Nomura Securities Co Ltd, Tokyo
Japanese Economic Research

Reconsidering the prospects of Japan’s Long-term Interest Rates

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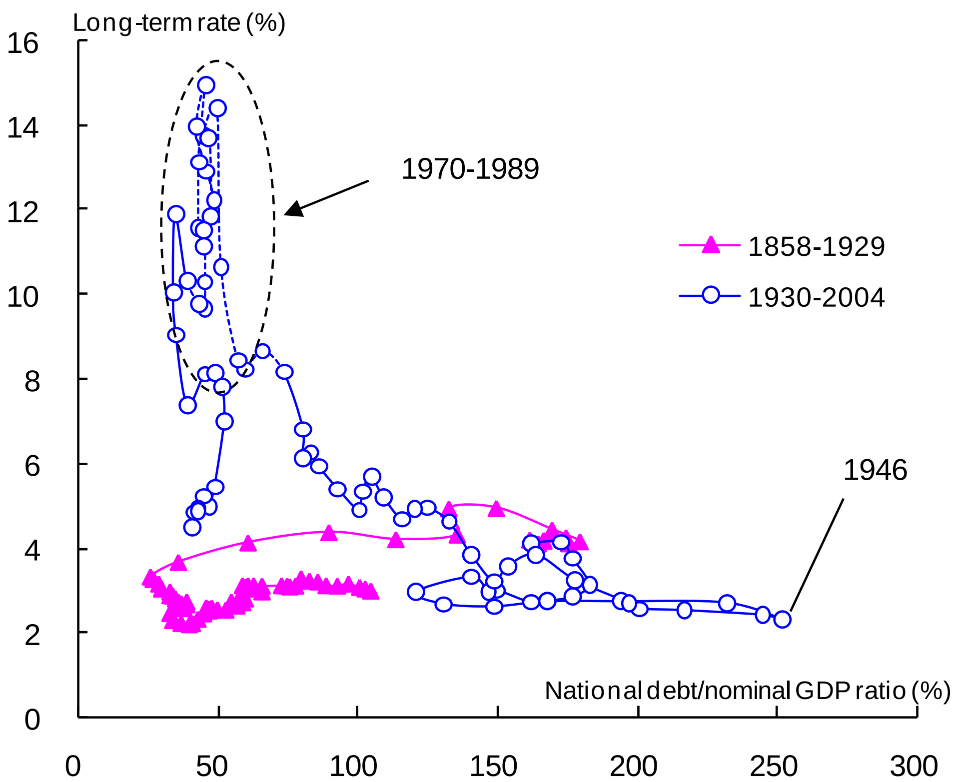
November 2010

Historical relationship between long-term rates and government debt (1)

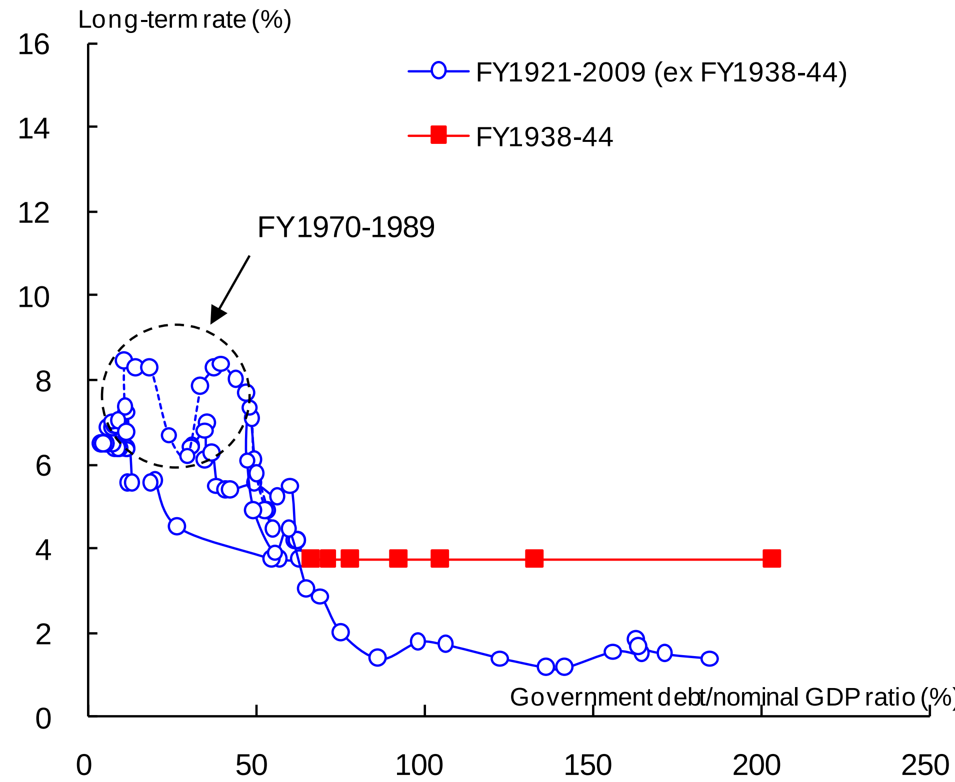
UK long-term interest rates and government debt



Note: National debt is one form of central government debt.

Source: Nomura, based on measuringworth.com, UK Treasury and NRI/AURORA data

Japanese long-term interest rates and government debt

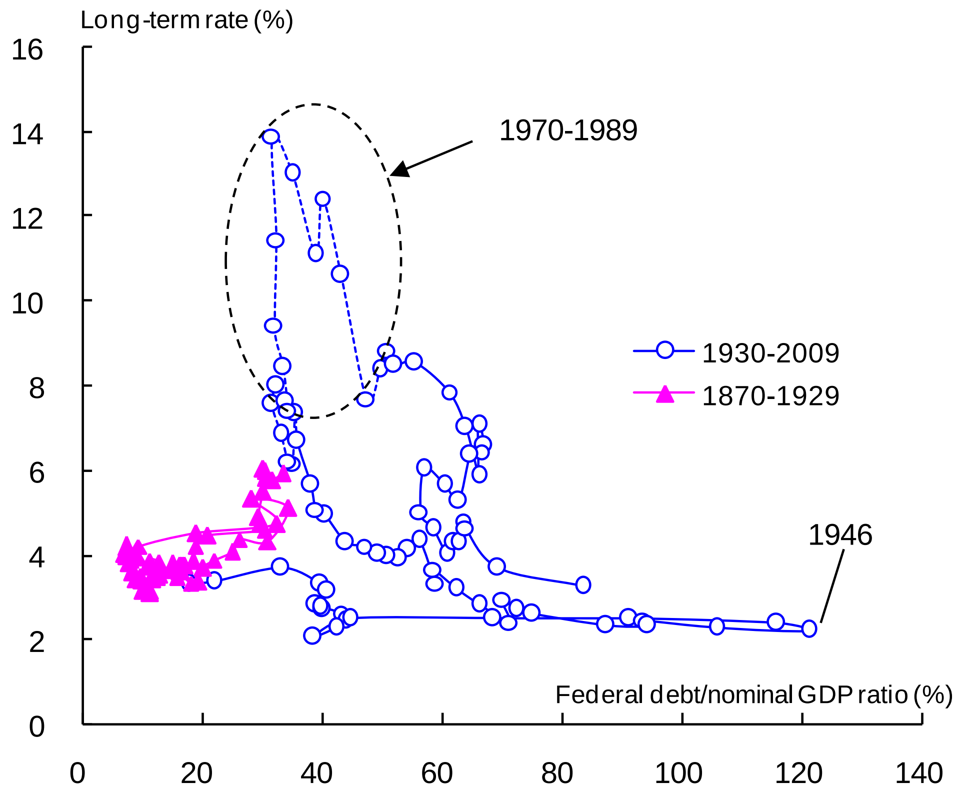


Source: Nomura, based on Japan Statistical Association, Ministry of Finance and BOJ data and Palgrave Macmillan's International Historical Statistics

In the long-run, long-term interest rates and government debt/GDP ratio appear to be inversely correlated in the UK and Japan.

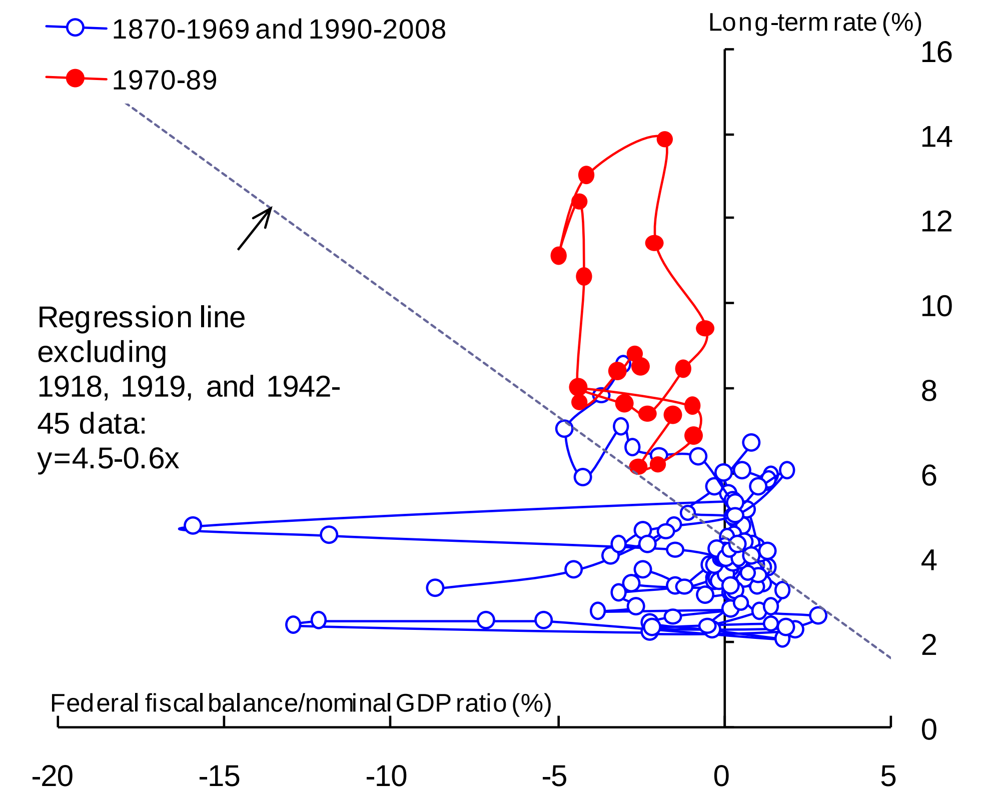
Historical relationship between long-term rates and government debt (2)

US long-term interest rates and government debt



Source: Nomura, based on US Department of Commerce, US Treasury Department and measuringworth.com data

US long-term interest rates and fiscal balance

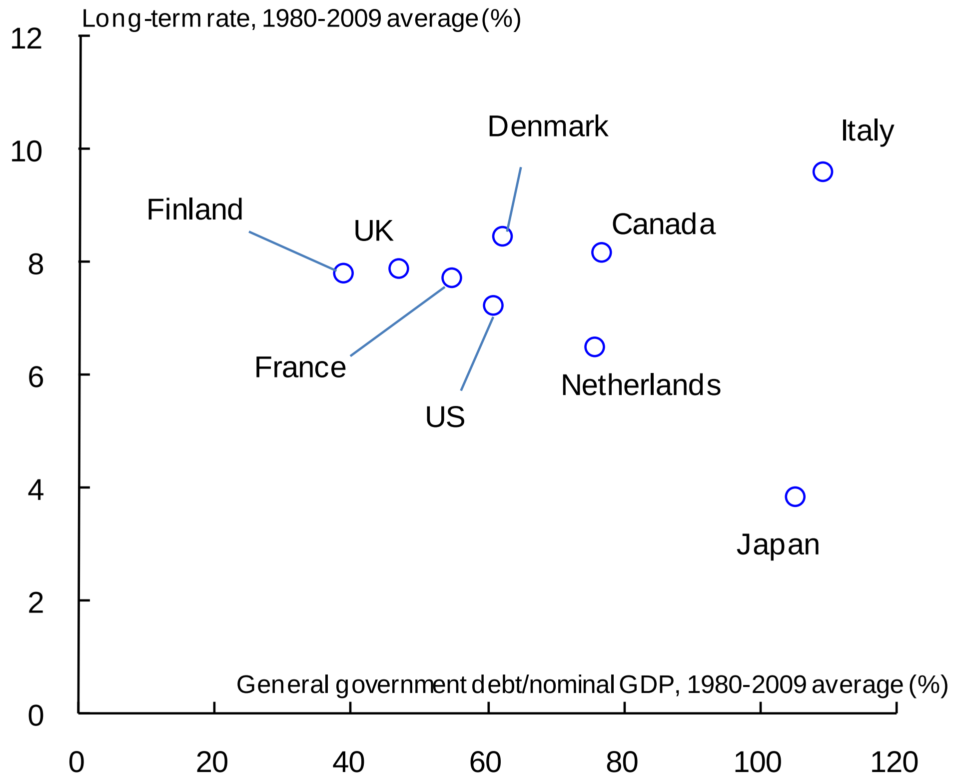


Source: Nomura, based on US Department of Commerce and MEASRINGWORTH.COM

Long-term interest rates and government debt/GDP ratio appear to be inversely correlated in the US. Long-term interest rates were high during the 70s and 80s.

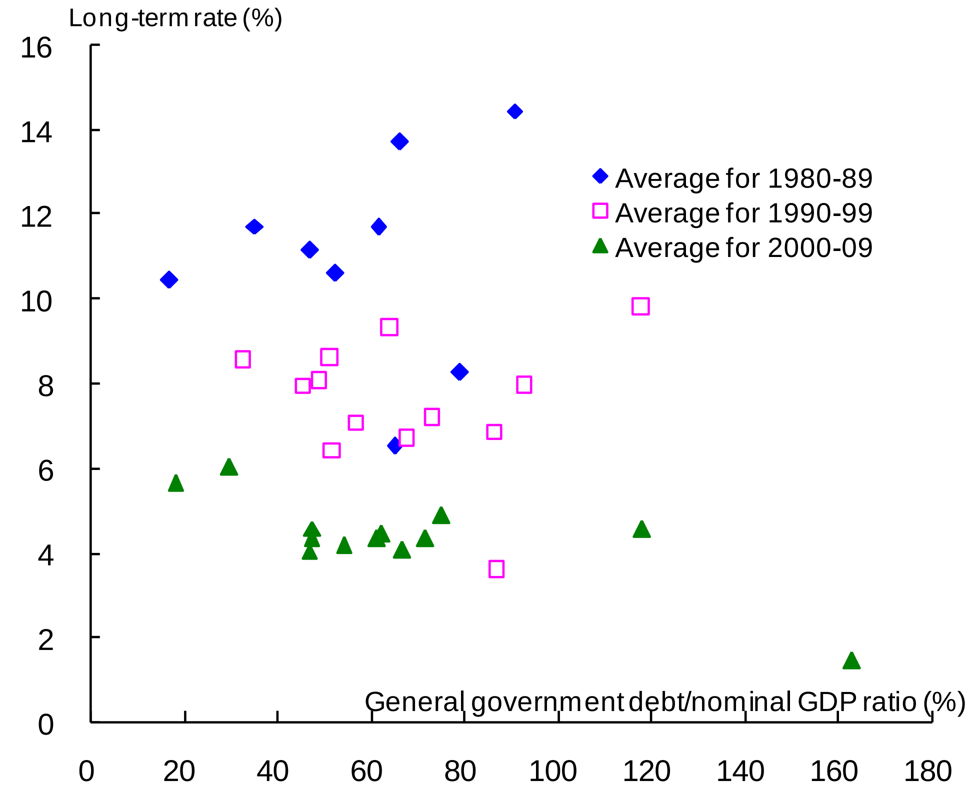
Long-term rates and government debt in an international perspective

International relationship between long-term interest rates and government debt



Source: Nomura, based on International Monetary Fund (IMF) and Organization for Economic Co-operation and Development (OECD) data

International relationship between long-term interest rates and government debt by decade



Source: Nomura, based on IMF and OECD data

Countries with high debt/GDP ratios do not necessarily have high long-term interest rates.

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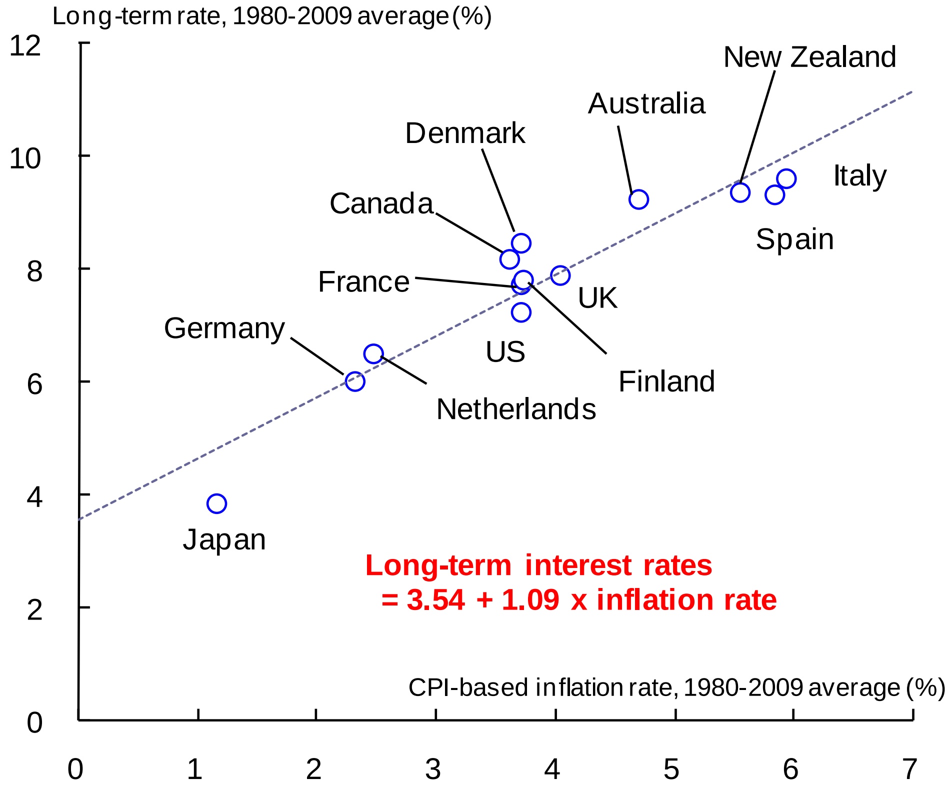
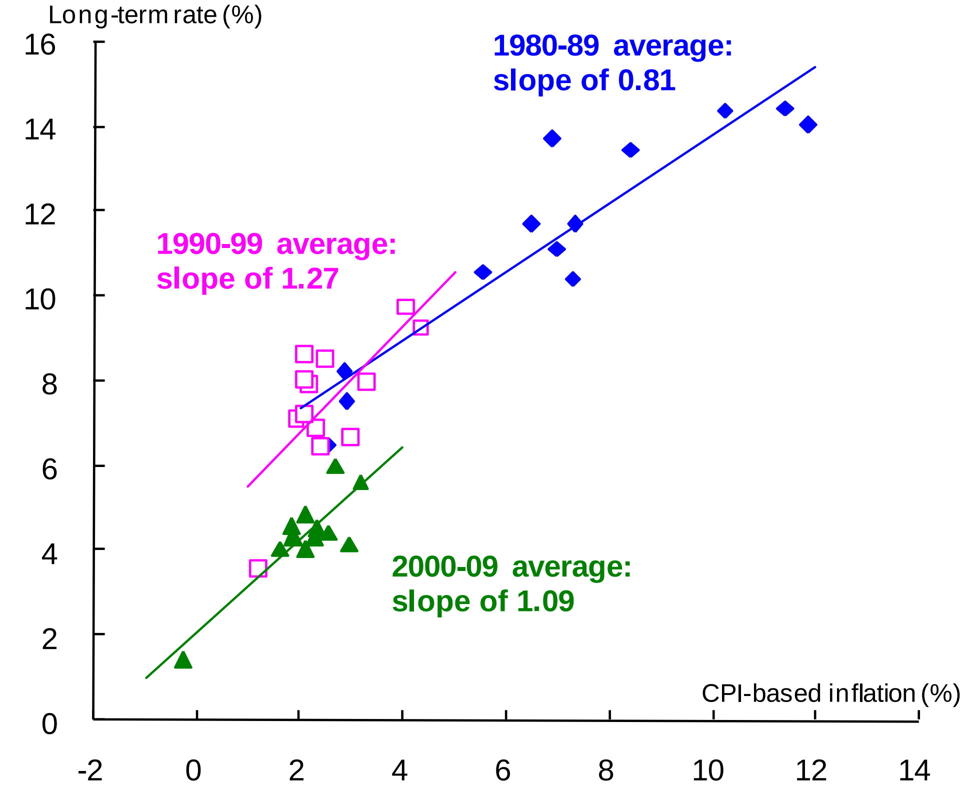
What determines the international long-term rate gap?

International relationship between long-term interest rates and inflation



Source: Nomura, based on IMF and OECD data

International relationship between long-term interest rates and inflation by decade

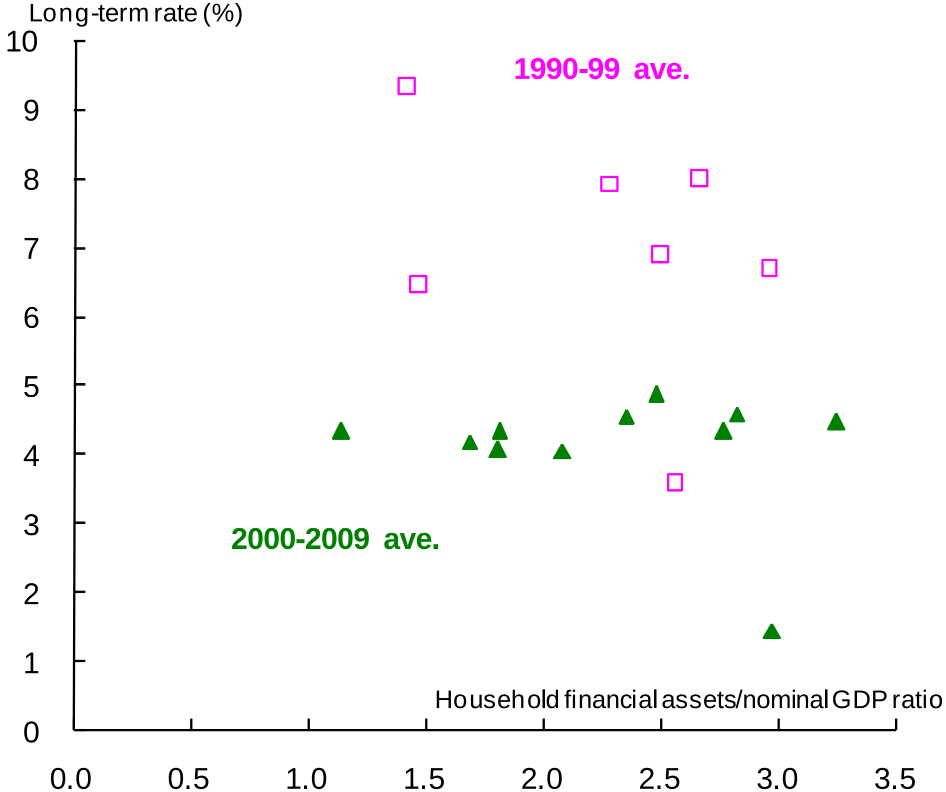


Source: Nomura, based on IMF and OECD data

Long-term interest rates tend to be high in those countries with high inflation rates.

Are household financial assets relevant for long-term rates?

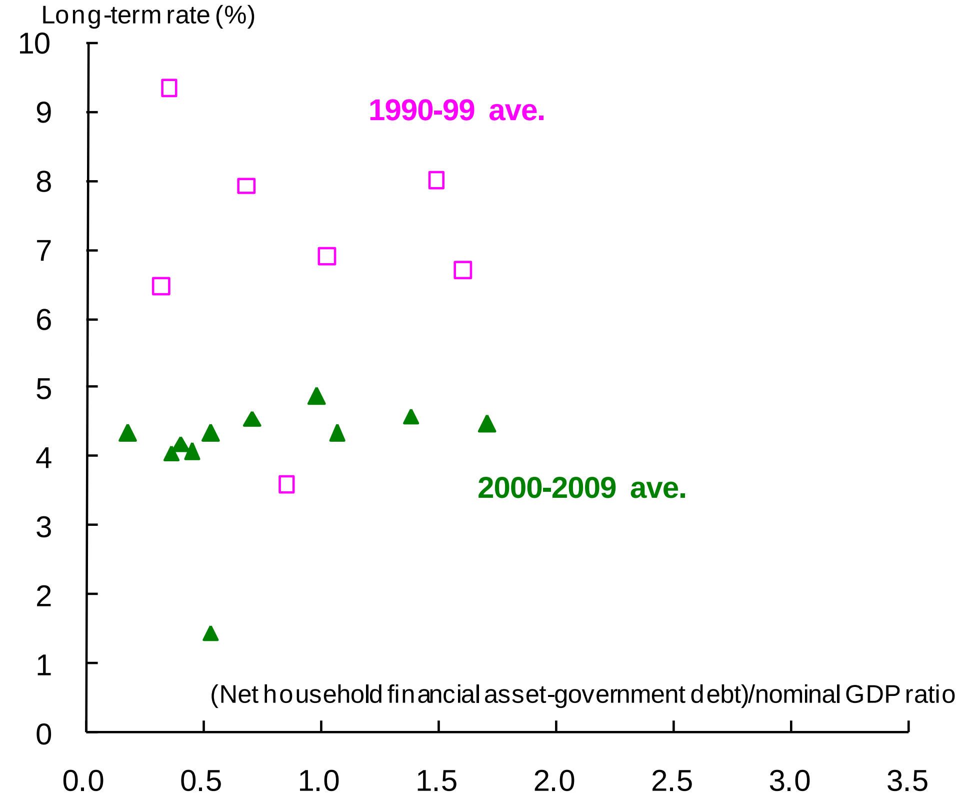
International relationship between long-term interest rates and household financial assets



Note: Each point indicates the US, Canada, Japan, France, Germany, Italy, Netherlands, Spain, the UK, Denmark and Finland.

Source: Nomura, based on OECD

Long-term interest rates and household financial assets net of government debt



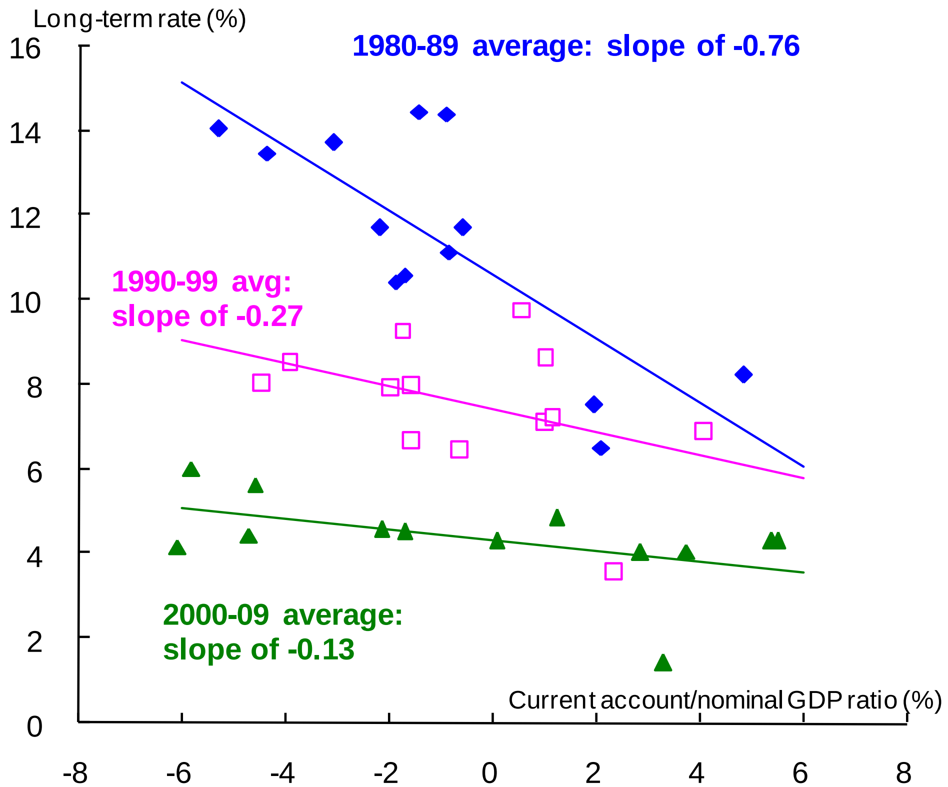
Note: Each point indicates the US, Canada, Japan, France, Germany, Italy, Netherlands, Spain, the UK, Denmark and Finland.

Source: Nomura, based on OECD

International comparison does not necessarily reveal any relationship between the amount of household assets and long-term rates.

Current account deficit = high interest rates?

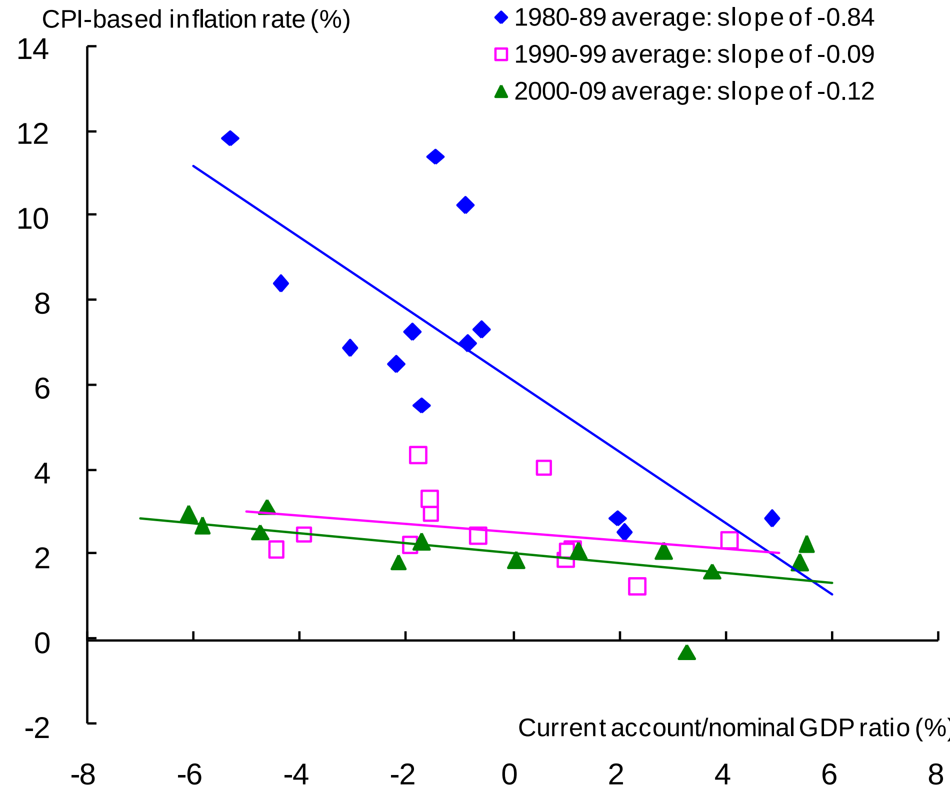
International relationship between long-term interest rates and current account by decade



Note: Each data point indicates a country (US, Canada, Australia, Japan, New Zealand, France, Germany, Italy, Netherlands, Spain, UK, Denmark, Finland)

Source: Nomura, based on IMF data

International relationship between inflation and current account by decade



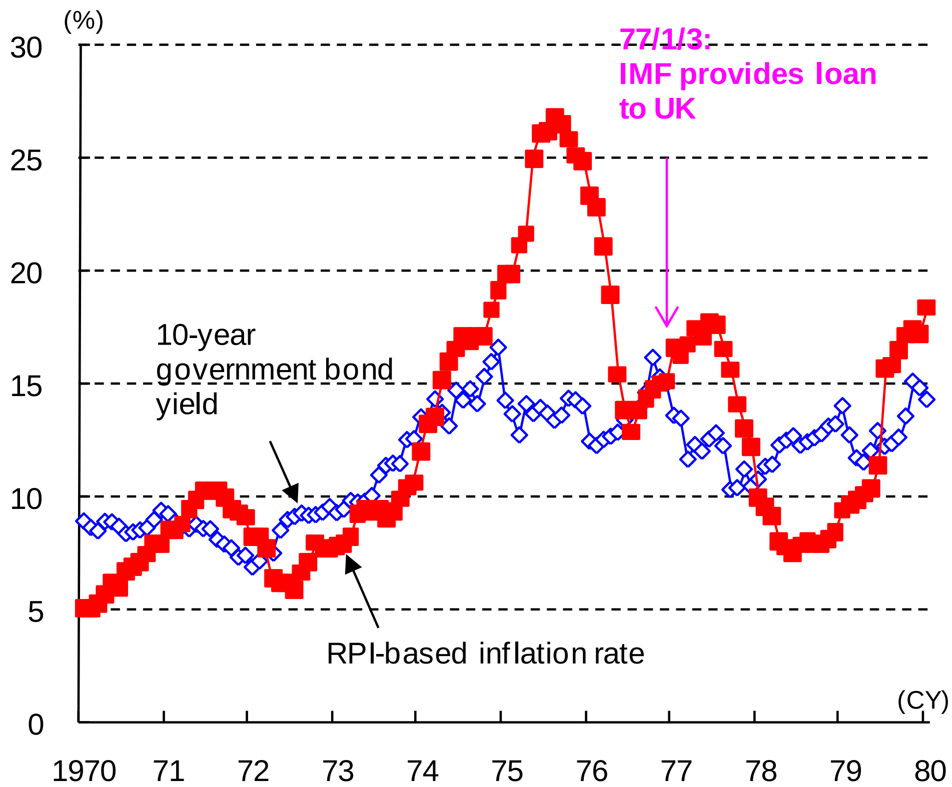
Note: Each data point indicates a country (US, Canada, Australia, Japan, New Zealand, France, Germany, Italy, Netherlands, Spain, UK, Denmark, Finland)

Source: Nomura, based on IMF data

Current account deficit is not always associated with high interest rates. The association looked clear in 1980s but inflation was also high in deficit countries.

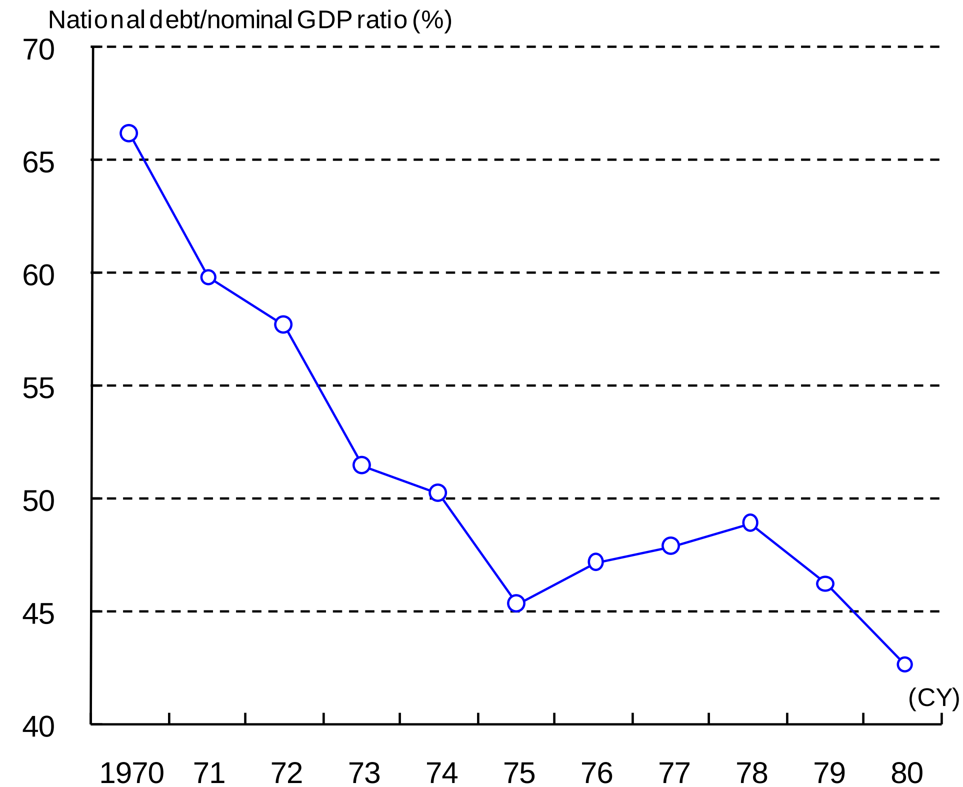
UK's IMF crisis in the 1970s

UK inflation and long-term interest rates during the 1970s



Source: Nomura, based on Thomson Reuters Datastream, NRI/Aurora data

UK government debt during the 1970s



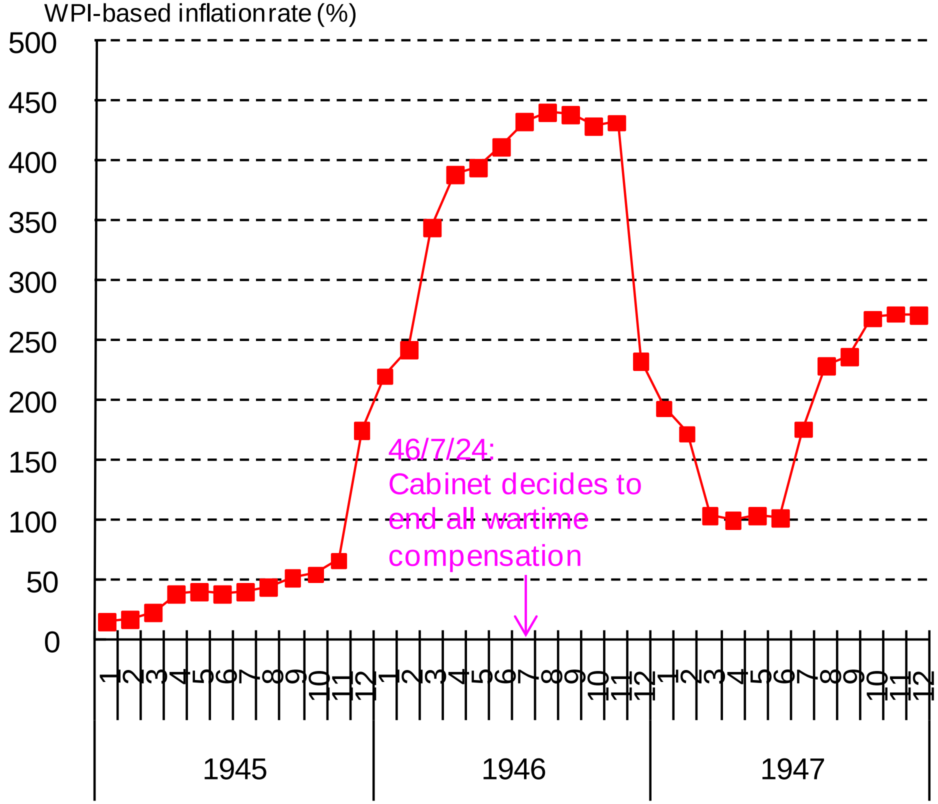
Note: National debt is one form of central government debt.

Source: Nomura, based on UK Treasury data

IMF supplied the UK with a contingency loan in 1977. The crisis was preceded by high inflation. Debt/GDP ratio was below 50% at the time of crisis.

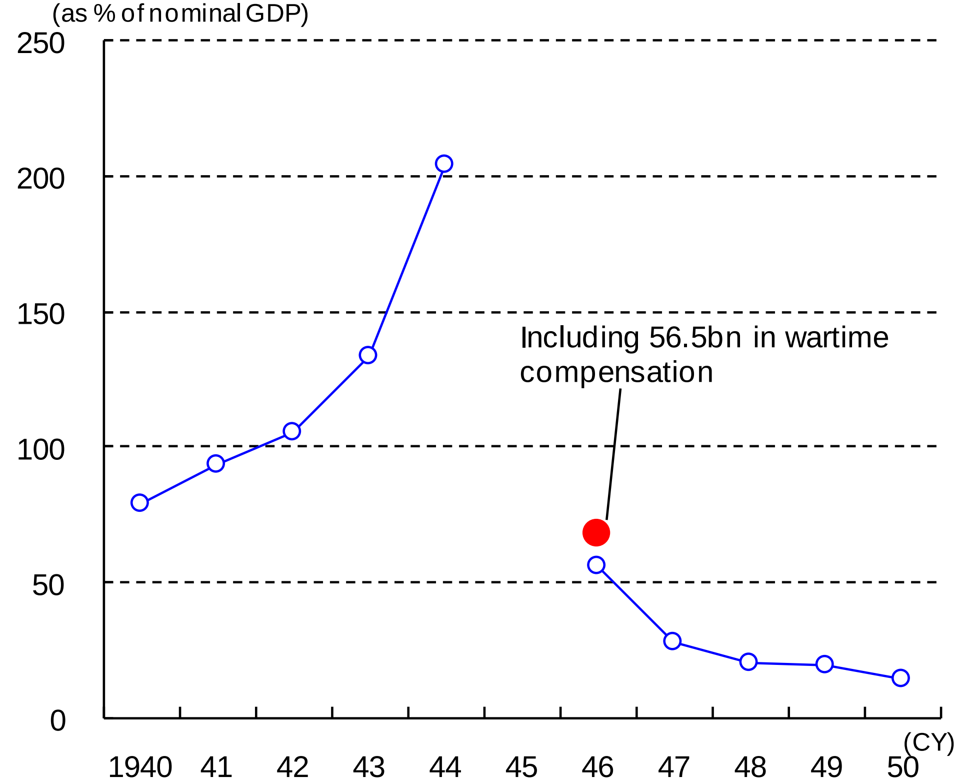
Japan’s ending of indemnity payments after World War II

Japan's post-war inflation



Source: Nomura, based on BOJ data

Japan's national debt in the 1940s

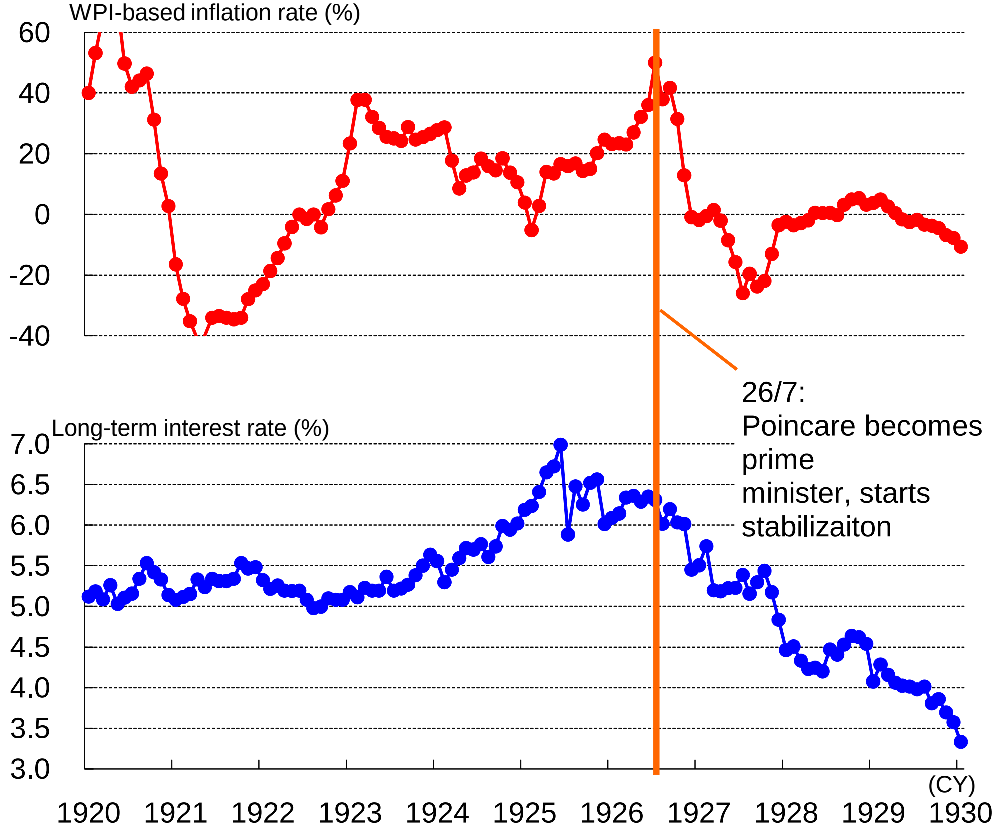


Source: Nomura, based on Japan Statistical Association, Ministry of Finance data and Palgrave Macmillan’s International Historical Statistics

Japan’s post-war inflation reached more than 100% at the end of 1945. In July 1946, the government decided to end all wartime compensation.

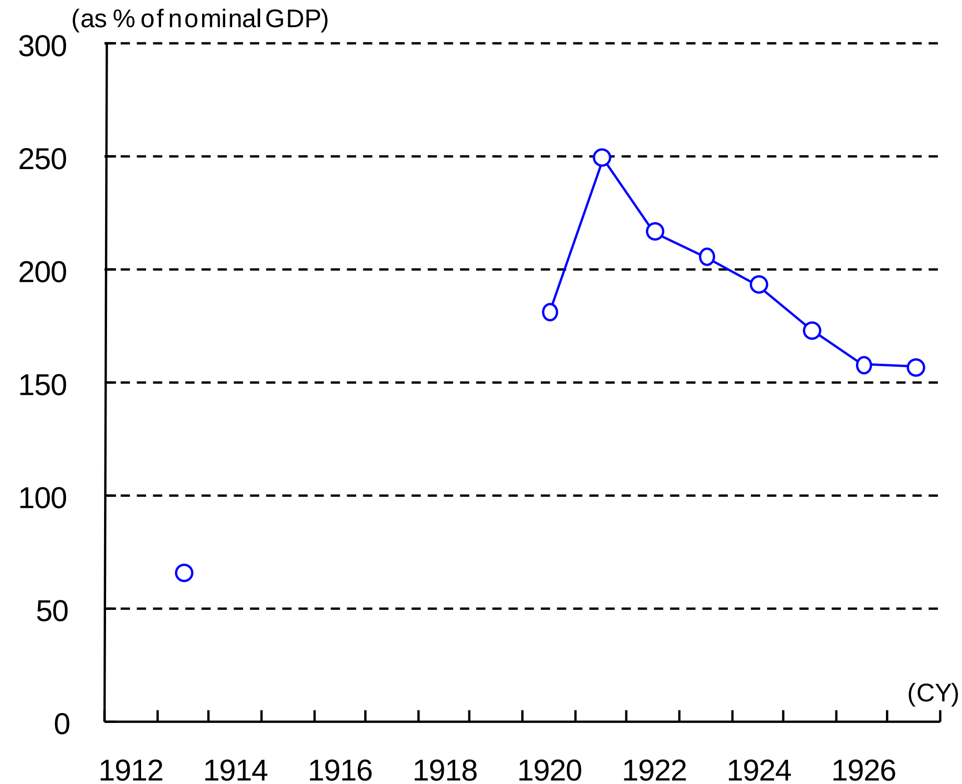
France’s fiscal crisis in the 1920s

France’s inflation and long-term interest rates in the 1920s



Source: Nomura, based on NBER data

France’s government debt in the 1920s

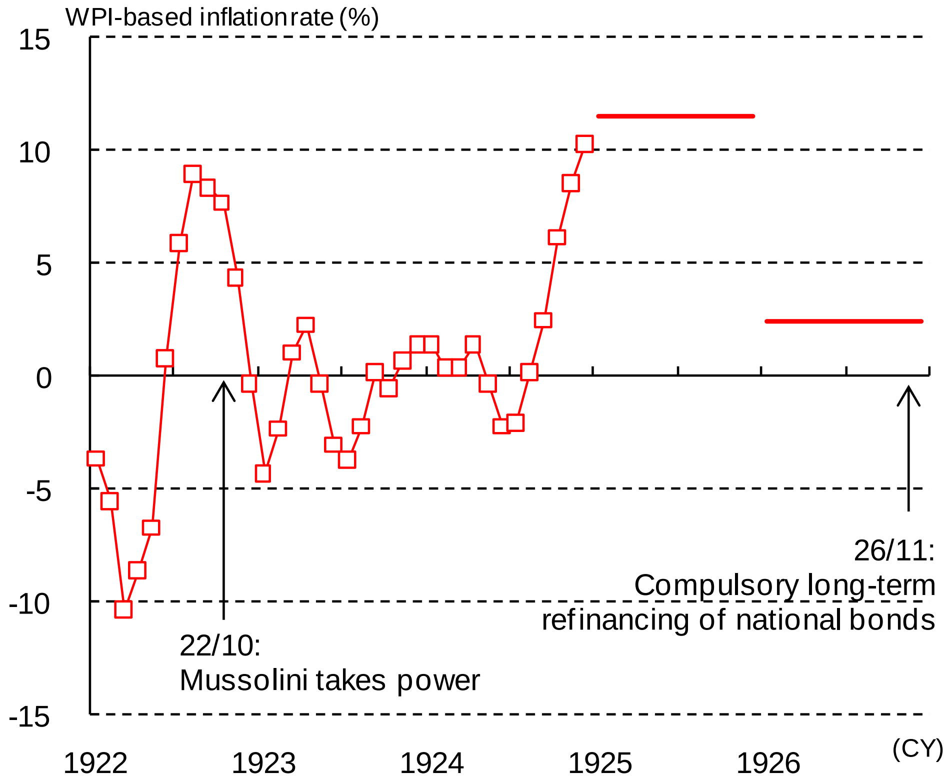


Source: Nomura, based on Palgrave Macmillan’s International Historical Statistics and Rogers' The Process of Inflation in France, 1914–1927 (1929) data

Refinancing crisis in 1926 in France was preceded by high inflation. Debt/GDP ratio was in a declining trend.

Italy’s fiscal crisis in the 1920s

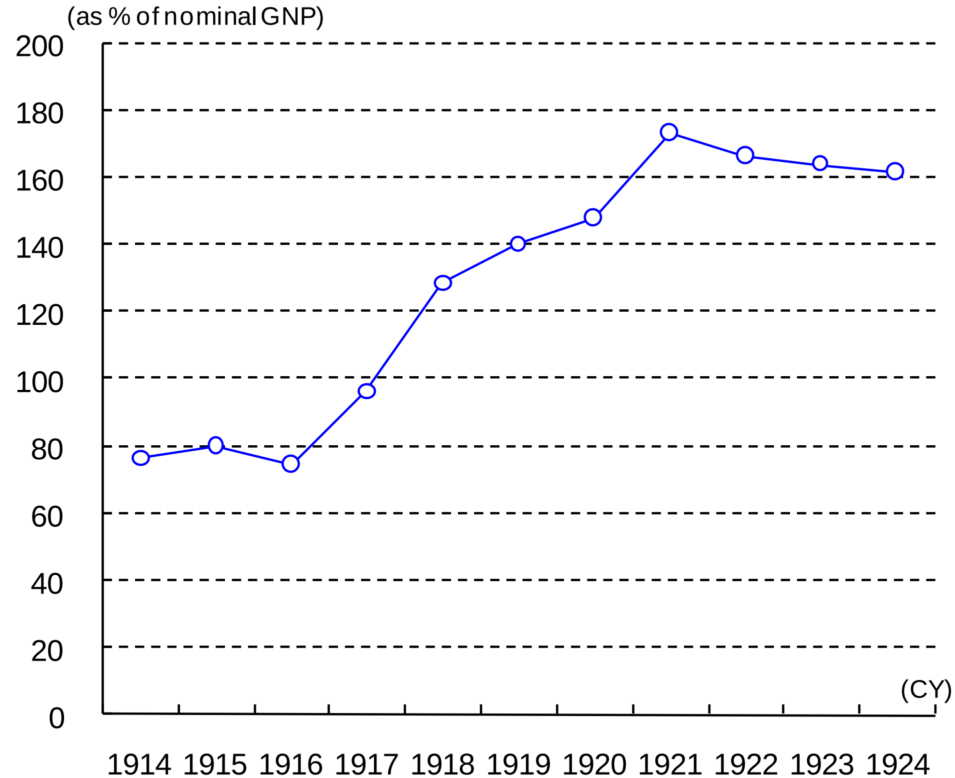
Italy's inflation in the 1920s



Note: Shows annual average data for 1925–26, due to unavailability of monthly data.

Source: Nomura, based on John Parke Young's European Currency and Finance (1925), Palgrave Macmillan’s International Historical Statistics

Italy's government debt in 1914-24

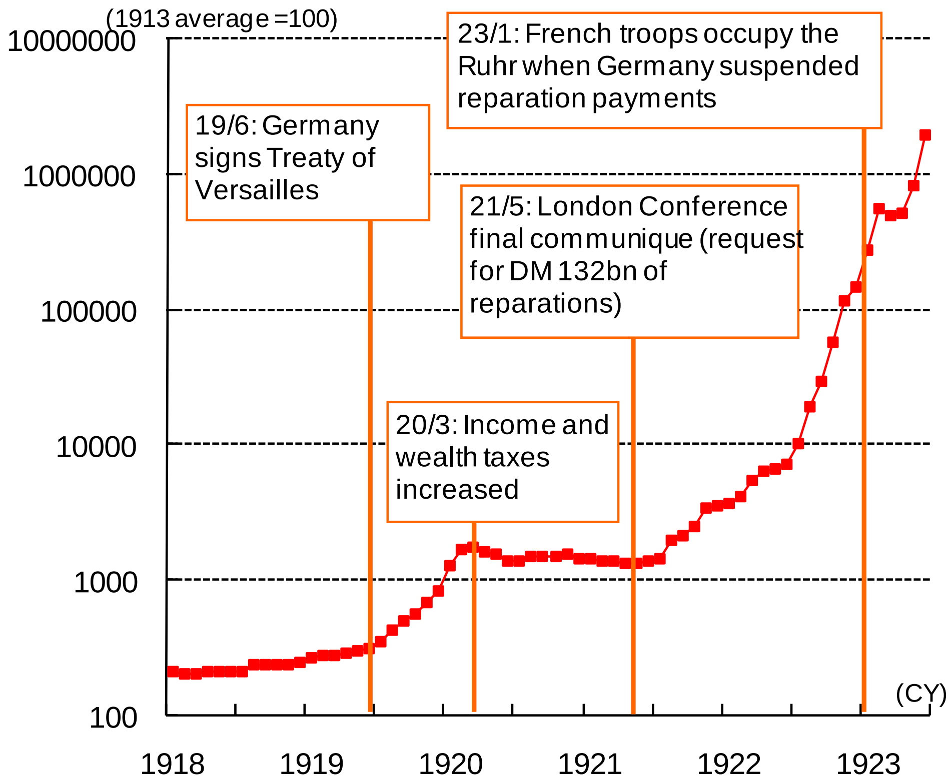


Source: Nomura, based on John Parke Young's European Currency and Finance (1925), Palgrave Macmillan’s International Historical Statistics

Inflation started rising at the end of 1925, followed by a compulsory refinance of government debt by Mussolini in 1926.

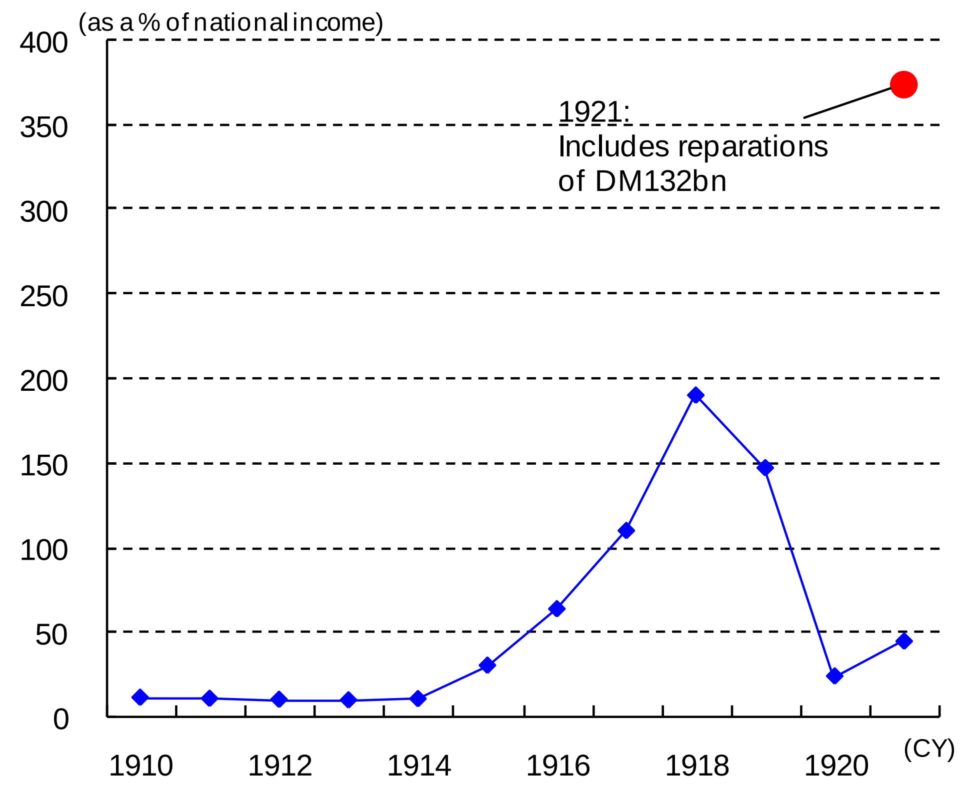
German experience in the 1920s

Germany's wholesale price index after World War I



Source: Nomura, based on Young's European Currency and Finance (1925) and Rogers' The Process of Inflation in France, 1914–1927 (1929) data

Germany's government debt in the 1910s



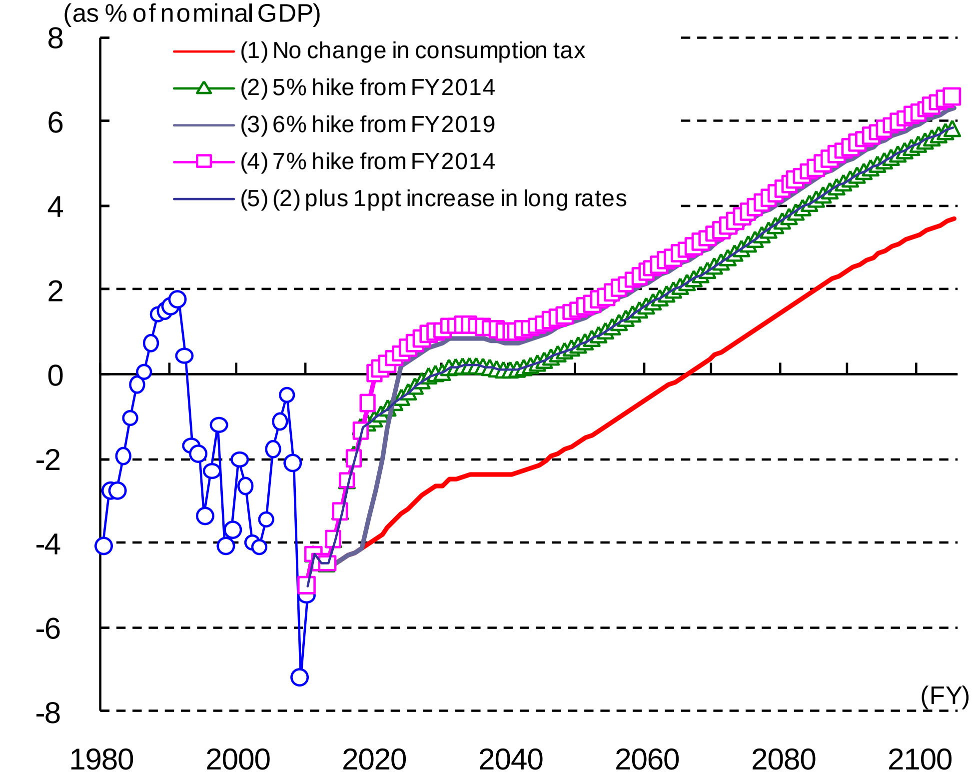
Note: It is assumed national income in 1921 was DM40bn The level of national income from 1914 to 1920 was linearly interpolated using the actual figure for 1913 and the assumed figure for 1921.

Source: Nomura, based on Palgrave Macmillan's International Historical Statistics and Young's European Currency and Finance (1925)

Reparation of DM132bn was set in May 1921, followed by high inflation in Germany. Debt/national income ratio, including reparation, was close to 400%.

Estimates for future of Japanese government finances

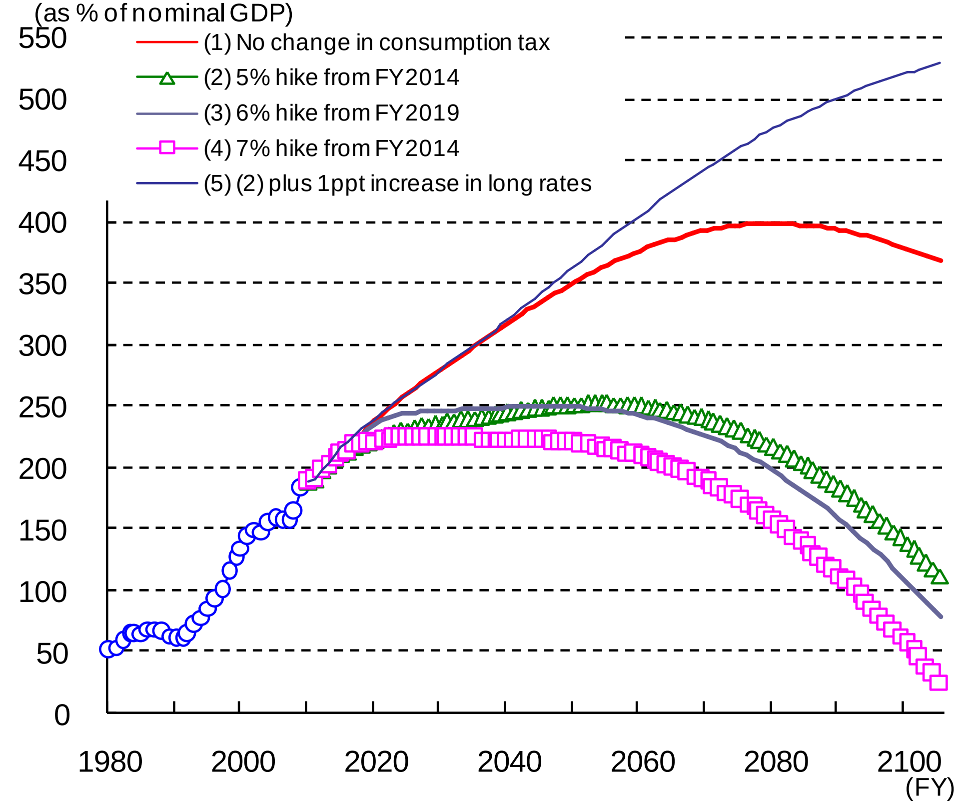
Projections for national, local-government primary balance



Note: (1) Assumes no increase in consumption tax. (2) Assumes consumption tax raised by 1ppt each year for five years from 2014. (3) Assumes consumption tax raised by 1ppt each year for six years from 2019. (4) Assumes consumption tax raised by 1ppt each year for seven years from 2014. (5) Assumes scenario (2) plus a 1ppt increase in long-term interest rates from 2012.

Source: Nomura, based on MOF, Ministry of Internal Affairs and Communications (MIAC), Cabinet Office data

Projections for national, local government debt



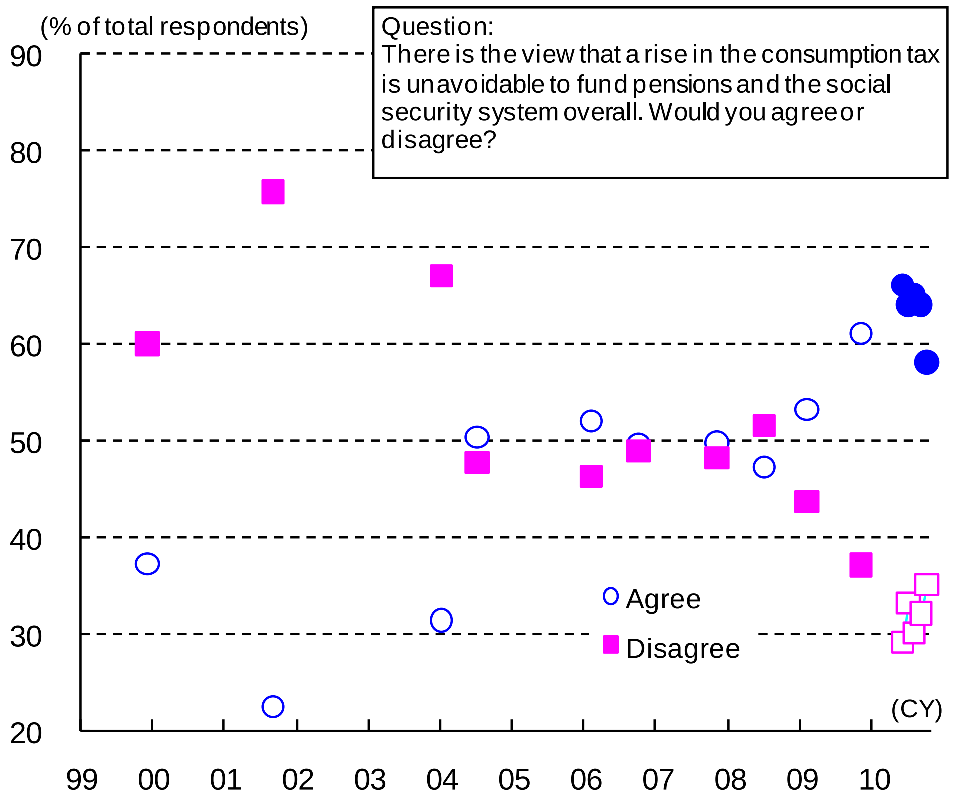
Note: (1) Assumes no increase in consumption tax. (2) Assumes consumption tax raised by 1ppt each year for five years from 2014. (3) Assumes consumption tax raised by 1ppt each year for six years from 2019. (4) Assumes consumption tax raised by 1ppt each year for seven years from 2014. (5) Assumes scenario (2) plus a 1ppt increase in long-term interest rates from 2012.

Source: Nomura, based on MOF, Ministry of Internal Affairs and Communications, Cabinet Office data

Japan's debt/GDP ratio may reach 400% without fiscal consolidation.

Voters' attitudes toward consumption tax hike

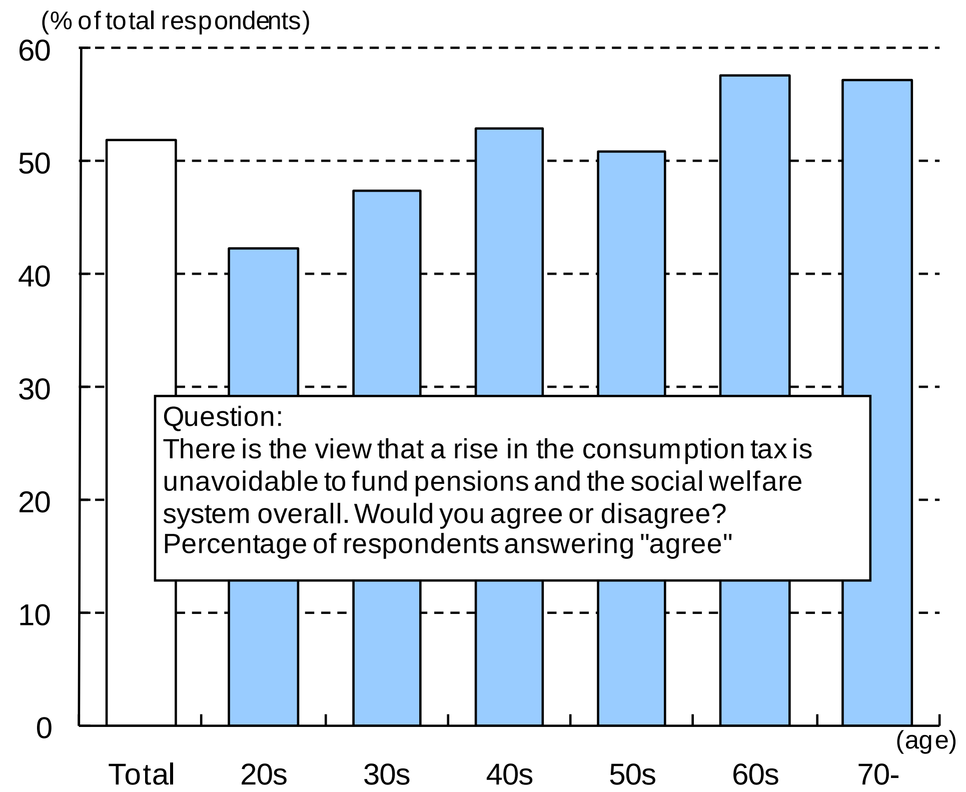
Yomiuri Shimbun public opinion poll results



Note: (1) "Agree" data in graph is the total for respondents answering "agree" or "probably agree"; "disagree" is the total for "disagree" and "probably disagree." (2) Response options were "support" or "oppose," not "agree" or "disagree," up until January 2004. (3) The latest five polls include fiscal consolidation as a purpose of consumption tax hike, not only social security system.

Source: Nomura, based on Yomiuri Shimbun data

Yomiuri Shimbun opinion poll results: 11-12 February 2006



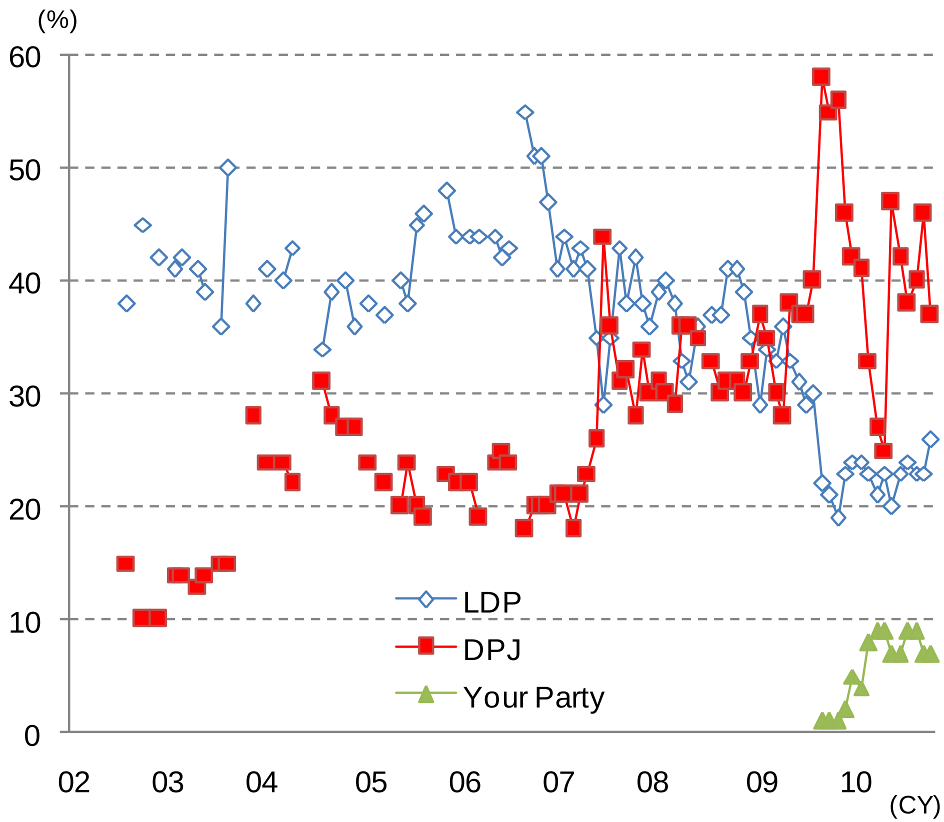
Note: Total for respondents answering "agree" or "probably agree."

Source: Nomura, based on Yomiuri Shimbun data

Yomiuri opinion poll shows an increasing support for consumption tax hike.

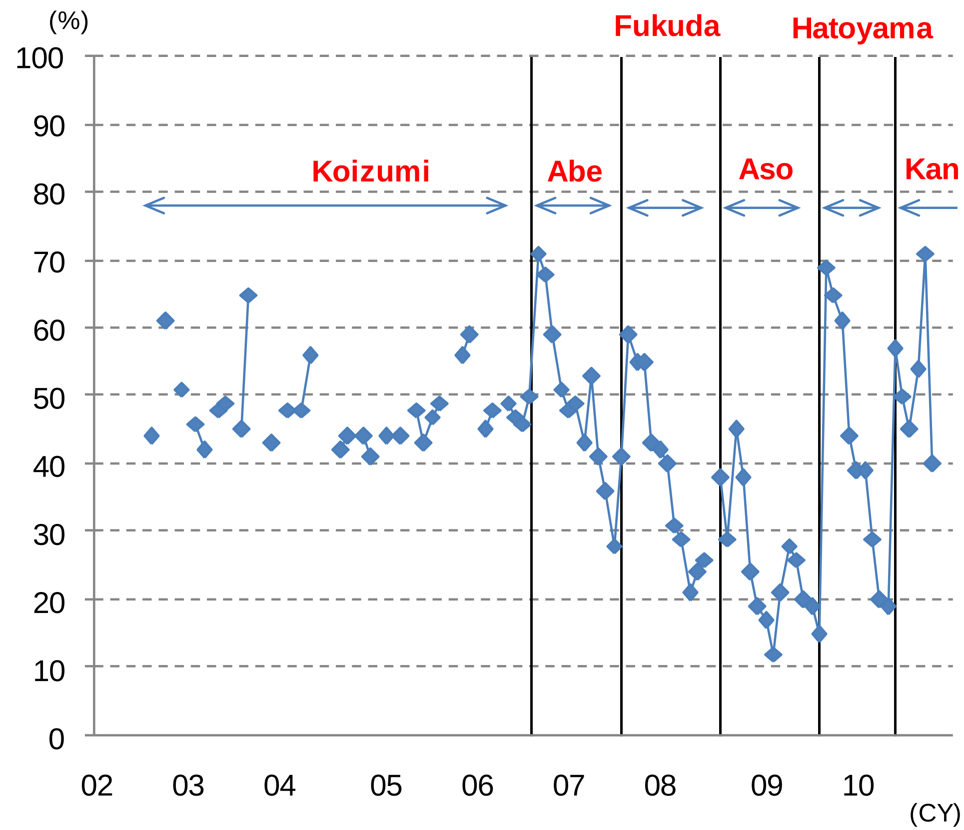
Approval rates for current government not necessarily low

Approval rates for political parties in Japan



Source: Nomura, based on NIKKEI

Approval rates for cabinets



Source: Nomura, based on Nikkei

NIKKEI opinion poll shows that approval rates for the current government were not necessarily low around the last upper election.

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How to achieve consumption tax hike

Opinion polls by newspaper companies

(share in all respondents, %)

	Time of survey	Flexible modification of manifesto		Consumption tax hike	
		Agree	Disagree	Agree	Disagree
Nikkei	Aug. 27–29			45	46
Mainichi	Aug. 28–29	70	27	51	44
Yomiuri	Aug. 28–29	79	15	58	35
Yomiuri	Sep. 3–5	71	17		
Asahi	Sep. 4–5	63	24	48	44
NIkkei	Sep. 4–15			46	44

Note: Details of questions differ by newspapers.

Source: Nomura, based on newspapers listed in the table

Yomiuri opinion poll, which specifies the usage of consumption tax, shows higher support for consumption tax hike.