

# Quantitative and Qualitative Monetary Easing with Yield Curve Control

Day Ahead Meeting  
Joint Central Banker's Conference  
November 14, 2016

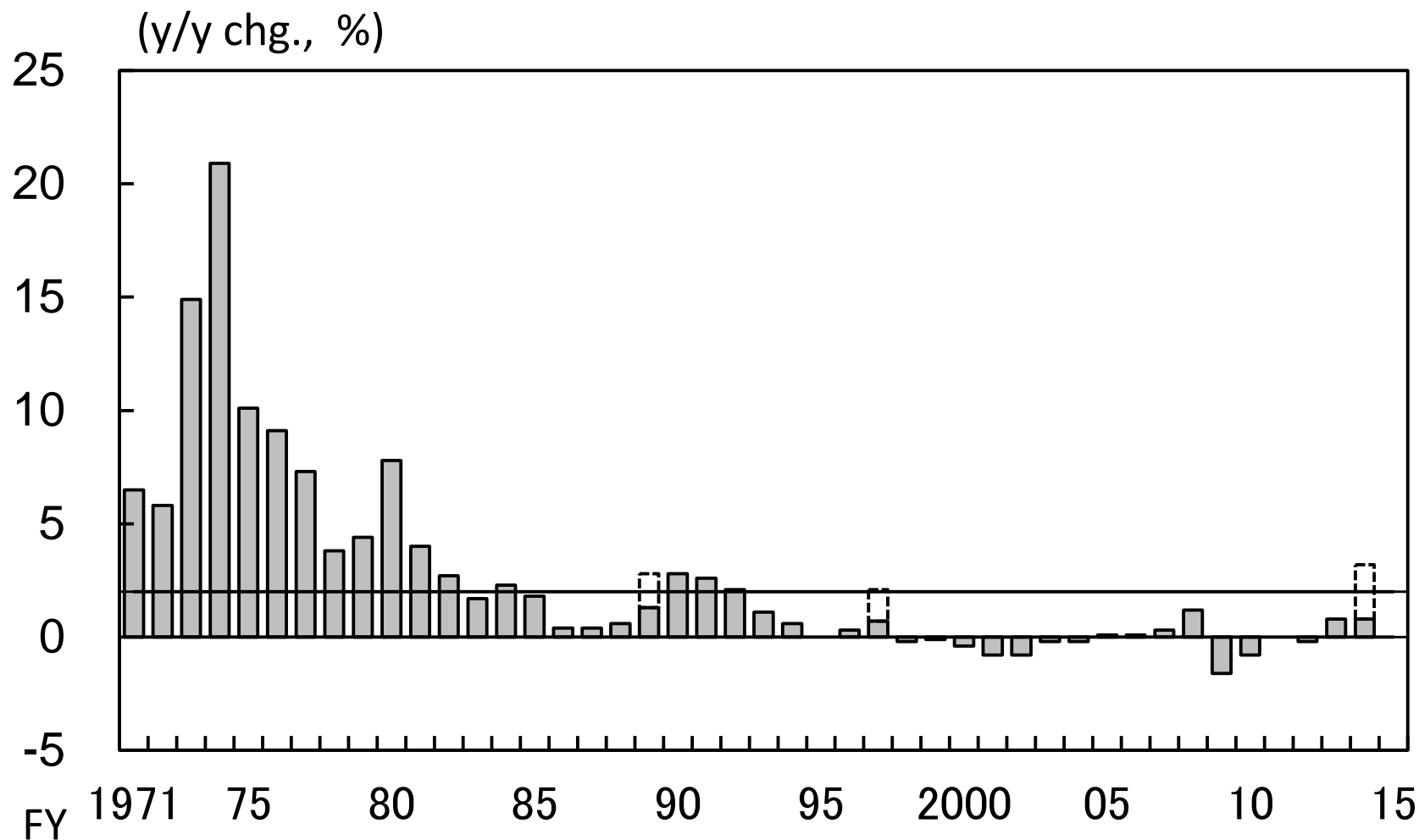
Institute for Monetary and Economic Studies  
Bank of Japan

Shigenori SHIRATSUKA

# Plan of Today's Talk

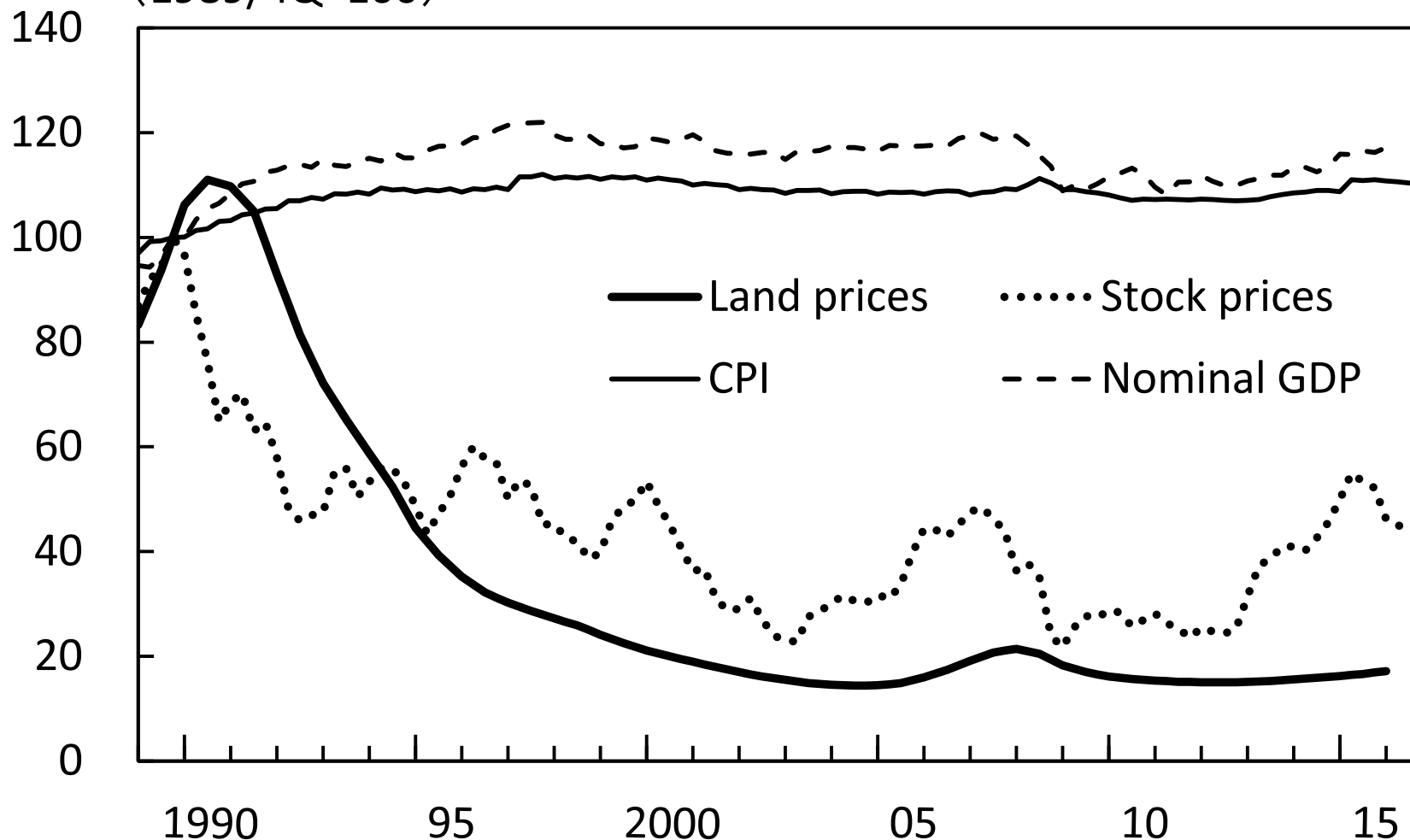
- Japan's Prolonged Deflation
- Quantitative and Qualitative Monetary Easing (QQE)
  - Its developments and achievements
  - New elements in QQE
    - Negative interest rates
    - Yield curve control
- CB Balance Sheet Policy

# Core CPI



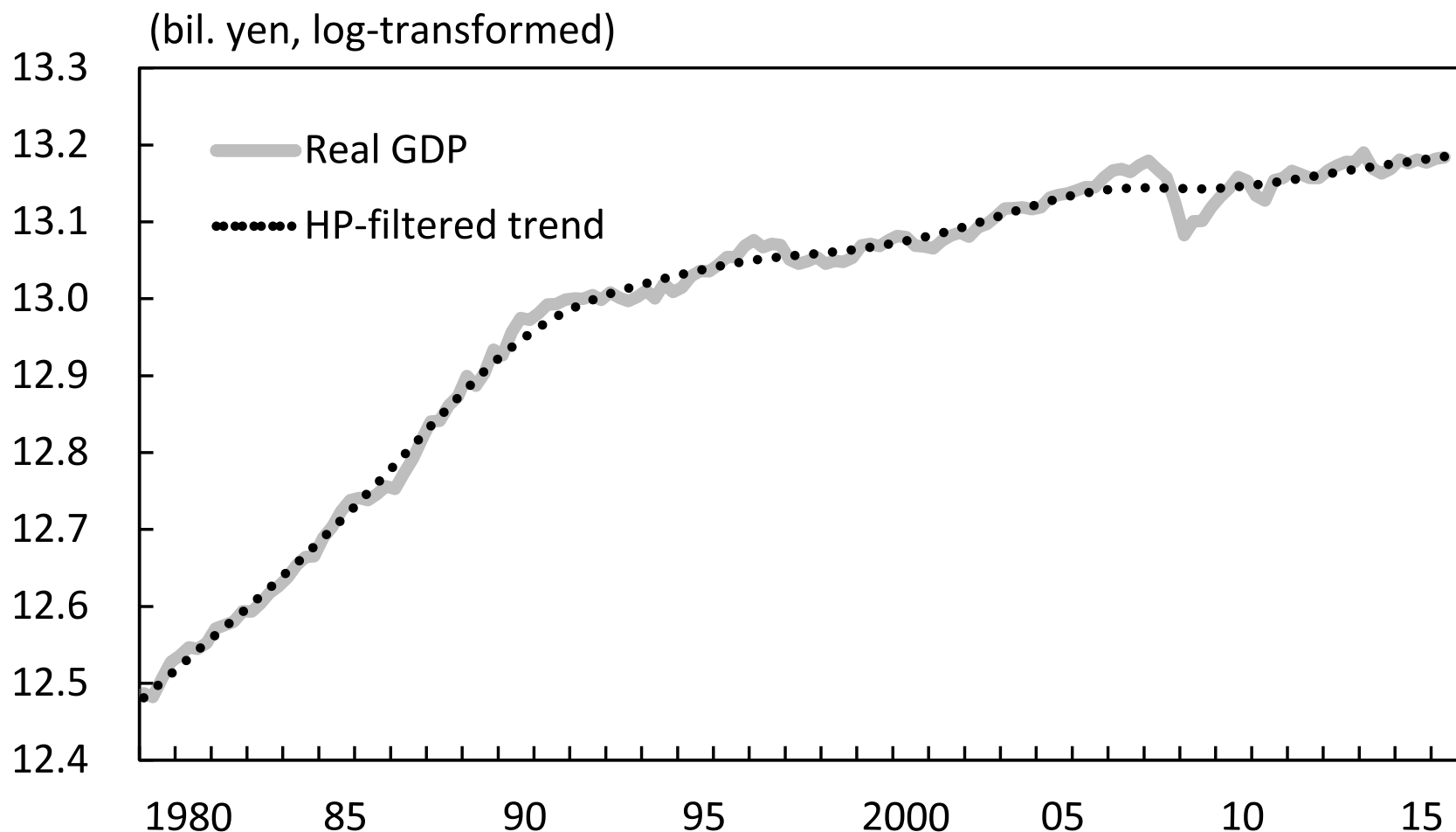
# General Prices & Asset Prices

(1989/4Q=100)



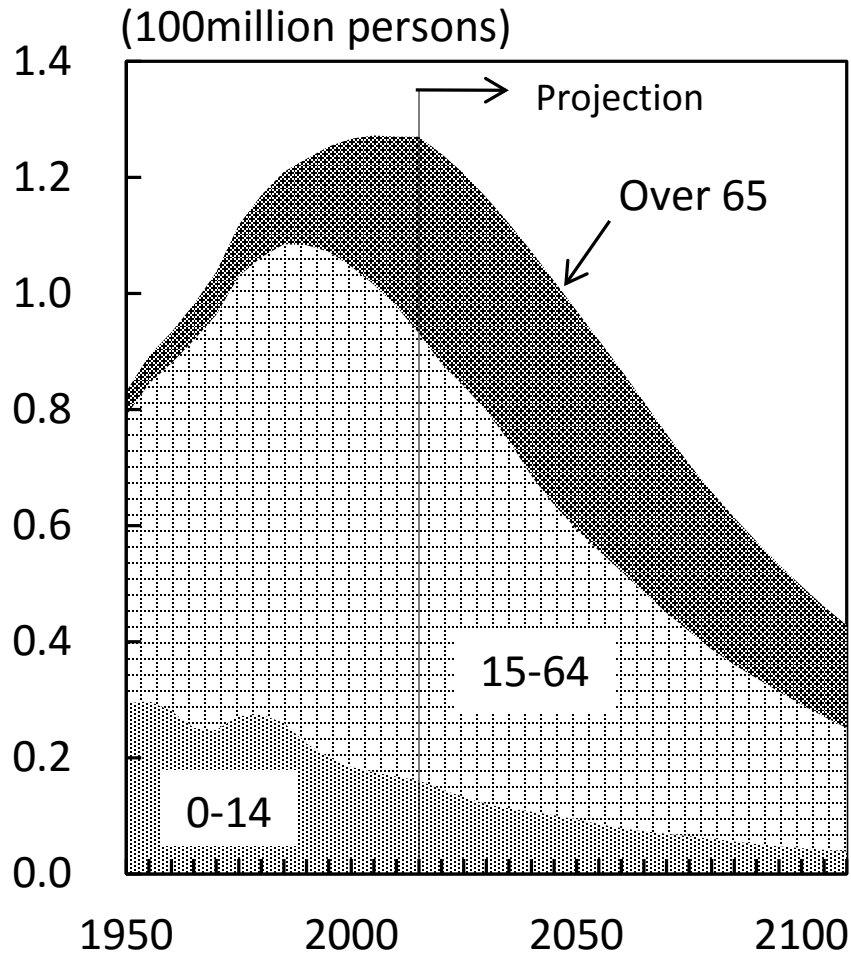
Sources: Cabinet Office, *National Accounts*; Ministry of Internal Affairs and Communications, *Consumer Price Index*; Japan Real Estate Institute, *Urban Land Price Index*; The Nihon Keizai Shimbun, *Nikkei 225 Stock Average*.

# Downward Shift in Growth Trend

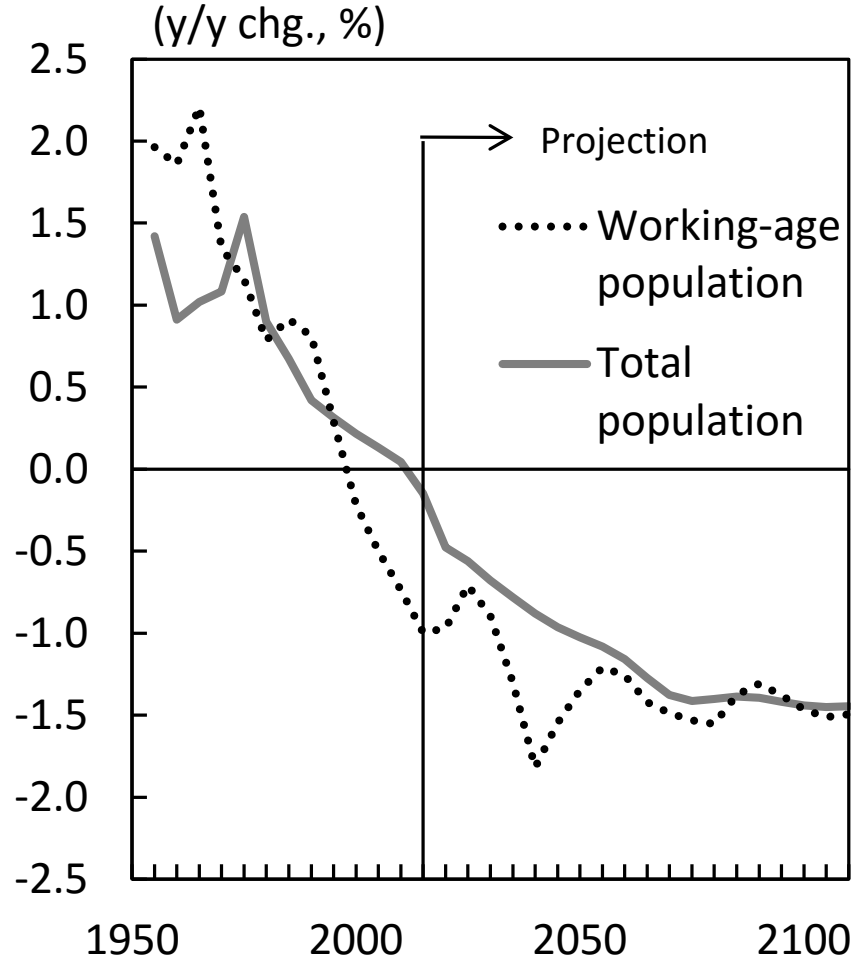


# Demographic Changes

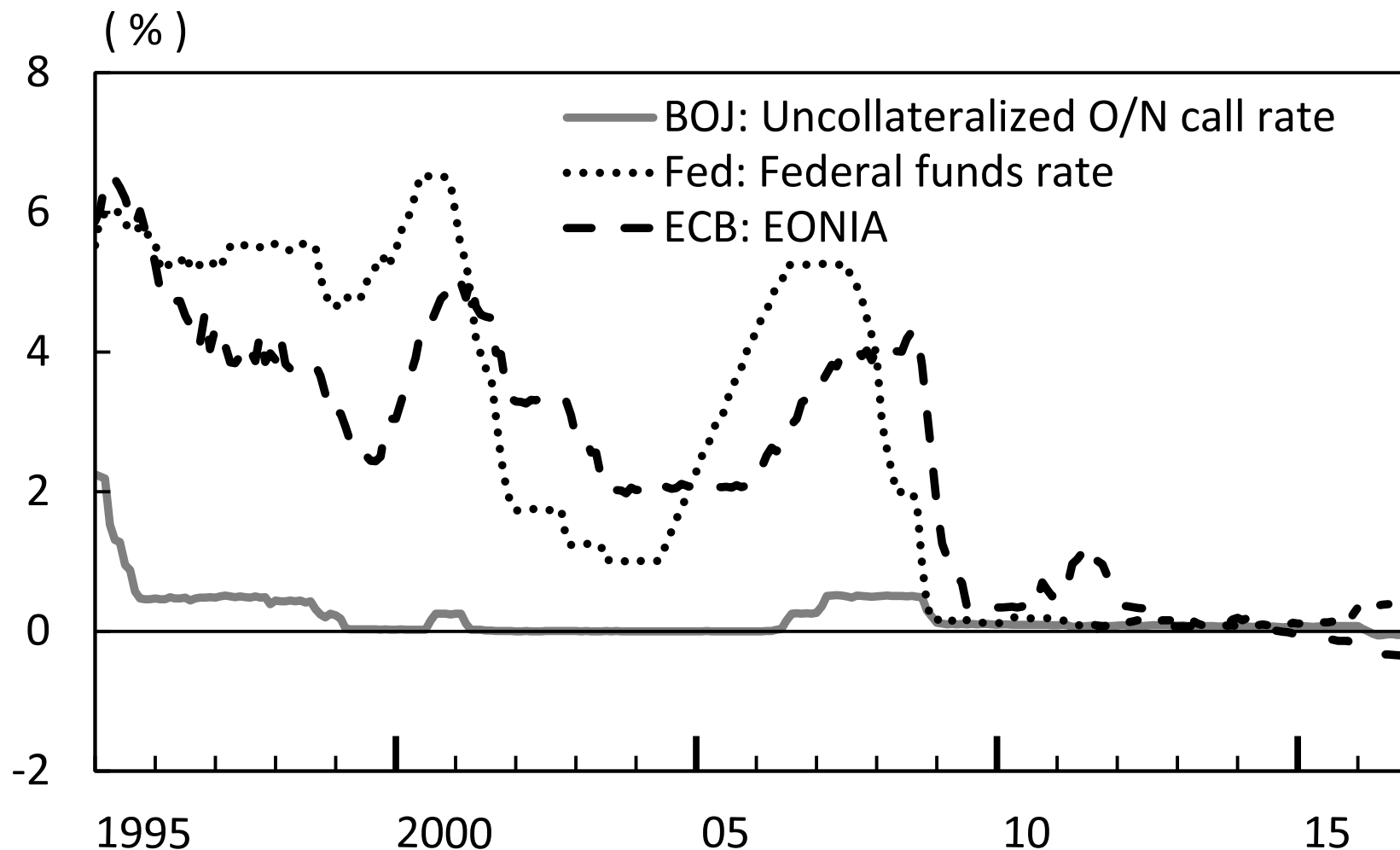
## Population Size by Age Groups



## Population Growth



# Policy Interest Rates



# Plan of Today's Talk

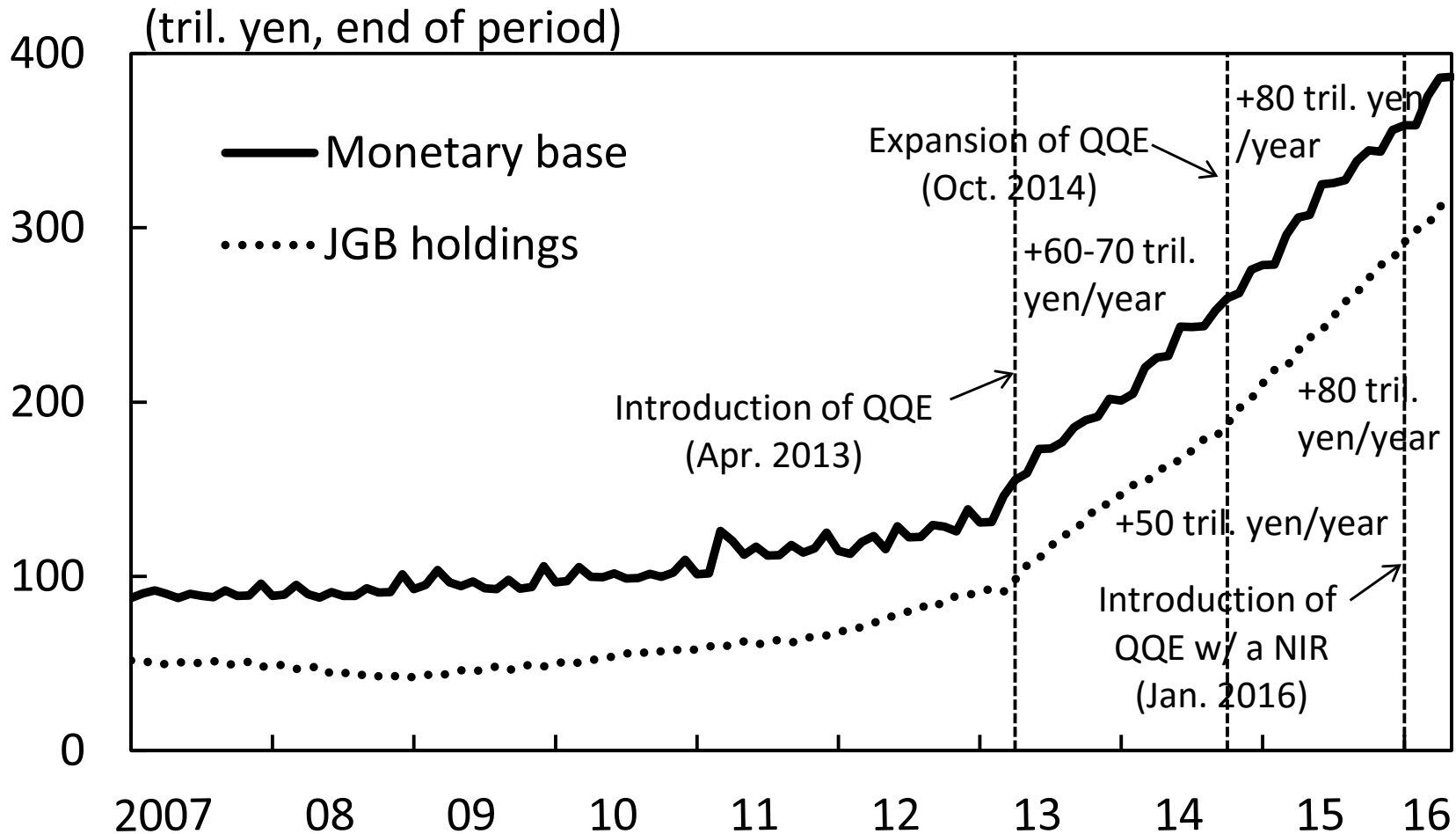
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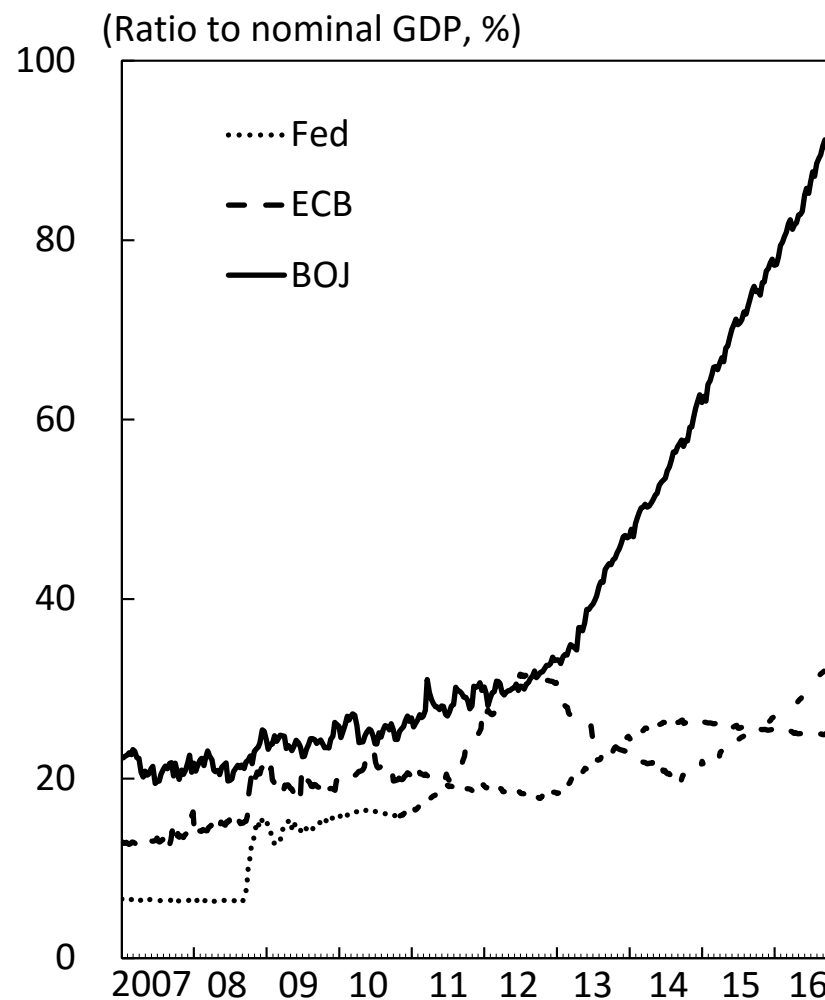
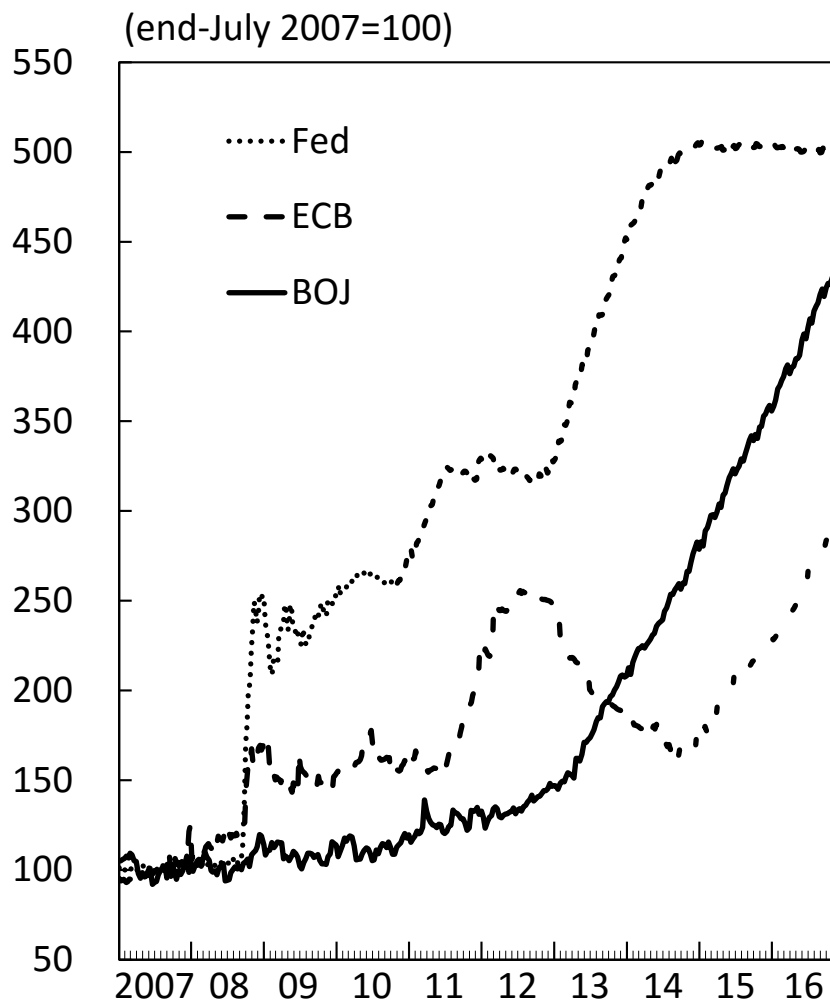
# Developments in QQE

- Introduction of QQE (Apr 2013)
- Expansion of QQE (Oct 2014)
- Introduction of QQE w/ a Negative Interest Rate (Jan 2016)
- Introduction of QQE w/ Yield Curve Control (Sep 2016)

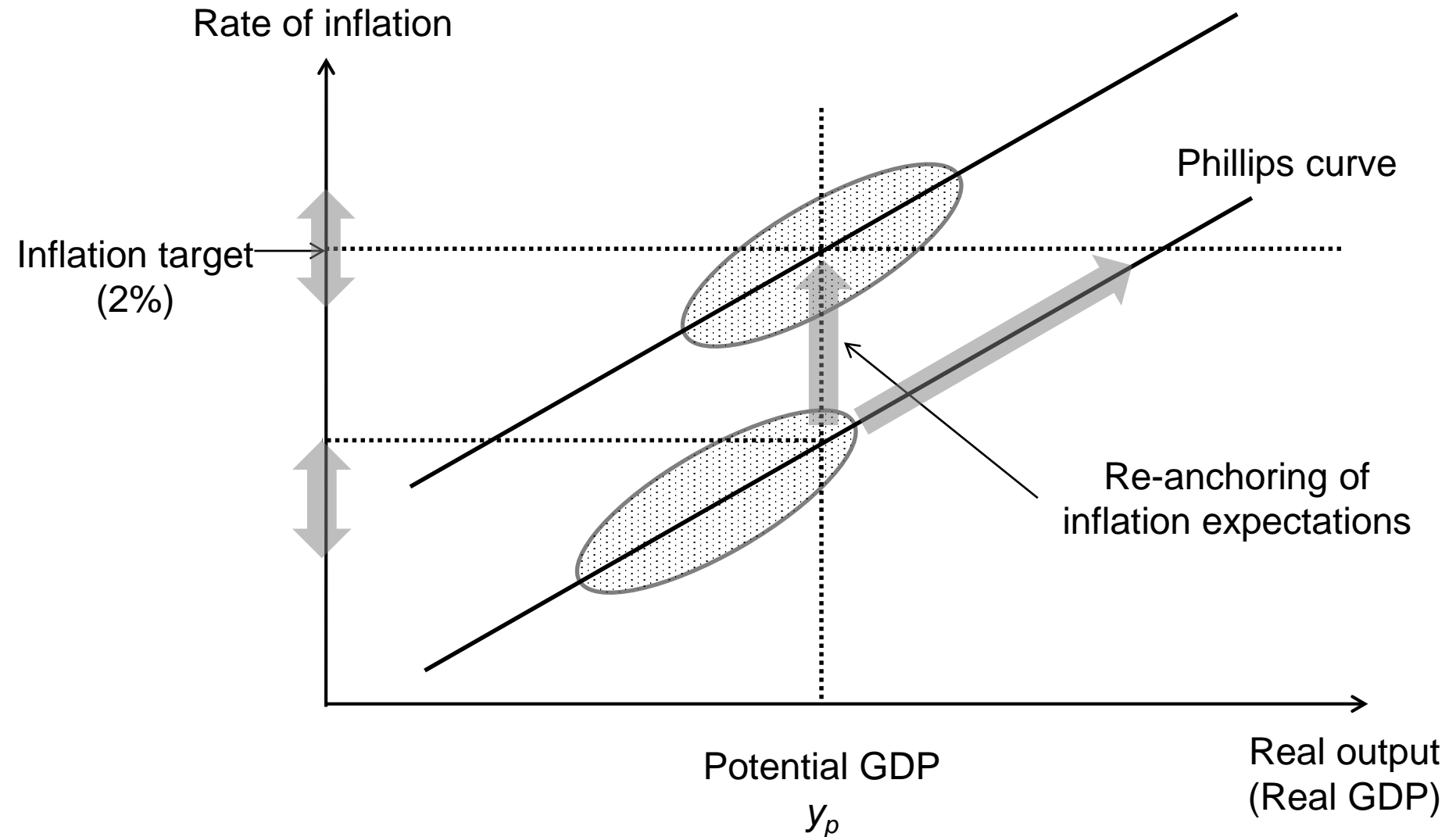
# Monetary Base and JGB Holdings



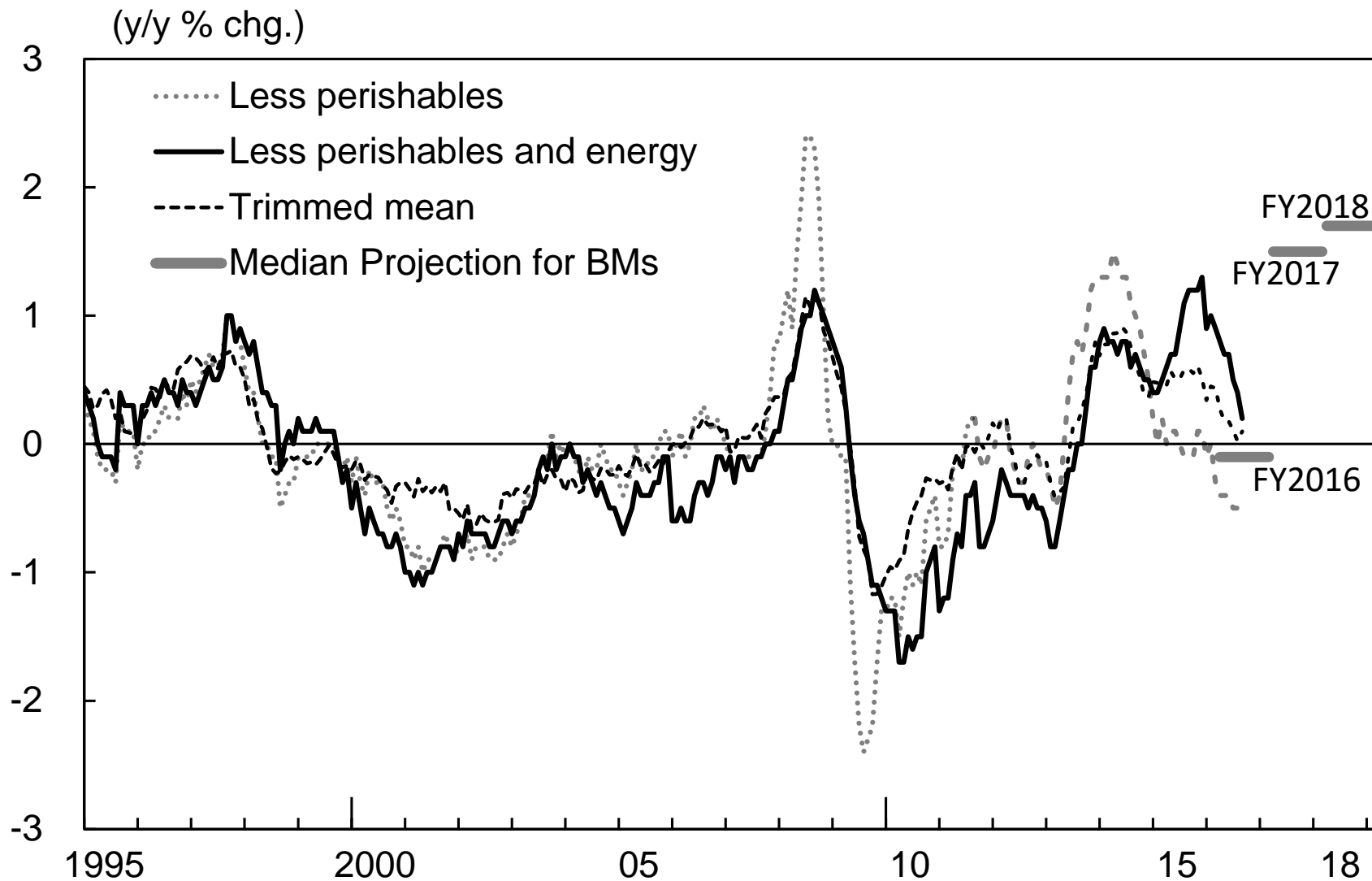
# CB B/S Size



# Escaping from Deflation

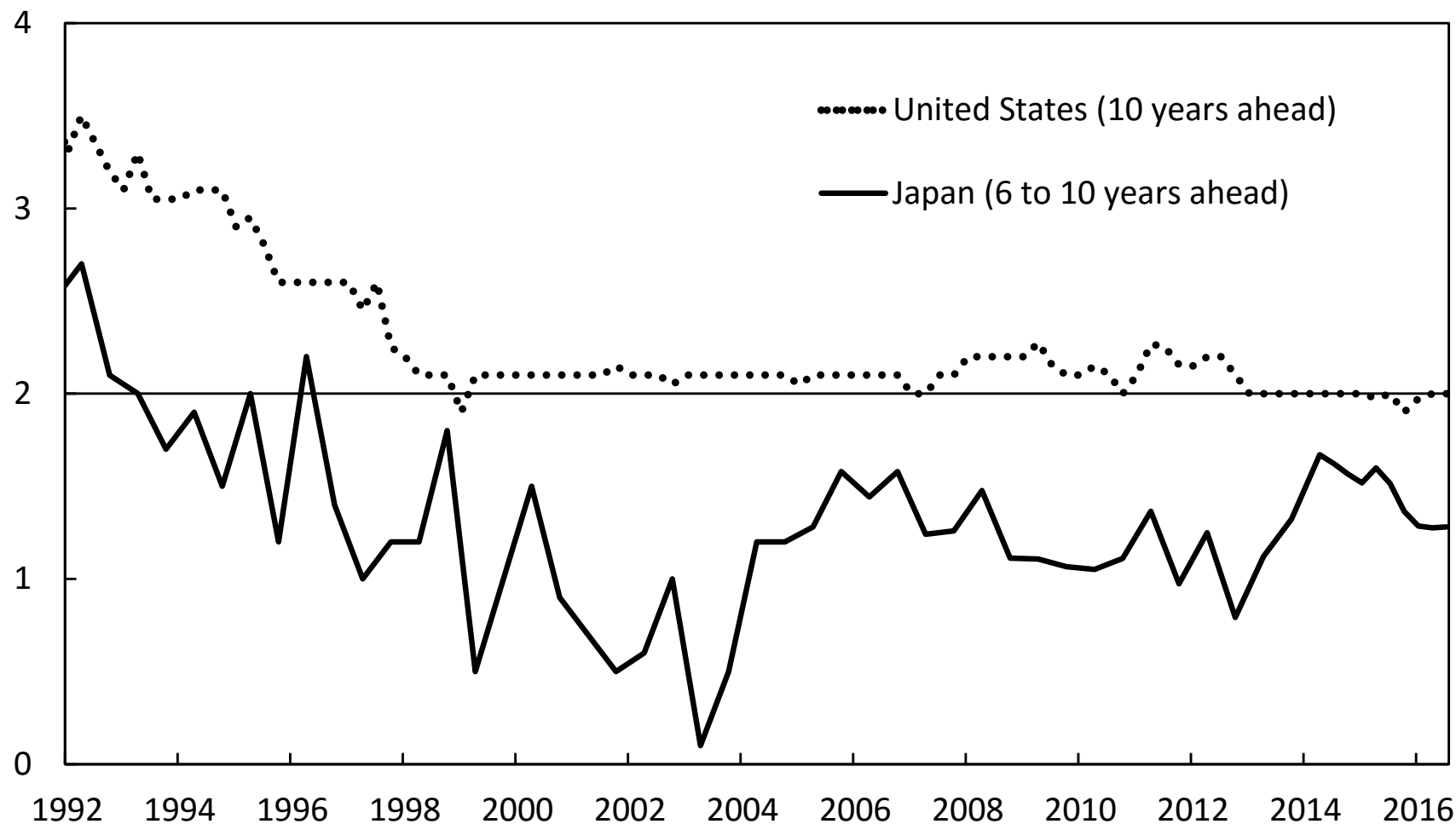


# Core CPI



# Long-term Inflation Expectations

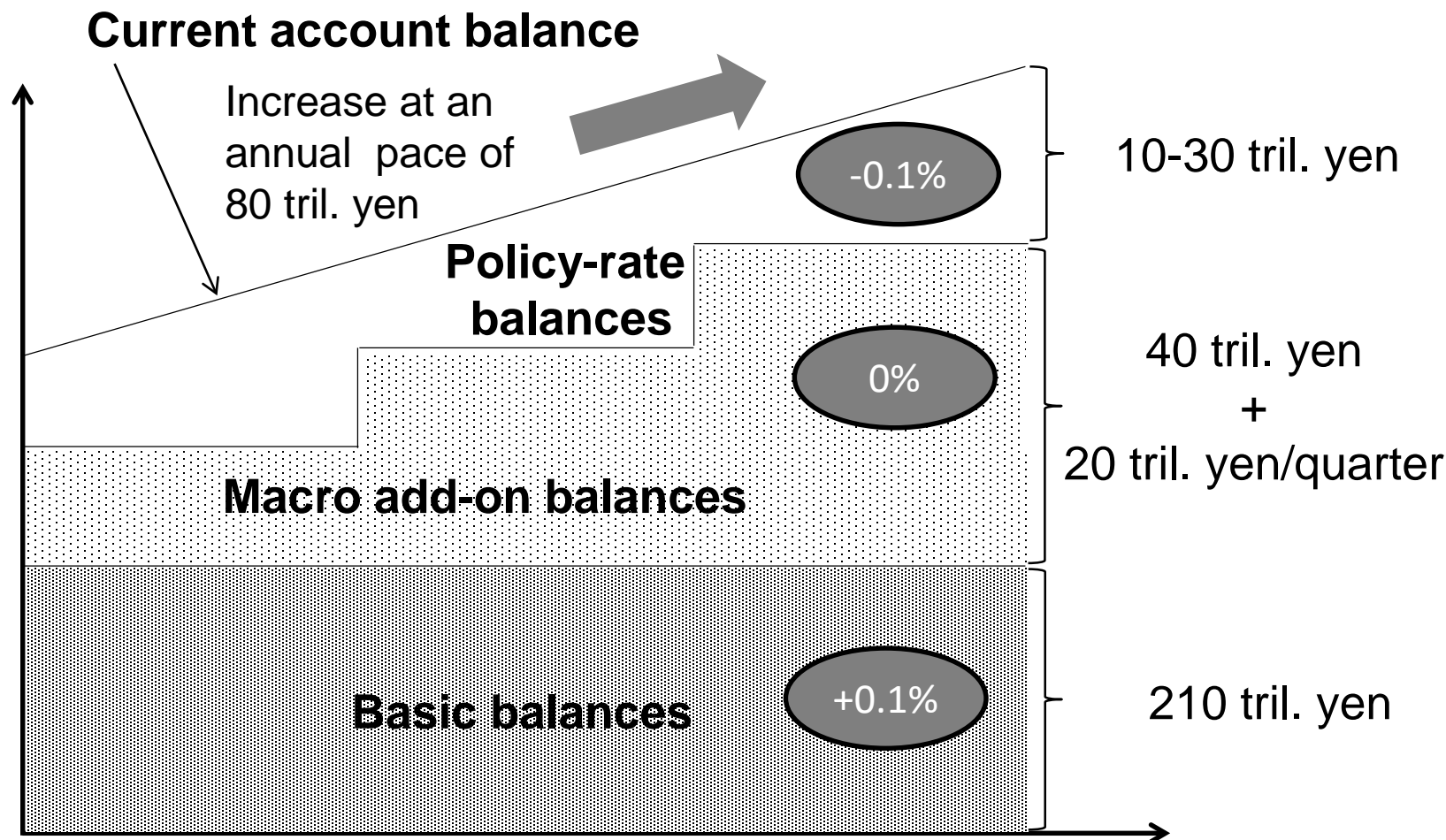
(annual average, percent)



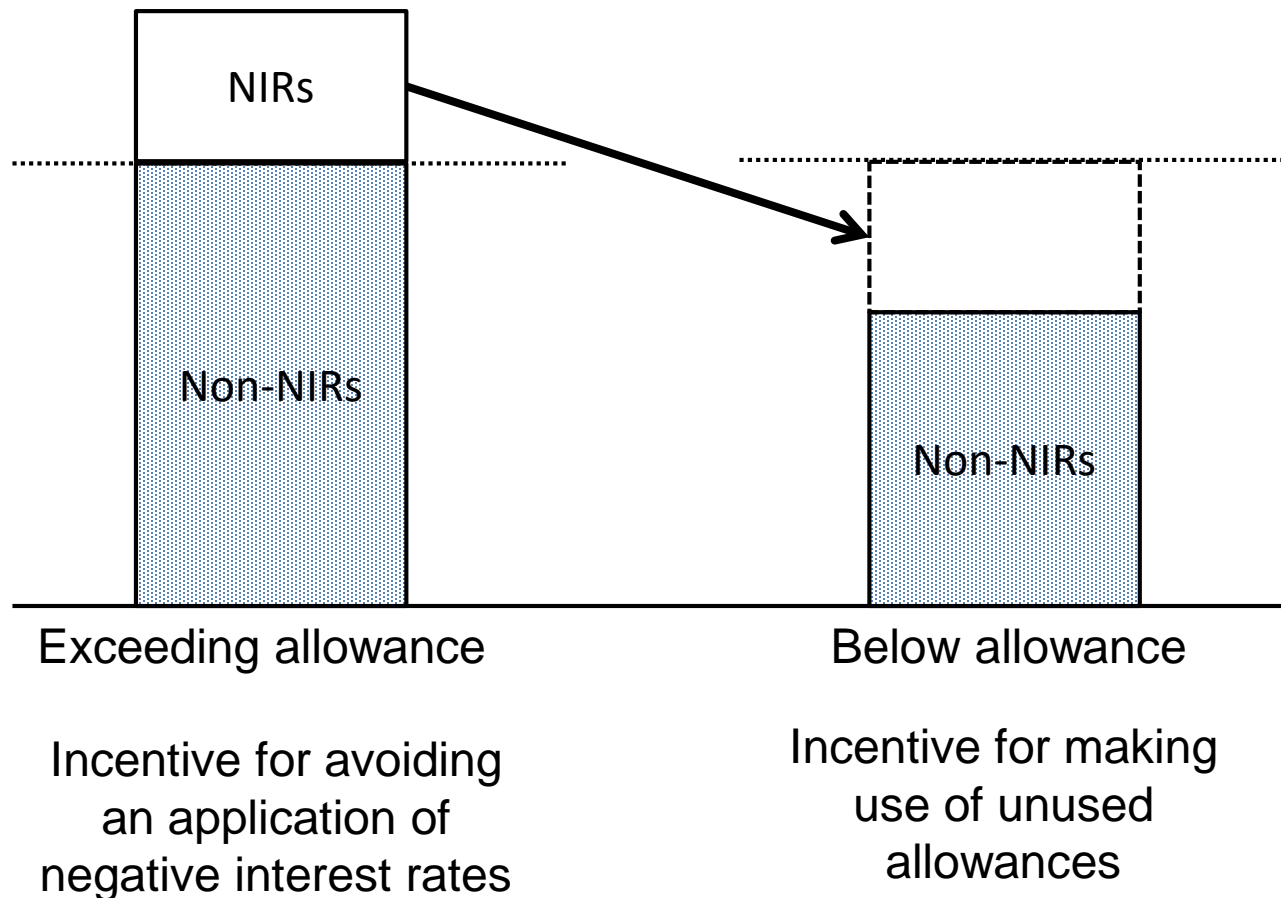
Sources: Consensus Economics Inc., Federal Reserve Bank of Philadelphia.

# Negative Interest Rates

## Three-tier System

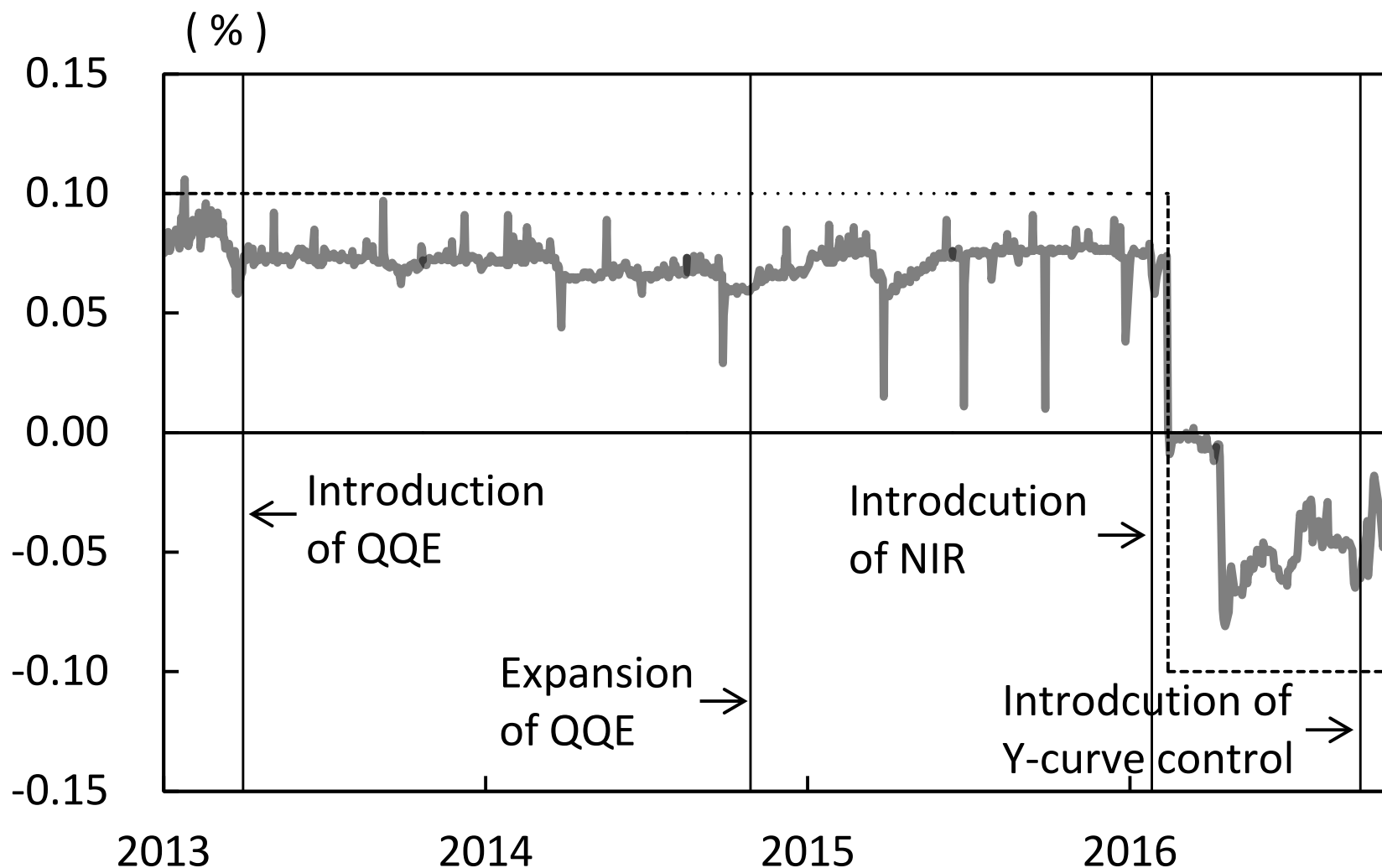


# Interbank Transaction under NIRs

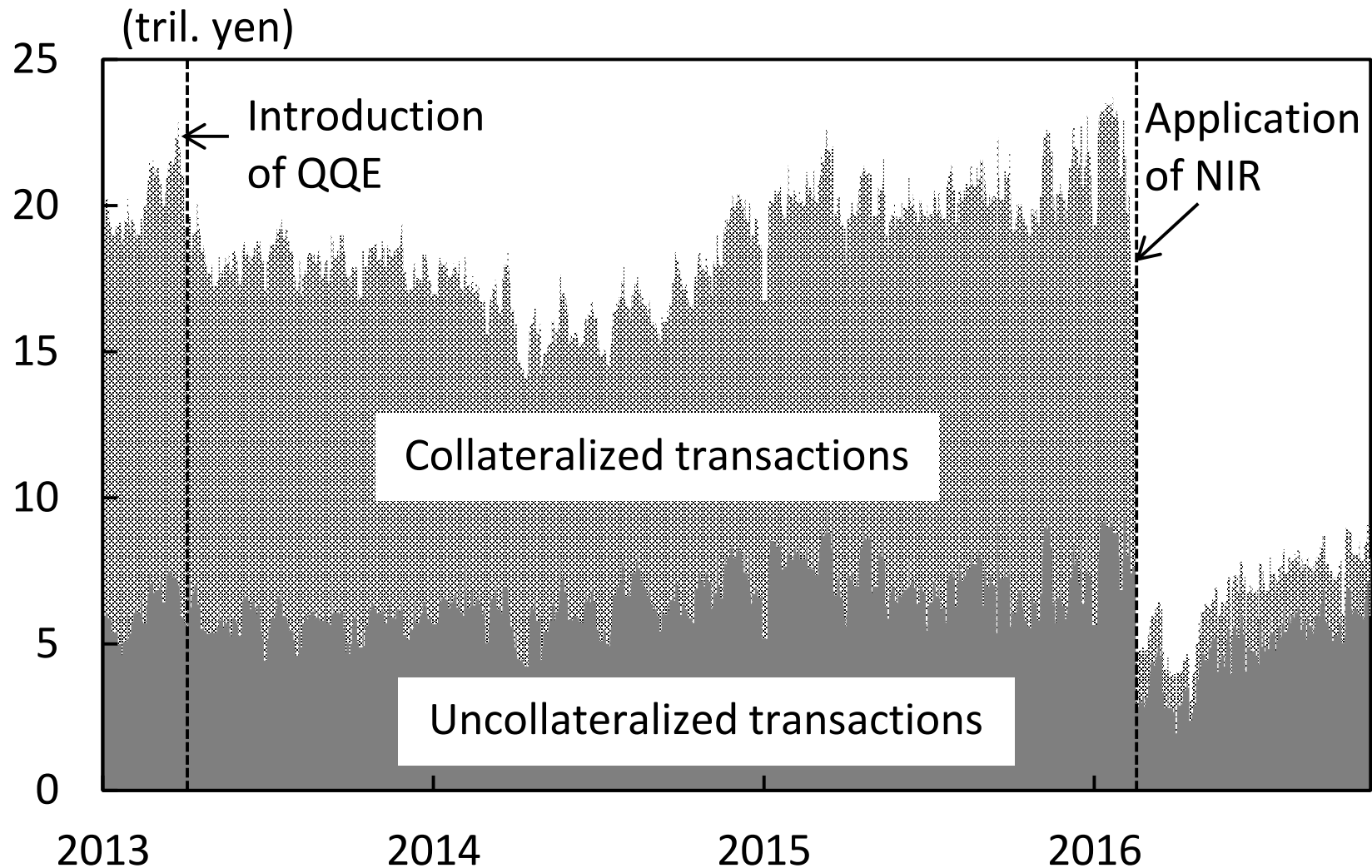




# O/N Uncollateralized Call Rate



# Amounts Outstanding in Call Market



# Nominal vs. Real

$$\text{Real Rate} = \text{Nominal Rate} - \text{Inf. Exp.}$$

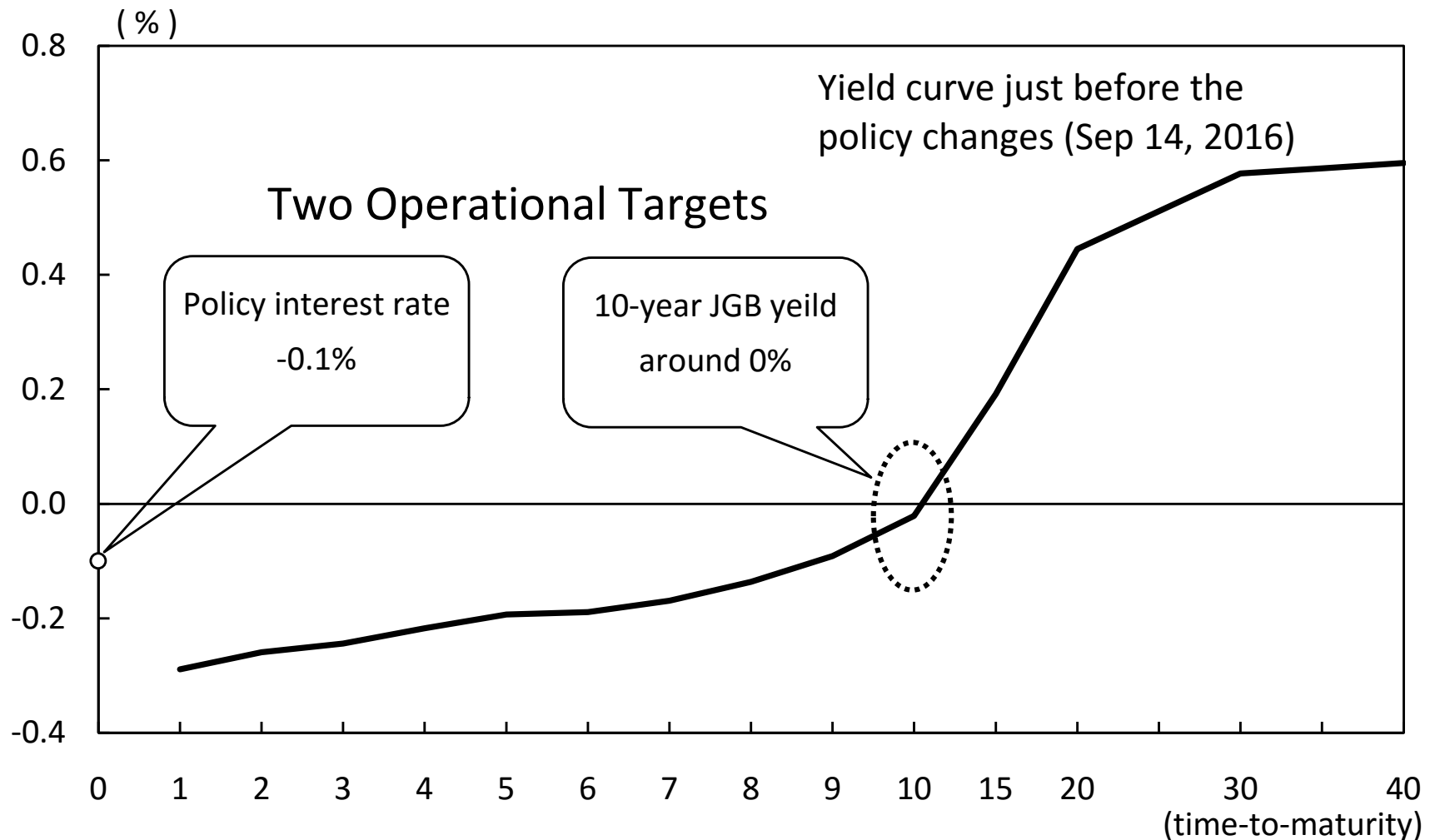
- Introduction of Negative Rates, but
  - Cash with zero interest rates
  - Retail deposits with virtually zero interest rates

$$R^{Lend} > R^{M-Mkt} > R^{Dep} > 0$$

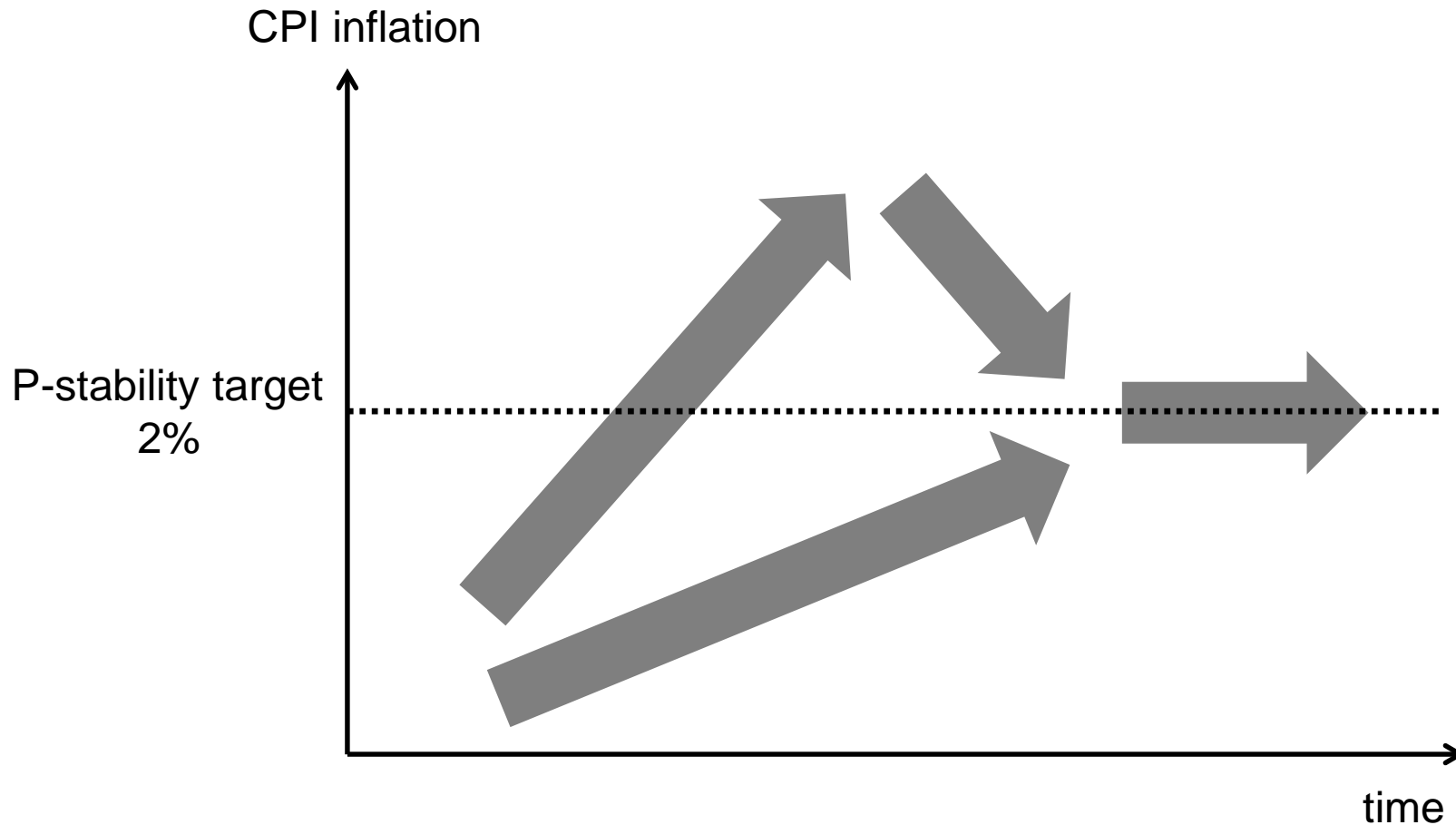


$$R^{Lend} > R^{Dep} > 0 > R^{M-Mkt}$$

# Yield Curve Control



# Inflation-Overshooting Commitment



# Some Policy Questions

- Quantity vs. Interest Rates:
  - Target for M-mkt Operation: monetary base → (long & short-term) interest rates
  - Amount of JGB purchase: no policy implication
  - Overshooting commitment: continue to expand MB
- Time Frame:
  - Latest projection: Around 2% core CPI inf. in FY2018  
→ Still bullish, compared w/ market projections
  - Policy tools: effective enough

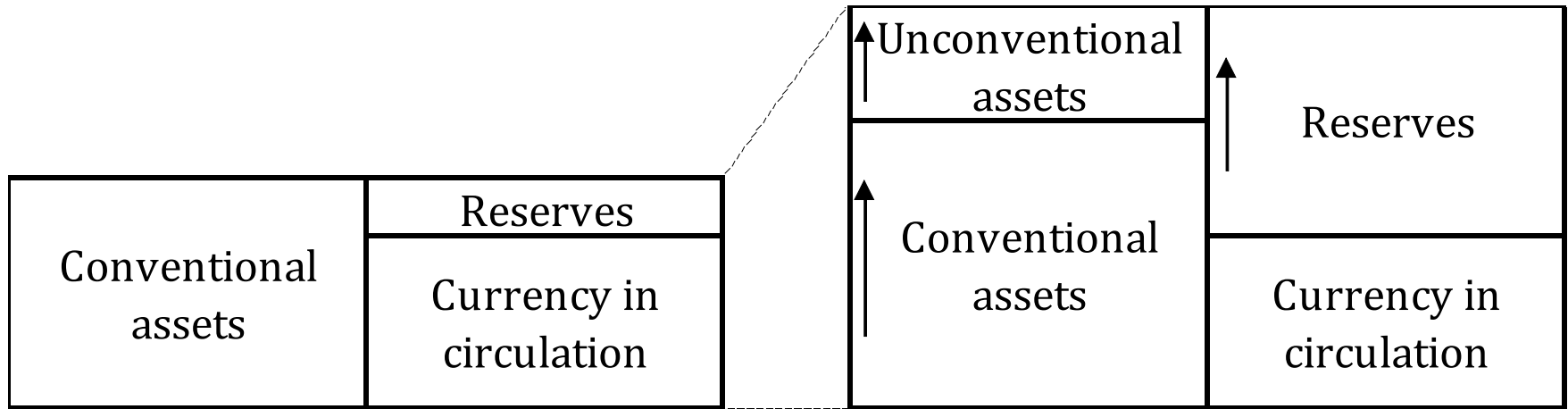
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# CB B/S Policy: Illustration

(Observed unconventional monetary policy)

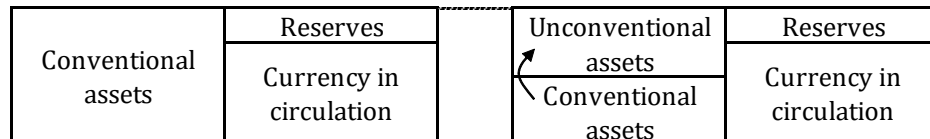
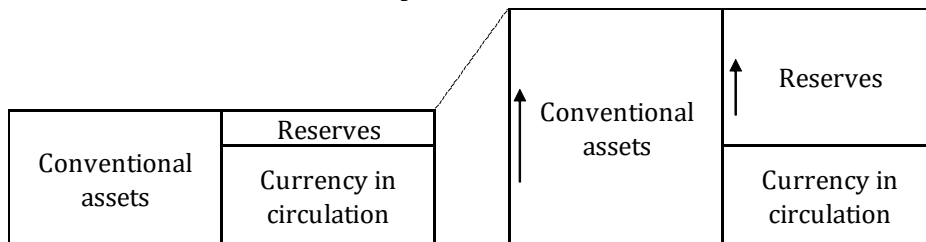
**Broadly defined QE**



(Size)      Combination of two elements      (Composition)

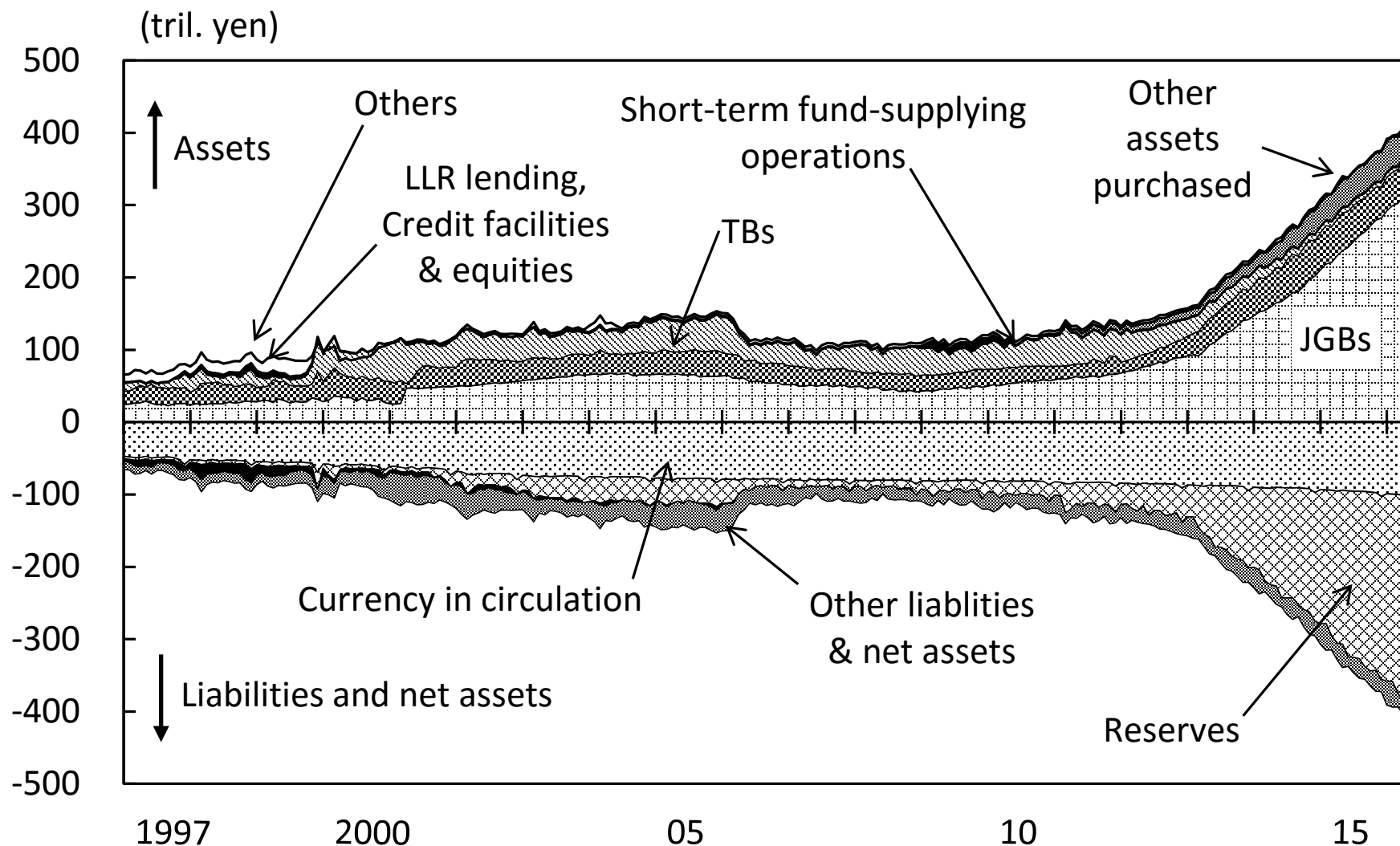
**Narrowly defined QE**

**Narrowly defined CE**

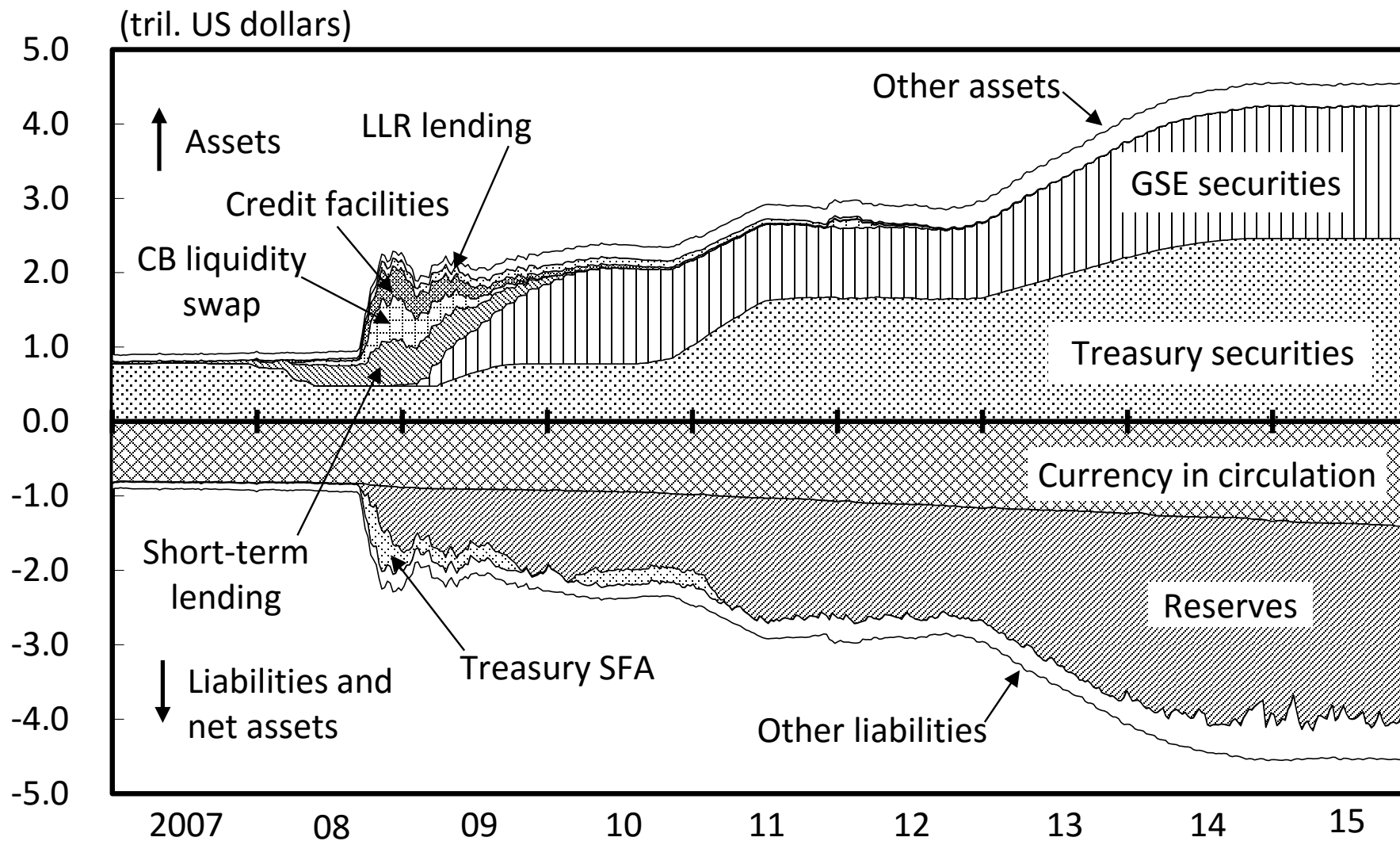




# BOJ's Balance Sheet



# Fed's Balance Sheet



# Some Additional Issues

- Package of Unconventional Tools:
  - CB's environments and restrictions
  - Evolving nature w/ reorganizing policy targets
- Border w/ Fiscal Policy:
  - Not pure liquidity provisions
  - Intervention of private-sector resource allocation
- Policy Rule?:
  - Predictability or surprise
- Normalization?:
  - Adjustment in policy interest rates and B/S size