

# Globalization and Population Aging: Challenges Facing Japan

December 22, 2011

Masaaki Shirakawa  
Governor of the Bank of Japan

## Contents

Introduction (Chart 1)

### I. Japan's Economy during the Past 15 Years

Progress in Globalization (Charts 2 and 3)

Rapid Population Aging (Chart 4)

Japan's Delayed Response to Change (Charts 5 and 6)

### II. Setting the Agenda for Japan's Economy

Serious Consequences of Leaving Situation Unchanged (Charts 7-9)

Need to Work and Create Value Added

"Hollowing Out of Domestic Industries"? (Charts 10-13)

Making Accommodative Financial Environment Lead to Growth (Charts 14 and 15)

### III. The Roles and Challenges of Central Banks

Financial Globalization and Central Banks

The Bank's Policy Conduct (Chart 16)

Concluding Remarks -- Importance of Adapting to Changes and  
Strengthening Growth Potential

**Improvement in business conditions has slowed on the whole. Despite steady improvement in domestic demand-oriented sectors, business conditions deteriorated for large manufacturing enterprises mainly due to effects of the slowdown in overseas economies.**

Business Conditions DI ("favorable" - "unfavorable"), % points

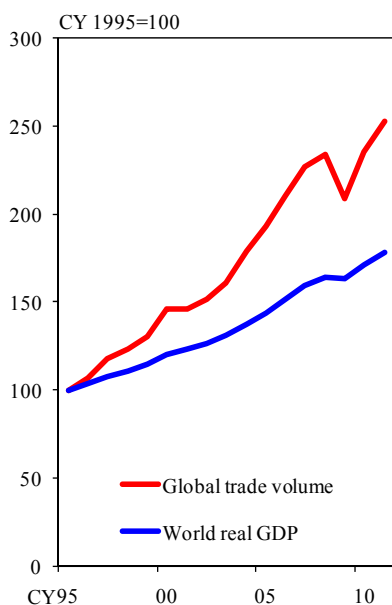
	All enterprises				Large enterprises				Small and medium-sized enterprises			
	June 2011 survey	Sept. 2011 survey	Dec. 2011 survey		June 2011 survey	Sept. 2011 survey	Dec. 2011 survey		June 2011 survey	Sept. 2011 survey	Dec. 2011 survey	
	Actual result	Actual result	Actual result	Forecast	Actual result	Actual result	Actual result	Forecast	Actual result	Actual result	Actual result	Forecast
All industries	-18	-9	-7	-13	-8	1	0	-2	-24	-16	-12	-20
Manufacturing	-15	-5	-5	-12	-9	2	-4	-5	-21	-11	-8	-17
Nonmanufacturing	-20	-12	-7	-14	-5	1	4	0	-26	-19	-14	-21

Note: Figures are based on the "Tankan." For figures for the December 2011 survey, green highlights represent improvement while red highlights represent deterioration from the September survey.

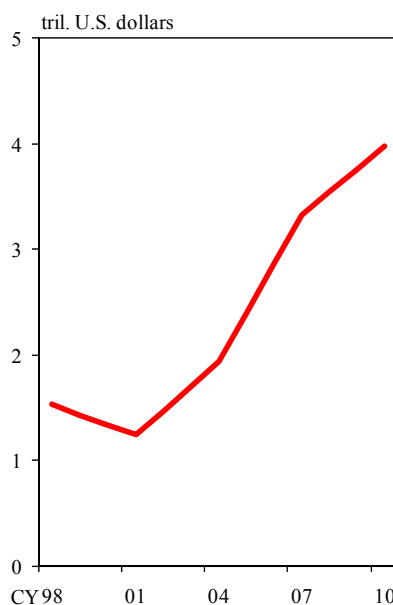
Source: Bank of Japan.

**Globalization has been progressing significantly in terms of goods, capital, and people.**

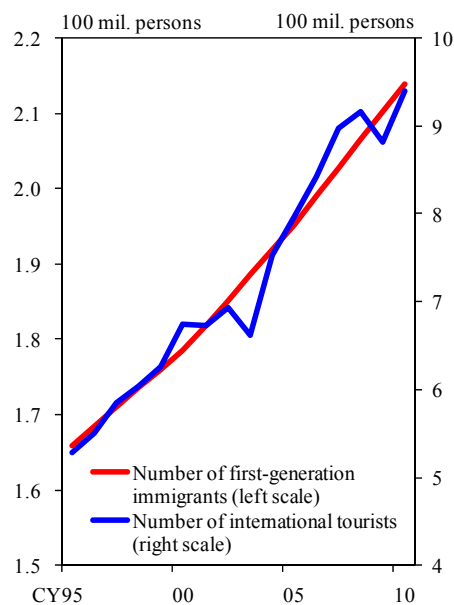
A. Global Trade Volume<sup>1</sup>



B. Foreign Exchange Markets Turnover<sup>2</sup>



C. First-Generation Immigrants and International Tourists<sup>3</sup>



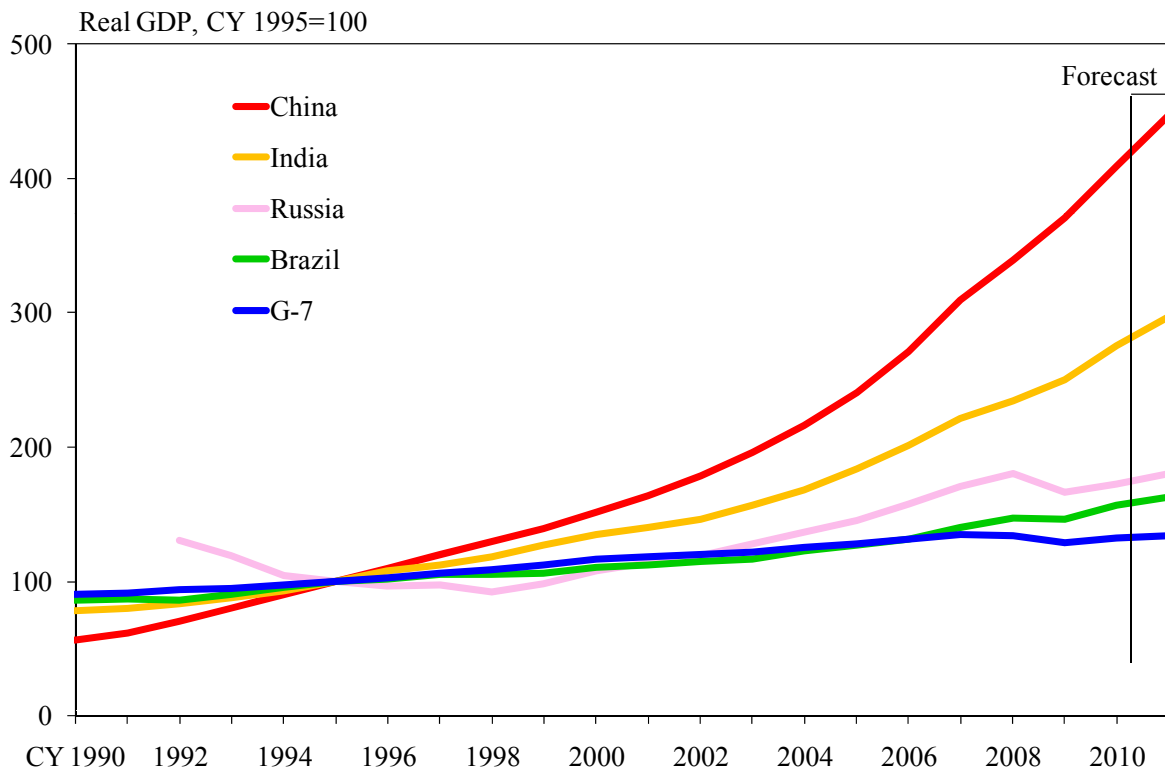
Notes: 1. Global trade volume covers total goods and services in real terms after excluding the effects of price fluctuations. Figures for 2010 onward are IMF projections.

2. Represents the amount of daily foreign exchange transactions worldwide (figures calculated every three years).

3. Shows the world total of first-generation immigrants and tourists traveling abroad every year.

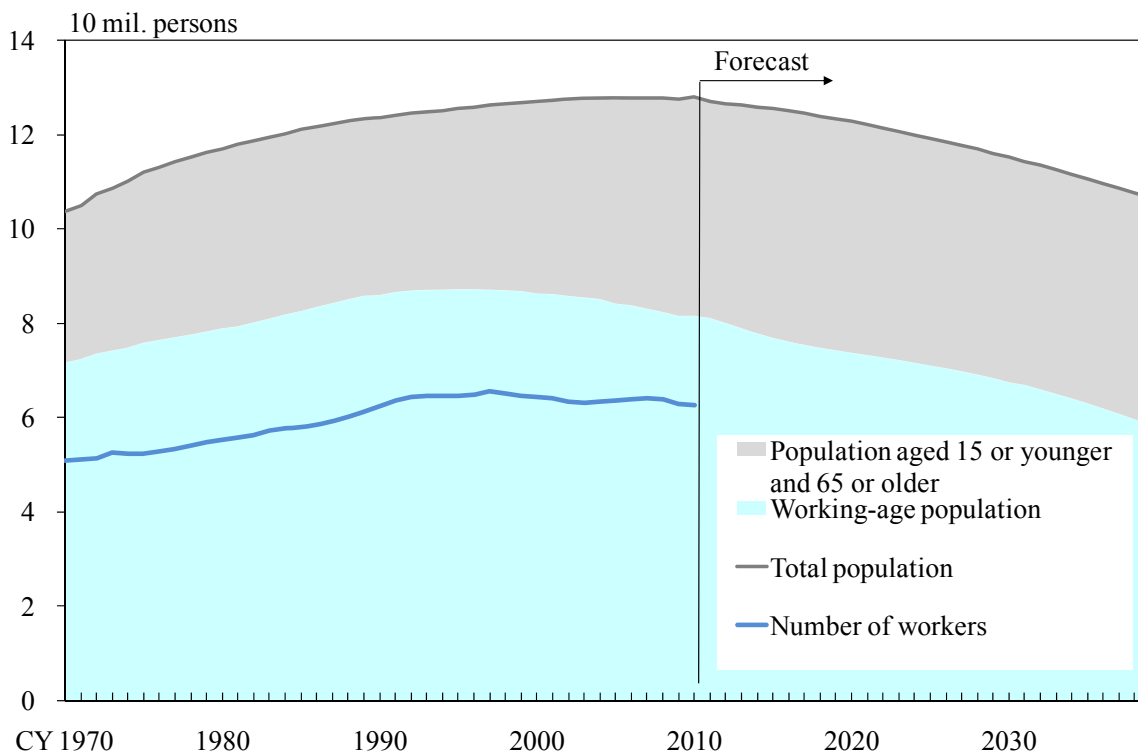
Sources: IMF; BIS; United Nations; UNWTO.

### Emerging economies continue to grow rapidly.



Note: Figures for 2011 are projections by the IMF.  
Source: IMF.

### Japan is facing a rapid decline in its working-age population.

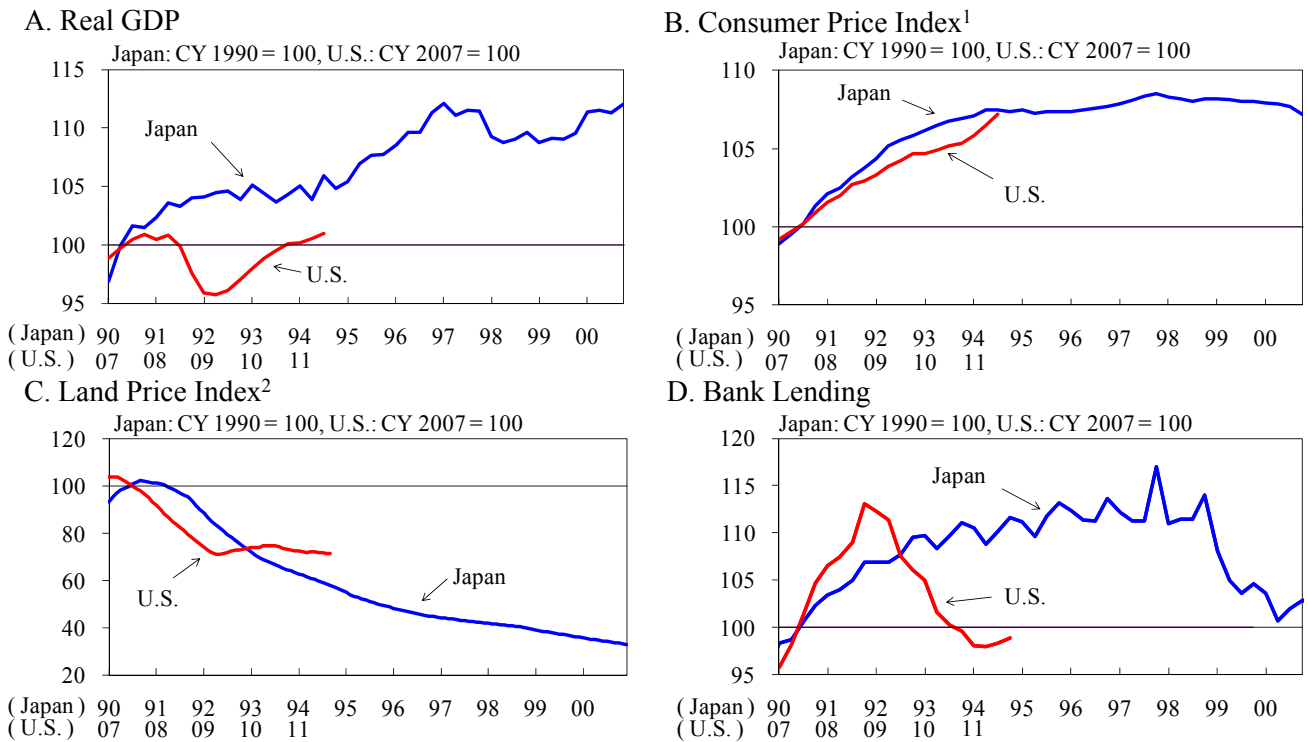


Note: Figures for 2011 onward are from "Population Projection for Japan" (December 2006) in terms of medium-variant fertility with medium-variant mortality.

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

Chart 5

**Economic developments in the United States following the financial crisis share some similarities with those in Japan after the collapse of the bubble economy.**

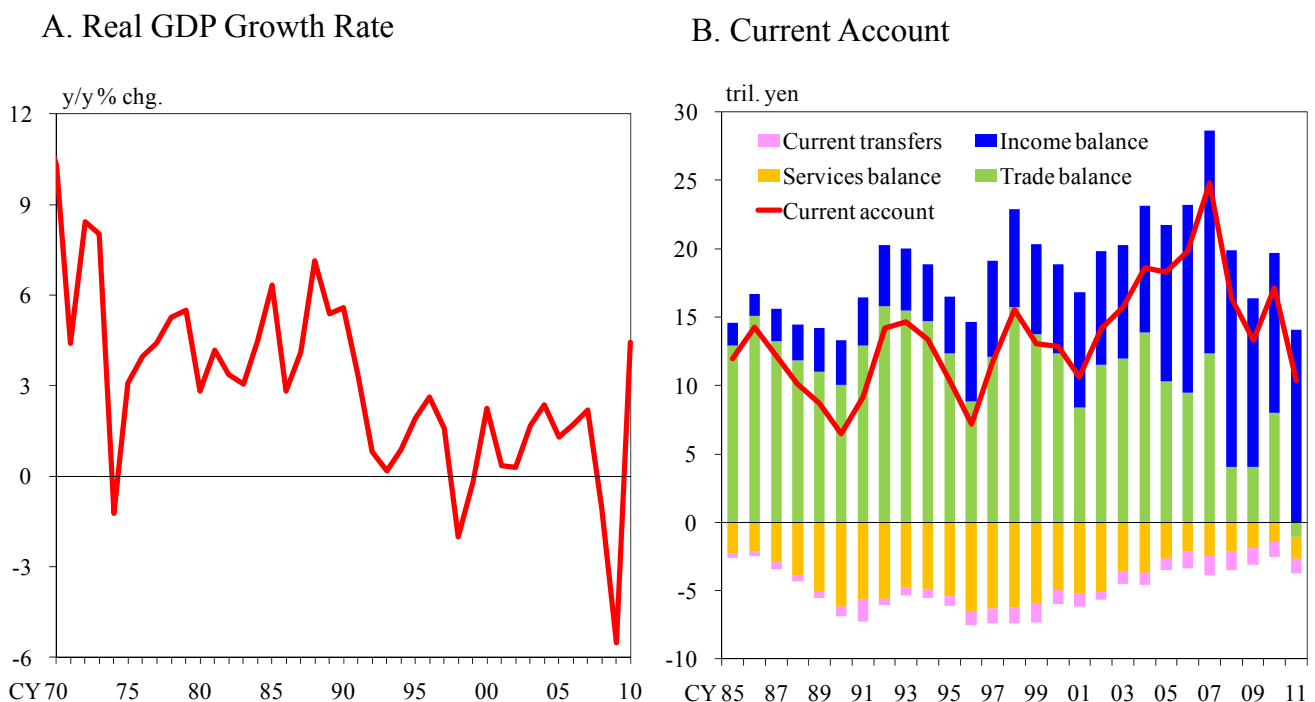


Notes: 1. Figures for Japan show all items less fresh food, and for the U.S., all items less food and energy.  
2. Figures for Japan show the Urban Land Price Index (six major cities, average of all categories), and those for the U.S., the Case-Shiller Home Price Index (10-city composite).

Sources: Cabinet Office; Ministry of Internal Affairs and Communications; Japan Real Estate Institute; Bank of Japan; BEA; BLS; FRB; Bloomberg.

Chart 6

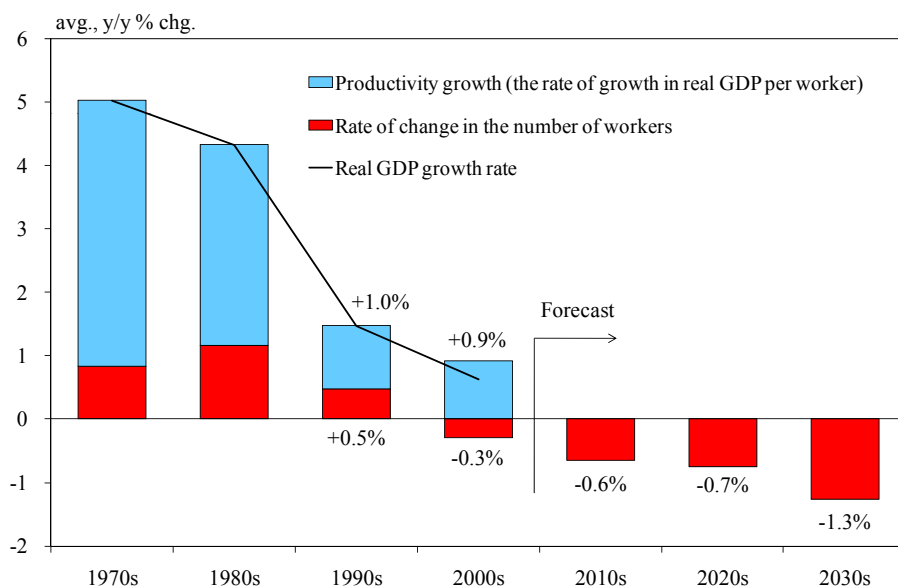
**In the past 15 years, Japan's economic growth rate has declined and its surplus in the trade balance has decreased. How will the situation develop in the next 15 years?**



Note: For Current Account, figures for 2011 are calculated by using the year-on-year rate of the sum for January through October.  
Sources: Cabinet Office; Ministry of Finance; Bank of Japan.

### Stagnant labor productivity growth and a decline in the number of workers have affected the long-term downtrend in Japan's growth.

A. Decomposition of Real GDP Growth in Japan<sup>1,2</sup>



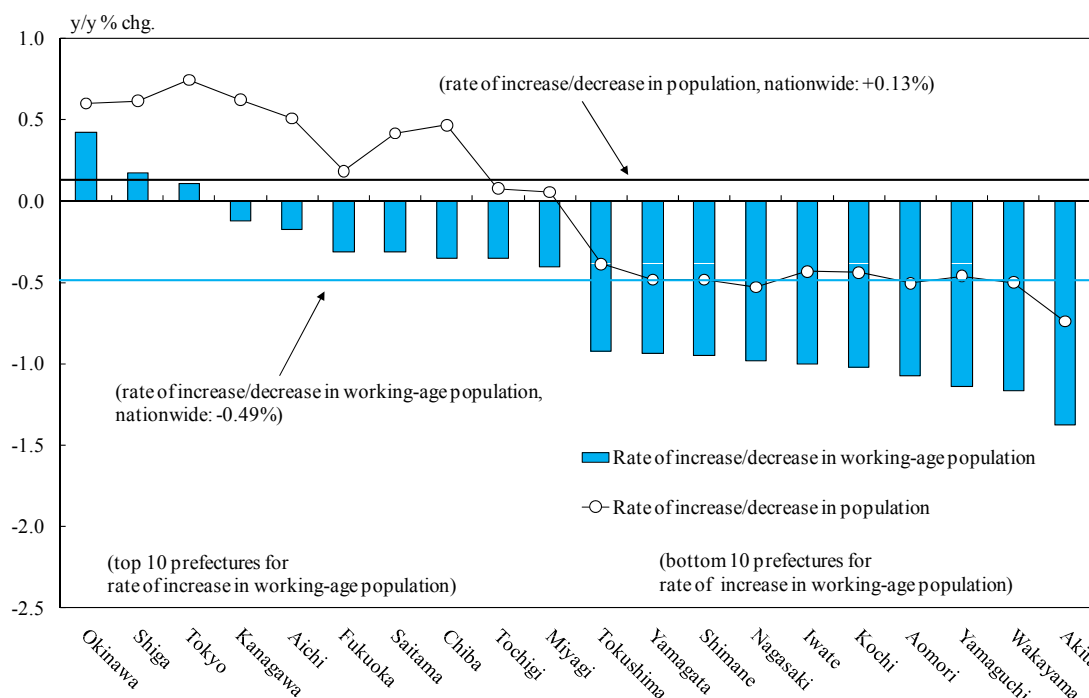
B. Labor Productivity Growth of G-7 Countries (2000s)<sup>3</sup>

Country	Rate (%)
Japan	1.5
United States	1.7
Germany	0.9
France	0.9
United Kingdom	1.5
Italy	-0.1
Canada	0.7

Notes: 1. Data are on a fiscal-year basis.  
 2. The rates of change in the number of workers from the 2010s 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 2009).  
 3. To eliminate the effects of the financial crisis after the failure of Lehman Brothers, figures are the average growth rates from 2000-2008.  
 Sources: Cabinet Office; Ministry of Internal Affairs and Communications; National Institute of Population and Social Security Research; OECD.

### The impact of population decline has become serious, especially in regional areas.

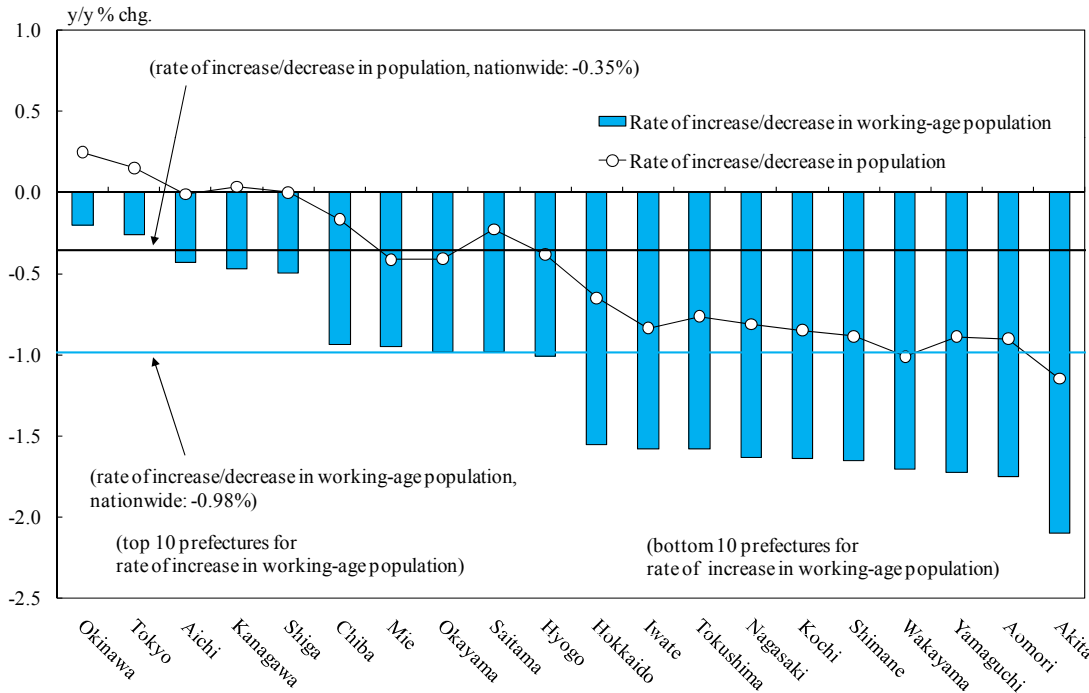
Demographic Trends by Prefecture (1995-2010)



Source: Ministry of Internal Affairs and Communications.

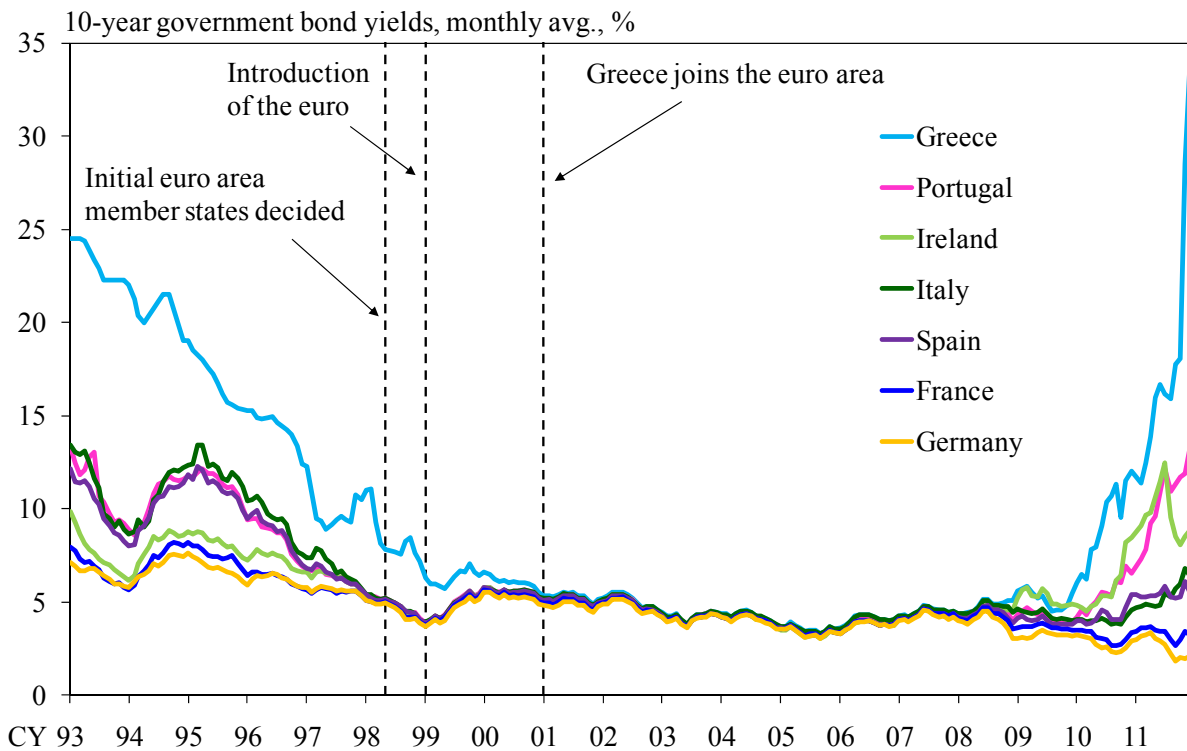
**The impact of population decline is projected to be larger in regional areas than in metropolitan areas.**

Demographic Trends by Prefecture (2010-2020)



Source: National Institute of Population and Social Security Research.

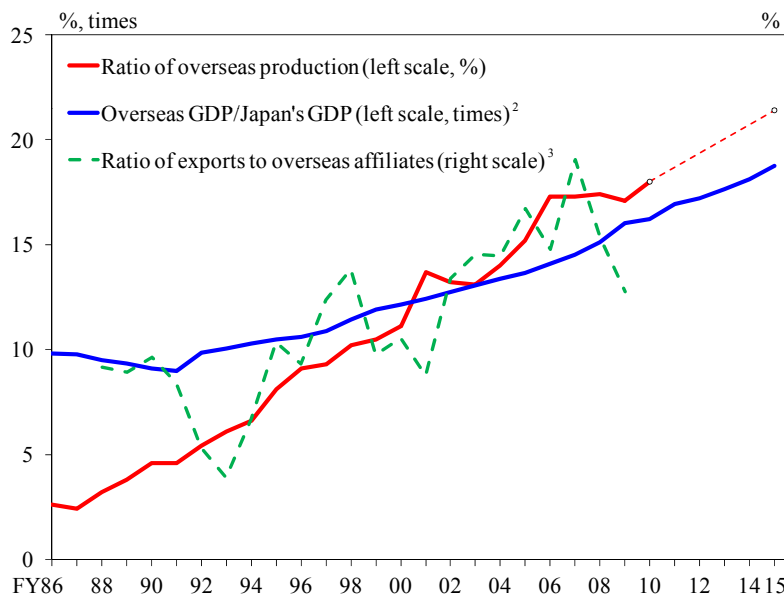
**The sovereign debt crisis in Europe shows that market perceptions regarding fiscal credibility can change in a discontinuous manner.**



Note: Figures for Ireland are 9-year government bond yields for November 2011 onward.  
Sources: IMF; Bloomberg.

**The ratio of overseas production has been trending upward for a prolonged period in response to the expansion of overseas GDP exceeding Japan's.**

A. Ratio of Overseas Production<sup>1</sup>



B. Ratio of overseas production by size of capital stock (FY 2010)  
%

Capital stock	Ratio of overseas production
under 1 billion yen	6.0
1 to 5 billions yen	12.6
5 to 10 billions yen	18.0
10 billions yen and over	23.6

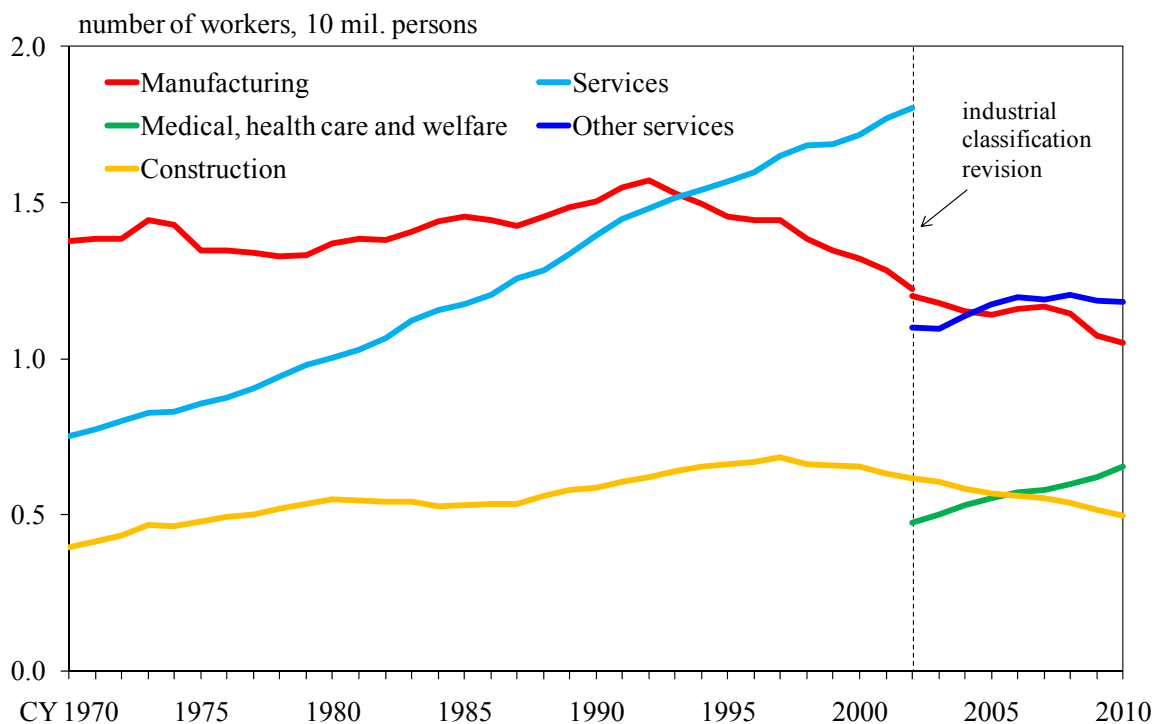
Notes: 1. For the ratio of overseas production ("Annual Survey of Corporate Behavior"), the figure for fiscal 2010 is the forecast and those for fiscal 2011 onward are linearly interpolated by using the projected figures for fiscal 2015.

2. The ratio of overseas GDP to Japan's GDP is taken from the "World Economic Outlook (calendar year basis)."

3. Data for 2010 onward are IMF estimates.

Sources: Cabinet Office; Ministry of Economy, Trade and Industry; IMF.

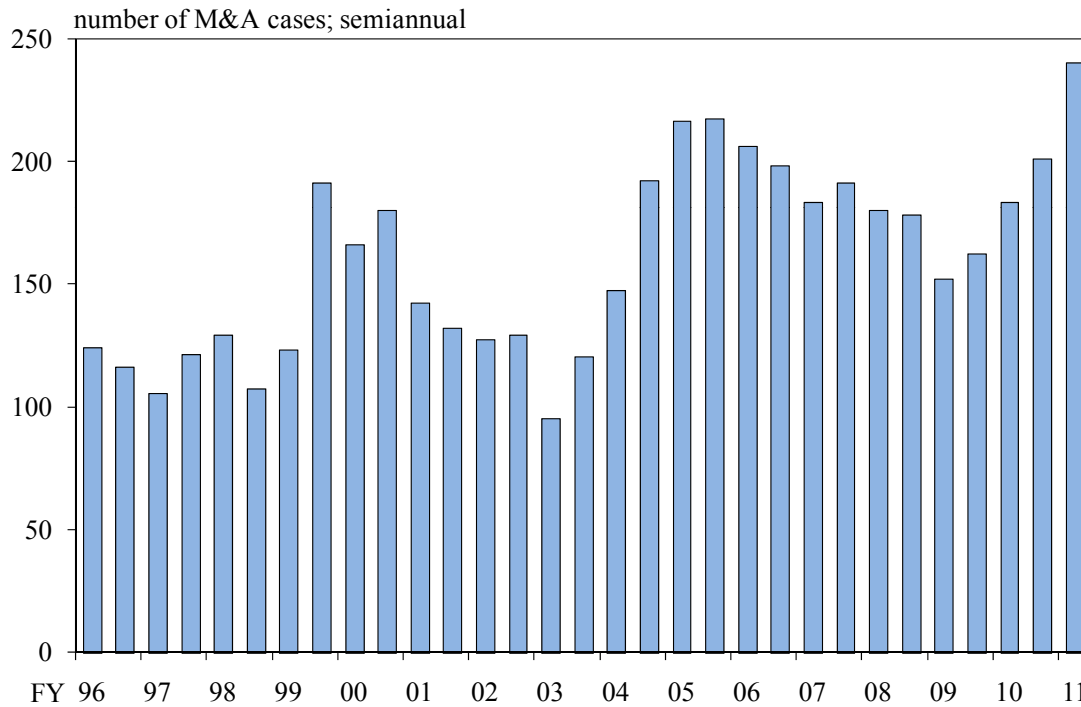
**Since the beginning of 1990, employment in service-related sectors has increased while that in manufacturing has decreased.**



Note: Other services consists of scientific research, professional and technical services, living-related and personal services and amusement services, education, learning support, and services, N.E.C.

Source: Ministry of Internal Affairs and Communications.

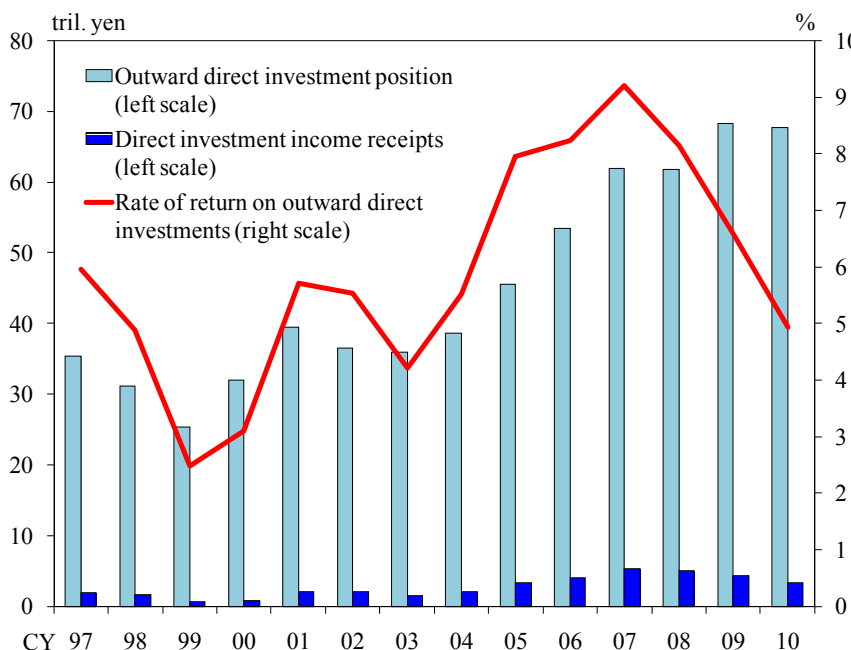
**There has recently been increasing outbound M&A activity by Japanese firms making use of the yen's appreciation.**



Note: Figures indicate the number of outbound M&A cases by Japanese firms.  
Source: RECOF Corporation.

**Although Japan's rate of return from overseas investment has increased somewhat from the past, it is still small compared to the United States and major European countries.**

A. Japan's Outward Direct Investment



Note: The rate of return on outward direct investments is calculated by dividing the direct investment income receipts by the average of outward direct investment positions for the previous and current year-ends.

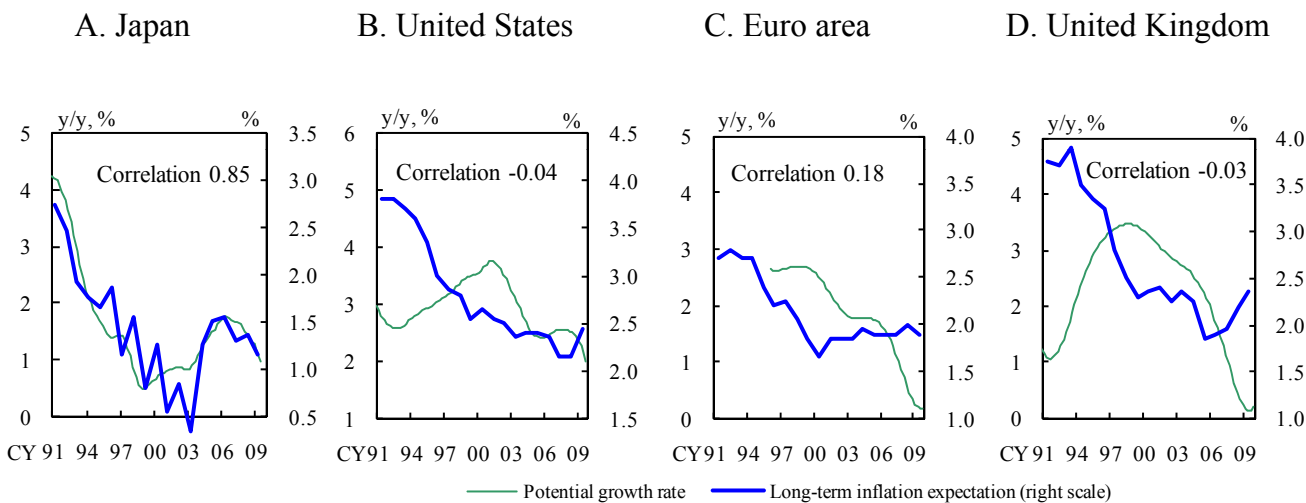
Sources: Ministry of Finance; Bank of Japan; IMF.

B. Rate of Return on Outward Direct Investments in Major Countries (CY 2010)

Country	Rate of Return (%)
Japan	4.9
United States	10.2
Germany	6.3
France	4.6
United Kingdom	7.5
China	6.9
South Korea	1.7

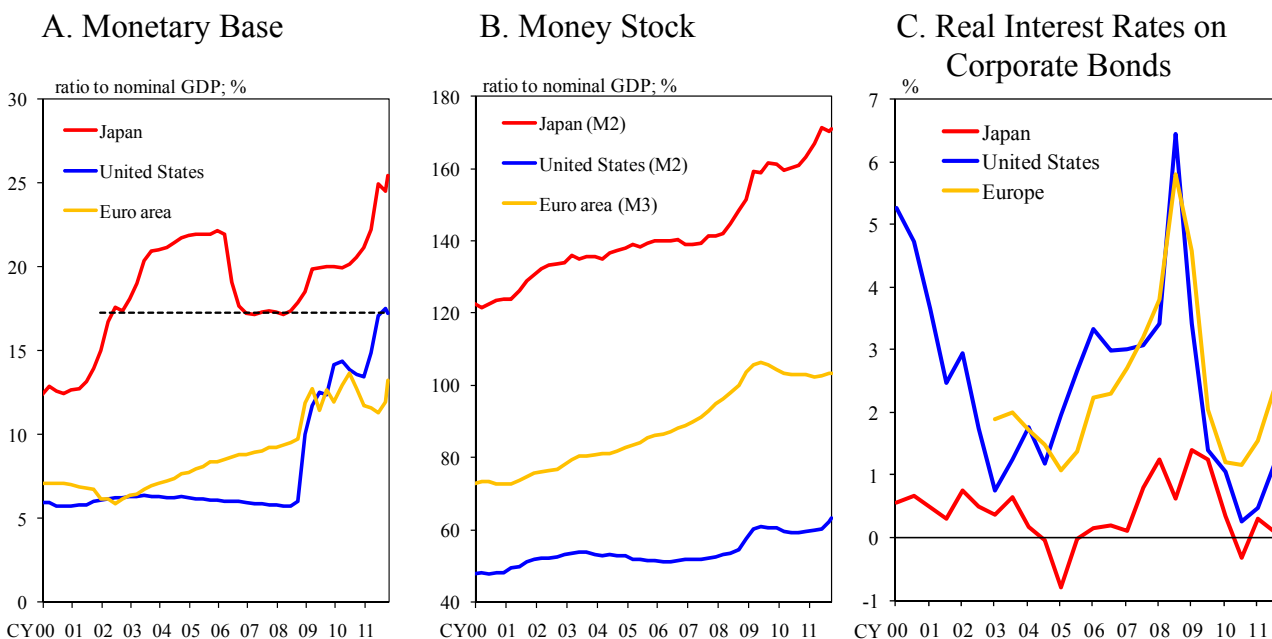


**In Japan, a positive correlation is observed between the potential growth rate and long-term inflation expectations.**



Notes: 1. Long-term inflation expectations for each year are 5-10 years ahead outlook averaged on April and October survey results of private research institutions by Consensus Economics Inc. Potential output growth data is measured by BOJ for Japan, CBO for US, and the Hodrick-Prescott filter of real GDP for the euro area and the UK, respectively.  
 2. German data is used for inflation expectations up to 2002 in the euro area.  
 3. Correlation coefficients excluding the euro area are calculated for the 1991-2009 sample period. That for the euro area is calculated for the 1996-2009 sample period.  
 Sources: Each country's statistics; Consensus Economics Inc.

**Japan's money supply as a proportion of GDP is already larger than in the United States and euro area, and continues to increase. Japanese interest rates are low, even in real terms.**



Note: Monetary base is the sum of banknotes in circulation, coins in circulation, and current account deposits at a central bank. Real interest rates on corporate bonds are the corporate bond yields minus inflation expectation. Corporate bond yields are 5-year for Japan and 3-5 year for the United States and Europe. Inflation expectation is that for the next five years.

Sources: Cabinet Office; Bank of Japan; FRB; BEA; ECB; Eurostat; Bloomberg; Consensus Economics Inc.

The Bank has continued to consistently make contributions as the central bank by pursuing powerful monetary easing through the comprehensive monetary easing framework, ensuring financial market stability, and providing support to strengthen the foundations for economic growth.

### Pursuing Powerful Monetary Easing via the Comprehensive Monetary Easing

- Implementing the virtually zero interest rate policy.
- Committed to continuing the virtually zero interest rate policy until it judges that price stability is in sight on the basis of the "understanding of medium- to long-term price stability."<sup>[Note]</sup>

[Note] On the basis of a year-on-year rate of change in the CPI, a positive range of 2% or lower, centering around 1%.

- Establishing the Asset Purchase Program

### Ensuring Financial Market Stability

### Providing Support to Strengthen the Foundations for Economic Growth

### ➤ Increase in the Asset Purchase Program

- The Program has had three increases, expanding to about 55 trillion yen from the initial size of about 35 trillion yen (the latest increase was decided on October 27).  
— The increased purchases are to be completed by around the end of 2012.

tril. yen

	Started in Oct. 2010	Mar. 2011	Aug. 2011	Oct. 2011	Amount outstanding as of Dec. 10
Total size	About 35	About 40	About 50	About 55	41.8
JGBs	1.5	2.0	4.0	9.0	2.7
T-Bills	2.0	3.0	4.5	4.5	2.9
CP	0.5	2.0	2.1	2.1	1.9
Corporate bonds	0.5	2.0	2.9	2.9	1.4
ETFs	0.45	0.9	1.4	1.4	0.8
J-REITs	0.05	0.1	0.11	0.11	0.06
Fixed-rate operation	30.0	30.0	35.0	35.0	32.0

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