

COMMENTS ON “DEMOGRAPHICS VERSUS DEBT” BY PROF. GOODHART AND PRADHAN

Masaaki Shirakawa
Aoyama Gakuin University
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Outline of my talk

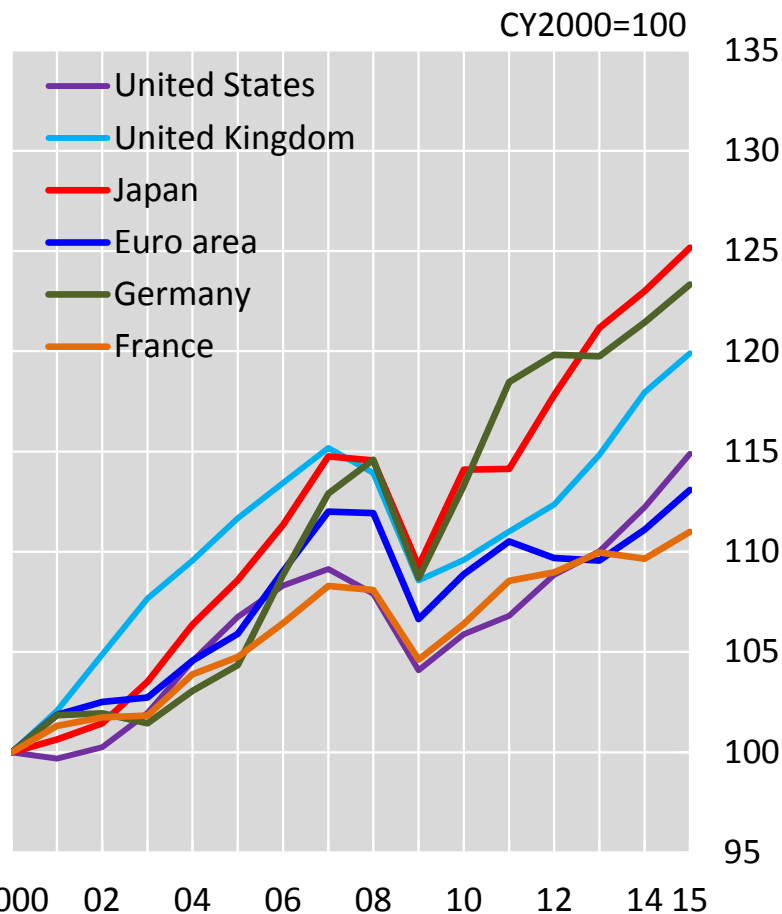
1. **Observation of the debate on demographics in the context of macro-economy and monetary policy in light of Japanese experience**
2. Comments on remarks by Prof. Charles Goodhart and Prof. Manoj Pradhan

#1. It takes long to fully recognize the impacts of demographics. The issue is still underappreciated

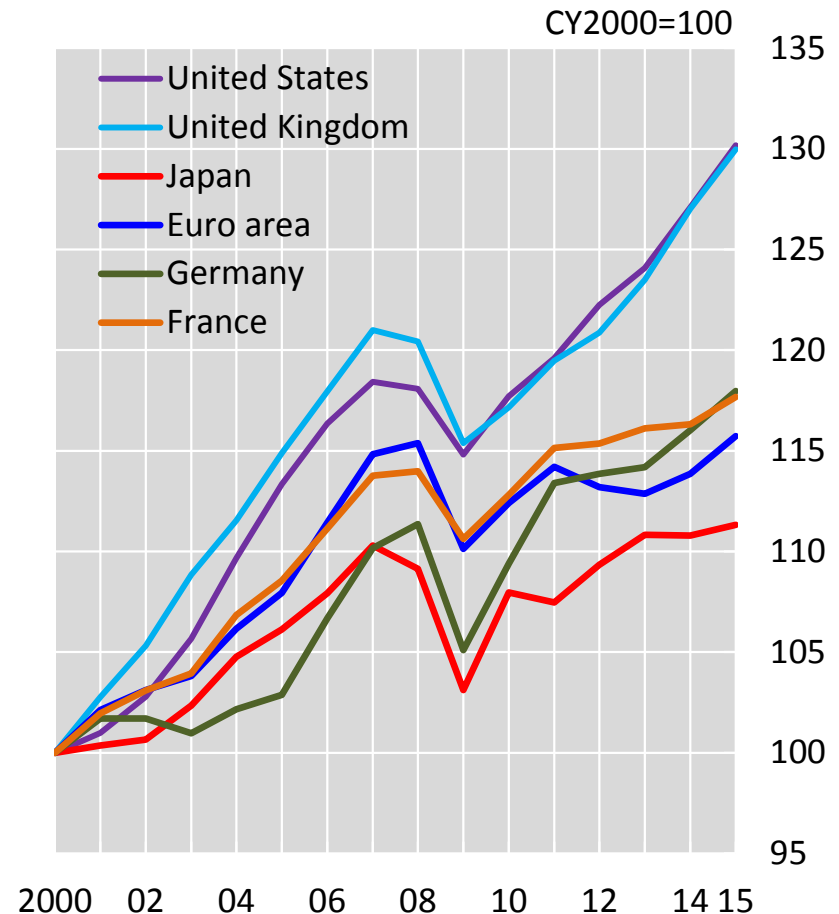
- Academics and policy makers globally have come to recognize the importance of this issue, albeit belatedly, but its importance is still grossly underappreciated.
- Delayed recognition is understandable based on my own experience. I have to confess that I was not so prescient, although I have been emphasizing the importance of demographics in recent years.
 - At the height of bubble economy in Japan (late 1980s), some already expressed cautionary view of the impact of future rapid ageing. I was dismissive of such view.
 - In 1990s when Japan was muddling through bubble bursting and associated financial crisis, I was of the view that once deleveraging is completed, the economy will return to previous growth path. I was unaware of the significant impacts of demographics.

Japanese economy in the past 15 years vividly shows the importance of demographics

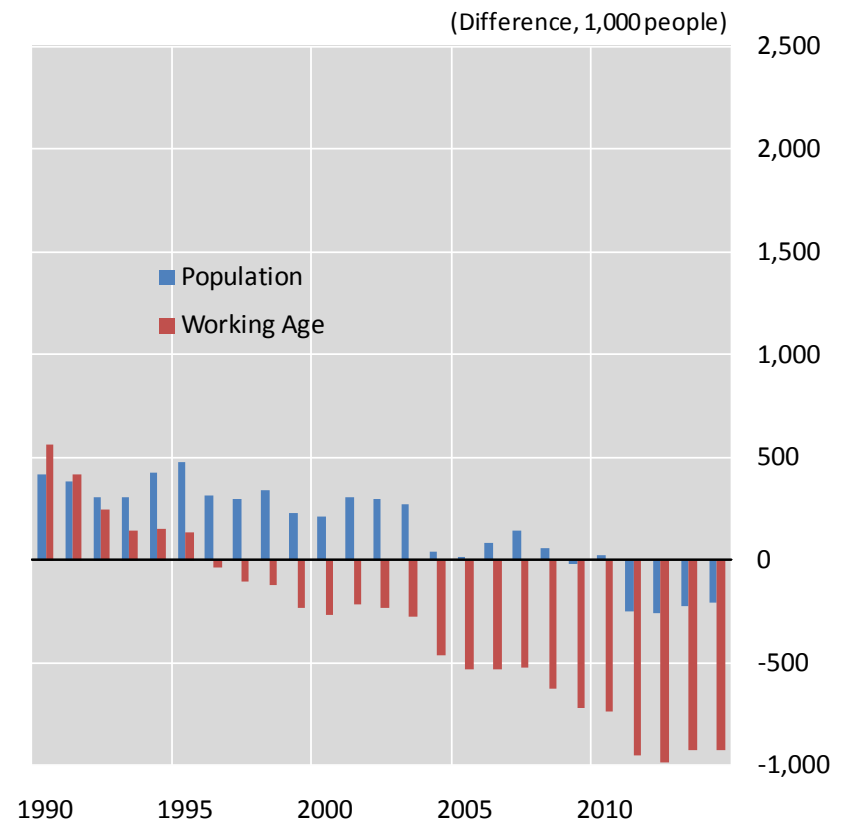
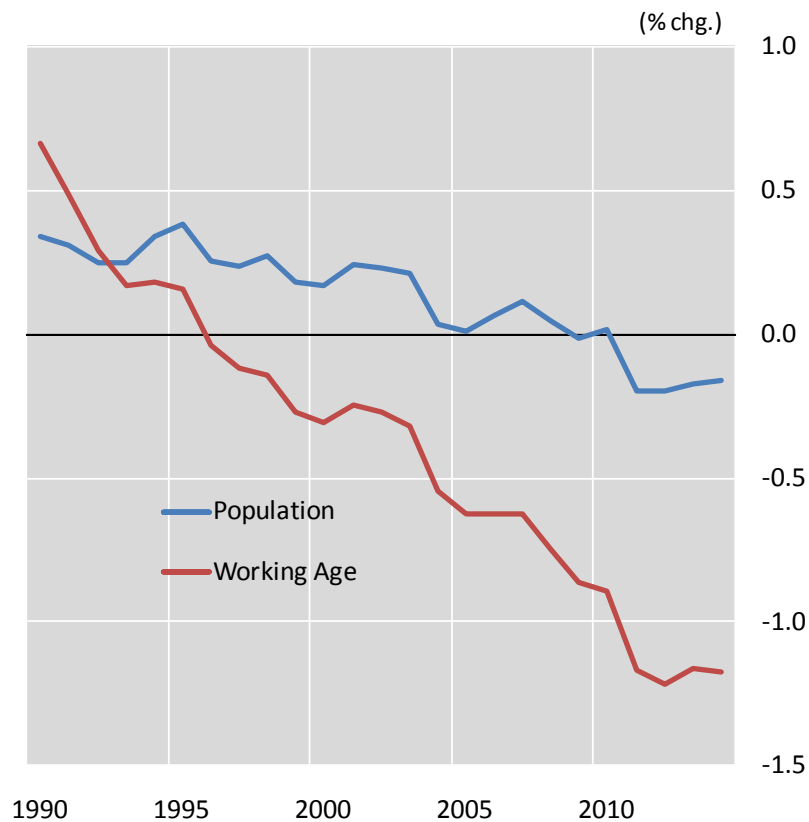
GDP per working-age population



GDP



Working-age population in Japan is now decreasing by one million every year (1% p.a.)



2. Demographics is affecting AE through purported lessons of Japanese experience as well

- Experience of Japanese economy has been intensively studied by economists and policy makers abroad. Key words were “lost decades”, “deflation”, etc.
- “Monetary policy activism” on a global scale was partly due to the interpretation of Japanese experience.
- But , different “lessons” would have been drawn, if demographic change were properly recognized. (**Intellectual channel.**)

Two current global issues bearing on demographics

Growth prospect of global economy

- Demographics is not a sole explanation for “secular stagnation” but surely one of crucial factors.
- Speed of ageing going forward in China and Korea will be much faster than in Japan in the past.
- The US is no exception.

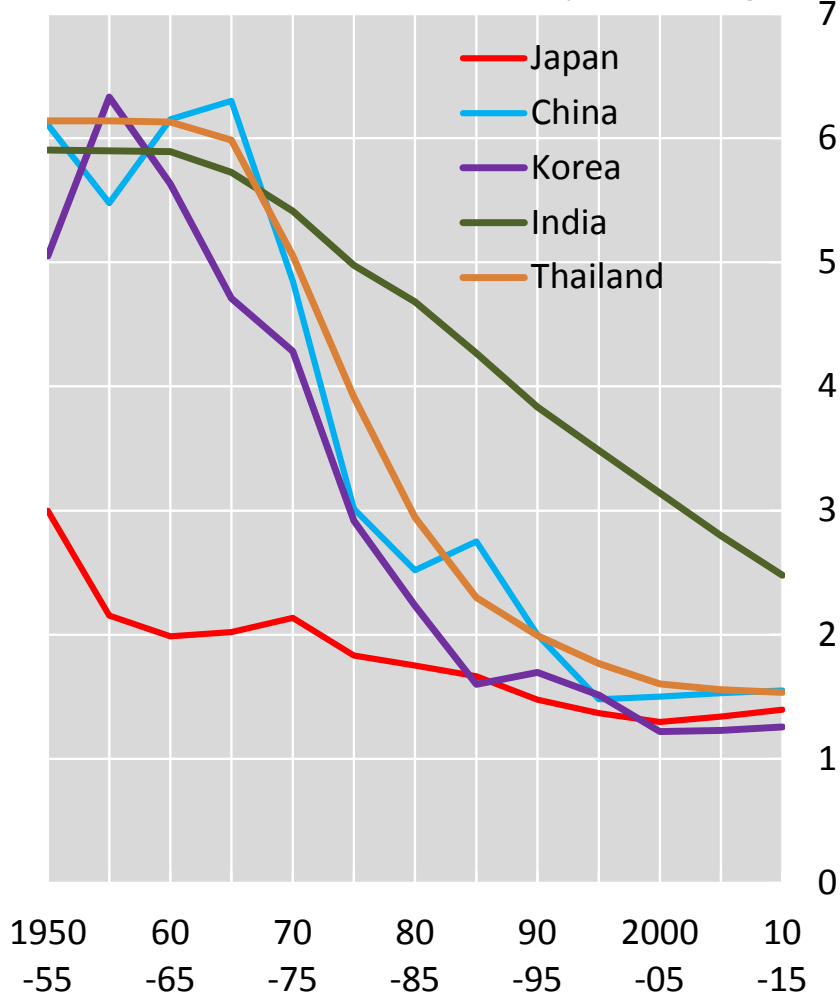
Monetary policy response under declining or negative natural rate of interest rate

- In case that “shock” hitting the economy is temporal, lowering real market interest rate below natural rate of interest rate is effective strategy. It is like bridging the gap between winter and spring .
- But in case potential growth rate and natural interest rate are declining permanently, lowering market real market interest rate is like bridging with the “ice age.”

Rapid ageing in Asia

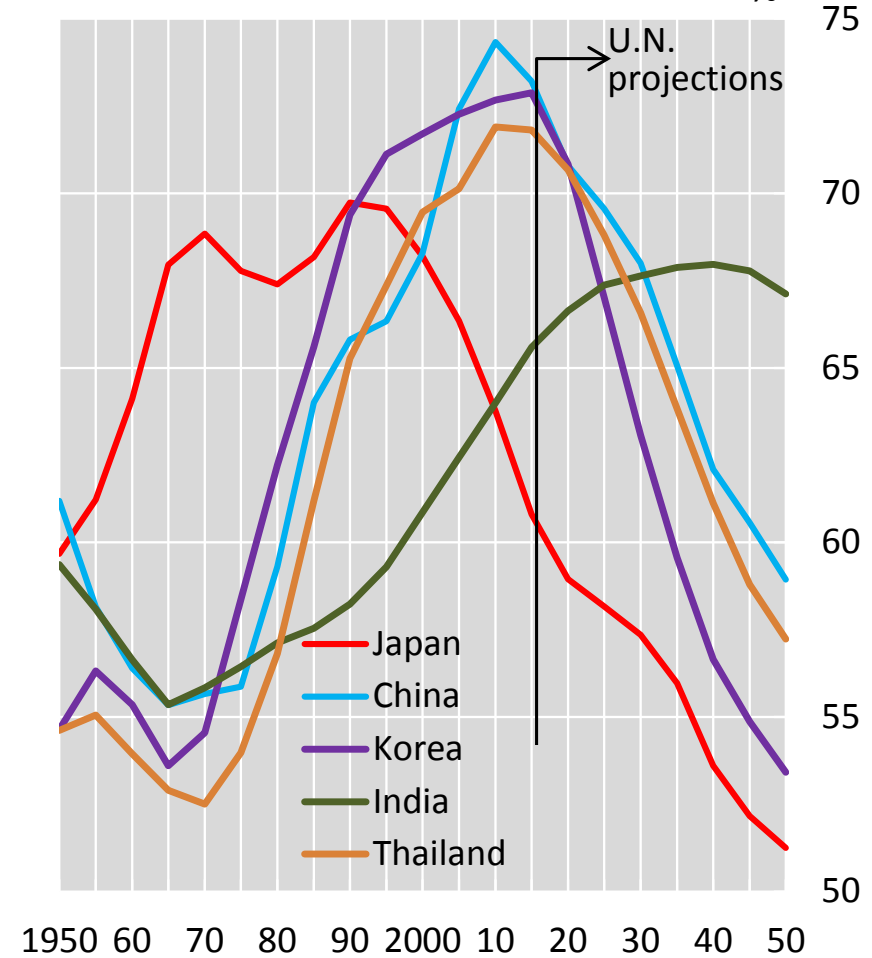
Fertility Rate

5 years average



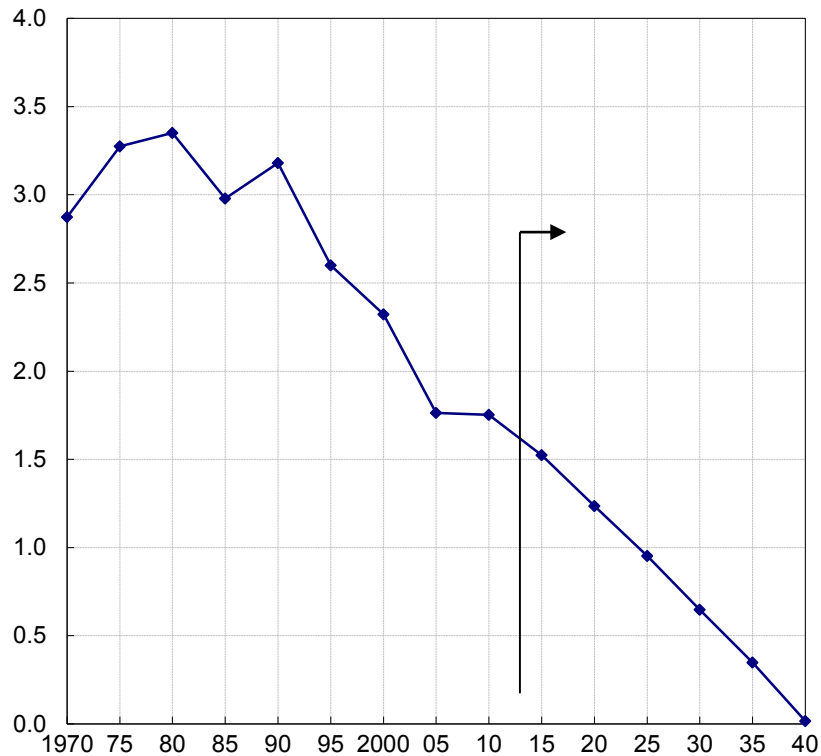
Working-Age Population Ratio

%



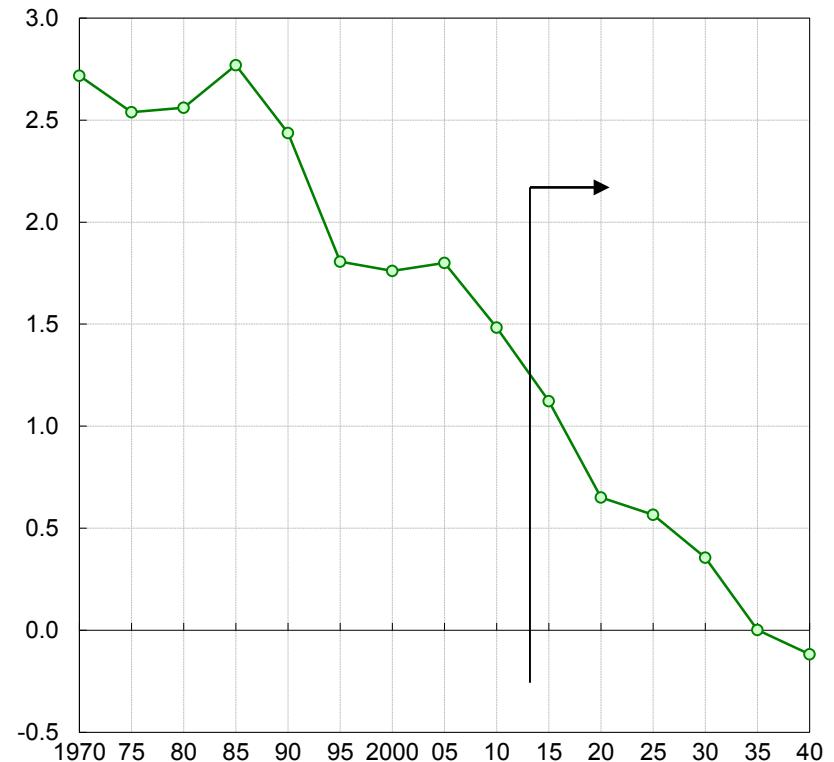
The impact of ageing in emigrant countries on the US demographics

Y/Y change in working-age population: Mexico



Source: Ryutaro Kono (BNP Pariba)

Y/Y change of working-age population in top 10 countries in terms of US immigrant



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Understanding the implications of reversal of demographic trend is really important

Effects of positive labour supply shock

- Shift of moveable production, notably manufacturing, to Asia, especially to China
- Collapse of power of private sector trade unions
- Stagnation of real wages
- More inequality within countries, less between countries
- Weakness of demand, deflationary pressures and saving glut
- Trend decrease in (nominal and real) interest rates. Increasing public sector deficits

Demographic trends now reversing

- **Slower growth**
- Need to shift resources to succour old, so high taxes on workers
- Rebalancing of powers between workers and capitalist/managers
- **More inflationary pressures**
- **Higher interest rates**

My overall reaction to and specific comments on remarks by Prof. Goodhart and Pradhan

My overall reaction

- I like the spirit of their analysis.
 - Highlighting quite important issue of reversal trend of demographics
 - Truly global perspective
 - Debt is a central issue, when it comes to demographic change

My value-added and possible contribution

- Japan as a forerunner of reversal trend of demographic change

Specific comments

1. Stage of demographic change
2. Impact on interest rates
3. Debt dynamics
4. Transition to steady state with fewer population

#1: “Demographic trends now reversing” is too general. We have to be explicit about stage.

- Classification of stage by G & P is driven by global landscape and useful guide as a big picture.
- In Japan, more than 20 years have passed, since demographic trend has reversed. Even during this period, its impact was different depending on its stage.
- We have to be more explicit about the stage of this reversal trend in order to draw meaningful implications.

| | |
|----------------------------------|------------------------|
| | The case of Japan |
| Growth of working age population | Peak year is mid 1960s |
| Dependency ratio | Bottom is 1989-1993 |

Not distinguishing the stage is often a source of confusion about the debate on demographics

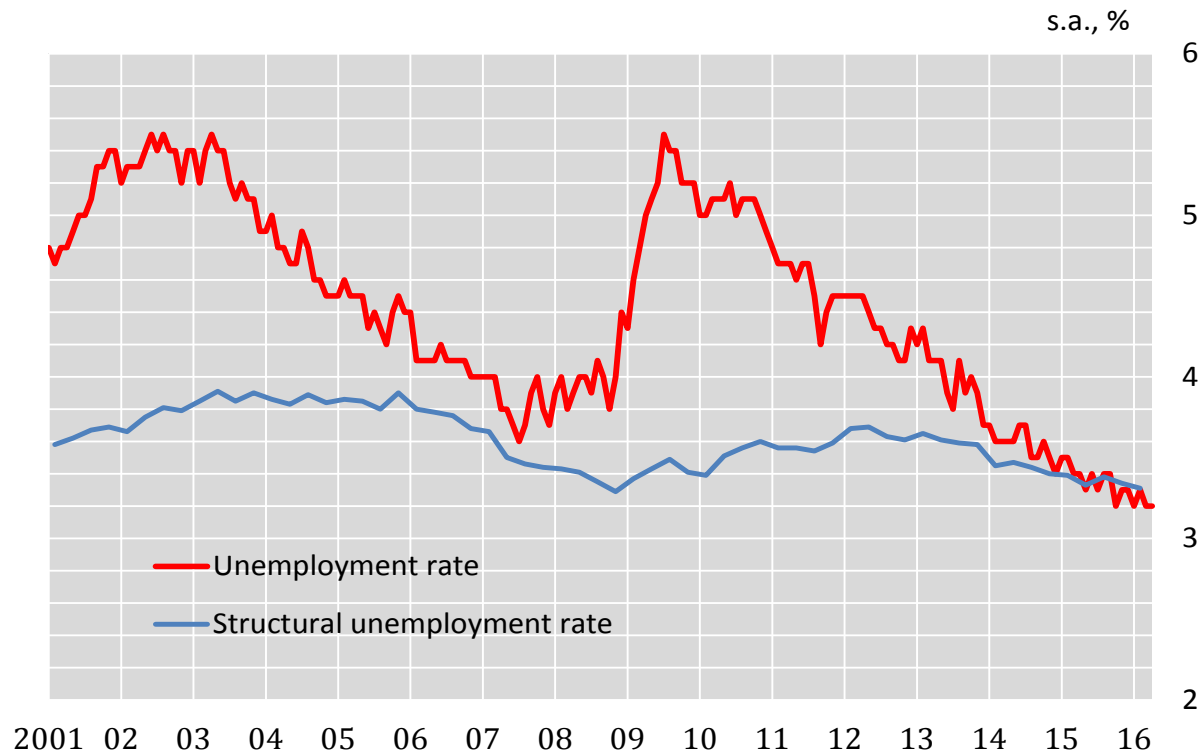
- **The impacts of ageing on growth**
- **First stage: Anticipation of ageing in future**
 - An expected decline in future demand depresses current expenditure relative to current productive capacity
 - GDP growth rate tends to decline.
- **Second stage: Transition toward a new steady state with fewer population**
 - Actual decline in productive capacity due to decrease in working-age population kicks in.
 - Subsequently, “effective” working-age population further declines, because very aged people needs growing number of caring and nursing people.
 - GDP growth rate tends to decline further.
- **Third stage: New steady state with fewer population?**

The effect of ageing on inflation rate is also different depending on its stage

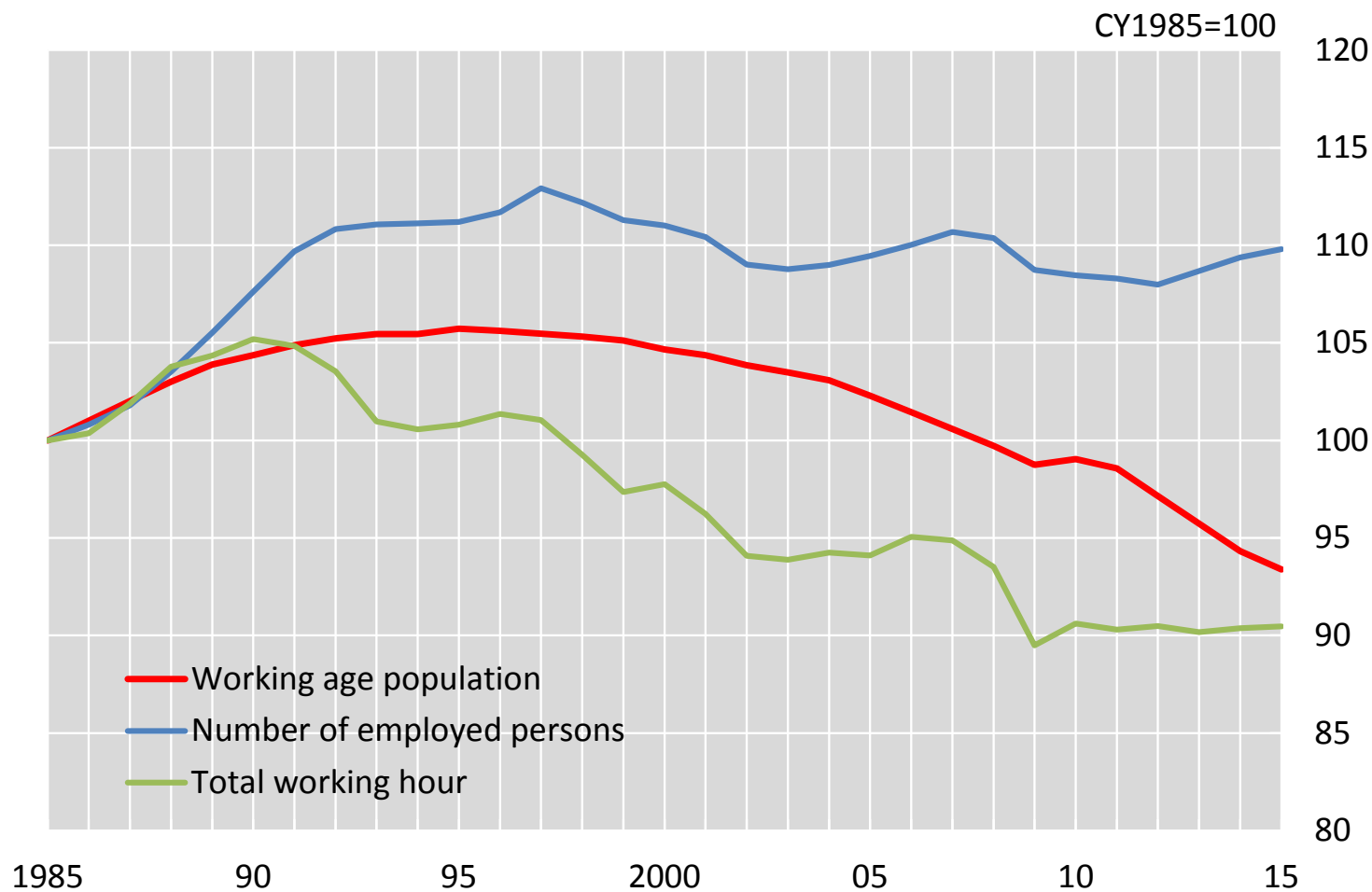
- If central bank is able to know the change in natural rate in a real-time, demographics is neutral in theory. But assuming that central bank has such a long time horizon and perfect knowledge does not fit well with our actual experience of slow recognition of demographic change.
- First stage: **Deflationary pressure**
 - Expectation of a decline in future demand precedes actual decline in productive capacity
- Second stage: **Inflationary pressure**
 - Actual decline in productive capacity due to decrease in workforce create inflationary pressure.
- Third stage: **Neutral as long as fiscal sustainability is maintained. If this condition is not met, either high inflation or financial system instability is unavoidable.**

Japan is now entering the second stage of ageing

Labor market in Japan is now tightening mainly due to rapid decline in working-age population



Employment is almost flat in the past 15 years but total working hour is on a decreasing trend

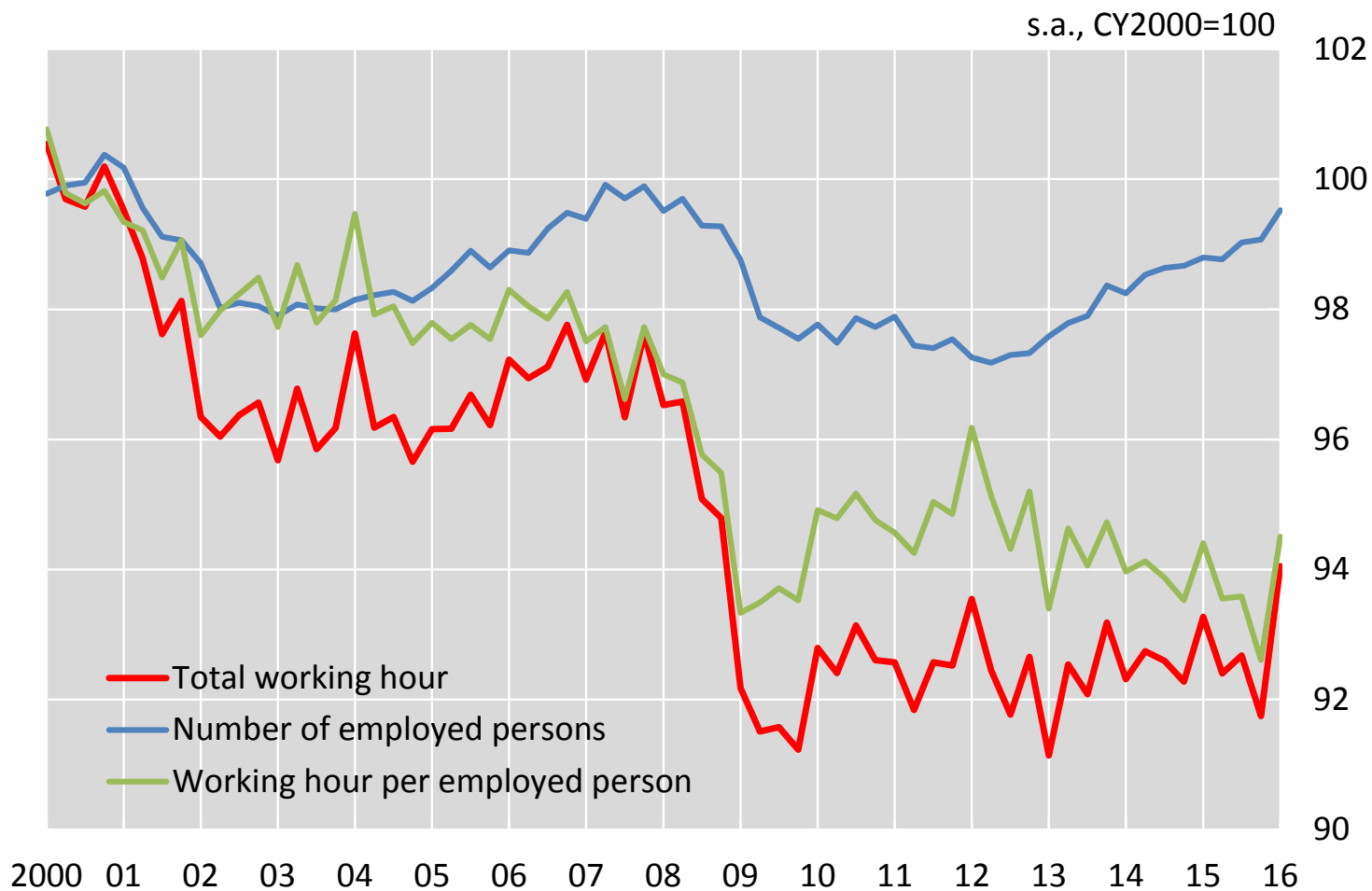


More participation of aged people and female with fewer hours of work

| | Year 2005-2010 | Year 2010-2015 |
|--|----------------|----------------|
| Change in unemployment rate (% point) | 0.7 | -1.7 |
| Change in participation rate (% point) | -0.8 | 0 |
| Change in working-age population (thousands) | -2,867 | -4,654 |
| Change in employed persons (thousands) | -580 | 780 |
| Aged people (thousands) | 750 | 1,600 |
| Female (thousands) | 230 | 980 |
| Change in total working hour (million hours) | -355 | -17 |
| Change in working hour per employed person (hours/month) | -4.3 | -2.1 |

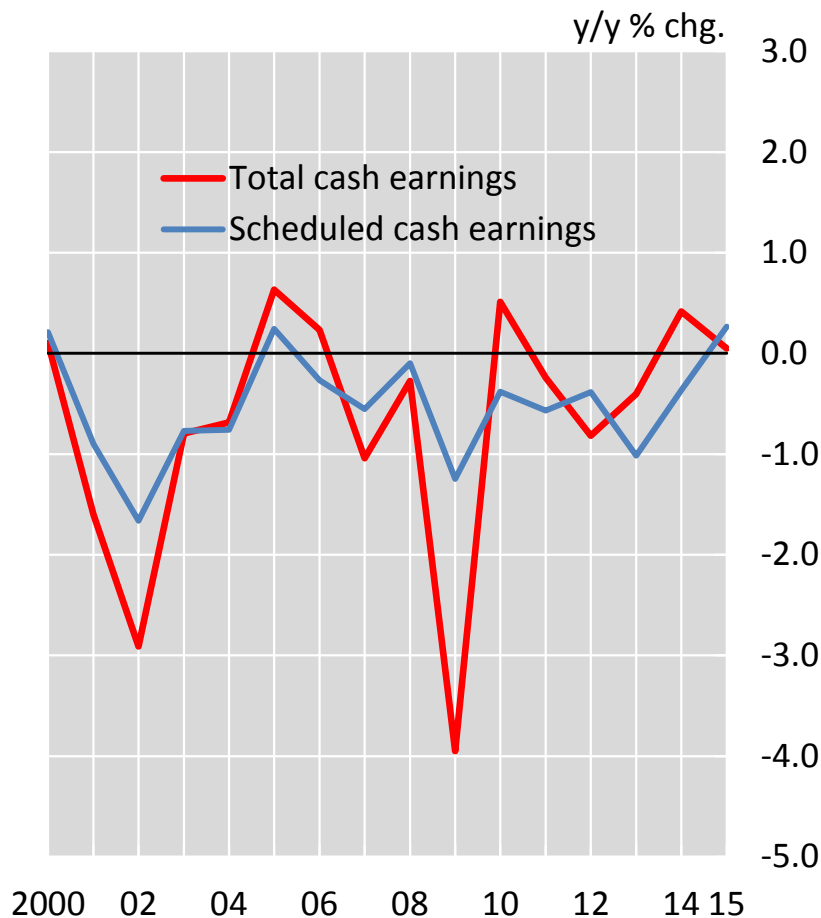
Note: The aged people are people who are 65 years old and over.

Aged people participate in labor market but they naturally prefer part-time job

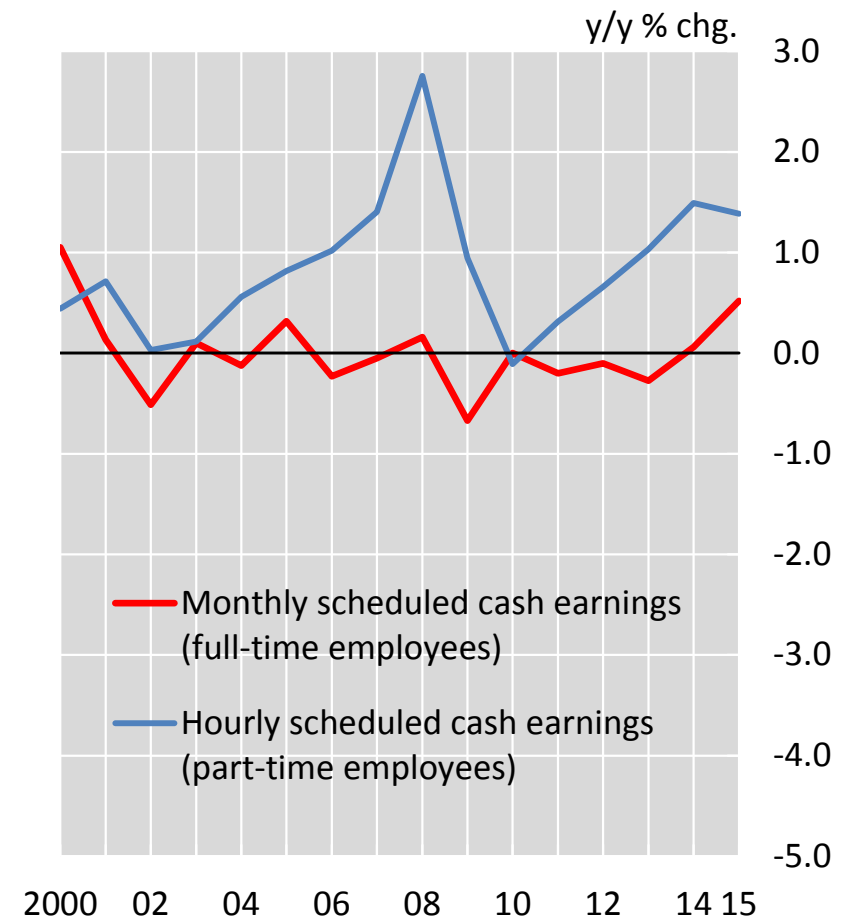


Inflation rate will eventually increase due to ageing-induced tightening in labor market

Total cash earnings



Scheduled cash earnings by type of employment



Note: Figures are based on *Monthly Labour Survey*. Source: Ministry of Health, Labour and Welfare.

#2: Higher interest rates?

- Prof. Goodhart and Pradhan predict higher interest rates.
- Based on Japanese experiences, the impact of ageing on investment/saving gap seems to be not so clear, at least, compared with its impact on growth rate.
 - Savings decreases. But, investment also decreases, since return on investment decreases due to less labor intensity.

#3: The impact of demographic reversal on debt is complicated

- Knowing a decline in potential growth rate due to demographic reversal in a real time is not easy.
- Low growth and low inflation in the first stage of ageing might create too much debt—both private and public-- , if they lead to prolonged monetary easing.
 - Purported lessons of “Japanese experience” might be affecting thinking of policy makers as well.

Higher inflation rate in the second stage due to wage increase does not solve public debt burden

- Inflation in itself does not change the deficit on primary fiscal balance related to ageing.
- Potential growth rate gradually declines.
- Tyranny of “silver democracy

#4: My lingering question--What is “the third stage” i.e. new steady state with fewer population?

- I wonder whether prediction of the second stage is really complete without having a clear picture of ensuing stage of “steady state with fewer population.”
- Countries with fertility rate far below replacement level means that population continue to decline. Are such countries sustainable in the very long run?
 - How a country can reach “new steady state” ?
 - What is “new steady state” like?

Deep uncertainties

- More labor participation: one-time effect, not permanent solution
- Reversal of fertility rate: we do not know “how.”
- Massive immigrants: politically and socially difficult as is shown in recent refugee crisis and political/social divide in many countries.
- Dramatic increase in productivity
- In any event, we do not have one-size-fits-all solution for demographic change. Solution might be different in each country.
 - Labor market practice
 - The role of family
 - Immigration
 - Neighboring countries