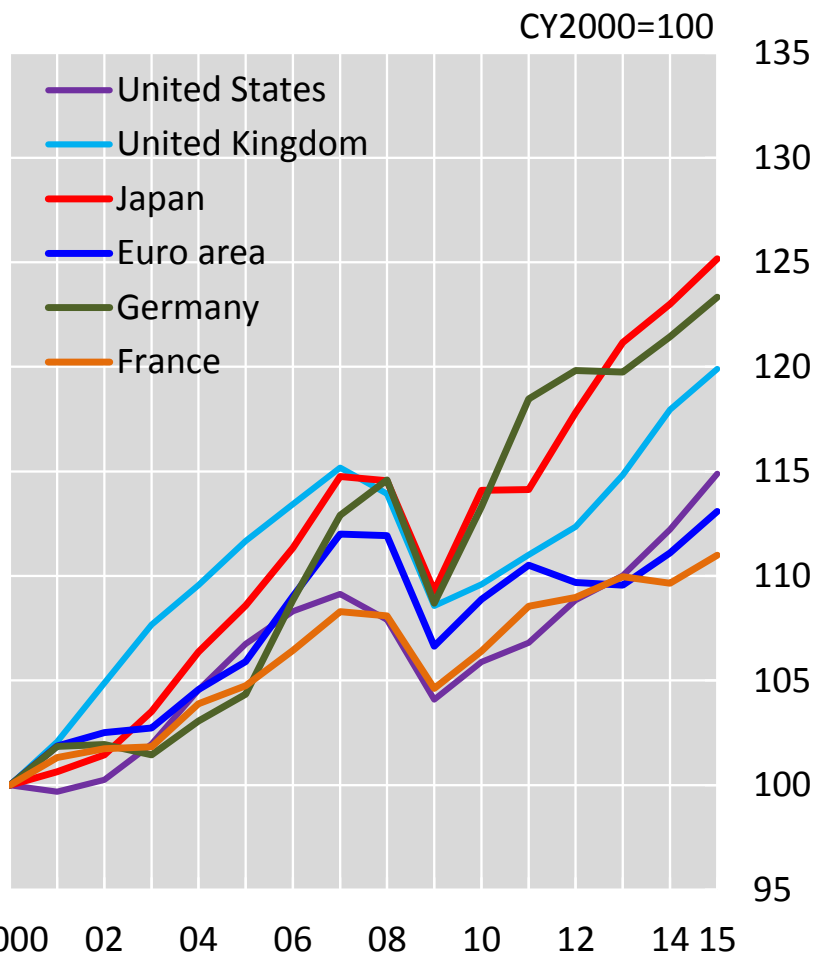


Demographic Challenges: Japanese Experience and Issues to Be Studied

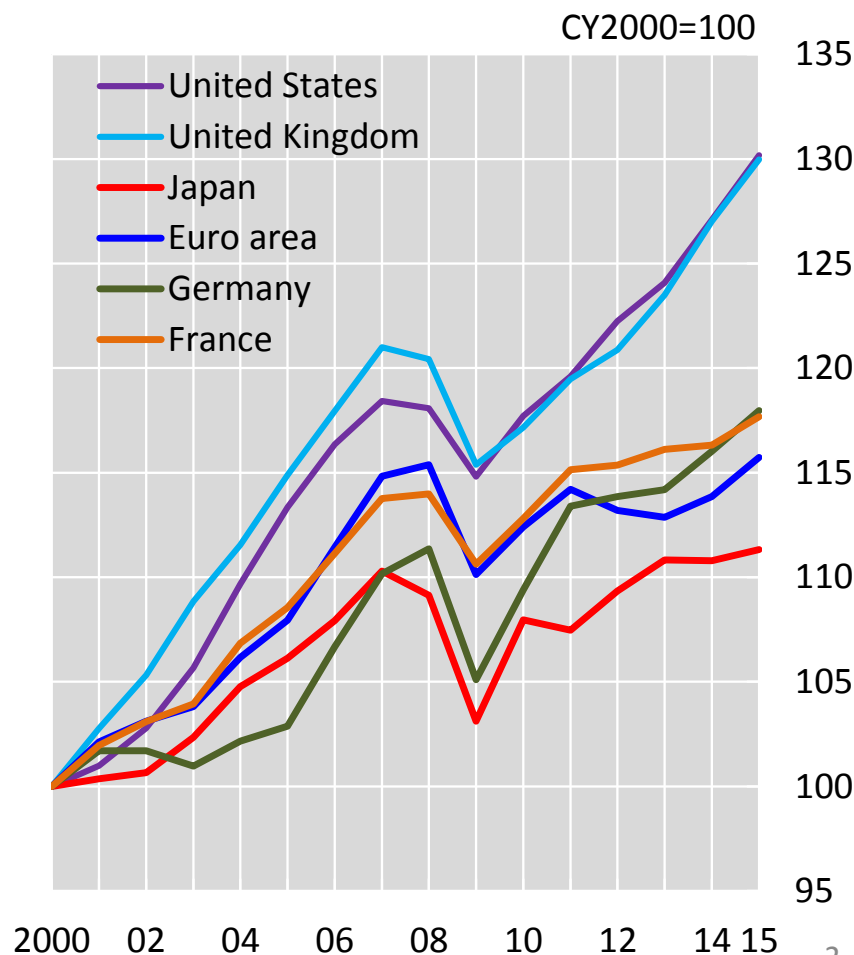
Masaaki Shirakawa
Aoyama Gakuin University
Western Economic Association
March 24, 2019

The development of GDP and GDP per working-age population

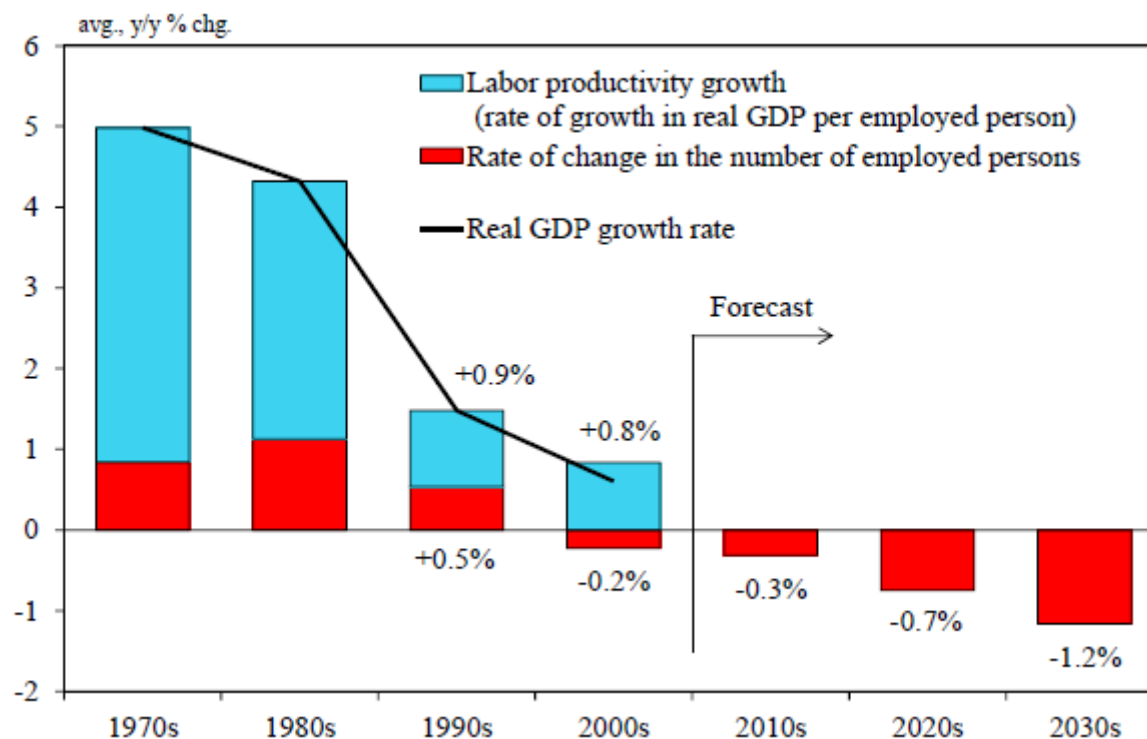
GDP per working-age population



GDP

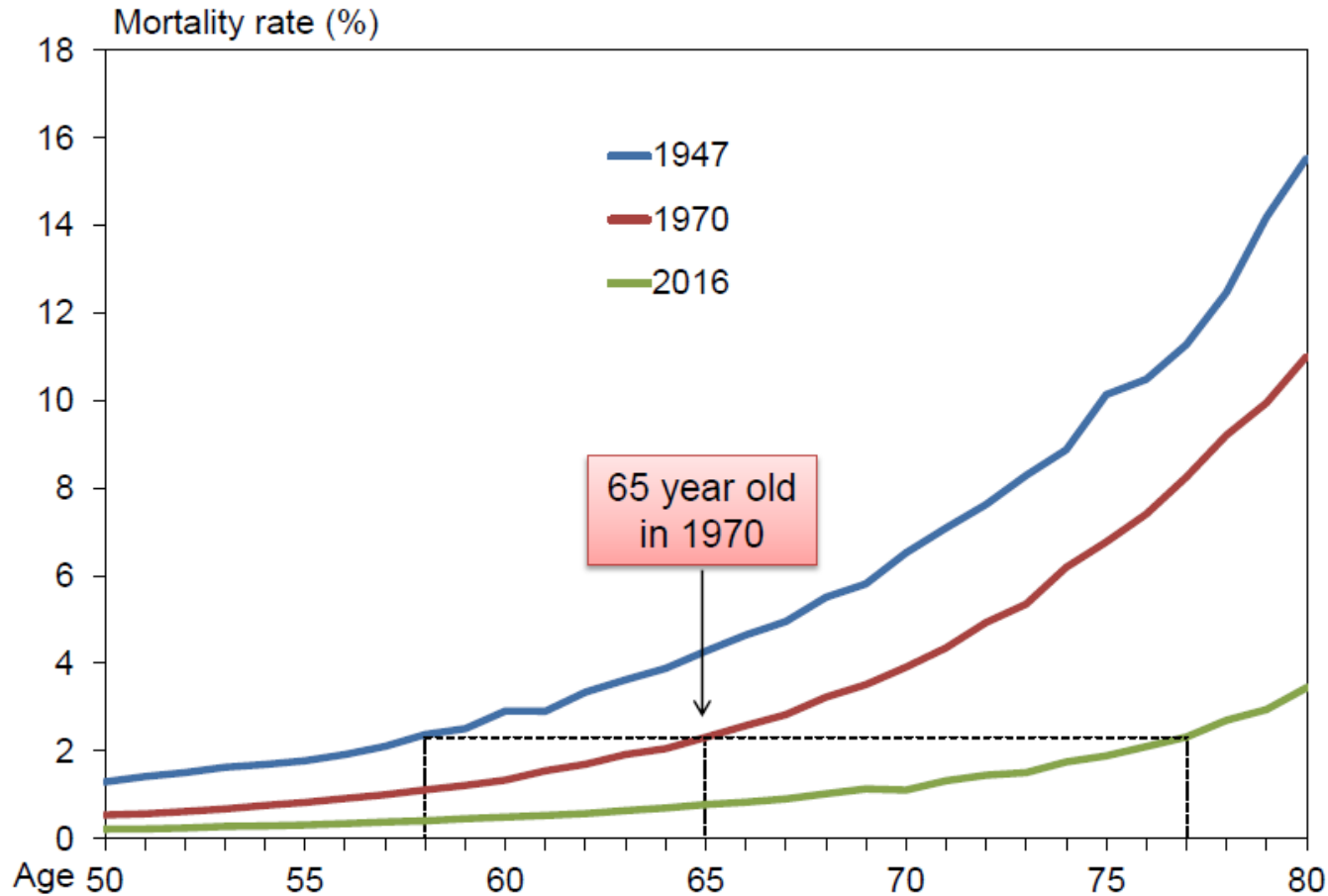


Long-run projection of Japan's GDP growth



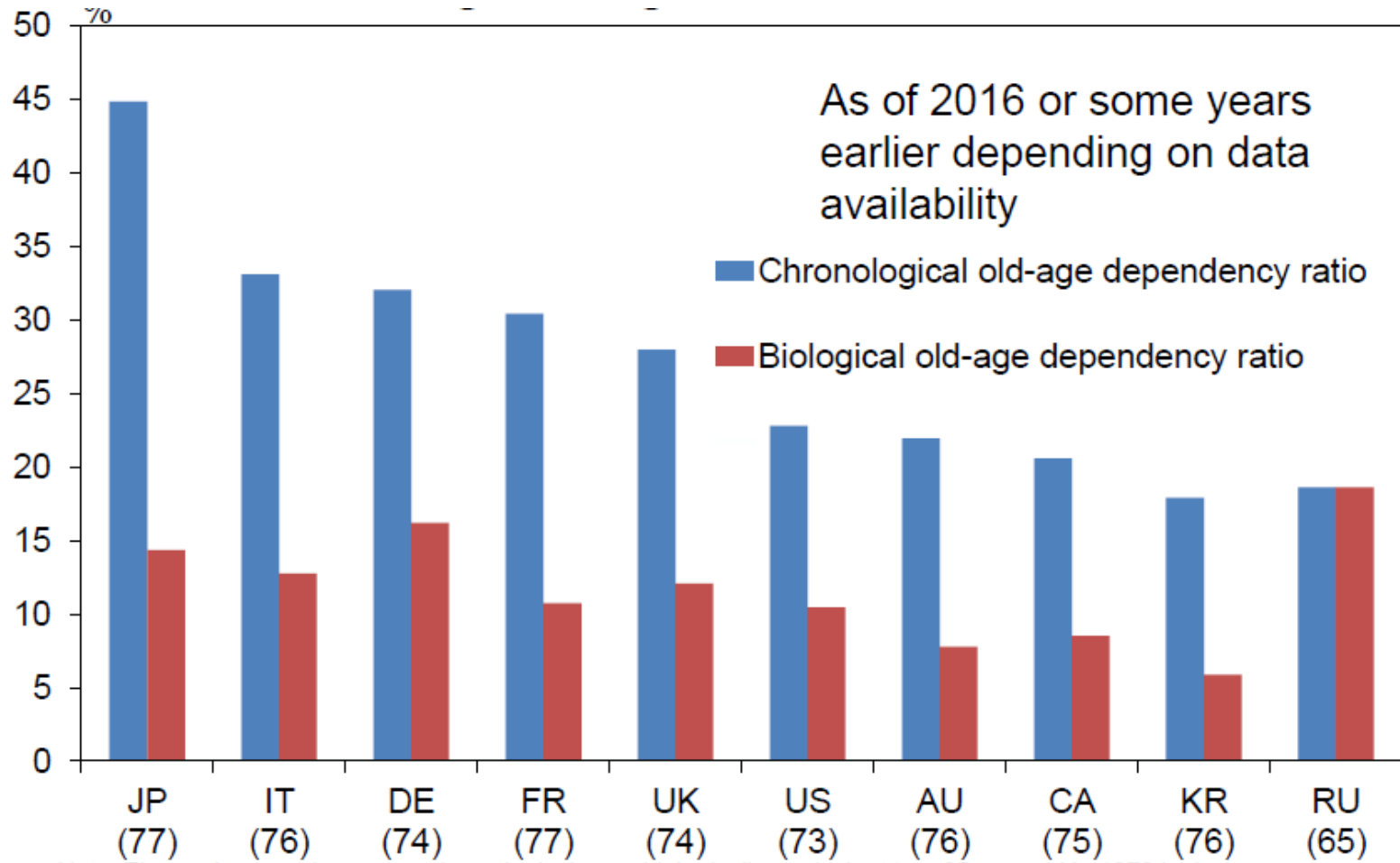
Source : Hiroshi Nakaso , “Monetary Policy and Structural Policies”(2016)

The improvement of mortality rate in Japan



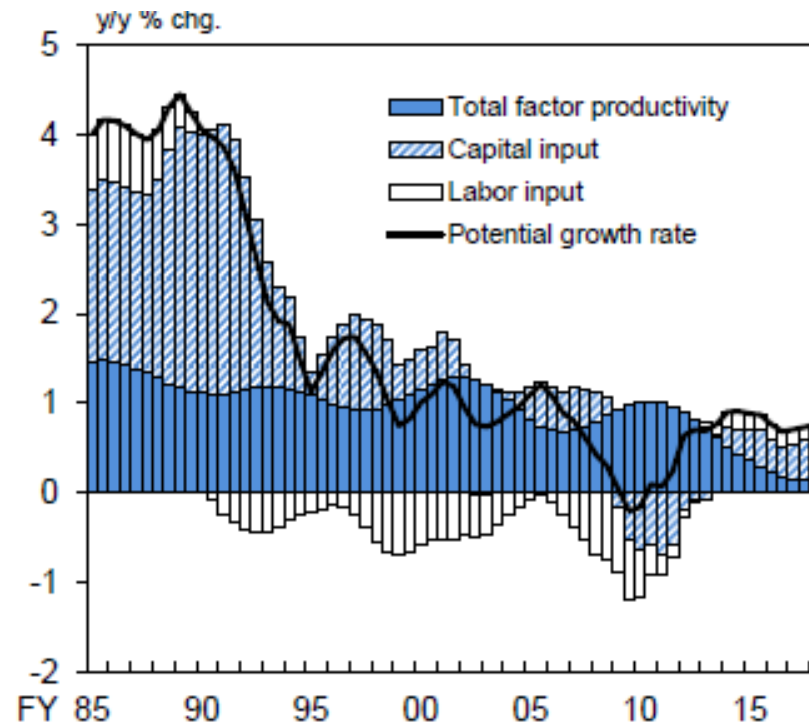
Source: Toshitaka Sekine, " Does Demography Really Matter? " (2019)

Different concept of old-age dependency ratio



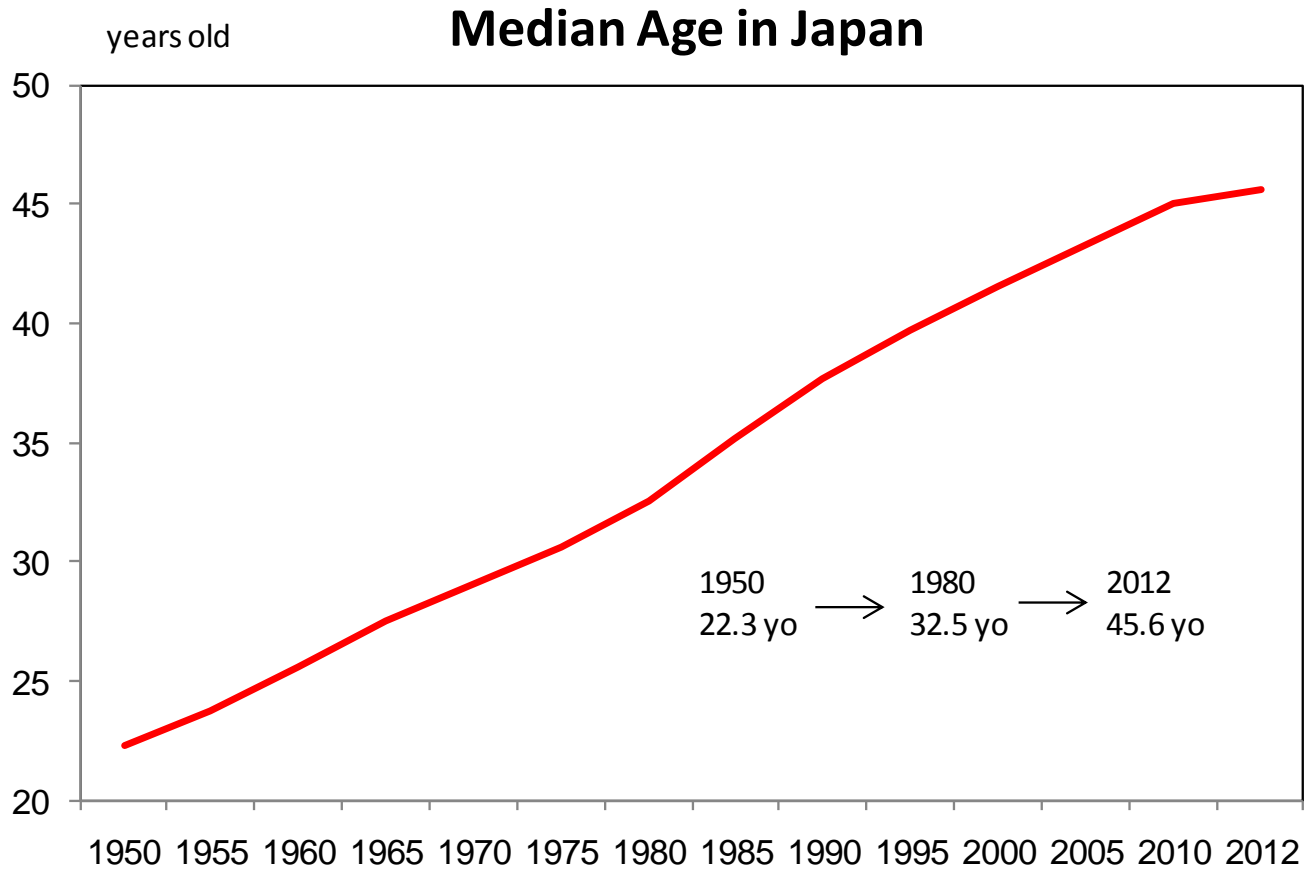
Source: Toshitaka Sekine, " Does Demography Really Matter? " (2019)

A decline in total factor productivity in Japan

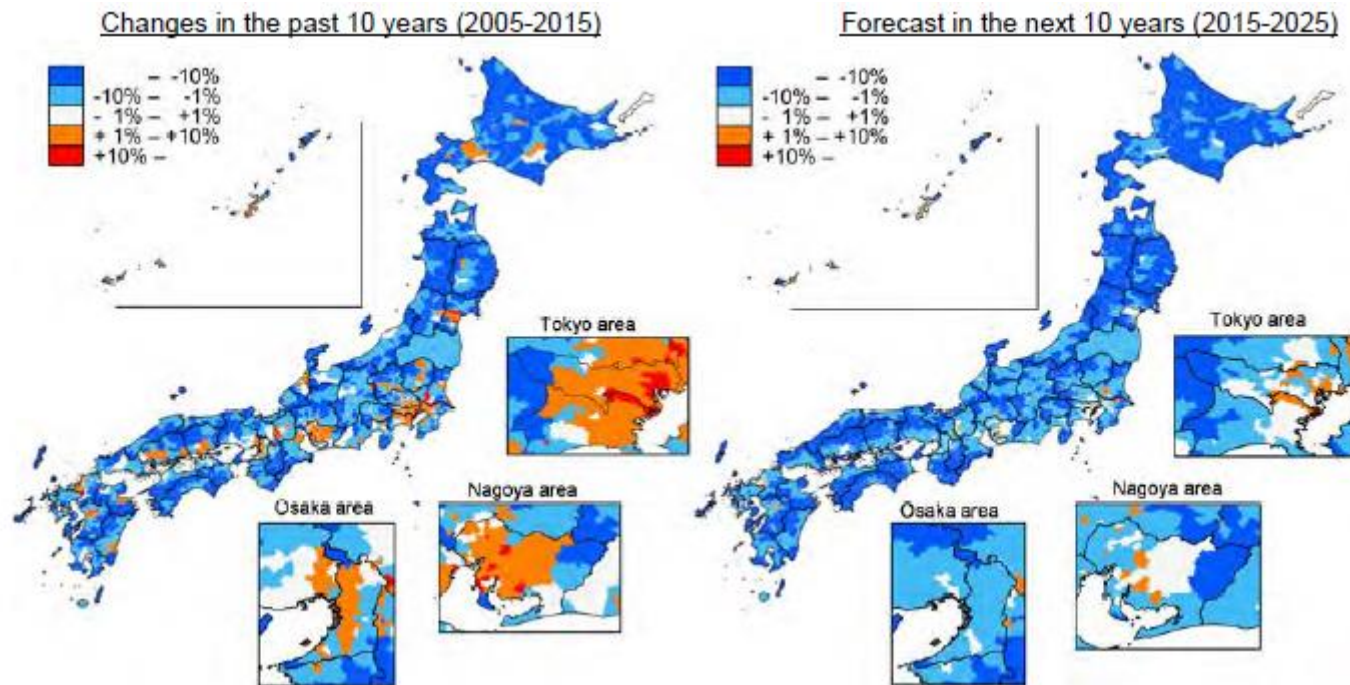


Source: Bank of Japan, "Outlook for Economic Activity and Prices (January 2019)"

Steady rise in median age in Japan

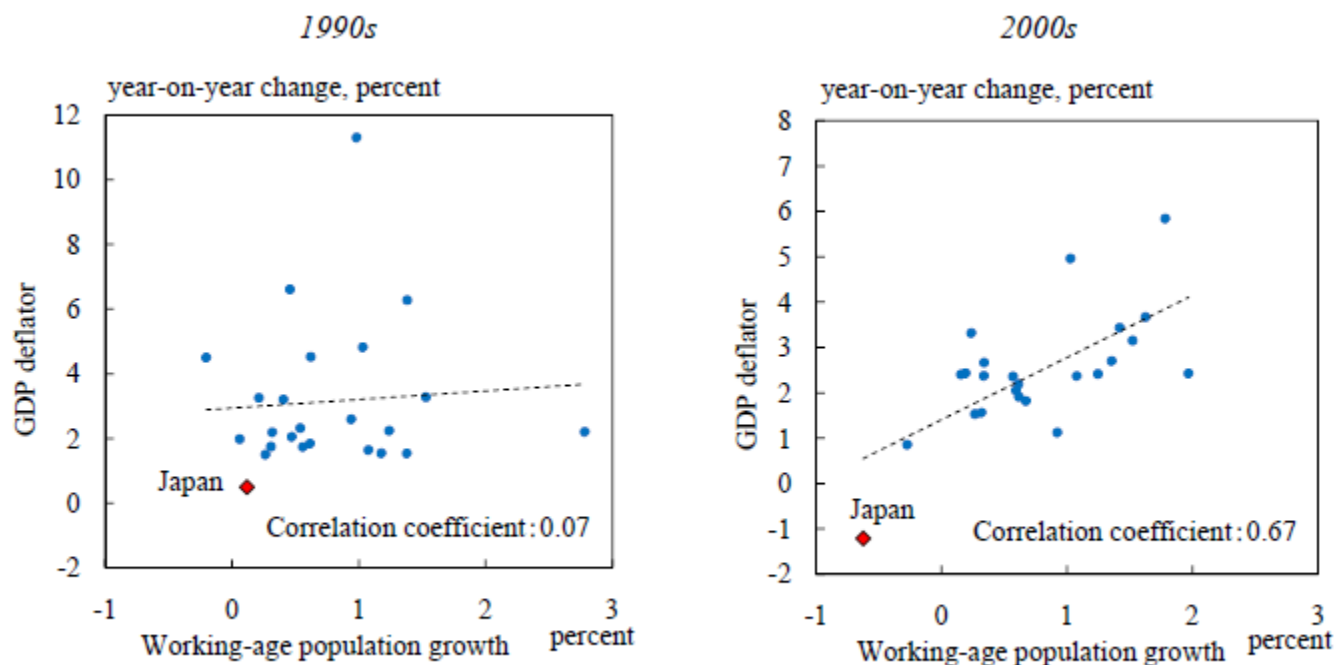


Changes in population of municipality



Source: Bank of Japan, “Financial System Report (October 2017)”

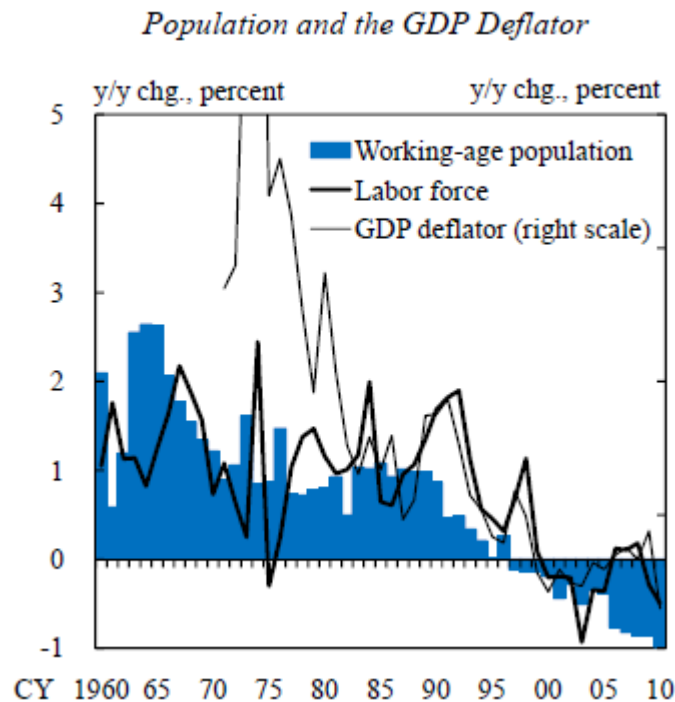
Working-age population growth and inflation: Cross country comparison



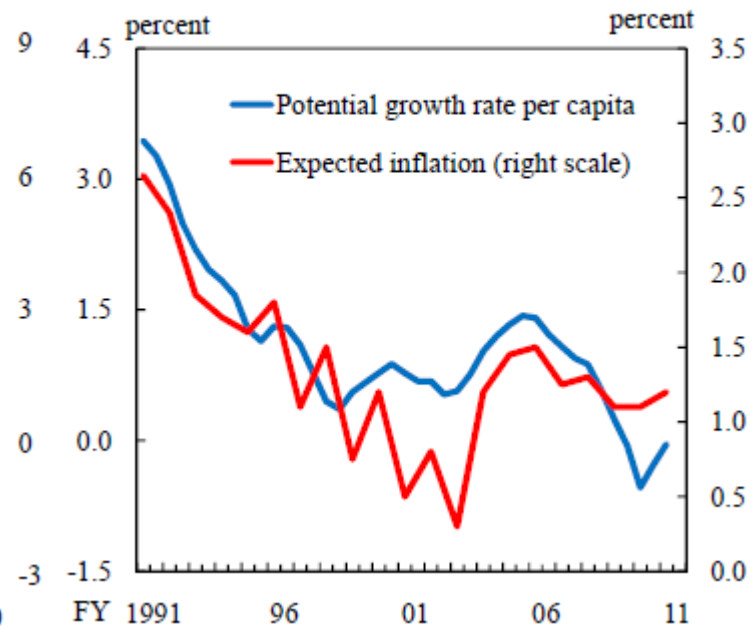
Note: For the 24 countries where the data are available among those that joined the OECD by the 1990s.

Source: Masaaki Shirakawa, "Demographic Changes and Macroeconomic Performance : Japanese Experiences "(2012)

Population growth rate and inflation in Japan



Potential Growth Rate and Expected Inflation in the Medium to Long Term



Source: Masaaki Shirakawa, "Demographic Changes and Macroeconomic Performance : Japanese Experiences "(2012)