

Has Japan's Economy Changed?: Challenges and Prospects

Speech at the Japan Society in New York

October 3, 2019

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Deputy Governor of the Bank of Japan

Outline

Introduction

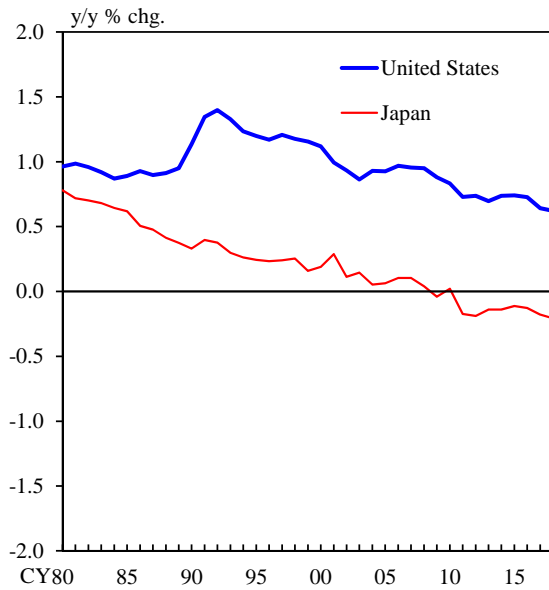
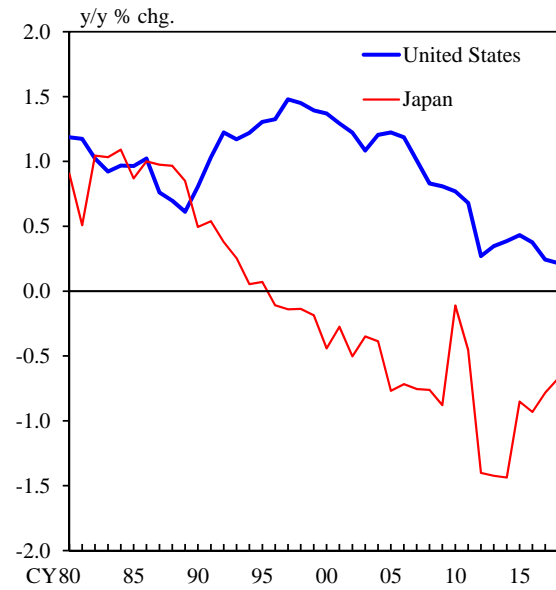
I. Achievements and Changes

II. Challenges Ahead

Conclusion

Demographics

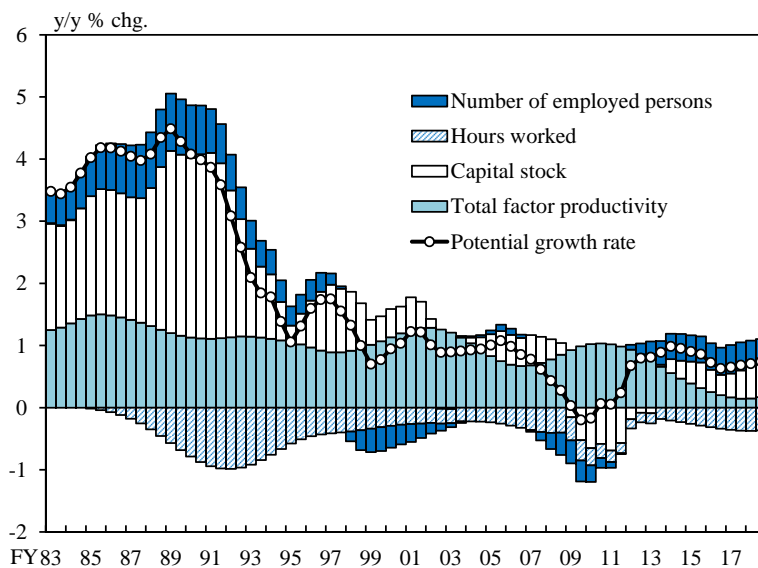
Total Population

Working-Age Population
(Aged 15-64)

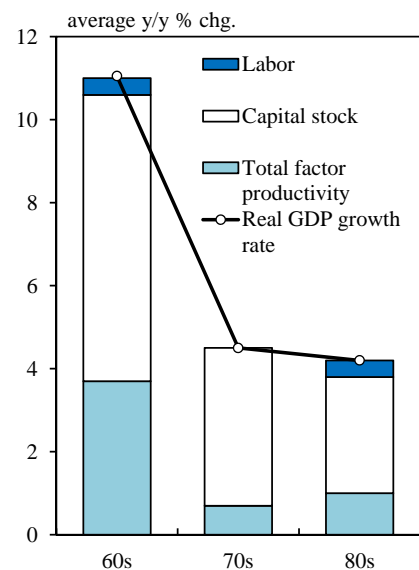
Source: OECD.

Potential Growth Rate

Recent Developments



Developments in the 60s-80s

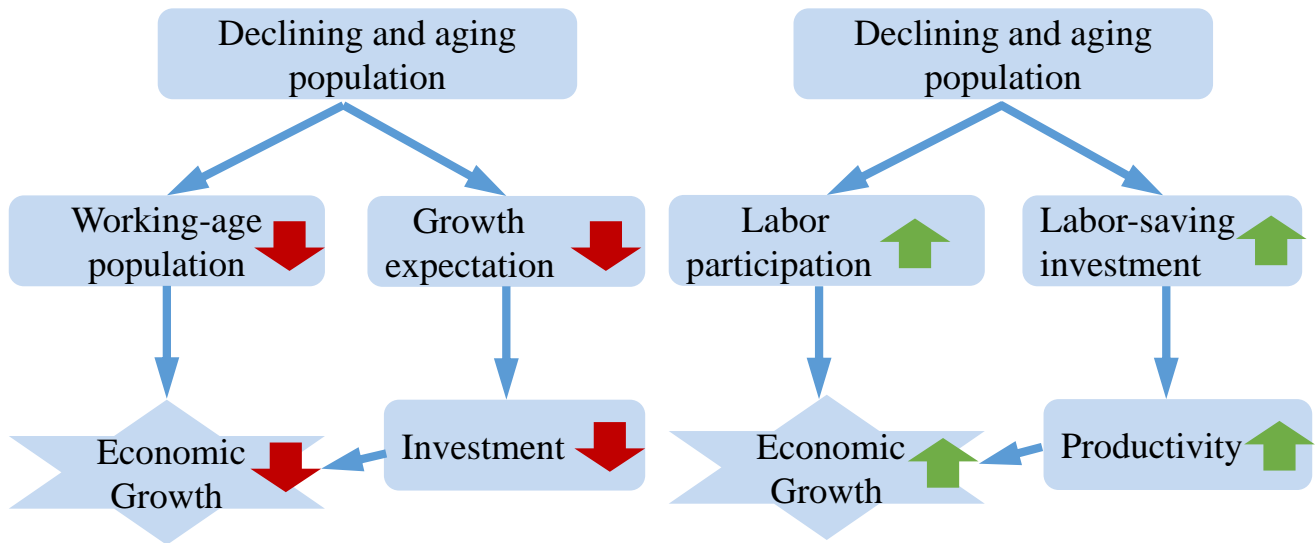


Notes: 1. In the left chart, figures are based on BOJ staff estimates.

2. In the right chart, figures are from the "White Paper on International Economy and Trade 1998."

Sources: Ministry of International Trade and Industry; Bank of Japan.

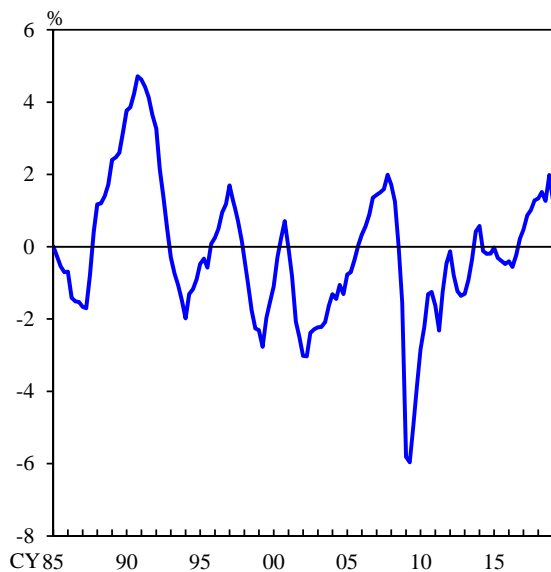
Possible Transmission Mechanisms



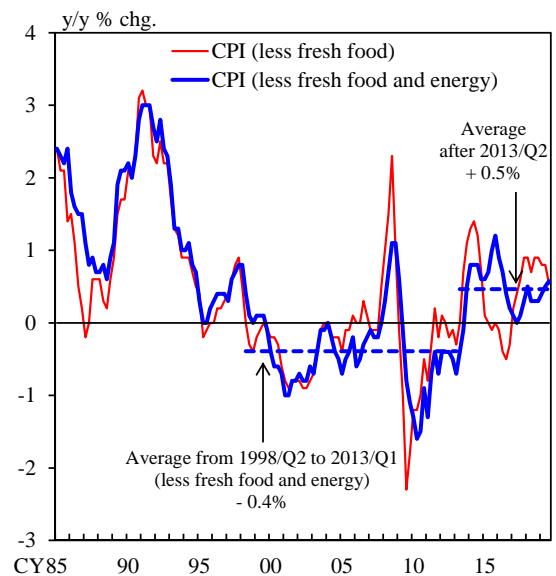
Note: See Carlos Carvalho, Andrea Ferrero, and Fernanda Nechio, "Demographics and Real Interest Rates: Inspecting the Mechanism," *Federal Reserve Bank of San Francisco Working Paper* 2016-05; Nao Sudo and Yasutaka Takizuka, "Population Aging and the Real Interest Rate in the Last and Next 50 Years: A Tale Told by an Overlapping Generations Model," *Bank of Japan Working Paper Series*, no.18-E-1, 2018; and Haruhiko Kuroda, "Demographic Changes and Challenges for Financial Sector," remarks at the Paris EUROPLACE Financial Forum in Tokyo, 2018.

Improvements in Japan's Economy

Output Gap



Consumer Prices

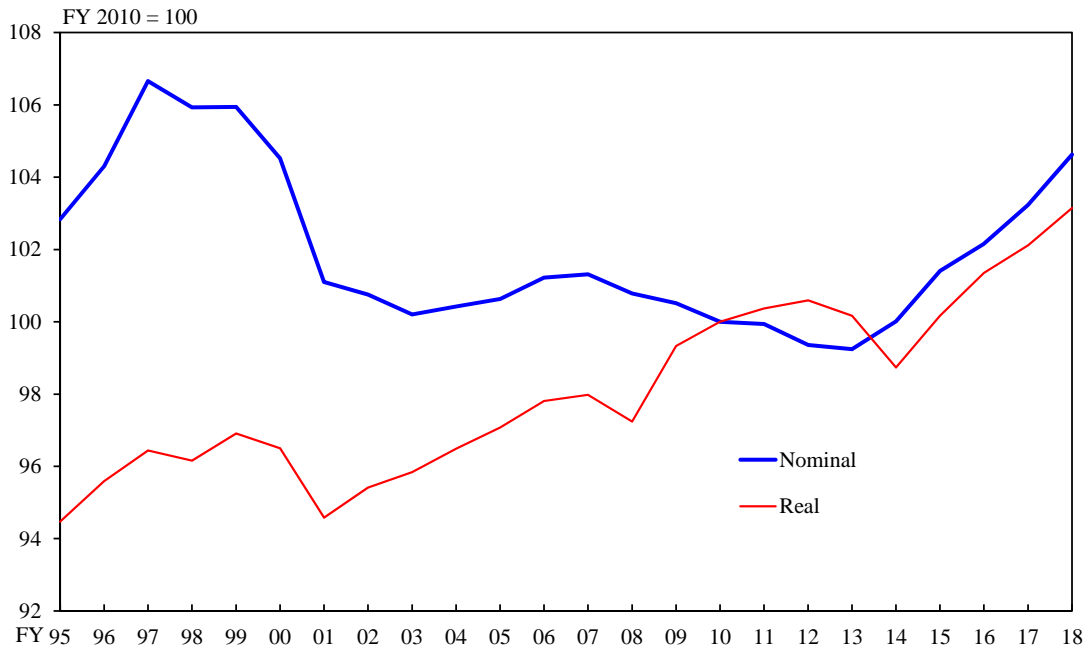


Notes: 1. In the left chart, the output gap is based on BOJ staff estimates.

2. In the right chart, figures are adjusted for changes in the consumption tax rate.

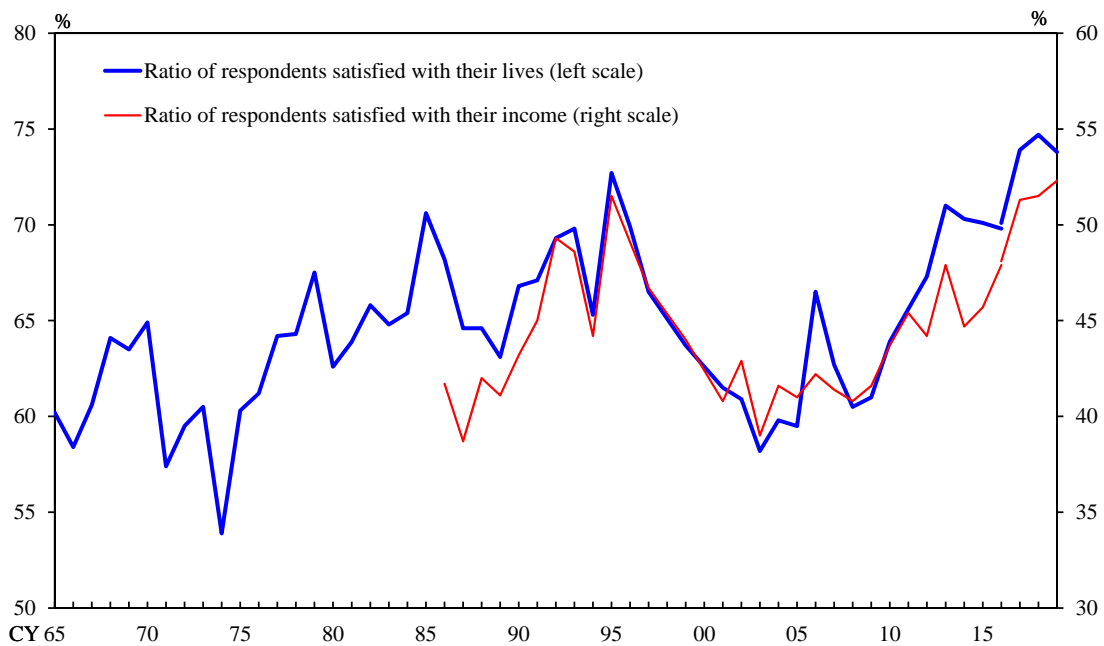
Sources: Bank of Japan; Ministry of Internal Affairs and Communications.

Increase in Disposable Income



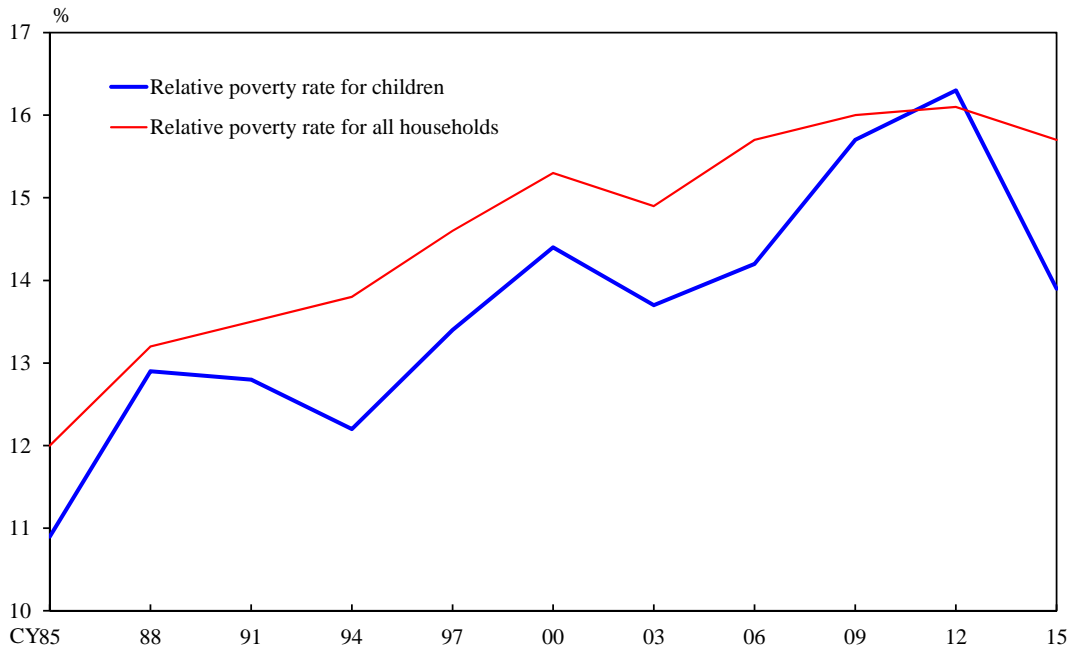
Source: Cabinet Office.

Levels of Satisfaction with Life



Note: There is a discontinuity in the data for the 2016 survey due to a change in respondents' age coverage. (The old series covers those aged 20 and over, while new series covers those aged 18 and over.)
 Source: Cabinet Office.

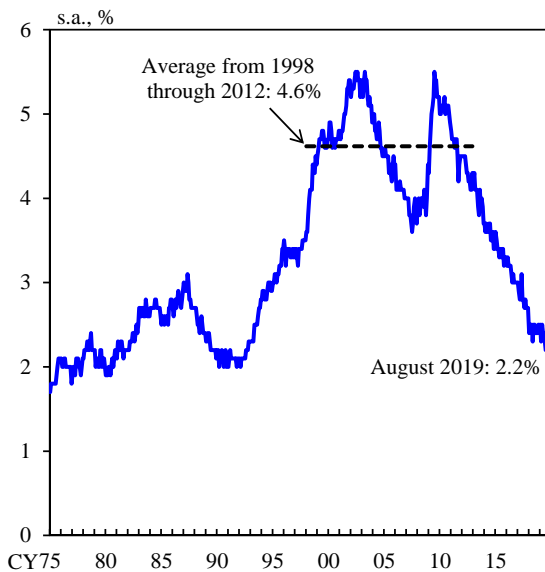
Poverty Rate



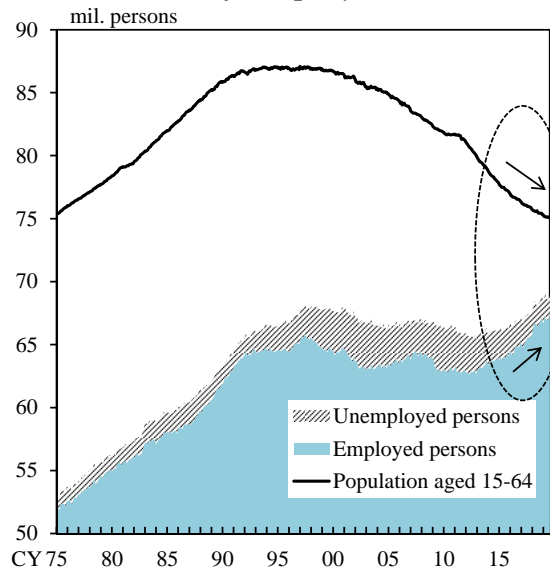
Note: The relative poverty rate is defined as the proportion of people with an equivalent disposable income (i.e., disposable income per household divided by the square root of the number of household members) below the poverty line, which corresponds to half the median of equivalent disposable income. The relative poverty rate for children is defined as the proportion of children (aged 17 and under) below the poverty line.
 Source: Ministry of Health, Labour and Welfare.

Recent Labor Market Conditions

Unemployment Rate

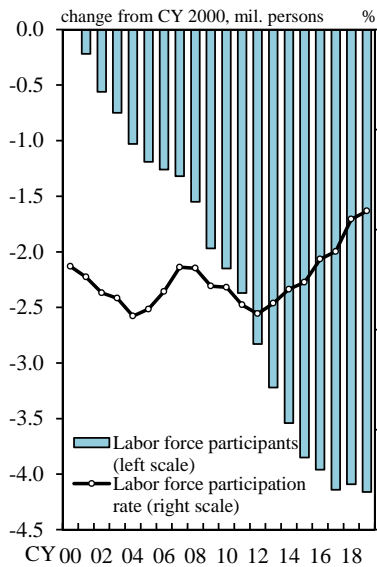


Working-Age Population and Number of Employed Persons

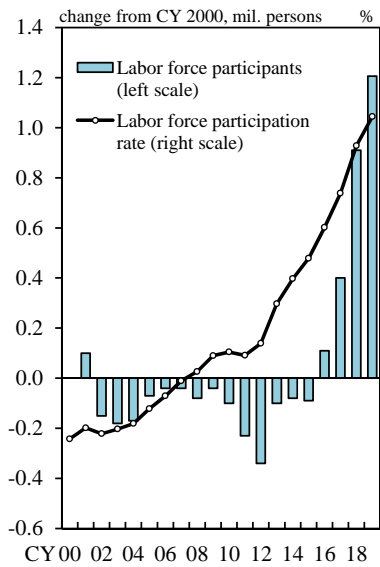


Breakdown of Changes in Labor Force Participants

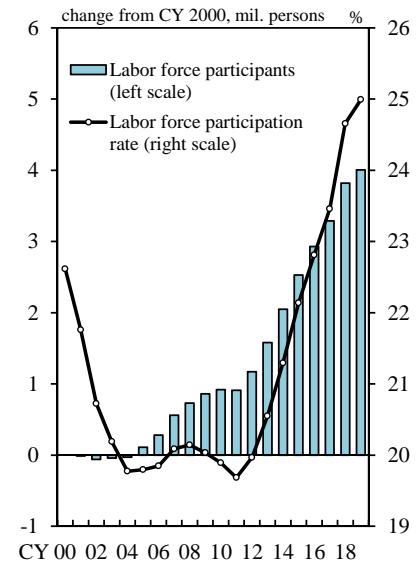
Men (Aged 15-64)



Women (Aged 15-64)



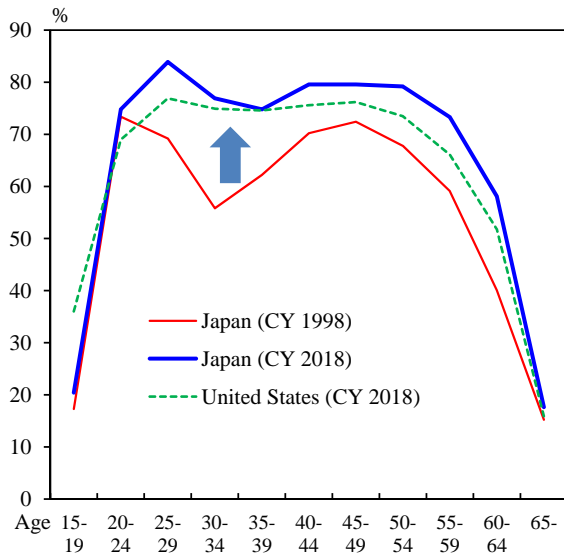
Seniors (Aged 65 and over)



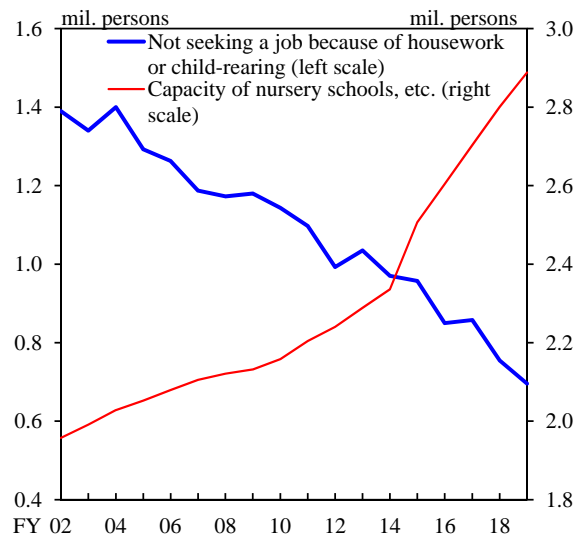
Note: Figures for 2019 are January-July averages on a seasonally adjusted basis.
Source: Ministry of Internal Affairs and Communications.

Labor Force Participation by Women

Women's Labor Force Participation Rate by Age



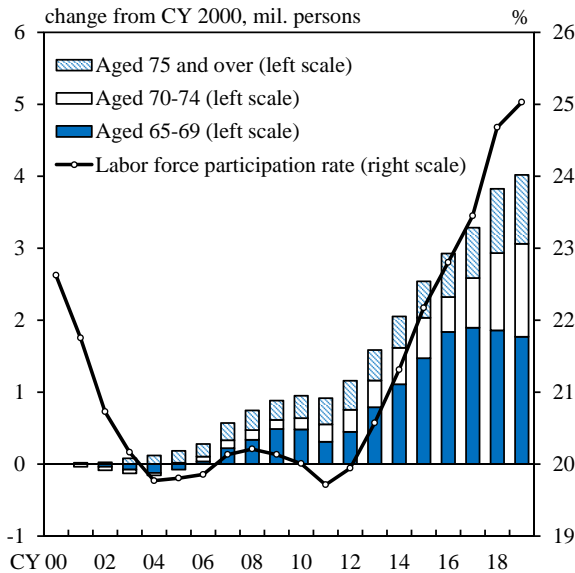
Women Wishing to Work and Capacity of Nursery Schools



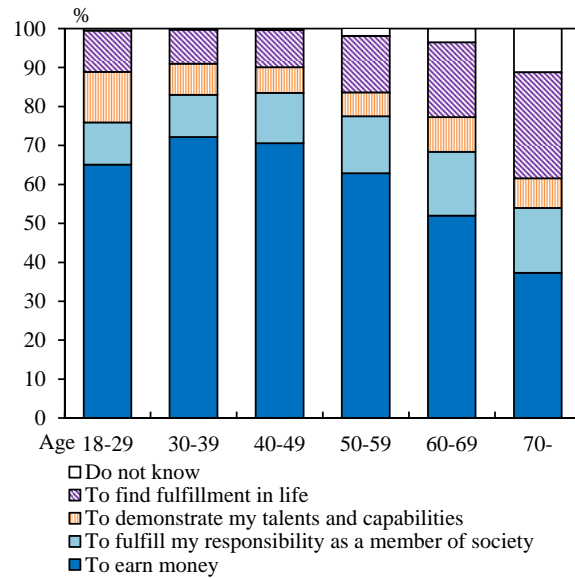
Notes: 1. In the left chart, the figure for those aged 15-19 in the United States is that for those aged 16-19.
2. In the right chart, figures for those "not seeking a job because of housework or child-rearing" for fiscal 2019 are for 2019/Q2 on a seasonally adjusted basis. There were revisions to the question (from "because of housework or child-rearing" to "because of childbirth or child-rearing") in 2013/Q1, and to the definition of "women not seeking a job" in 2018/Q1.
Sources: Ministry of Internal Affairs and Communications; ILO; Ministry of Health, Labour and Welfare.

Labor Force Participation by Seniors

Labor Force Participants among Seniors



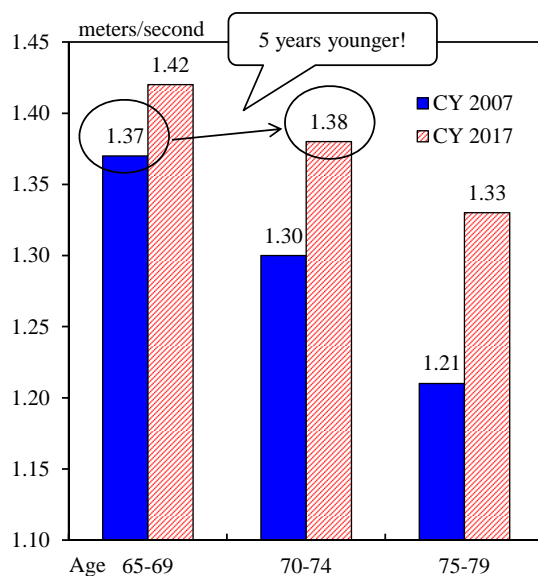
Reasons for Working (2019)



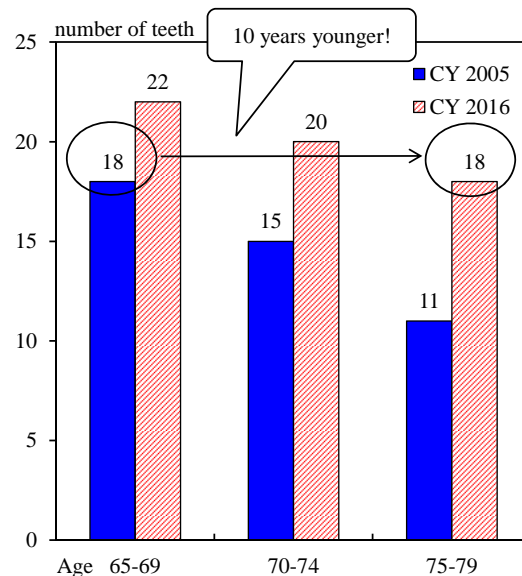
Note: In the left chart, figures for 2019 are January-July averages on a seasonally adjusted basis.
Sources: Ministry of Internal Affairs and Communications; Cabinet Office.

Evidence of Slowdown in Physical Aging

Average Walking Speed



Average Number of Teeth



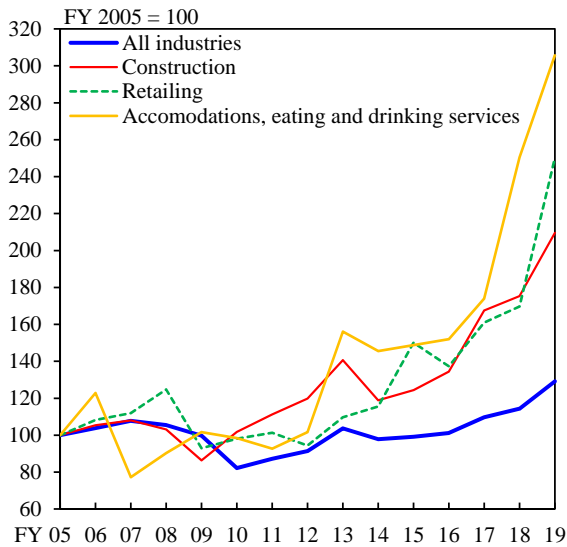
Notes: 1. See Toshitaka Sekine, "Does Demography Really Matter?," presentation at the G20 Symposium titled "For a Better Future: Demographic Changes and Macroeconomic Challenges," 2019.

2. In the left chart, average walking speed is the arithmetic average of men's and women's walking speeds.

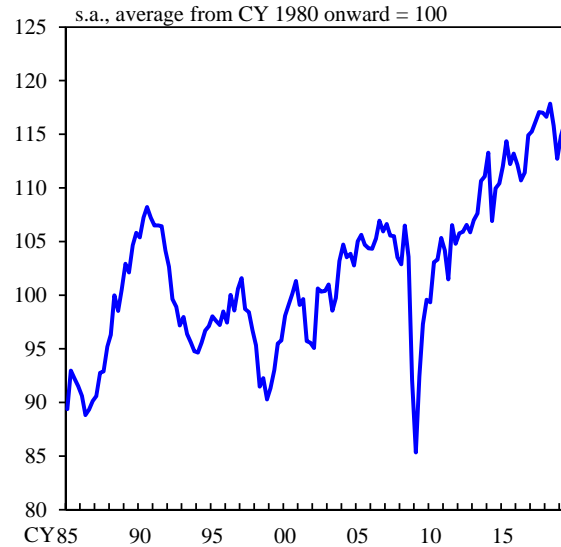
Sources: National Center for Geriatrics and Gerontology; Ministry of Health, Labour and Welfare.

Labor-Saving Investment

Increase in Software Investment in Labor-Intensive Industries



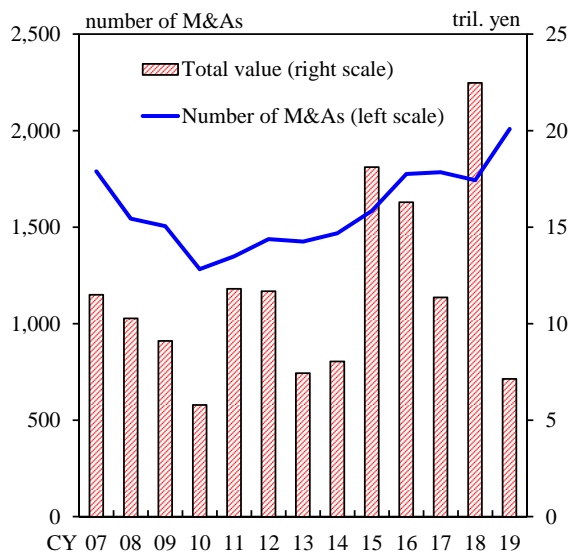
Rise in Labor Productivity



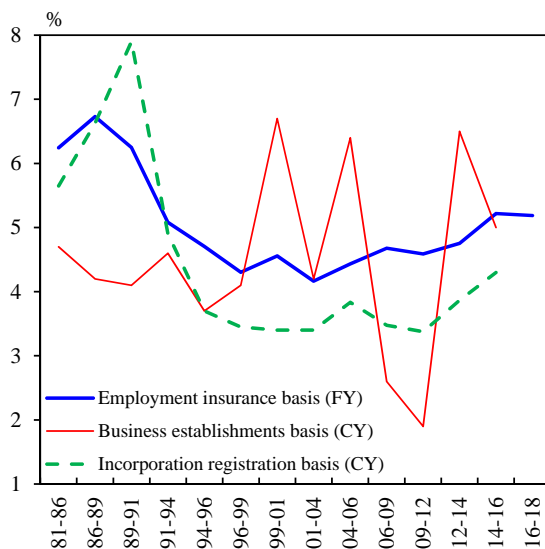
Notes: 1. In the left chart, figures for software investment for fiscal 2019 are based on the investment plans in the June 2019 survey.
 2. In the right chart, labor productivity = (operating profits + personnel expenses + depreciation expenses) / number of workers / GDP deflator
 Sources: Ministry of Finance; Cabinet Office; Bank of Japan.

Firms' Positive Initiatives

Number of M&As



Firms' Entry Rate



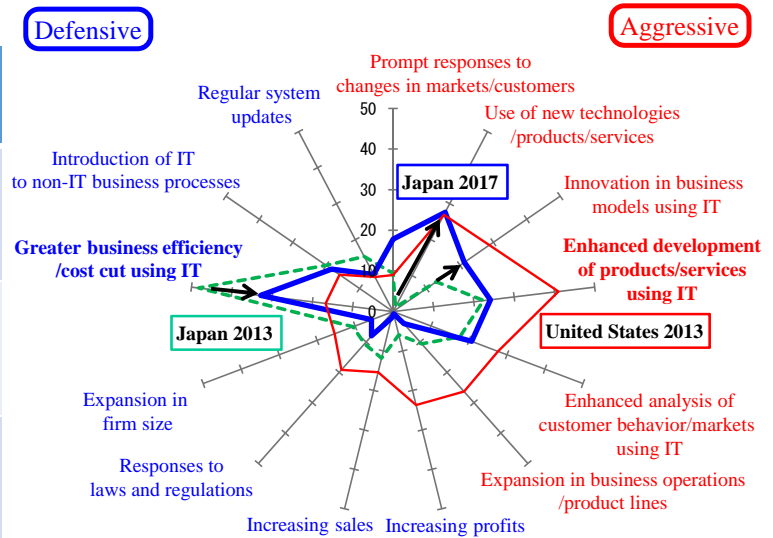
Notes: 1. In the left chart, figures include only M&As in which Japanese firms are acquirers. Figures for the first half of 2019 are actual while those for the second half are estimated assuming that the year-on-year growth rates are the same as those for the first half.
 2. In the right chart, for figures based on employment insurance, entry rate = number of business establishments newly covered by employment insurance / number of business establishments covered by employment insurance at the end of previous fiscal year × 100. For figures based on business establishments, entry rate = number of newly established business establishments / number of existing business establishments at the beginning of the year. For figures based on incorporation registration, entry rate = number of incorporation registrations / number of firms in previous year × 100. To allow for comparison, period averages of figures based on employment insurance and incorporation registration are calculated in line with those based on business establishments, which is least frequently surveyed.
 Sources: Bloomberg; The Small and Medium Enterprise Agency; Ministry of Health, Labour and Welfare; Ministry of Internal Affairs and Communications; Ministry of Justice; National Tax Agency.

Toward Productivity Enhancement: IT Utilization

TFP Growth Rates of IT-Producing Sector and IT-Using Sector

	annualized average growth rate, %			
	1995-2000	2001-2005	2006-2010	2011-2017
All sectors	1.0	1.1	-0.2	0.9
IT-producing sector	8.4	9.0	7.7	3.9
IT-using sector	1.3	1.5	-0.6	0.5

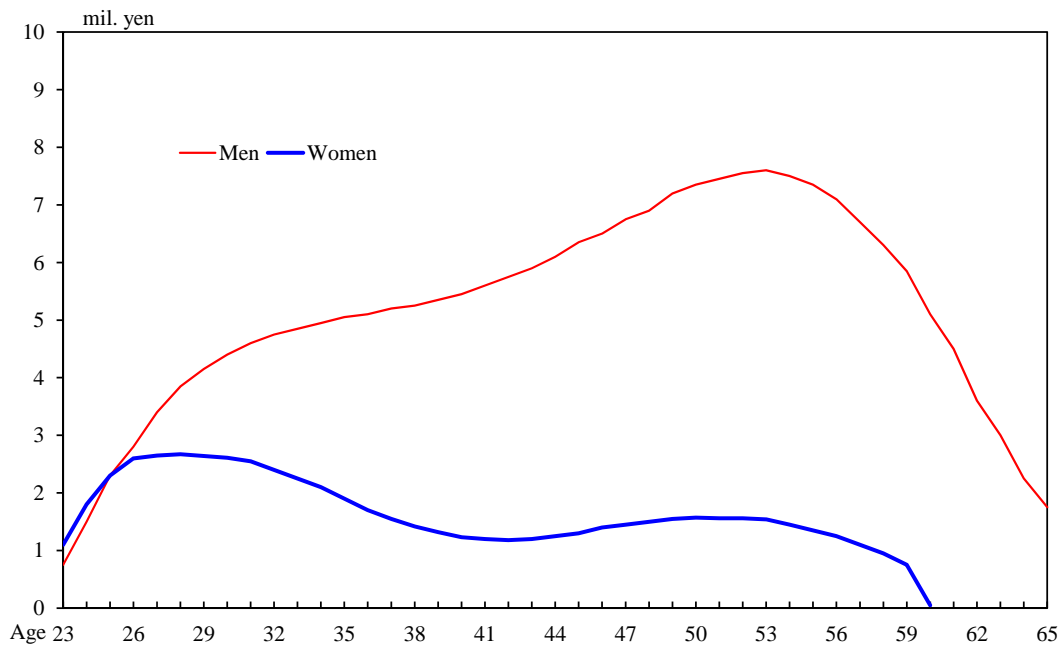
Reasons for IT Investment



Notes: 1. In the left chart, TFP is measured by using SNA data classified by economic activity in the "Annual Report on National Accounts." IT-producing sector is composed of electronic components and devices; electrical machinery, equipment and supplies; and information and communication electronics equipment. IT-using sector is composed of 9 industries in which the ratio of software investment to GDP is relatively high: information and communications; transport and postal services; wholesale and retail trade; accommodation and food service activities; professional, scientific and technical activities; electricity, gas and water supply and waste management service; chemicals; textile products; other manufacturing.
 2. In the right chart, figures are based on the 2017 JEITA/IDC Japan survey.
 Sources: Cabinet Office; JEITA.

Gender Gaps in Income

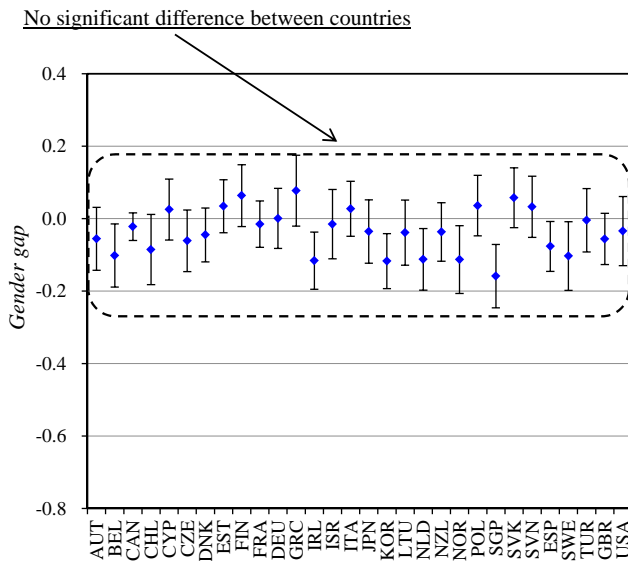
Annual Income (Middle-Class)



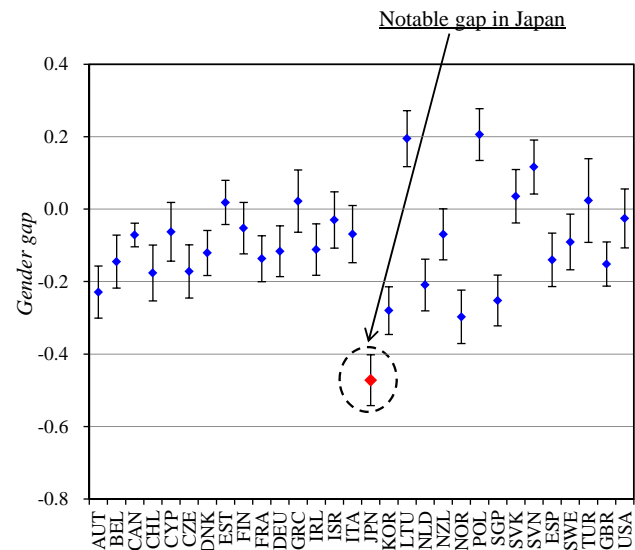
Source: Lorraine Dearden and Nobuko Nagase, "Getting Student Loans Right in Japan: Problems and Possible Solutions," Discussion Paper Series A of the Institute of Economic Research at Hitotsubashi University, no.668, 2017.

Gender Gaps in Skills and Skill Use

Literacy



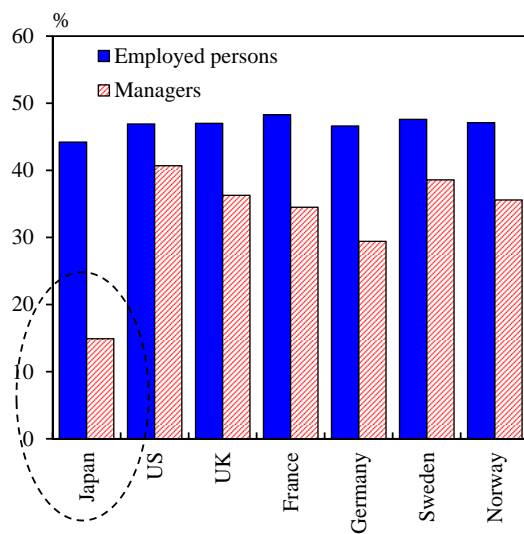
Literacy Skill Use



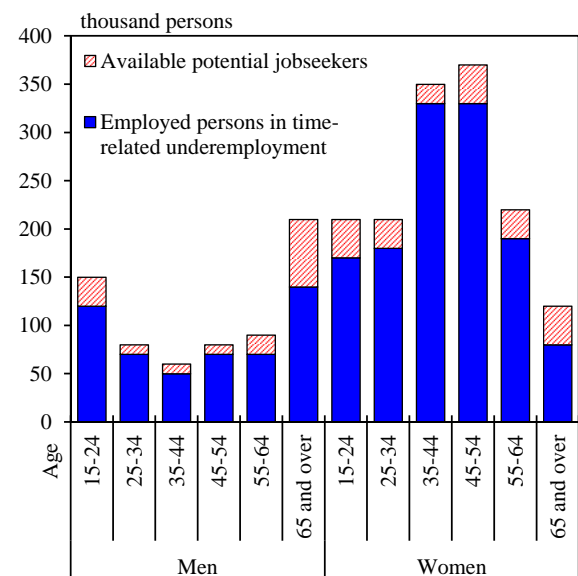
Note: Figures show unconditional gender gaps in skills and skill use. Each point represents the gender gap, and the bars indicate its 95% confidence interval.
 Source: Daiji Kawaguchi and Takahiro Toriyabe, "Parental Leaves and Female Skill Utilization: Evidence from PIAAC," *RIETI Discussion Paper Series*, no. 18-E-003, 2018.

Labor Underutilization

Proportion of Employed Women and Women in Managerial Positions (2018)



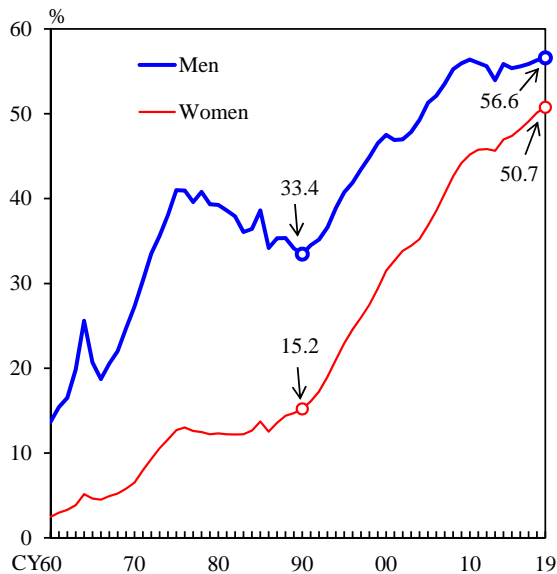
Labor Underutilization by Gender and Age (2019/Q2)



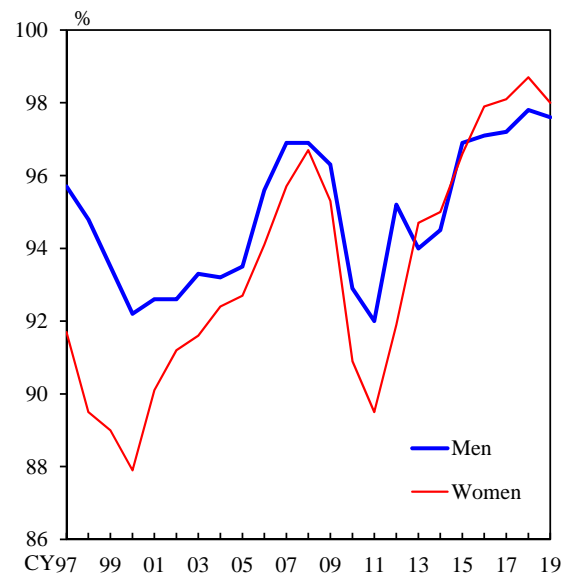
Notes: 1. In the left chart, the definition of "managers" varies across countries. In Japan, managers include corporate executives, managerial personnel equivalent to or above section chief, and managerial government officers.
 2. In the right chart, "employed persons in time-related underemployment" means employed persons with weekly working hours of less than 35 hours who are wishing and able to work additional hours. "Available potential jobseekers" means those who have not been seeking a job within one month, but who are wishing and ready to work if work is available.
 Sources: Ministry of Internal Affairs and Communications; ILO.

Enrollment Rate and Employment Rate

University Enrollment Rate



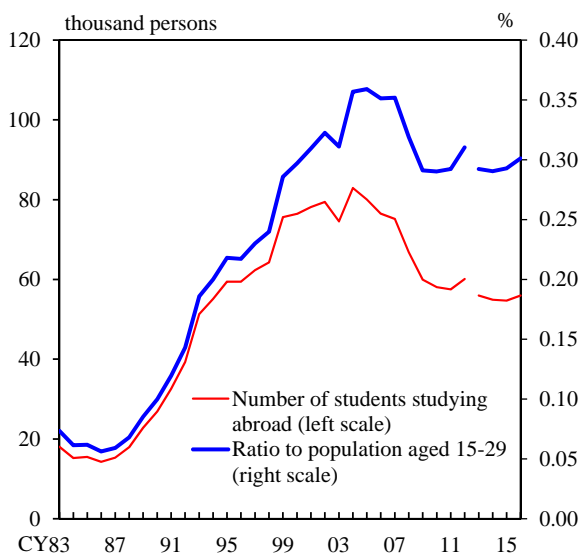
Employment Rate for University and High School Graduates



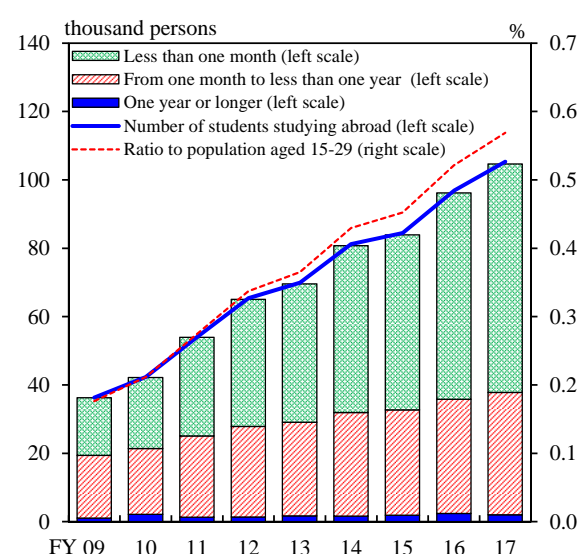
Sources: Ministry of Education, Culture, Sports, Science and Technology; Ministry of Health, Labour and Welfare.

Globalization of Human Resources

Japanese Students in Higher Education Abroad



Japanese Students Studying Abroad Temporarily



Note: In the left chart, there is a discontinuity in the data for the 2013 survey due to a change in the definition of "students studying abroad."
Sources: Ministry of Education, Culture, Sports, Science and Technology; OECD; UNESCO; Institute of International Education; Japan Student Services Organization, etc.