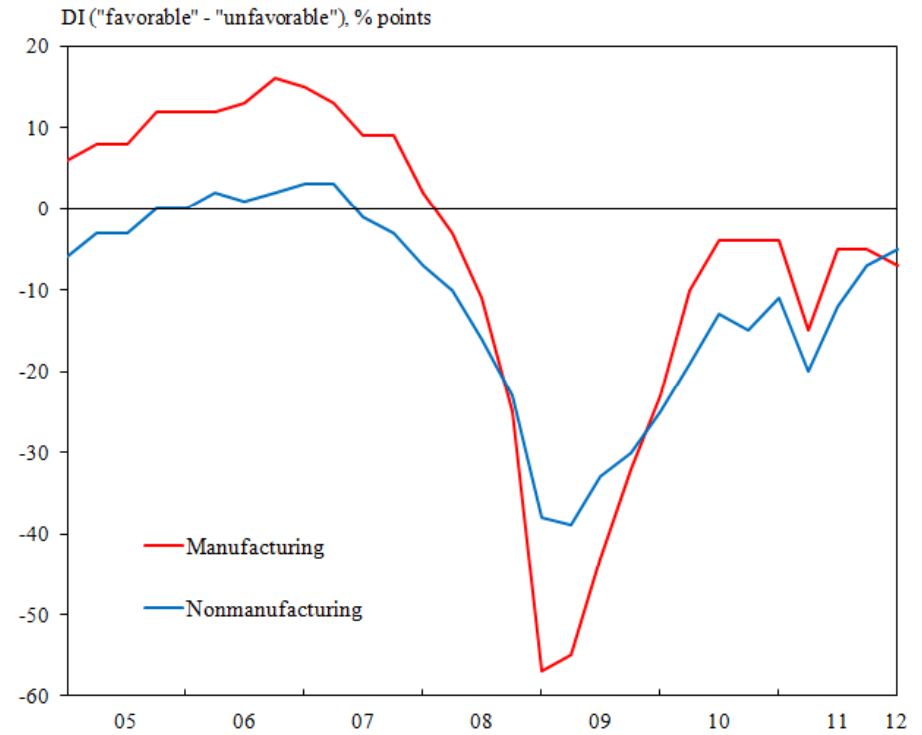
Source: Bank of Japan, "Principal Figures of Financial Institutions."

Economic Activity

Real GDP



Business Conditions: Tankan



Note: Figures of the business conditions are based on the "Tankan," aggregates of all business sizes.

Sources: Cabinet Office, "National Accounts";

Bank of Japan, "Tankan, Short-Term Economic Survey of Enterprises in Japan."

Forecasts of the Policy Board Members

- April 2012 -

y/y % chg.

	Real GDP	Domestic CGPI	CPI (all items less fresh food)
Fiscal 2011	− 0.2	+1.7	0.0
Forecasts made in January 2012	− 0.4	+1.8	− 0.1
Fiscal 2012	+2.3	+0.6	+0.3
Forecasts made in January 2012	+2.0	+0.1	+0.1
Fiscal 2013	+1.7	+0.8	+0.7
Forecasts made in January 2012	+1.6	+0.8	+0.5

Notes: 1. Figures indicate the median of the Policy Board members' forecasts.

2. The real GDP figures for fiscal 2011 are Policy Board members' estimates. The figures for the domestic CGPI and the CPI (all items less fresh food) are actual values.

Two-Perspective Approach

First Perspective: Baseline Scenario

- As regards economic activity and prices 1-2 years in the future, examine whether the outlook deemed most likely by the BoJ follows a path of sustainable growth with price stability.

Second Perspective: Upside/Downside Risks

- Examine, in a longer term, various risks that are most relevant to the conduct of monetary policy aimed at realizing sustainable growth with price stability.
- More specifically, the Bank may examine risk factors that will significantly impact economic activity and prices when they materialize although the probability is low.

Baseline Scenario (FY2012-13): Economic Activity

The economy is expected to return to a moderate recovery path in the first half of fiscal 2012.

[Two Forces]

- ✓ Overseas economies (esp. emerging and commodity-exporting economies)
- ✓ Reconstruction-related demand after the earthquake disaster

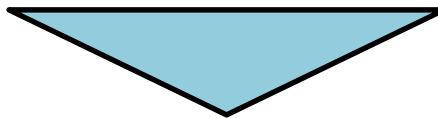
FY 2012 => Likely to register a relatively high rate of growth, supported by gradually increasing momentum.

FY 2013 => Expected to grow at a pace clearly above its potential.

Baseline Scenario (FY2012-13): Prices

1. The y/y rate of change in the CPI is expected to gradually rise to a range of above 0.5 percent and less than 1 percent toward the latter half of the projection period.
2. Thereafter, it will likely be not too long before the rate reaches the Bank's "price stability goal in the medium to long term"* of 1 percent for the time being.

* Price stability goal in the medium/long term => a positive range of 2 percent or lower in terms of the y/y rate of change in the consumer price index (CPI); more specifically, the Bank has set a goal of 1 percent for the time being.



Japan's economy will return to a sustainable growth path with price stability in the longer run.

Upside and Downside Risks

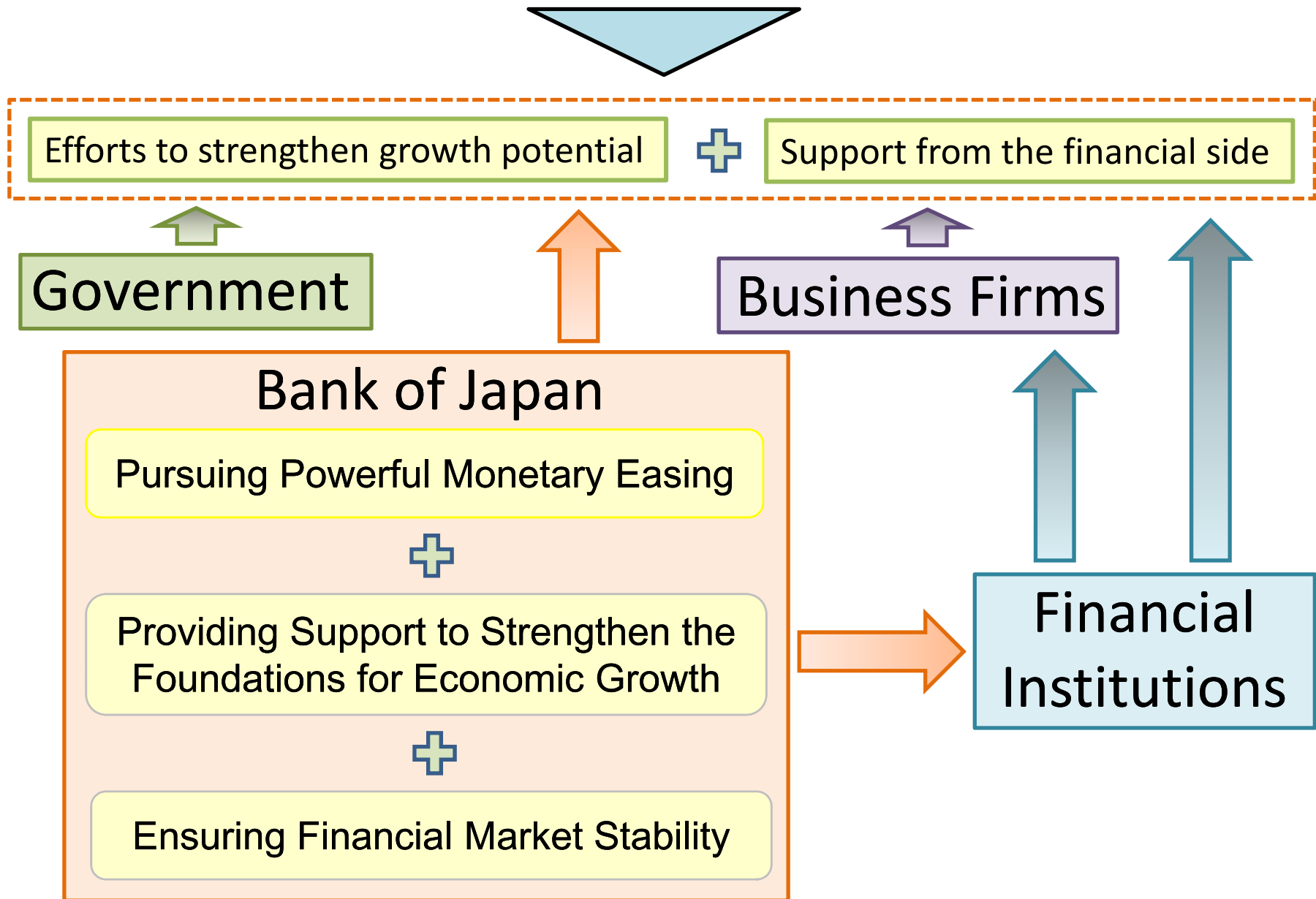
Economic Activity

- ✓ Developments in overseas economies
- ✓ Uncertainty wrt reconstruction-related demand
- ✓ Uncertainty wrt firms' and households' medium- to long-term growth expectations
- ✓ Japan's fiscal sustainability

Prices

- ✓ Possible effects of materialization of upside and downside risks to economic activity
- ✓ Firms' and households' medium- to long-term inflation expectations
- ✓ Developments in import prices

Overcoming Deflation



Conduct of Monetary Policy

Pursuing Powerful Monetary Easing

Comprehensive Monetary Easing

1. Pursuit of the virtually zero interest rate policy

--- Uncollateralized overnight call rate to remain at around 0-0.1 percent.

2. Purchase of financial assets through the Asset Purchase Program

--- Encouraging the decline in longer-term interest rates and various risk premiums through the purchase of various financial assets.

3. Clarification of policy time horizon

--- Pursuing powerful monetary easing until the Bank judges the goal of 1 percent in terms of y/y rate of increase in the CPI is in sight.

Providing Support to Strengthen the Foundations for Economic Growth

Fund-Provisioning Measure

--- Providing long-term (maximum duration of 4 years) funds at low rates (currently 0.1 percent per annum) to financial institutions carrying out lending/investment in support of strengthening the foundations for Japan's economic growth.

Ensuring Financial Market Stability

Providing Ample Funds

--- The Bank has been doing its utmost efforts to ensure financial market stability by utilizing various funds-supplying operations.

--- In foreign currencies, the Bank has conducted U.S. dollar funds-supplying operations and has established bilateral liquidity swap arrangements among 5 central banks.

Policy Measures since the Beginning of 2012

Decisions on February 14, 2012

Clarification of Monetary Policy Stance + Enhancement of Monetary Easing

- Introduction of “the Price Stability Goal in the Medium to Long Term”
- Clarification of the Bank’s Determination to Pursue Monetary Easing
- Increase in the Asset Purchase Program (About 55 tril. => About 65 tril. yen)

Decisions on March 13, 2012

Enhancement of “the Growth-Supporting Funding Facility”

- Establishment of Special Rules for New Arrangement for (a) Loans for Small-Lot Investments and (b) Loans in the U.S. Dollar.
- Increase in the Growth-Supporting Funding Facility (3.5 tril. => 5.5 tril. yen)
- Extension of the Deadline for Applications for New Loans (March 31, 2012 => March 31, 2014)

Decisions on April 27, 2012

Further Enhancement of Monetary Easing

- Increase in the Asset Purchase Program (About 65 tril. => About 70 tril. yen)
- Extension of the Remaining Maturity of JGBs and Corporate Bonds under the APP (1-2 yrs. =>1-3 yrs.)

Asset Purchase Program

The Program has had five increases, expanding to about 70 trillion yen from the initial size of about 35 trillion yen (the latest increase was decided on April 27).

— The increased purchases are to be completed by around the end of June 2013.

tril. yen

	Started in Oct. 2010	Mar. 2011	Aug. 2011	Oct. 2011	Feb. 2012	Apr. 2012	Amount outstanding as of June 10, 2012
Total size	35	40	50	55	65	70	50.6
JGBs	1.5	2.0	4.0	9.0	19.0	29.0	9.8
T-Bills	2.0	3.0	4.5	4.5	4.5	4.5	3.0
CP	0.5	2.0	2.1	2.1	2.1	2.1	1.9
Corporate bonds	0.5	2.0	2.9	2.9	2.9	2.9	2.1
ETFs	0.45	0.9	1.4	1.4	1.4	1.6	1.2
J-REITs	0.05	0.1	0.11	0.11	0.11	0.12	0.09
Fixed-rate operation	30.0	30.0	35.0	35.0	35.0	30.0	32.4
Intended time of completion	end-Dec. 2011	end-June 2012	end-Dec. 2012	end-Dec. 2012	end-Dec. 2012	end-June 2013	

Note: In addition to purchases under the Program, the Bank regularly purchases JGBs at the pace of 21.6 trillion yen per year.
Source: Bank of Japan.

QUESTION 1:

IS THE NEW FRAMEWORK “INFLATION TARGETING” ?

Price Stability Goal in the Medium to Long Term

1. Inflation rate that the Bank judges to be consistent with price stability sustainable in the medium to long term.
2. Positive range of 2 percent or lower in terms of the year-on-year rate of change in the consumer price index (CPI).
3. For the time being, a goal of 1 percent is set.

- ✓ Judgment by the Bank as a whole <=> “Understanding of medium- to long-term price stability” = The views of individual Policy Board members.
- ✓ Strong “policy duration effects” = The goal is clearly linked to the Bank’s policy commitment on the duration of powerful monetary easing.
- ✓ Review = The goal will be reviewed once a year in principle.

How to Quantify "Price Stability"

Nation	Definition		Reference	Time horizon	Additional explanation
			Numerical expression		
Japan	The price stability goal in the medium to long term	The inflation rate judged by the Bank to be consistent with price stability sustainable over the medium to long term	CPI	Medium to long term	The Bank will continue with the powerful easing, conducting its virtually zero interest rate policy and implementing the Asset Purchase Program through the purchase mainly of financial assets, until it judges the 1 percent goal to be in sight, though on condition that it identifies no significant risk to the ability to sustain economic growth, such as from the accumulation of financial imbalances.
			a positive range of 2 percent or lower; a goal of 1 percent for the time being		
U.S.	Longer-run goal for inflation	The rate of inflation that each FOMC participant judges to be most consistent over the longer run with the Federal Reserve's statutory mandate	PCE	Longer run	Communicating the inflation goal clearly to the public helps keep longer-term inflation expectations firmly anchored, thereby fostering price stability and moderate long-term interest rates and enhancing the Committee's ability to promote maximum employment in the face of significant economic disturbances.
			2%		
Euro area	Quantitative definition	A quantitative definition of price stability announced by the ECB's Governing Council	HICP	Medium term	—
			Below, but close to, 2%		
U.K.	Inflation Target	Price stability is defined by the U.K. government's inflation target, which is announced each year by the Chancellor of the Exchequer in the annual Budget statement	CPI	Reasonable time period	The MPC's aim is to set interest rates so that inflation can be brought back to target within a reasonable time period without creating undue instability in the economy. If the target is missed by more than 1 percentage point on either side, the Governor must write an open letter to the Chancellor explaining the reasons for the deviation and the BOE's proposal to ensure inflation comes back to the target.
			2%		

Inflation Targeting ?

Speech by Governor Shirakawa (February 17, 2012)

- Given that the monetary policy frameworks of major central banks have converged..., I think it no longer important to play with the taxonomy of which one is inflation targeting or not.
- If the new monetary policy framework adopted by the U.S. Federal Reserve can be called inflation targeting, a similar view could be taken in the case of the Bank's new framework.

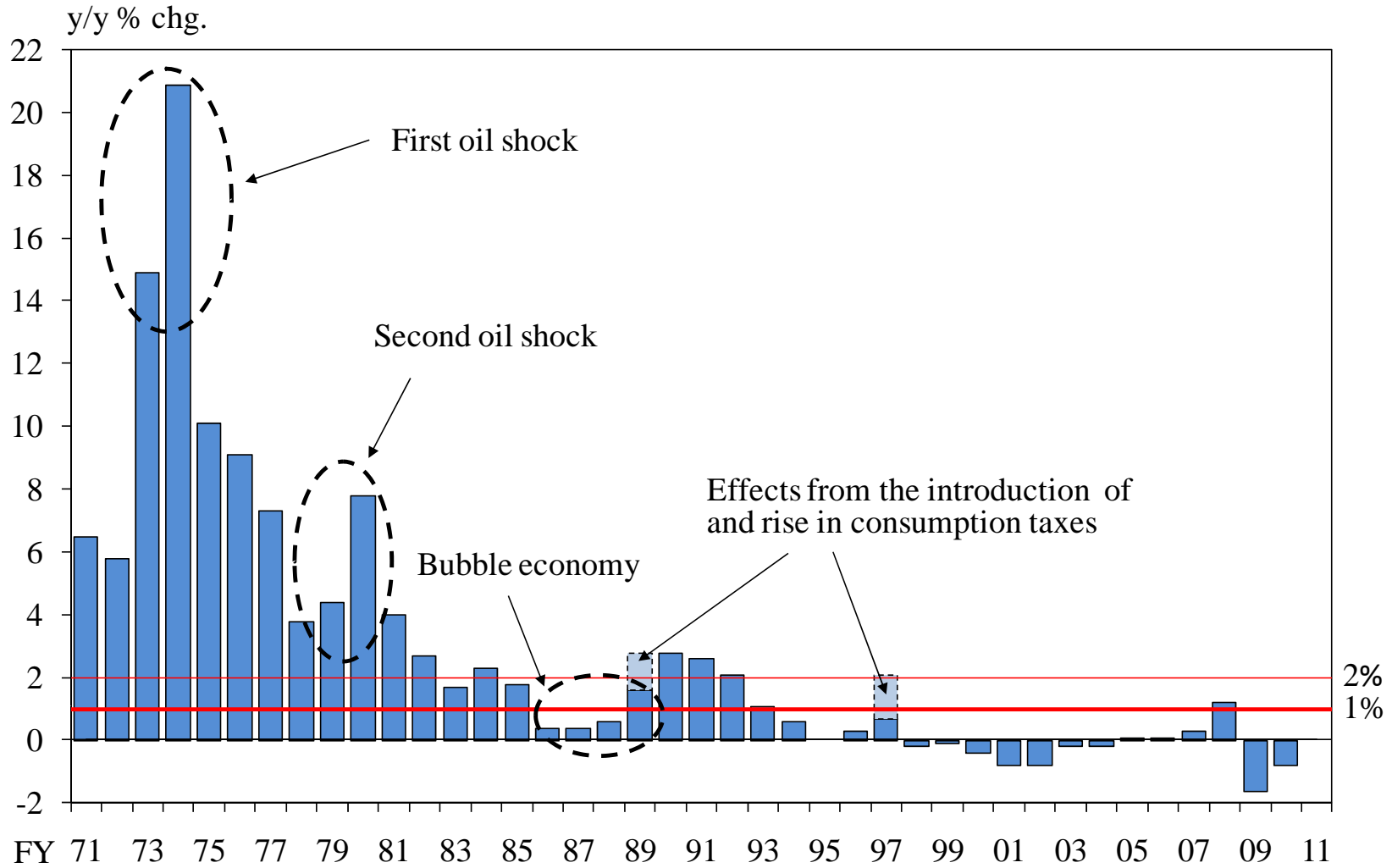
Speech by Deputy Governor Nishimura (April 18, 2012)

- [The Bank's] basic thinking ... has not changed with this introduction [of the price stability goal in the medium to long term].
- I feel no discomfort in referring to the "goal" as a flexible inflation target.

QUESTION 2:

WHY 1 PERCENT INSTEAD OF 2 PERCENT ?

Consumer Price Index in Japan



Note: All items less fresh food.

Source: Ministry of Internal Affairs and Communications.

Consumer Price Index in Major Economies

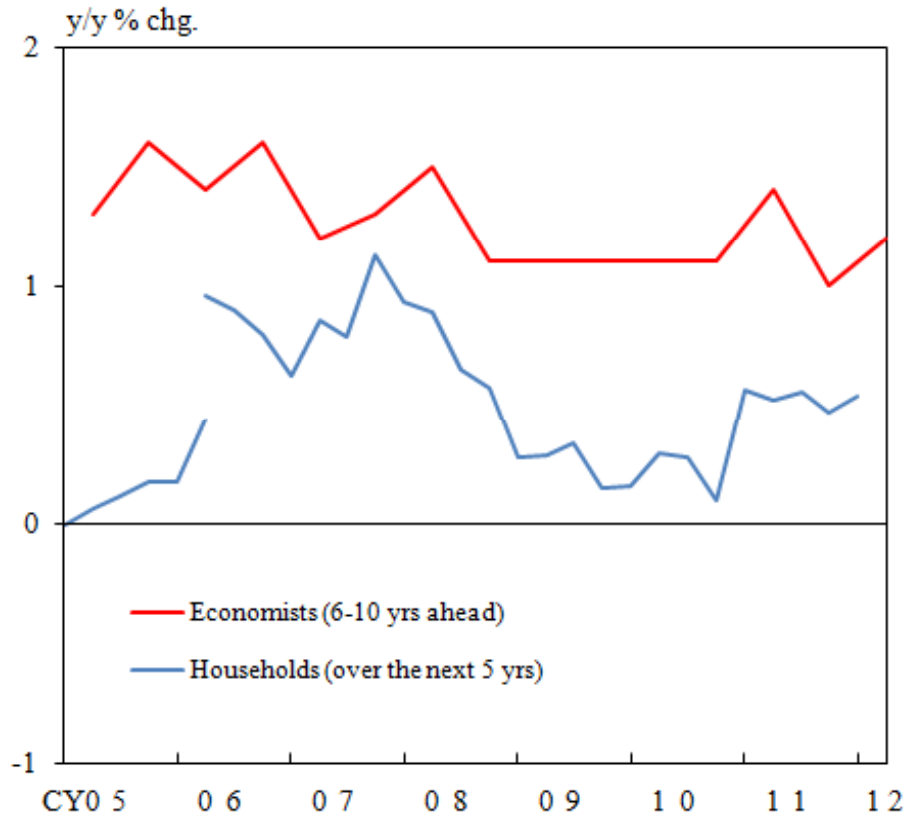
avg., y/y % chg.

	Japan	United States	Germany	United Kingdom	France	Italy	Canada	G7
1981-1985	2.8	5.5	3.9	7.2	9.7	13.8	7.5	6.1
1986-1990	1.3	4.0	1.4	4.8	3.1	5.7	4.5	3.4
1991-1995	1.4	3.1	3.6	3.8	2.2	5.1	2.3	3.0
1996-2000	0.3	2.5	1.3	1.6	1.2	2.4	1.7	1.9
2001-2005	-0.4	2.6	1.5	1.4	1.9	2.4	2.3	1.9
2006-2010	-0.1	2.2	1.6	2.8	1.5	1.9	1.7	1.8
All period (1981-2010)	0.9	3.3	2.2	3.6	3.3	5.2	3.3	3.0

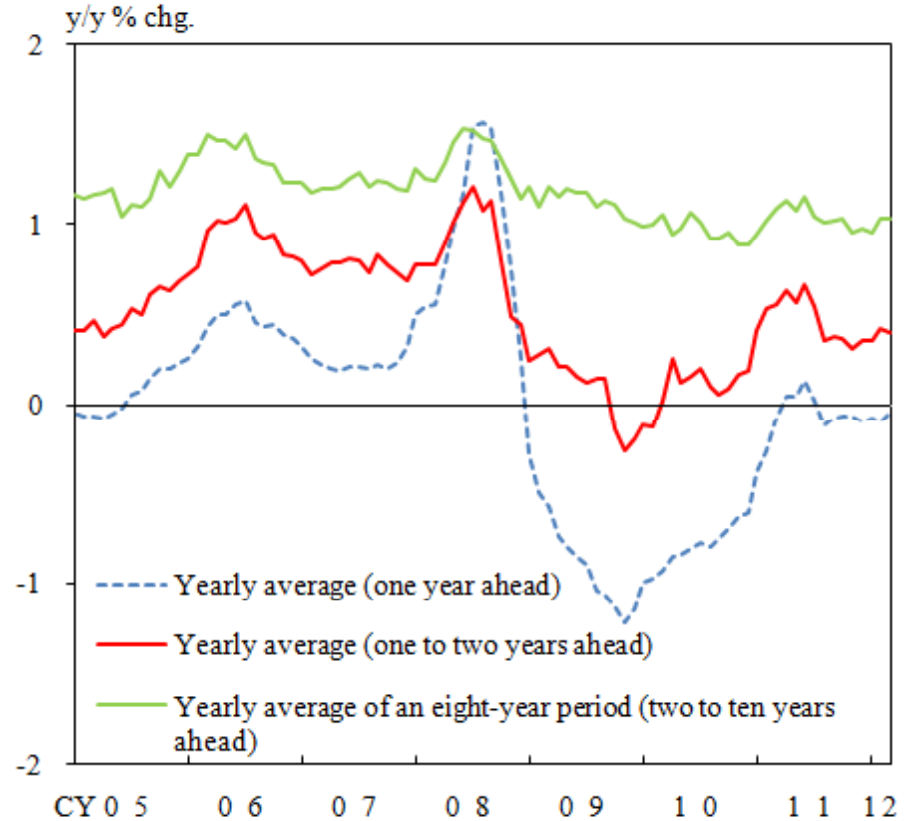
Note: Figures are taken from "CPI all items" in OECD "Main Economic Indicators." Figures for G7 are weighted average released by the OECD.
Source: OECD.

Inflation Expectations

Economists, Households



Market Participants



Note: Figures for Economists are taken from Consensus Forecasts, and those for Households are from Opinion Survey on the General Public's Views and Behavior. Figures for Households are estimated using the modified Carlson-Parkin method. For details, see "On Inflation Expectations," Bank of Japan Review Series, 2008-J-15 (available in Japanese only).

Sources: Bank of Japan, "Opinion Survey on the General Public's Views and Behavior"; Consensus Economics Inc., "Consensus Forecasts"; QUICK, "Quick Bond Monthly Survey."

Why not 2 percent ?

Minutes of the Monetary Policy Meeting (February 13-14, 2012)

- One member commented that, from a long-term perspective, the Bank should aim to achieve an inflation rate that many other major economies commonly pursued -- at present, 2 percent -- so that the foreign exchange rate would not move to a long-term trend of being one-sided.
- A different member said that it was not necessarily essential for the Bank to aim to achieve the same level of inflation, given that the economic situation facing Japan differed from those faced by other major economies.
- [M]embers agreed that the inflation rate that the Bank should aim to achieve ought to be set at 1 percent for the time being, and that it would be appropriate to express the inflation rate with a degree of latitude as "a positive range of 2 percent or lower in terms of the year-on-year rate of change in the CPI," since the inflation rate that the Bank should aim to achieve over the medium to long term could change in the longer run.

Why not 2 percent ? (cont.)

Speech by Governor Shirakawa (June 4, 2012)

- Simply announcing out of the blue that the Bank aims to achieve 2 percent inflation is not enough. Above all, this might raise unnecessary uncertainties for businesses and households. ... There would be a risk of a premature rise in long-term yields before actual prices and wages start to rise. Under such circumstances, the prices of Japanese government securities ... would go down, thereby heightening the risk of undermining [financial] institutions' lending activities.
- [T]he Bank will review “the price stability goal ...” once a year while analyzing the level of progress that has been made toward strengthening the growth potential and the changes that have occurred in the general public's perception of prices.

QUESTION 3:

**WILL THE LARGE-SCALE PURCHASE OF
GOVERNMENT BONDS UNDERMINE
THEIR CREDIBILITY ?**

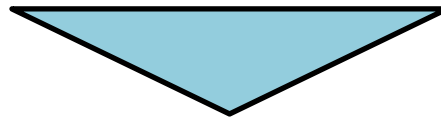
Large-Scale Purchase of JGBs: 2 Purposes

Regular Purchase

- The Bank regularly purchases JGBs under the ceiling of the amount of banknotes in circulation. Rationale => It should hold long-term assets (JGBs) as long as such purchases are in line with an increasing trend of demand for banknotes (i.e., long-term liabilities for the Bank).

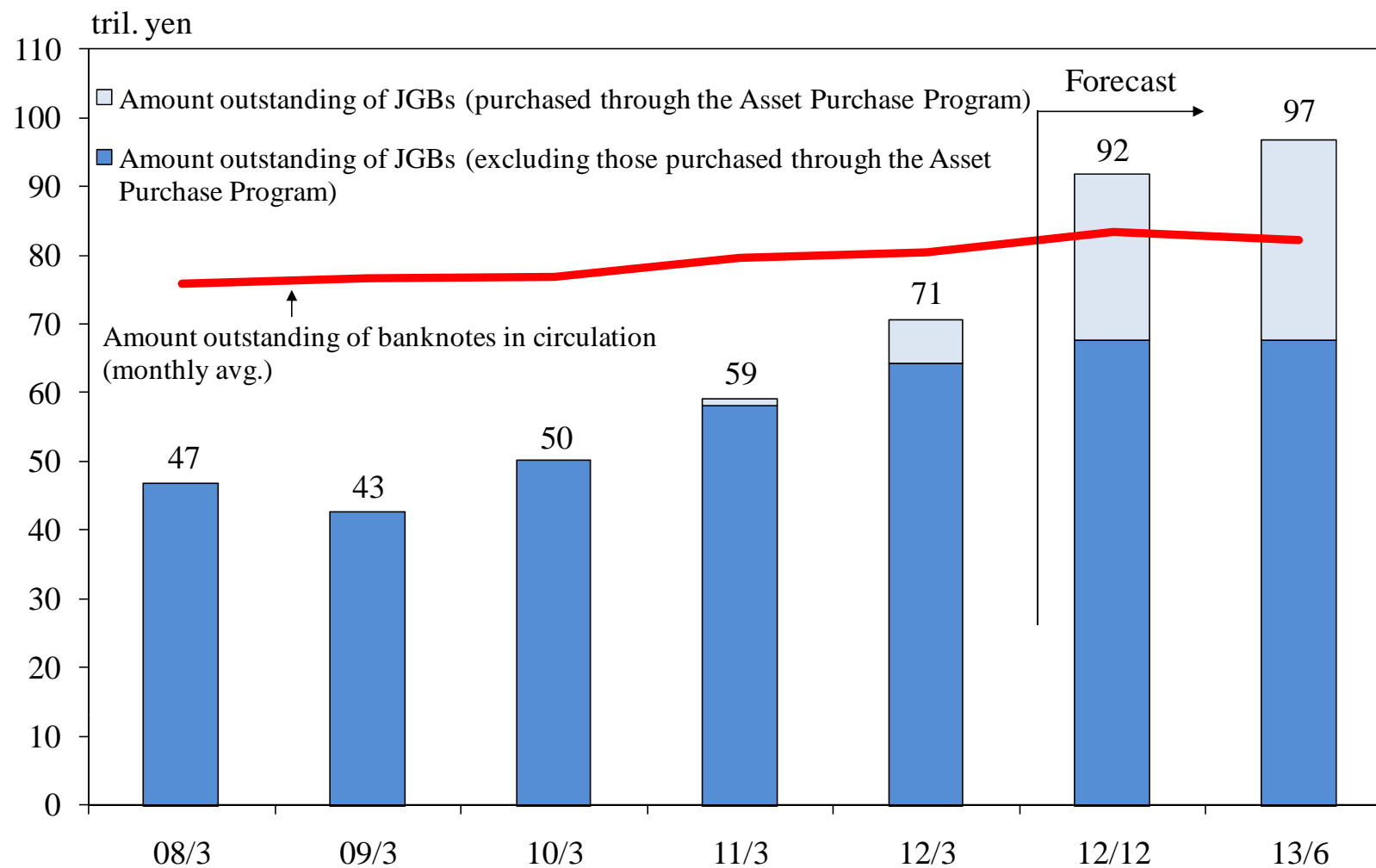
Purchase under the Asset Purchase Program

- The Bank purchases JGBs through the Program with a view to pursuing its powerful monetary easing. This is not restricted to the ceiling of the amount of banknotes.



The Bank's purchase of JGBs is NOT intended as monetizing government debt.

Amounts Outstanding of the Bank's JGB Holdings



Notes: 1. Figures for the amount outstanding of JGBs are as of the end of each month.

2. The average annual growth rate for the latest three months used to forecast banknotes in circulation in December 2012 and June 2013 is that for December 2011 to February 2012, excluding the figure for March 2012, which was significantly affected by the Great East Japan Earthquake.

Source: Bank of Japan.

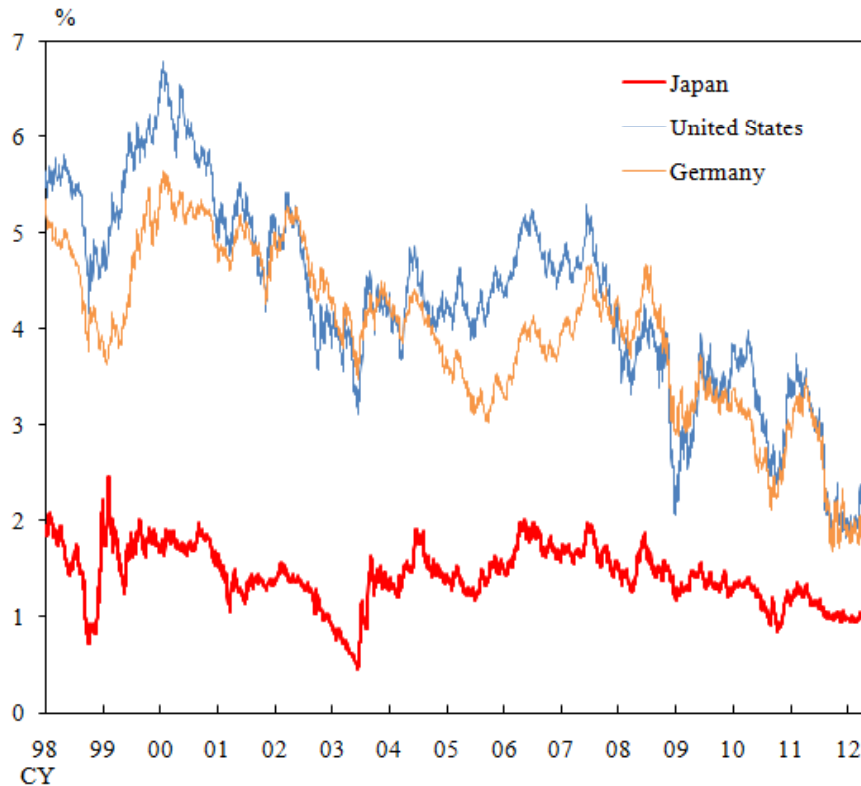
Importance of Maintaining Credibility

Minutes of the Monetary Policy Meeting (May 22-23, 2012)

- Members shared the view that, given that the Bank was pursuing powerful monetary easing in a severe fiscal situation, it was extremely important that the credibility of fiscal sustainability in financial markets be maintained to ensure the effectiveness of monetary policy transmission, as well as the stability of the financial system and sustainable growth of Japan's economy.
- Some members, noting that long-term interest rates had declined further, said that attention needed to be paid to a risk of an abrupt jump in these rates, which could be triggered by future events. One of these members commented that the effects of monetary easing would be curtailed if a rise in longer-term interest rates adversely affected the financial conditions of financial institutions.

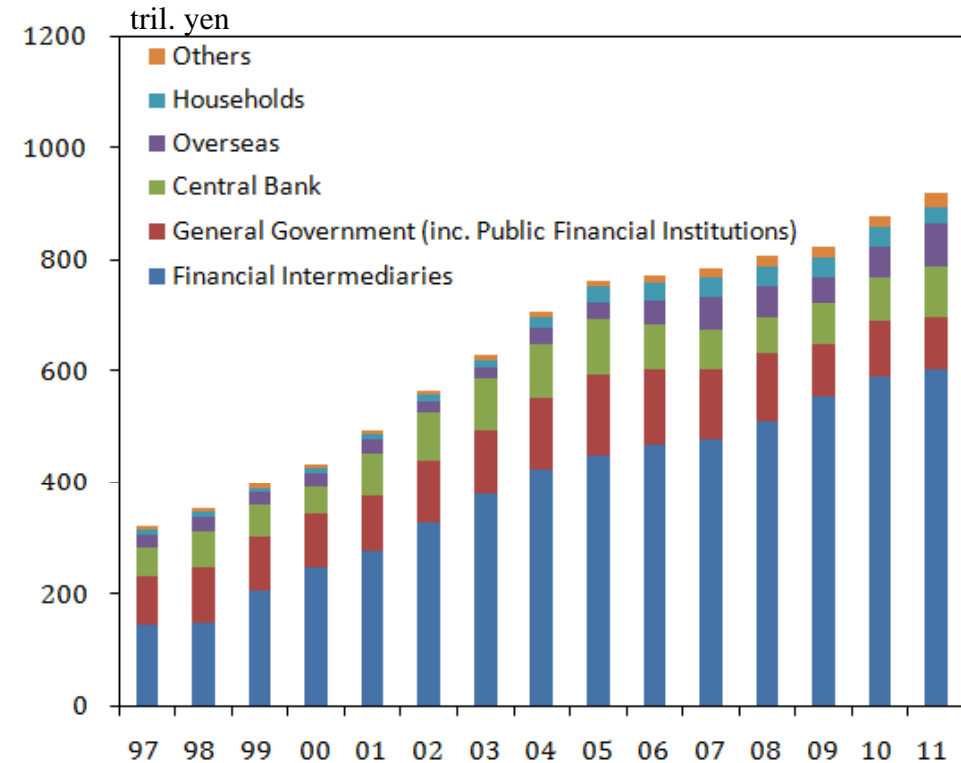
Ownership Structure of JGBs

Long-Term Interest Rates in Major Countries
(10-yr Government Bond Yields)



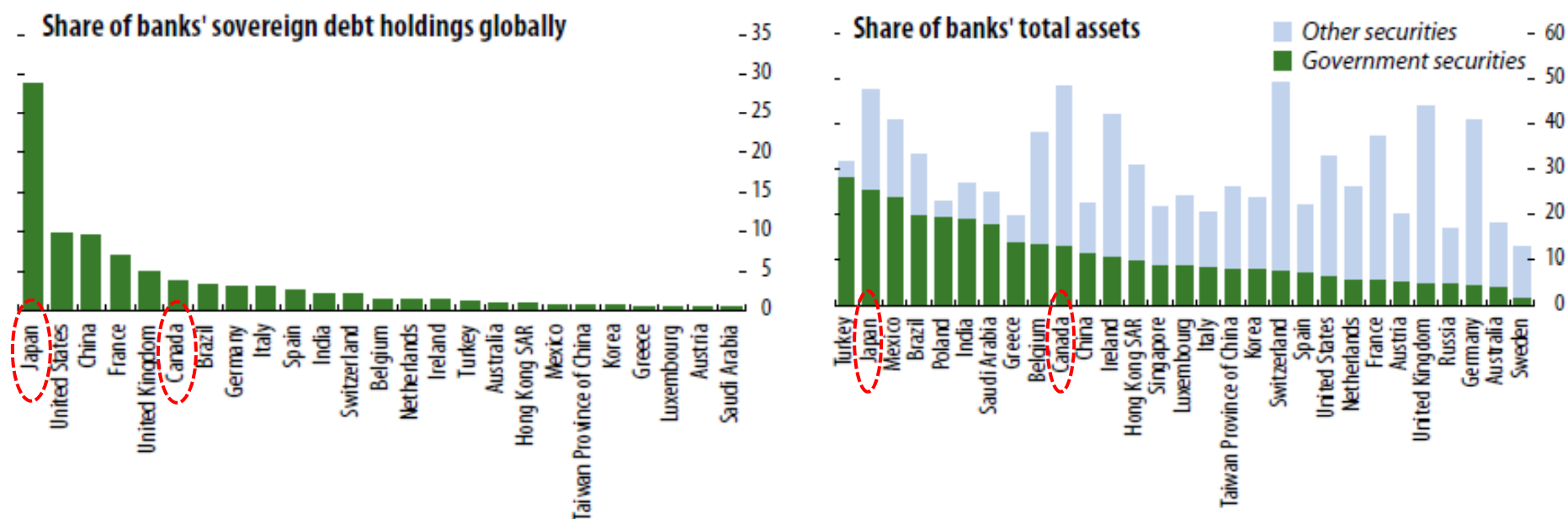
Source: Bloomberg.

Amounts Outstanding of Government Bonds
and Treasury Bills Held by Sectors



Source: Bank of Japan, "Flow of Funds Statistics."

Banks' Holdings of Sovereign Debt



Note: Estimates are based on data from Bankscope; thus, they reflect only data for banks, mostly large banks. Data are as of the end of September 2011 or the latest available.

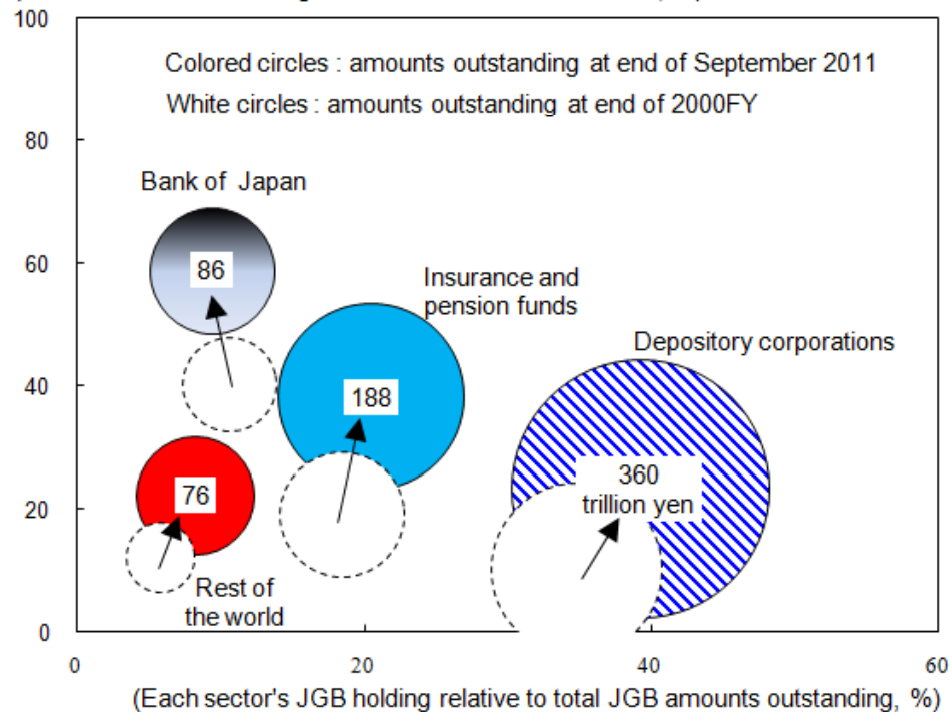
Source: IMF, *Global Financial Stability Report*, Figure 3.7.

Ownership Structure of Government Securities: Japan and the United States

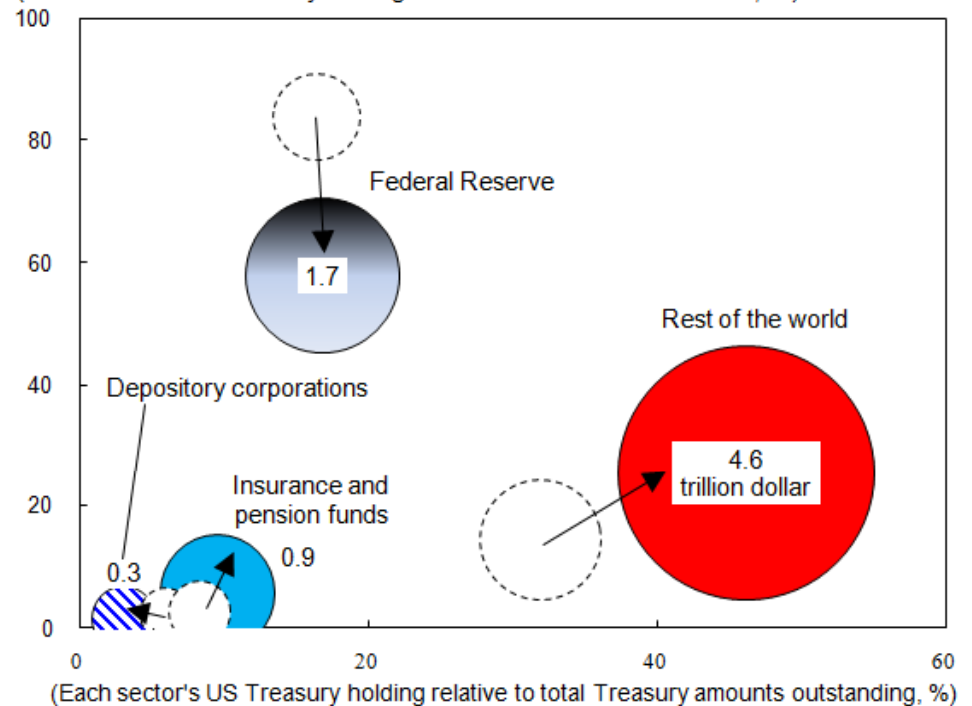
Japan

United States

(Each sector's JGB holding relative to total financial assets, %)



(Each sector's US Treasury holding relative to total financial assets, %)



Notes: For Japan, JGB is the sum of treasury discount bills, central government securities, and Fiscal Investment and Loan Program bonds.

For the United States, US Treasury is the sum of treasury bills and other treasury securities (excluding savings bonds which are unmarketable).

For the definition of financial intermediaries in the United States, please refer to "Flow of Funds – Overview of Japan, the United States and the Euro Area -".

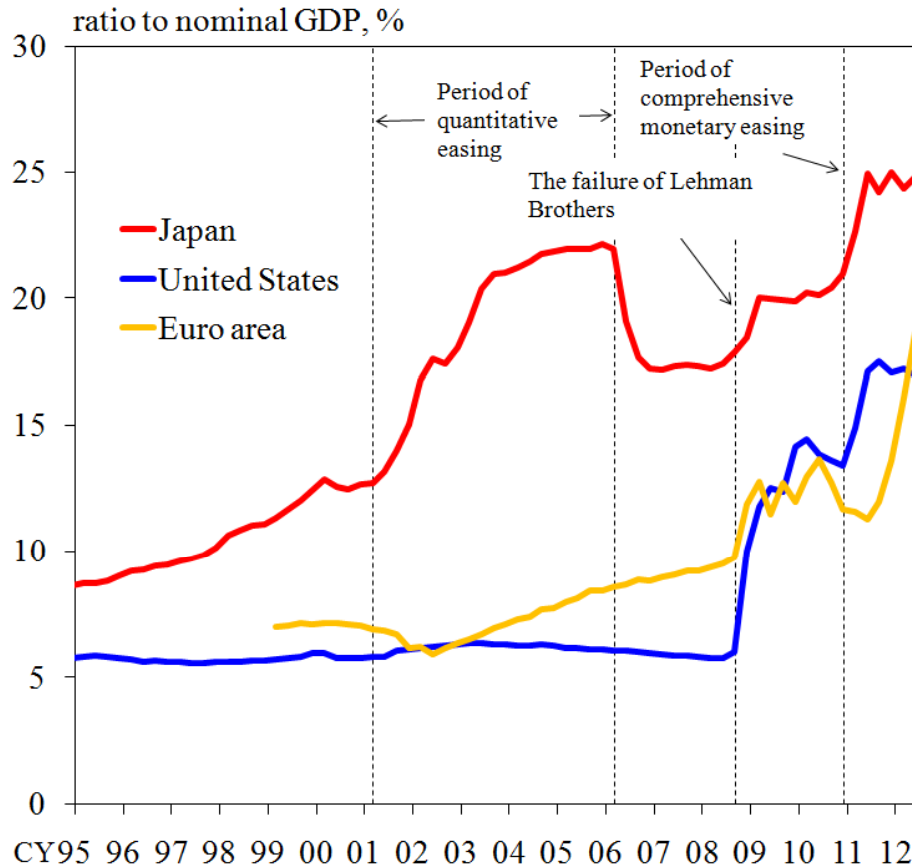
Source: FRB, "Flow of Funds Accounts of the United States"; Bank of Japan, "Flow of Funds Statistics."

QUESTION 4:

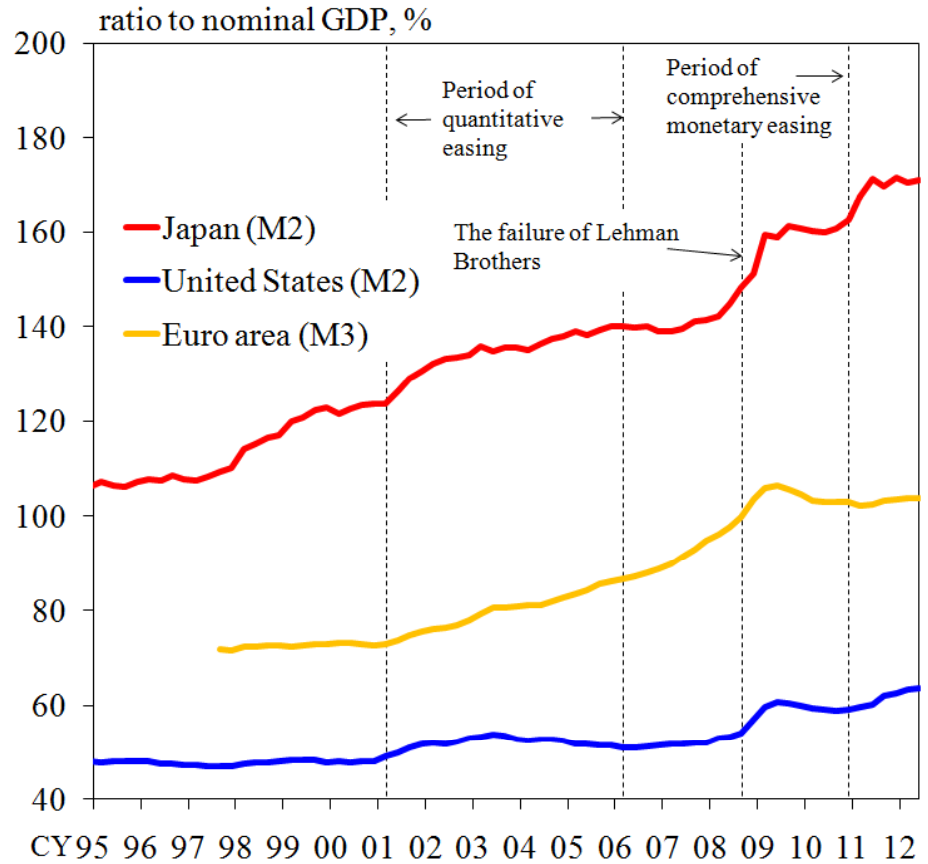
**SHOULD MONETARY POLICY BE
MORE AGGRESSIVE ?**

Monetary Aggregates

Monetary Base



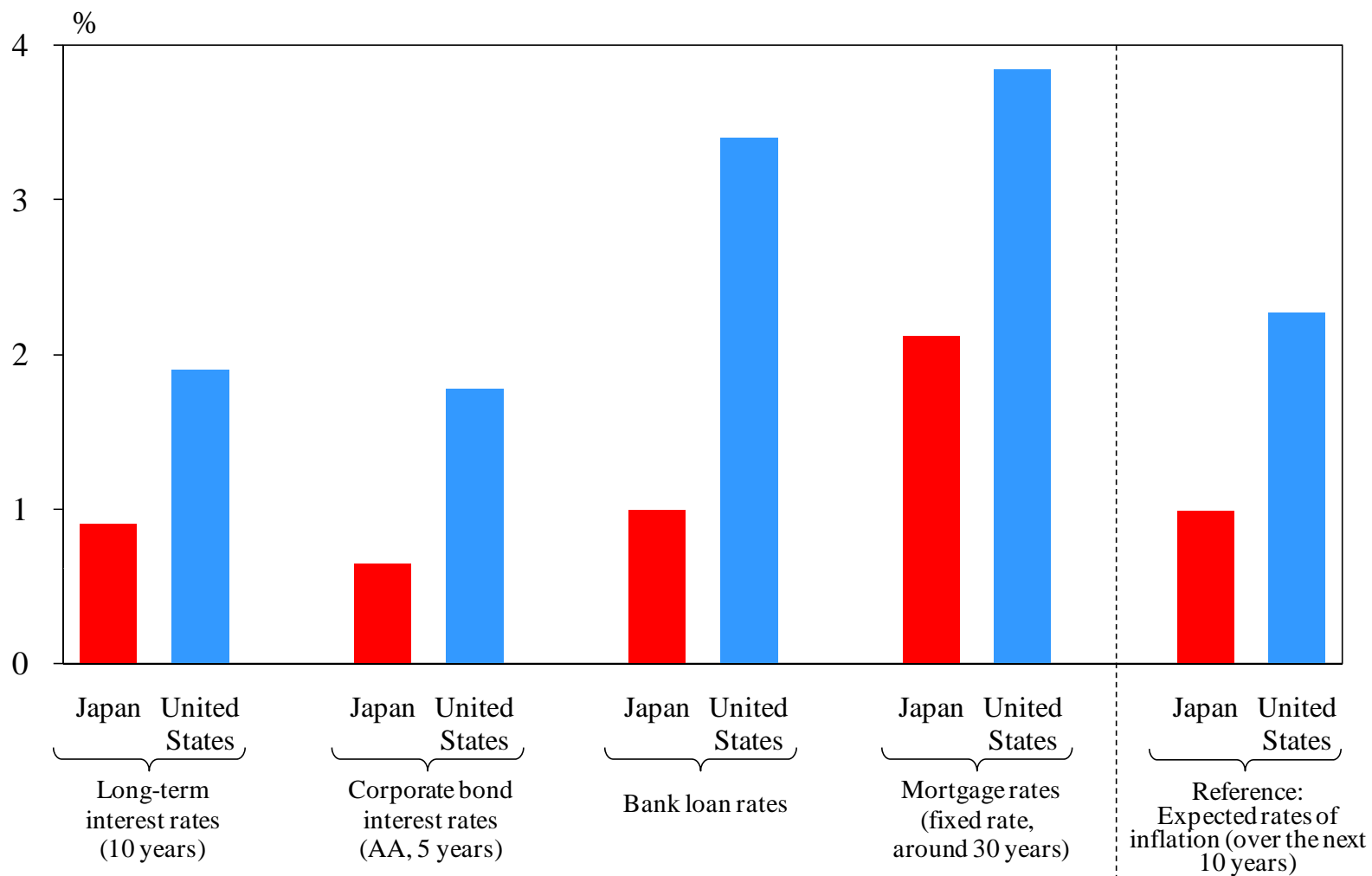
Money Stock



Note: Monetary base is the sum of banknotes in circulation, coins in circulation, and current account deposits at a central bank.

Sources: Cabinet Office; Bank of Japan; Federal Reserve; Bureau of Economic Analysis; European Central Bank; Eurostat.

Financial Conditions in Japan and the United States



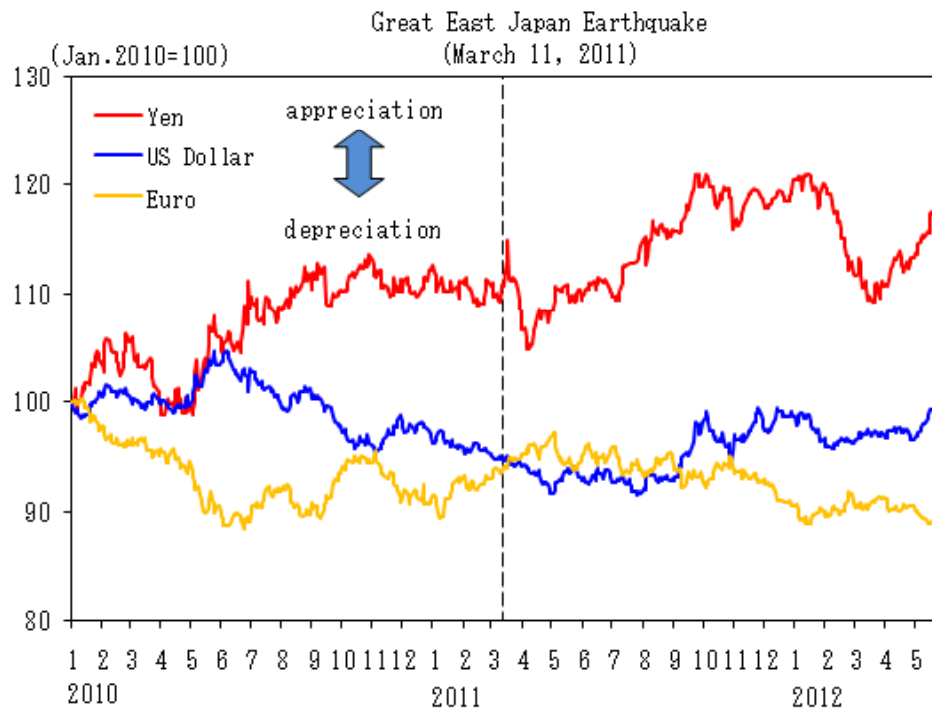
Notes: 1. Long-term interest rates, corporate bond interest rates, and mortgage rates are the averages for April-May 2012.

2. Loan rates are those for 2012/Q1 and expected rates of inflation are those for 2012/Q2.

Sources: Japan Housing Finance Agency; Freddie Mac; Bank of Japan; FRB; Consensus Forecasts; Bloomberg.

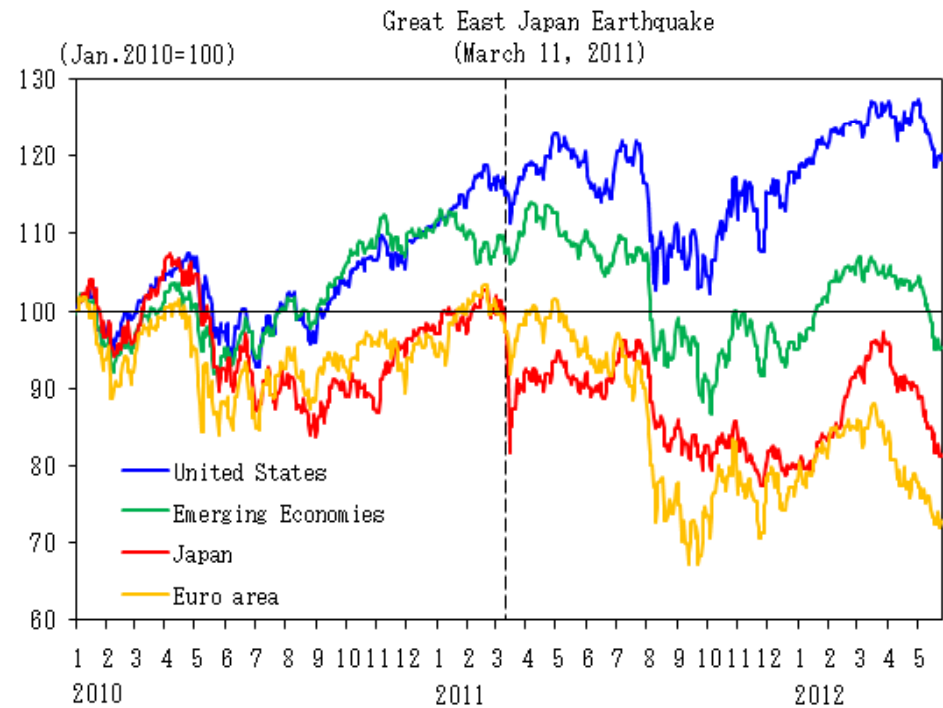
Financial Markets

Nominal Effective Exchange Rates



Source: Bloomberg.

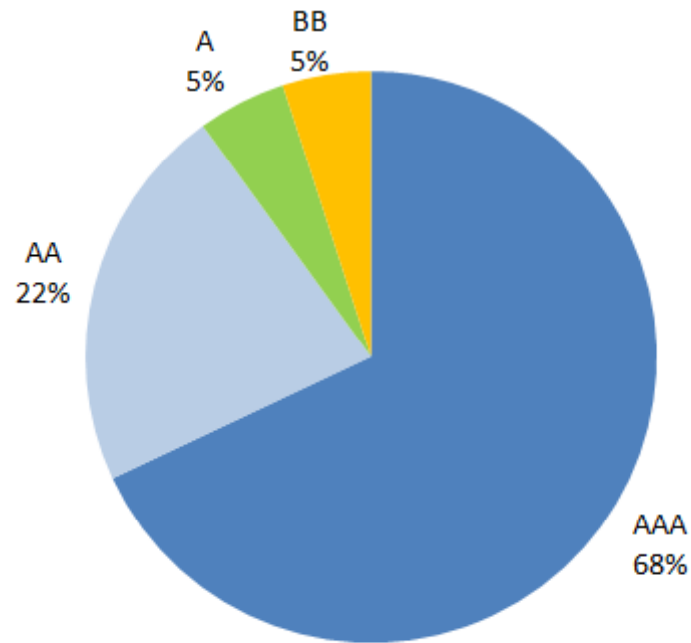
Stock Prices



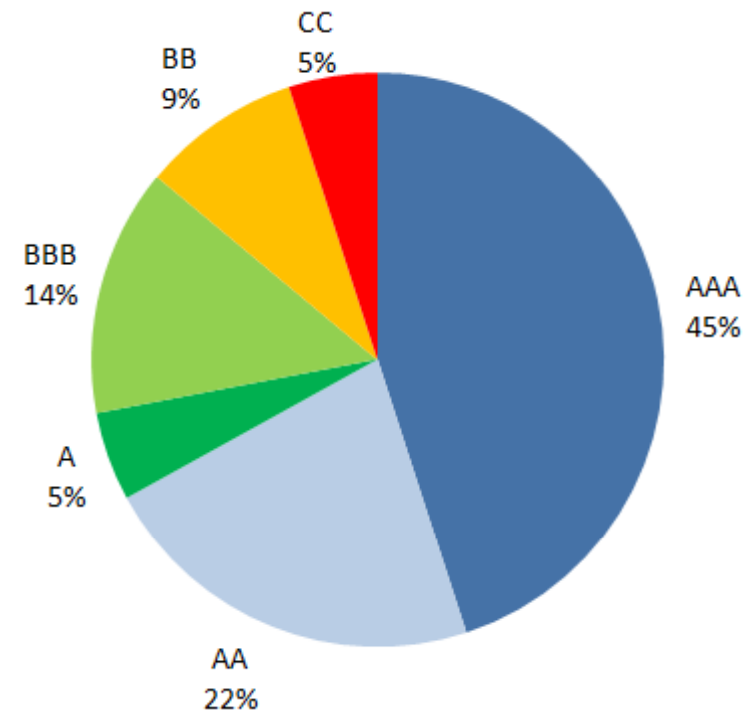
Source: Bloomberg.

Sovereign Debt Ratings of 22 OECD Countries

Distribution of Ratings in 2005



Distribution of Ratings in 2012



Note: Based on the S&P's long-term foreign currency ratings. 22 OECD member countries since 1970 are included. They are namely Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States.

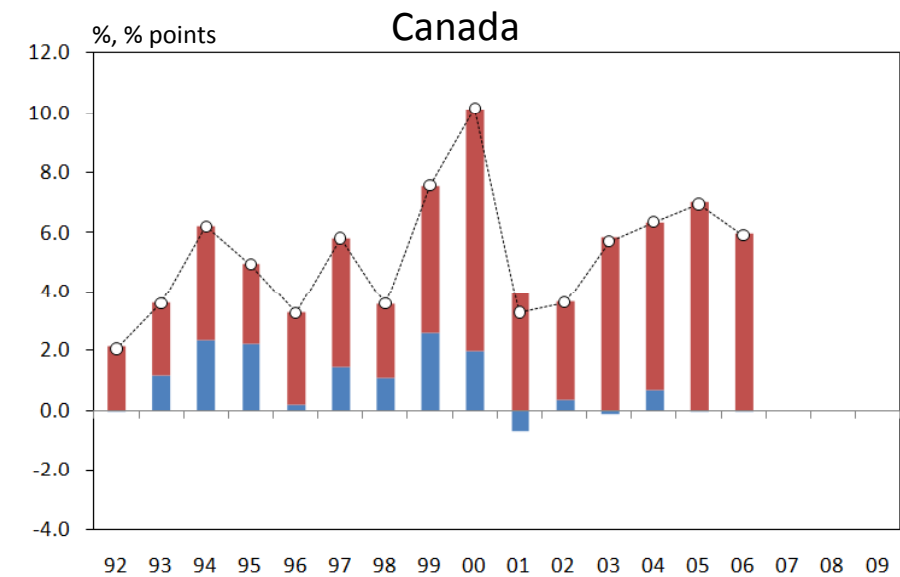
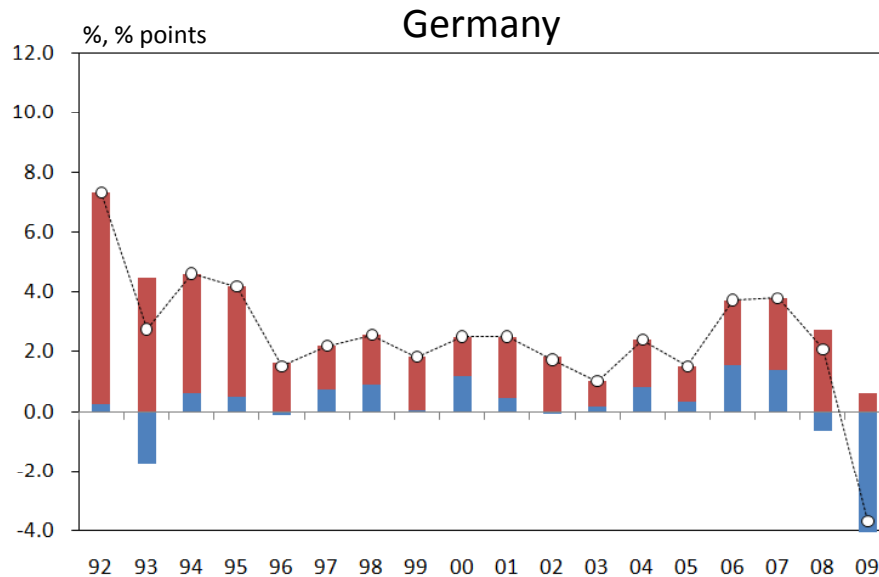
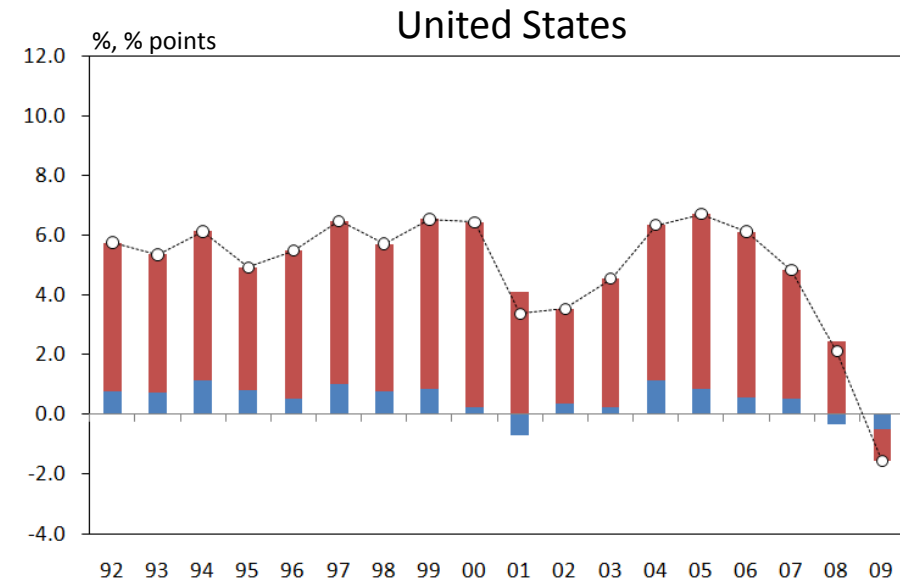
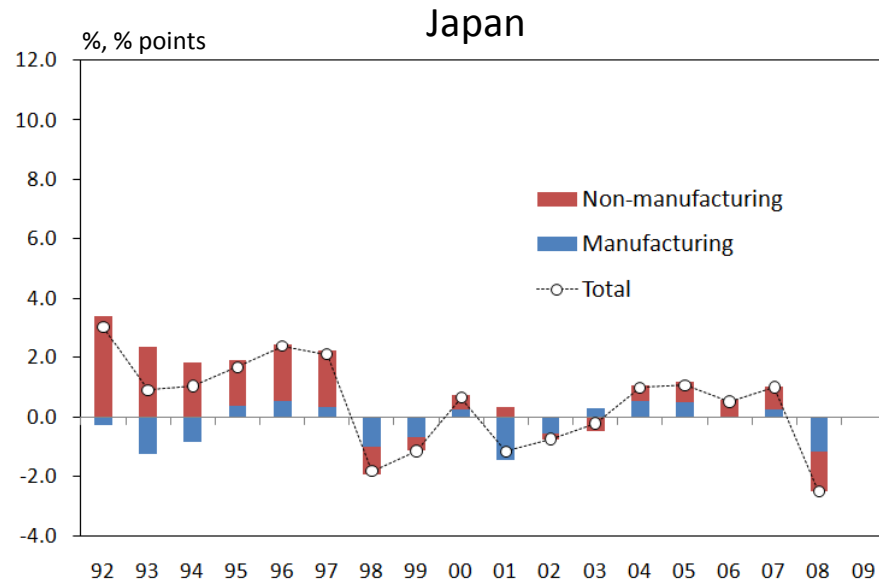
Source: Standard and Poor's, IMF.

QUESTION 5:

**ROLE OF MONETARY POLICY FOR ENHANCING
GROWTH POTENTIAL ?**

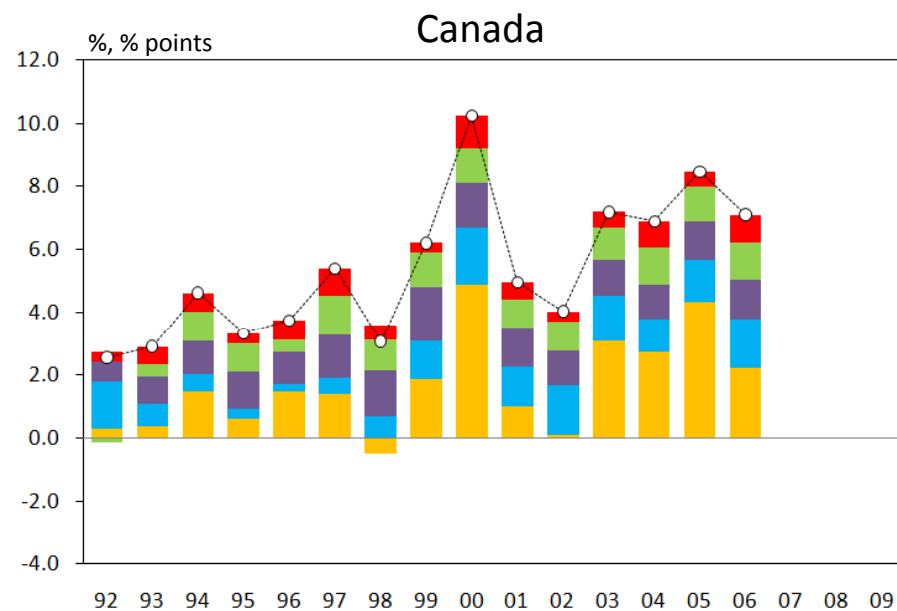
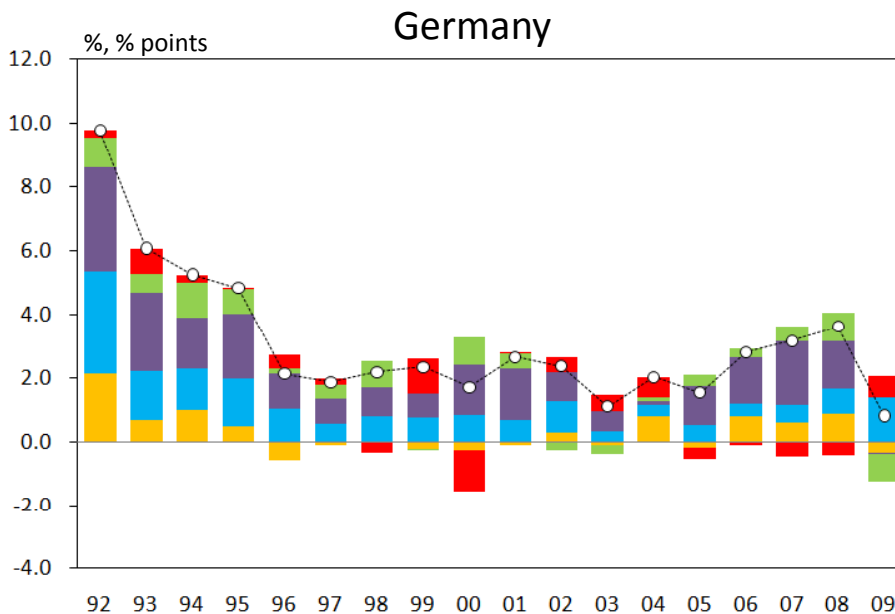
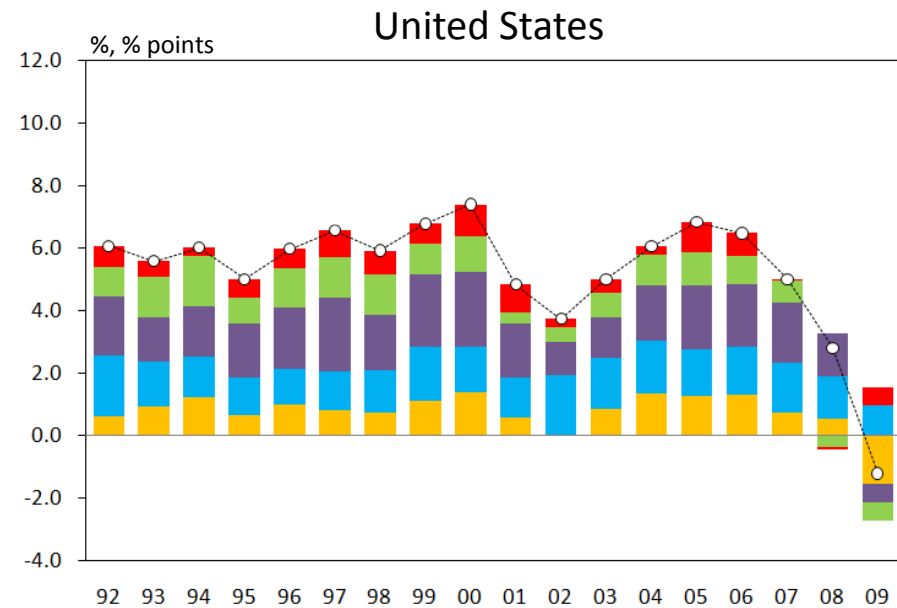
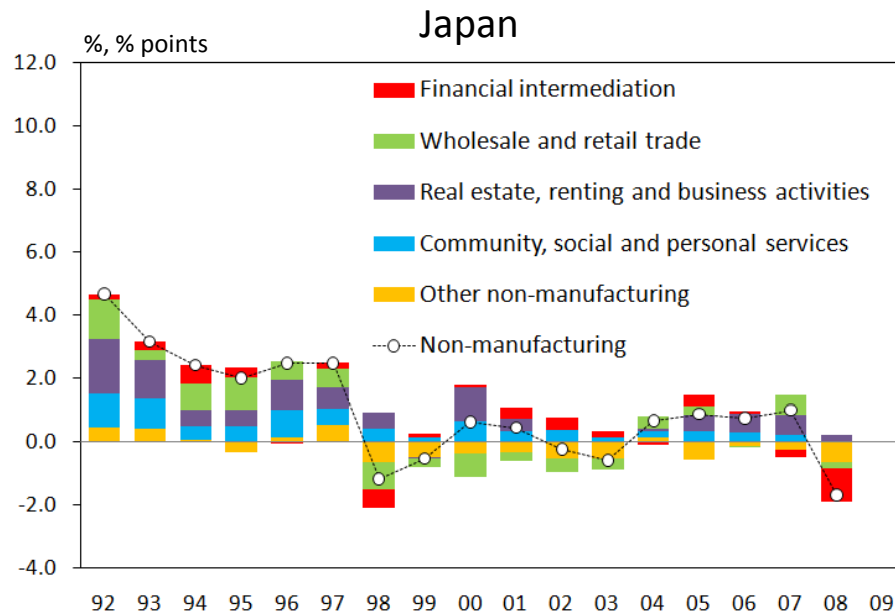
Performance of Business Sector

- Value-added by Manufacturing and Non-manufacturing Industries -



Note: Year-on-year percent changes of the value-added by total industries, and contribution to changes by manufacturing and non-manufacturing industries.
Source: OECD.

Value-added by Non-manufacturing Industries



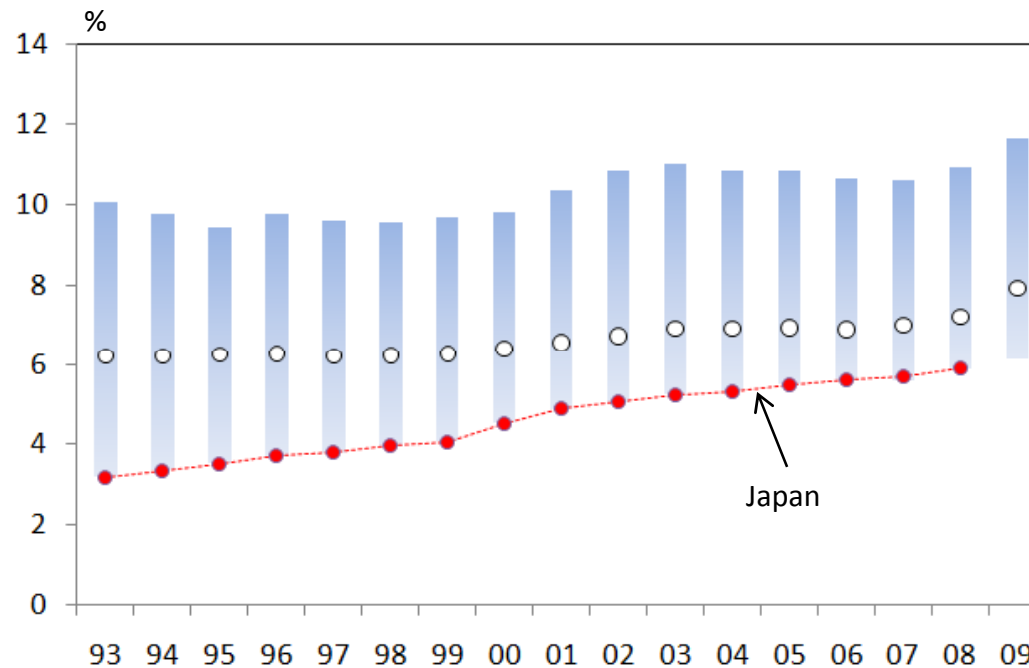
Note: Year-on-year percent changes of the value-added by non-manufacturing industry, and contribution to changes by respective non-manufacturing industries.
Source: OECD.

Medical and Nursing Care

	Japan	Germany	United States	France	United Kingdom
Population over 65 years (Change from 2000 to 2010, percent)	33	25	16	11	11
Expenditure for health care (Change from 2000 to 2008, percent)	11	25	74	49	85

Sources: United Nations; OECD.

Share of Value-added by Health and Social Work Industry Among G10 Economies

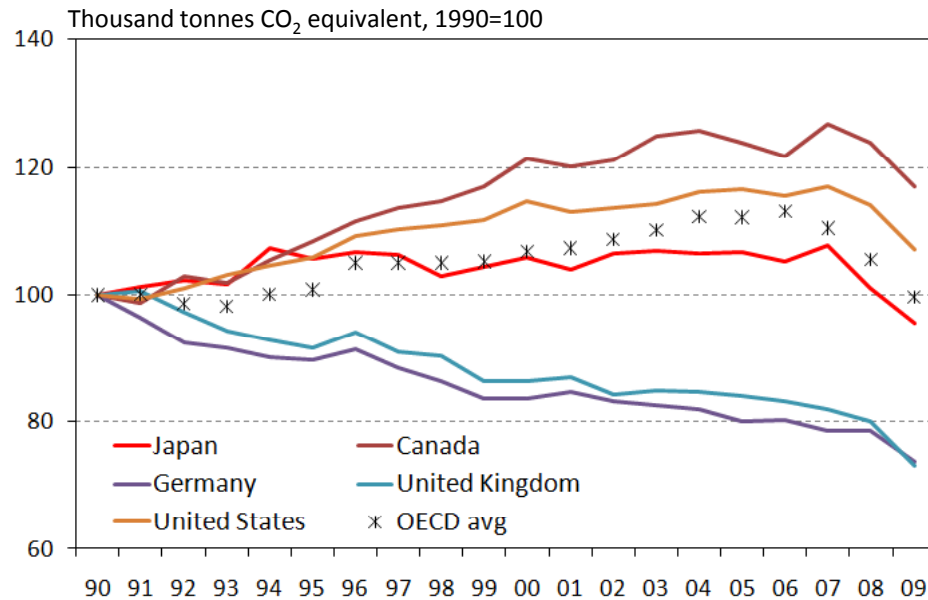


Note: Share of the value-added produced by the health and social work service industry relative to the value-added by total industry.
Blue bars represent minimum and maximum shares among the G10 economies with white dots representing the median.

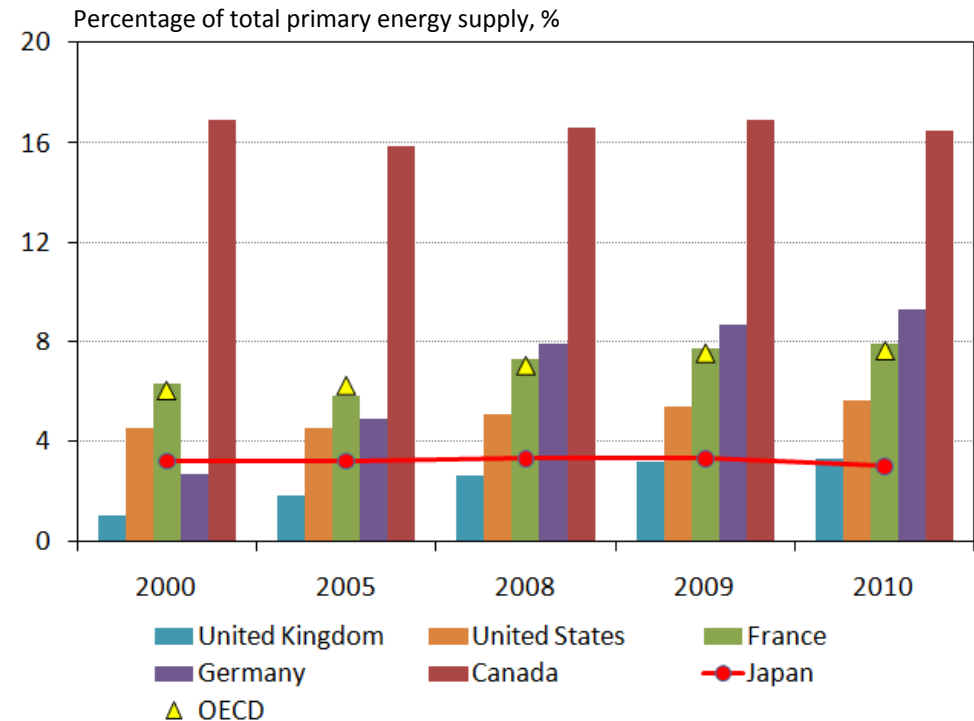
Source: OECD.

Environment and Energy Business

Greenhouse Gas Emissions



Contribution of Renewals to Energy Supply



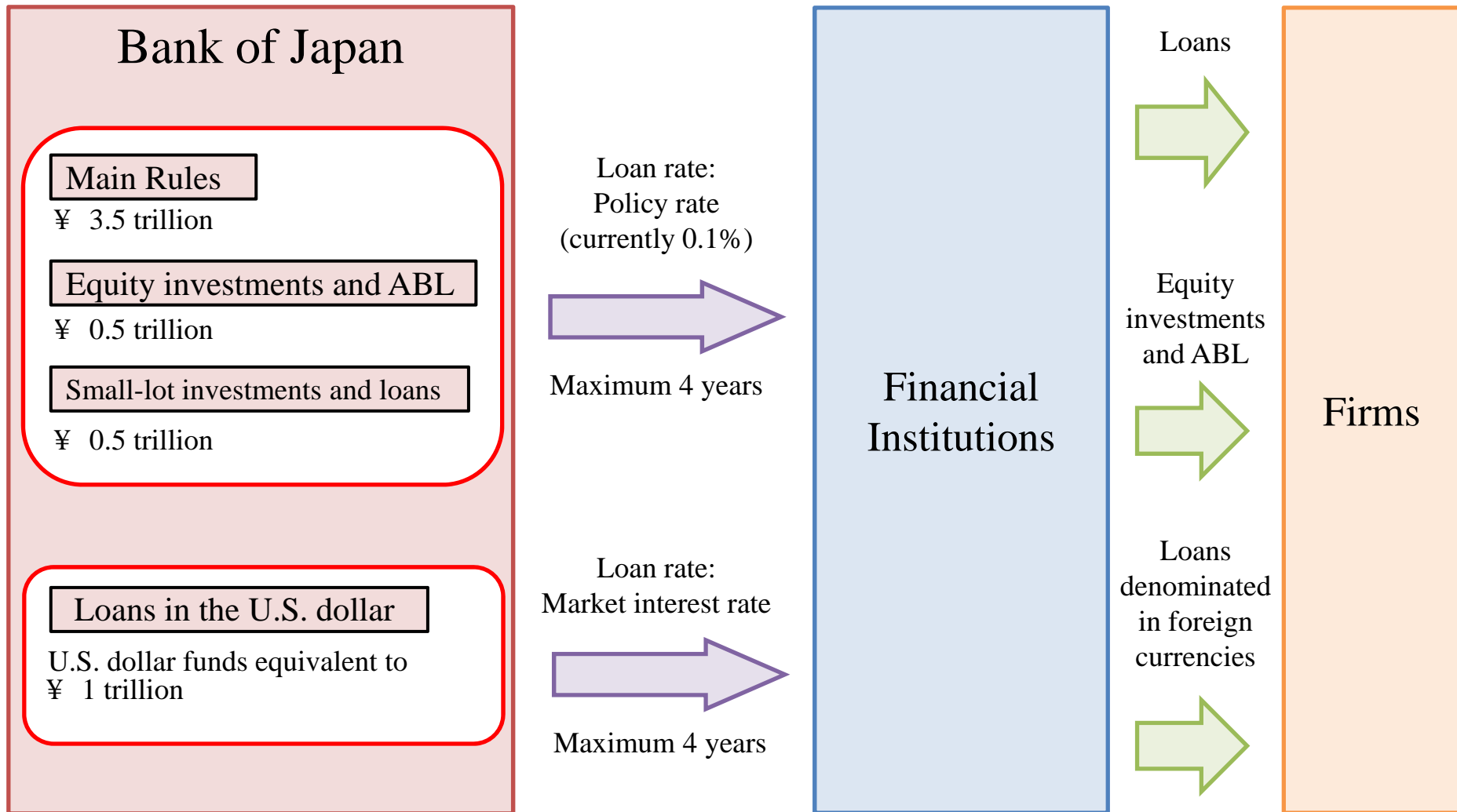
Notes: Greenhouse gas emissions data refer to total emissions of CO₂ (emissions from energy use and industrial processes, e.g. cement production), CH₄, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulphur hexafluoride.

Contribution of renewables to total primary energy supply (TPES). Renewables include the primary energy equivalent of hydro (excluding pumped storage), geothermal, solar, wind, tide and wave. It also includes energy derived from solid biofuels, biogasoline, biodiesels, other liquid biofuels, biogases, and the renewable fraction of municipal waste.

Source: OECD.

Growth-Supporting Funding Facility

=> Playing a catalytic role in encouraging financial institutions' new lending to businesses with growth potential.

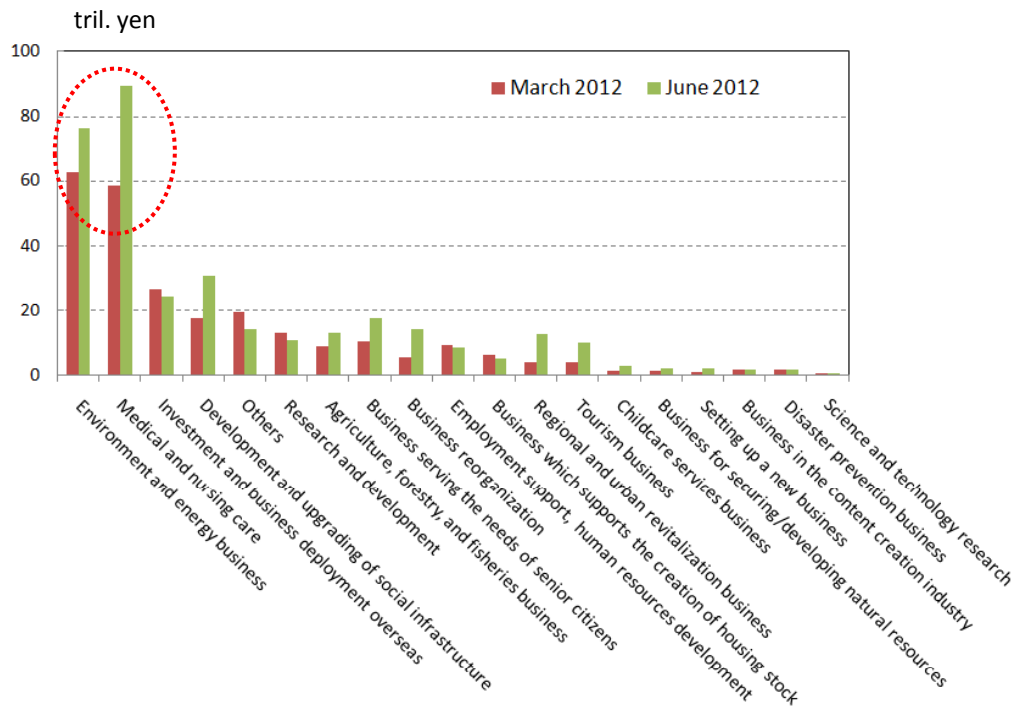


Growth-Supporting Funding Facility: Overview

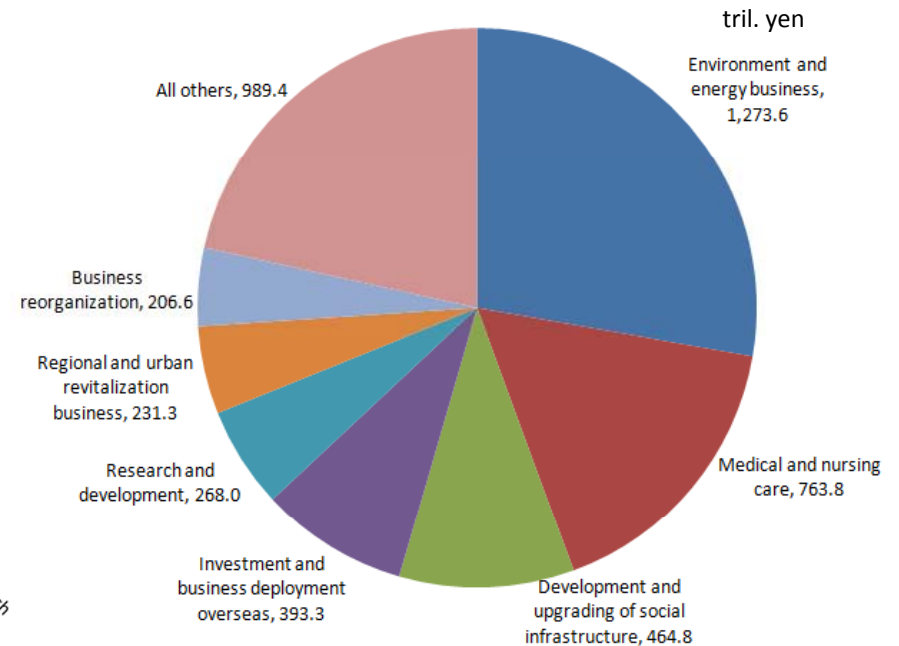
	Main rules	Special rules for equity investments and asset-based lending	Special rules for small-lot investments and loans	Special rules for loans in U.S. dollars
Time of establishment	June 2010	June 2011	March 2012	April 2012
Total amount of loans	3 trillion yen => increased to 3.5 trillion yen	0.5 trillion yen	0.5 trillion yen	12 billion U.S. dollars
Eligible investments and loans	Those with a size of 10 million yen or more	Equity investments and ABL with a size of 1 million yen or more	Those with a size of 1 million yen or more but less than 10 million yen	Those denominated in foreign currencies with a size of 100 thousand U.S. dollars or more
Duration of loans	Maximum 4 years (including rollovers)	Maximum 4 years (including rollovers)	Maximum 4 years (including rollovers)	Maximum 4 years (including rollovers)
Loan rates	0.1 percent per annum	0.1 percent per annum	0.1 percent per annum	6-month U.S. dollar LIBOR
Deadline for applications for new loans	March 31, 2012 => extended to March 31, 2014	March 31, 2012 => extended to March 31, 2014	March 31, 2014	March 31, 2014
Amount outstanding as of May 31, 2012	3.1 trillion yen	106.9 billion yen	3 billion yen	---

Growth-Supporting Funding Facility: Evidence

New Loan Disbursement by Areas
in March 2012 and June 2012



Amounts Outstanding by Areas
(March 2012)



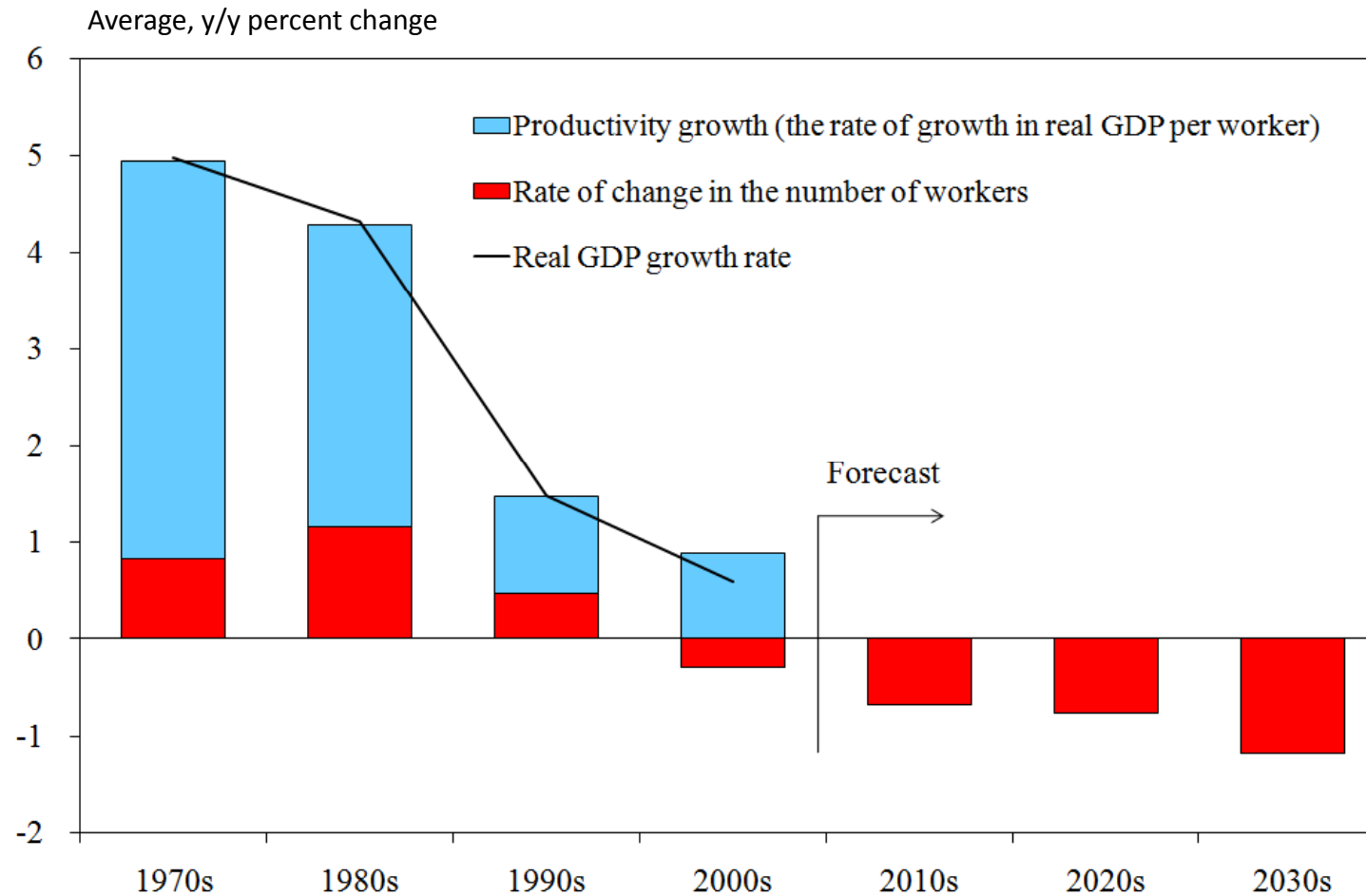
Note: Based on the records of investment or lending submitted to the Bank during (1) January 4-20 for the 7th new loan disbursement of main rules, the 3rd new loan disbursement of special rules for equity investments and asset-backed lending and (2) April 2-18, 2012 for the 8th new loan disbursement of main rules, the 4th new loan disbursement of special rules for equity investments and asset-backed lending, and the 1st new loan disbursement of special rules for small-lot investments and loans.

Source: Bank of Japan.

QUESTION 6:

**OTHER POLICIES FOR ENHANCING
ECONOMIC GROWTH?**

Decomposition of Real GDP Growth in Japan



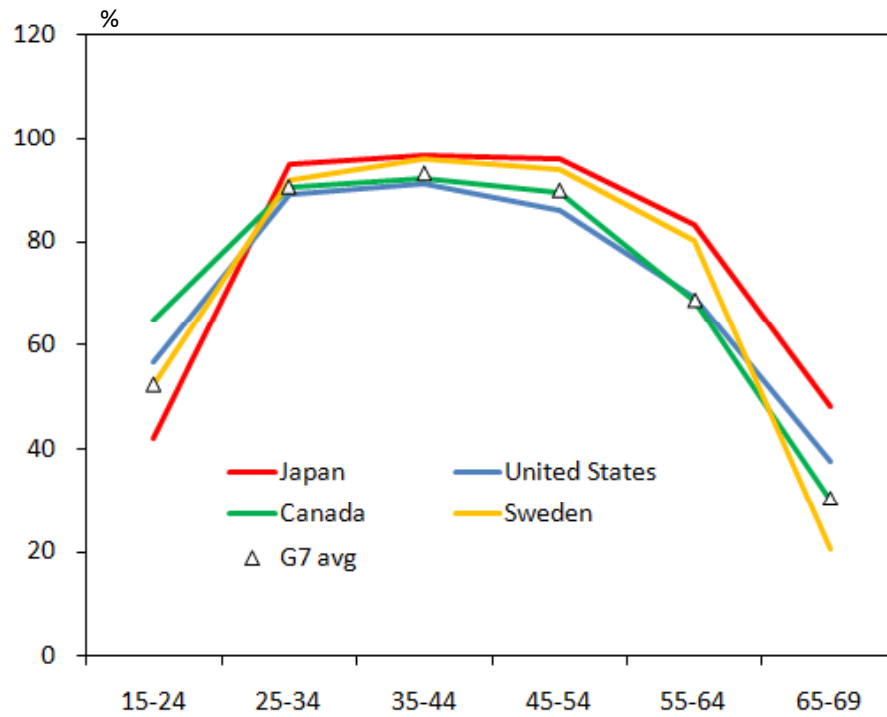
Notes: 1. Data are on a fiscal-year basis.

2. The rates of change in the number of workers from fiscal 2011 onward are calculated using the projected future population (medium variant) and the projected labor force participation rates (assuming that the labor force participation rates in each age/sex group remain the same as those in 2010).

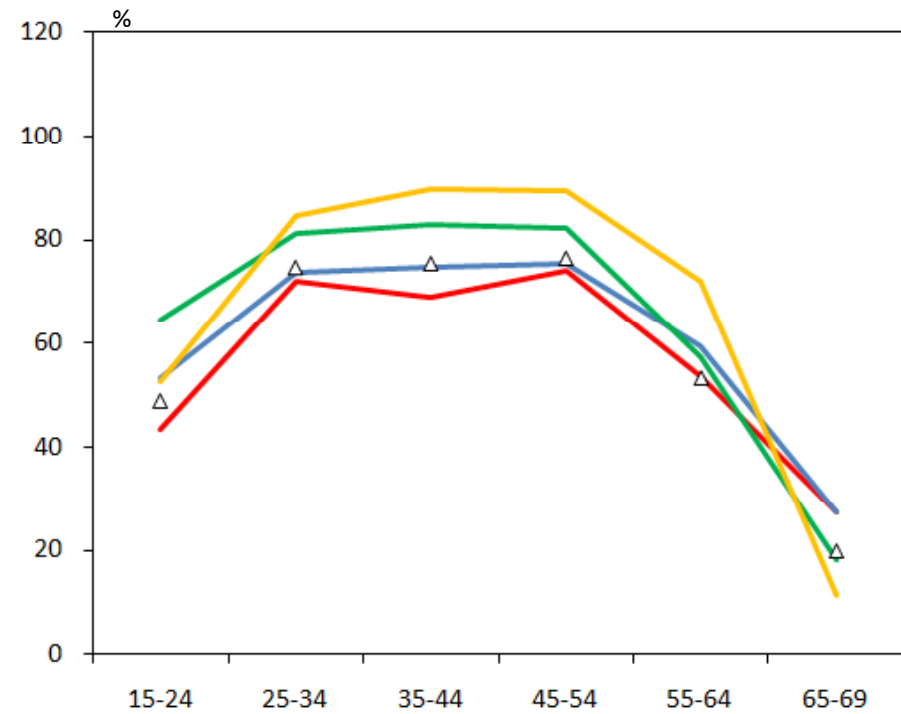
Sources: Cabinet Office; Ministry of Internal Affairs and Communications; National Institute of Population and Social Security Research.

Labor Force Participation in Major Economies: 2011

Male Workers



Female Workers



Source: OECD.

Decline in the Labor Force and Economic Growth in Japan

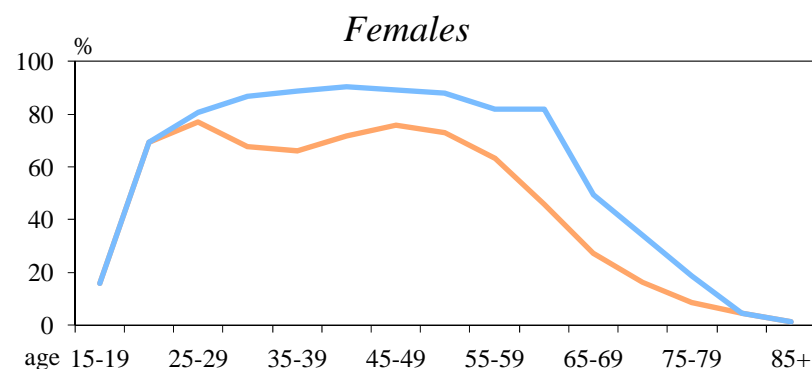
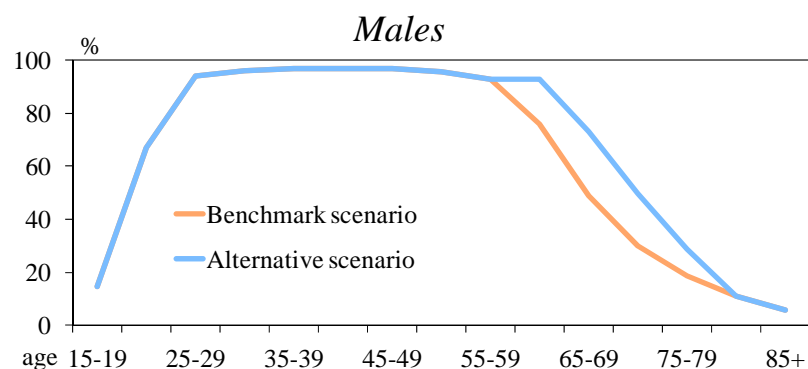
Benchmark scenario: labor force participation rates remain unchanged

Labor force participation rates for every age and sex remain unchanged from the level of 2010.

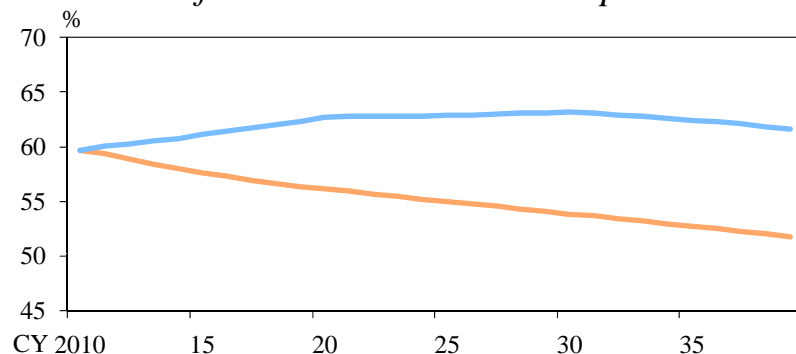
Alternative scenario: labor force participation rates for females and elderly people rise

Female labor force participation rates for ages 25-59 rise by 2030 to the level of labor force participation rates in Sweden in 2010. In addition, labor force participation rates for ages 60-64 rise to the level of ages 55-59, and those for ages 65 and over rise consistently. From 2031 onward, the participation rates remain unchanged.

Estimates of Labor Force Participation by Age in 2030



Estimates of the Labor Force Participation Rate



The impact of the decline in the labor force on real GDP growth

	avg., y/y % chg.	
	Benchmark scenario	Alternative scenario
2010s	-0.6	+0.2
2020s	-0.8	-0.3
2030s	-1.2	-1.0

Note: The projected population (medium variant) is calculated by the National Institute of Population and Social Security Research.
Sources: Ministry of Internal Affairs and Communications; Cabinet Office; National Institute of Population and Social Security Research.