Overview of Japan's Unconventional Monetary Policy

-Transforming from Quantitative and Qualitative Monetary Easing-

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Outline of My Presentation

Part 1

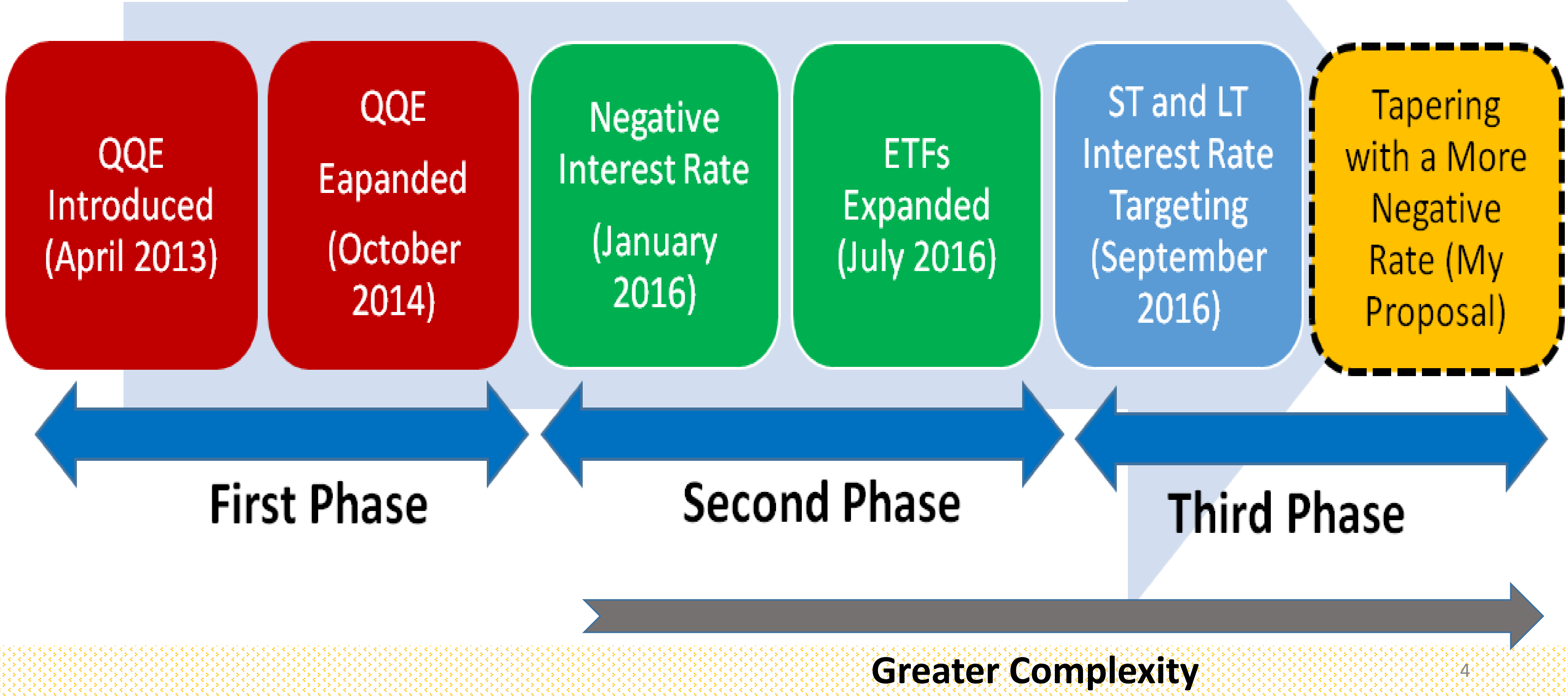
- Overview of BOJ’s Monetary Policy since 2013

Part 2

- Assessment of the BOJ’s Monetary Easing

Part 1. Overview of BOJ’s Monetary Policy since 2013

BOJ’s Monetary Easing Since 2013



Original Package of Monetary Easing (2013)

- **Objective:** Achieving **2% inflation** target at the earliest possible time with a time horizon of **about 2 years**

- **Monetary Base Control**: Shift **Operational Guideline for Money Market Operations** from the **uncollateralized overnight call market rate** to the **monetary base**
  - Increase the monetary base by 60-70 trillion yen (50-60 trillion euro) annually
  - increase annually (1) **JGBs** by 50 trillion yen (less than 1 year to max 40 year), (2) **ETFs** by 1 trillion yen, and (3) **REITs** by 30 billion yen
  - **Quality (monetary base and JGB) and Quality (risk assets)**

Forward Guidance on Monetary Easing Stance

BOJ will achieve 2%
at the earliest possible time,
with a time horizon
of about two years

BOJ will continue with QQE, aiming to achieve 2% Target as Long as Necessary to Achieve it in a Stable Manner

First Stage: QQE and QQE Expansion (October 2014)

- Increase **the Monetary Base** and **JGBs** by 80 trillion yen
- Increase **ETFs** by 3 trillion yen and **REITs** by 90 billion yen

Results: Positive Market Reaction and Performance

- Higher stock prices and the yen's **sharp** depreciation
- Improvement of the output gap and employment
- Increase in inflation expectations up to mid-2014

However, the weaker performance since mid-2014

- **Consumption tax hike in April 2014** reduced demand
- **Oil price drop** contributed to a decline in inflation expectations
- The output gap remained in the slightly-negative territory

Second Stage (January 2016): QQE with the Negative Interest Rate

Background: Emerging economies economic slowdown and instable global financial markets

- **3 Tier-System** of the O/N interest rate on reserves: +0.1%, 0%, ▲0.1%
- **BOJ commitment**: **will add monetary easing in 3 dimensions (Quantity, Quality, and Negative Interest Rate) if necessary**

Results: Positive Market Reaction in the First 2 days, followed by the Stronger Negative Reaction

- Turning from Yen's Depreciation to Appreciation
- Turning a stock price hike to a stock price drop
- Inflation turned negative from March 2016; output gap remain at around 0%
- Inflation expectations remain sluggish or continue to drop

Why was the Market Reaction so Negative?

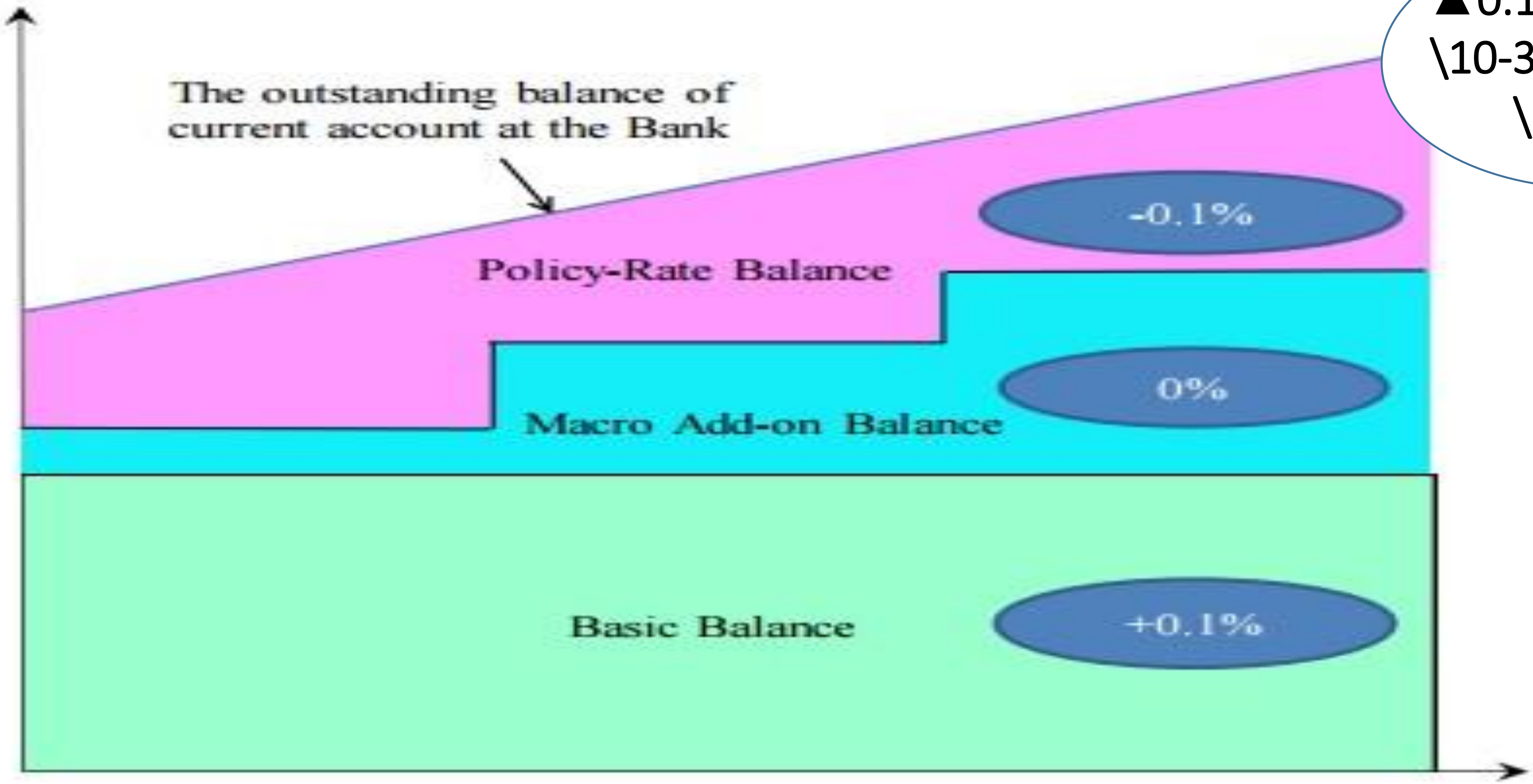
- The policy was introduced after (1) a repeated denial and (2) a decision to enhance sustainability of the JGB purchase (lengthening of the maturity) in December 2015
- Inconsistency with the JGB purchase program
- The 3 tier system is too complicated and timid

The negative interest rate policy created various problems

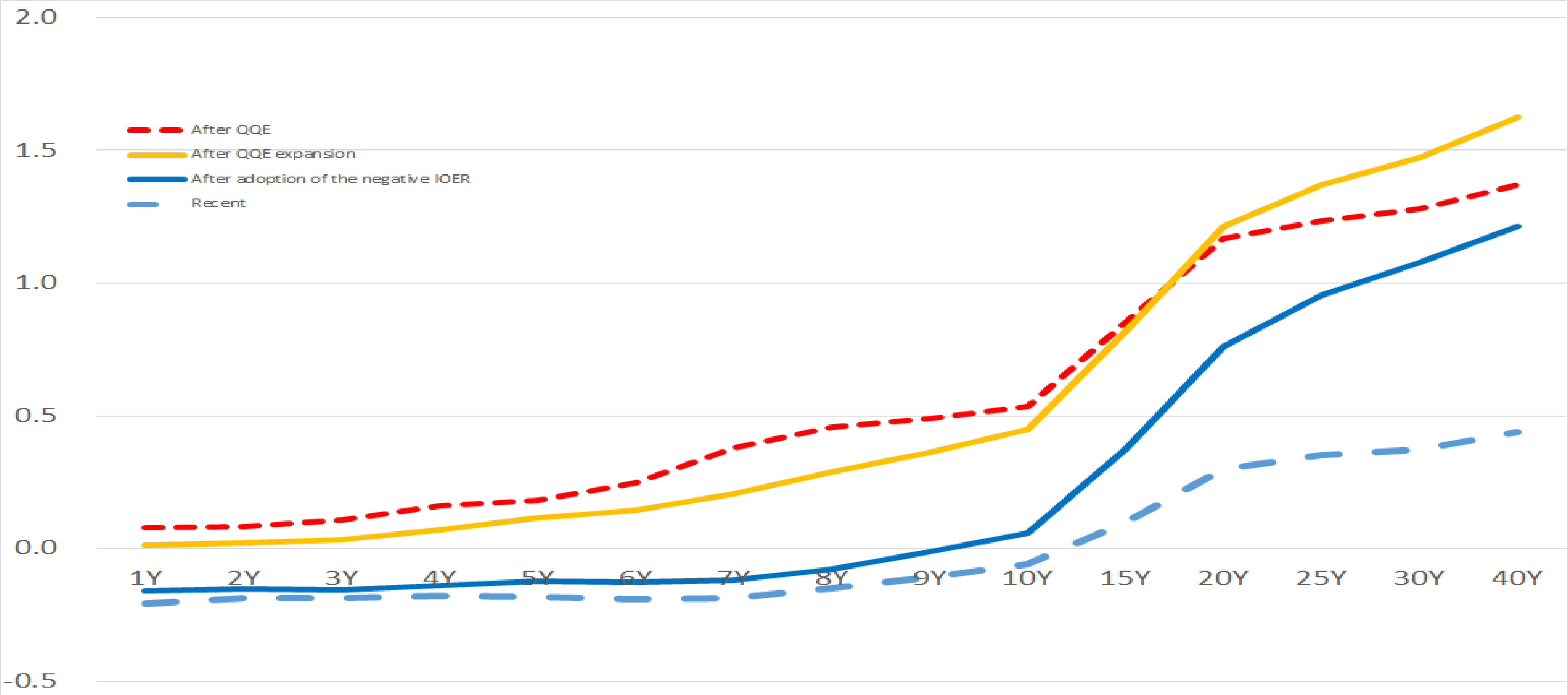
- Sustainability of JGBs purchases became more challenging
- lower lending-deposit interest margin
- Flattened JGB yield curve
- Shrinking Interbank market and MMF/MRF industry
- Lower returns and bigger liability in pension funds and insurance
- Deteriorated households' sentiments

3 Tier System of the Reserves

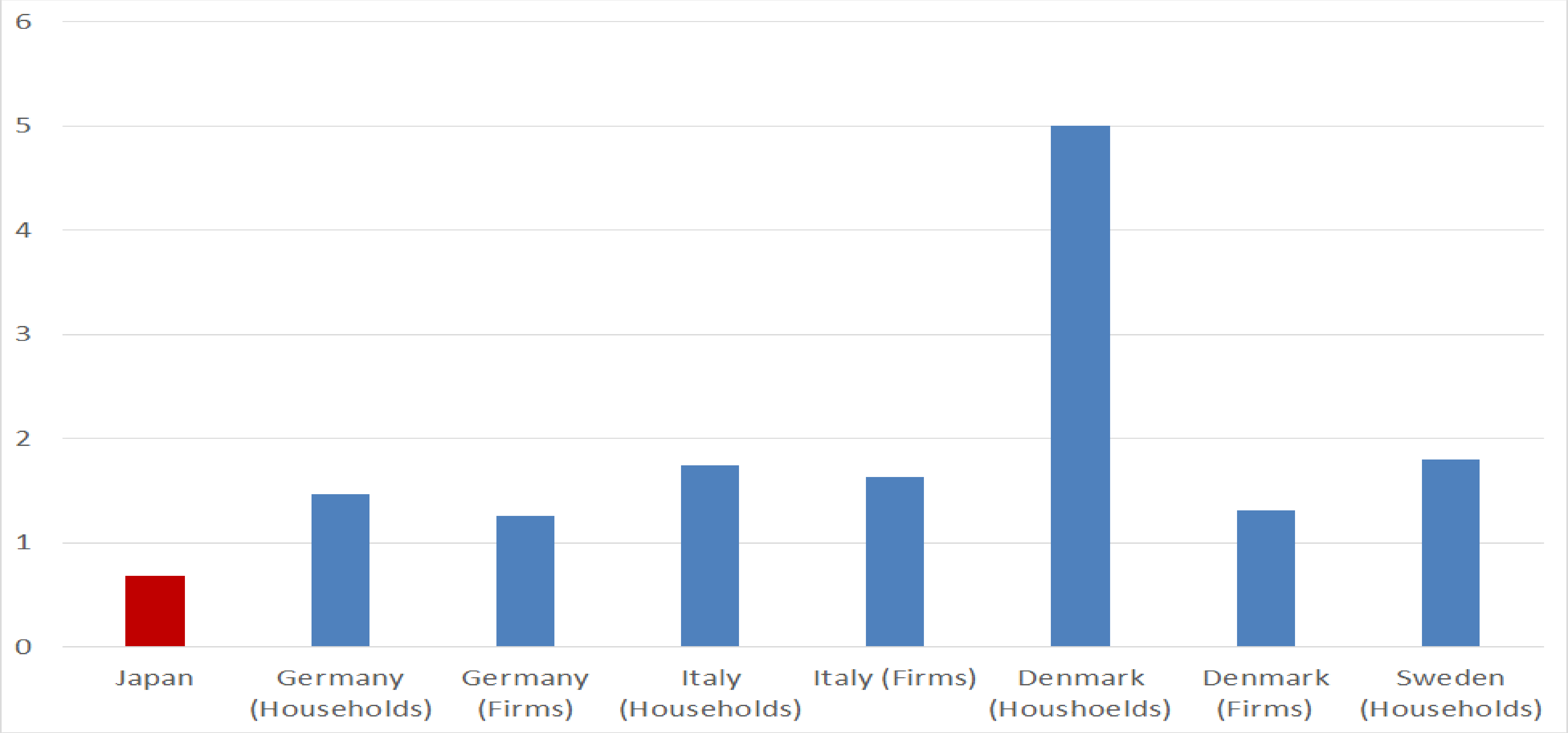
▲0.1% applied to \10-30 trill. out of \300 trill.



Greater Impact of the Negative Interest Rate Policy on the Yield Curve



Lowest Interest Rate Margins (Flow)



Second Action (July 2016): "Quality Expansion" by Doubling ETF

- Increase ETFs annually from around 3 trillion yen to 6 trillion yen
- No additional monetary easing in the Quantity and the Negative Interest Rate
- Announcement on the Assessment on the Effectiveness of Monetary Easing in the next September meeting
  - ➢ This appeared to have prevented a very negative reaction
  - ➢ Mild yen's appreciation and higher stock prices
  - ➢ BOJ's signal that it would change the framework of monetary easing

Third Stage (September 2016): New Framework for Strengthening Monetary Easing "QQE with Yield Curve Control"

Background: Growing doubt about the sustainability of BOJ's JGB purchases and strong criticism against the flattened yield curve caused by the negative interest rate policy

Guideline for Money Market Operations: Shift from **the Monetary Base Control** to **Yield Curve Control**

- **Two pinpoint targets**: negative O/N interest rate (**now ▲0.1%**) and **10 year** JGB yield (**now around 0%**)

- **Additional tools**: (1) outright JGB purchases with **fixed** yields determined by BOJ and (2) fixed-rate funds-supplying operations up to 10 years (from 1 year at present)

New Forward Guidance on Monetary Policy Stance

BOJ will continue with "QQE with Yield Curve Control," aiming to achieve 2% Target, as long as necessary for maintaining 2% in a stable manner

Inflation Overshooting Commitment: BOJ will continue expanding the monetary base until inflation **exceeds 2%** and stays above 2% in a stable manner.

※ The pace of increase in the monetary base may fluctuate in the short run.
※ The monetary base-GDP ratio is expected to rise from present 80% to over 100%.

Part 2. Assessment of BOJ’s Monetary Easing

My View on the New Framework

- **Purpose**: It is a shift from additional monetary easing in **3 dimensions** (Quantity, Quality, and the Negative Interest Rate) to **1 dimension** (the Negative Interest Rate)
  - Signaled that the expansion of quantity is **not possible** with preference to **implicit tapering**
  - Admitted that the negative interest rate policy caused side effects
  - Added the 10 year yield target in order to (1) prevent an overshoot of the interest rate hike and (2) to generate a steeper yield curve
- **Positive Aspects**: (1) More sustainable JGB purchases, (2) less burden on BOJ's balance sheet, (3) Less adverse impact on the pension funds and insurance firms
- **Negative Aspects**: (a) Complexity, (b) Potentially-greater distortion to the JGB market by suppressing price information, (c) more challenging task in the exit stage
- **Limited Impact on inflation -- just by switching from buying a fixed amount at a market-determined rate to buying a market-determined amount at a fixed rate.**

Massive Monetary Easing

	Before April 2013	Current
Monetary Base (% of GDP)	around 30%	around 80%
Government Bond Holdings (% of Outstanding Issued)	around 14%	around 37%
10 Year Yield	0.5%	▲0.1%
Real 10 Year Yield	▲0.4~▲0.5%	▲0.4~▲1.5%

But …. Sluggish Performance

	FY 2012	FY 2013-2015	Current
Real GDP (%)	0.9%	0.6%	0.2%
CPI (%)	▲0.3%	0.7%	▲0.5%
CPI excludinig food and energy(%)	▲0.6%	0.5%	0.2%
Output gap	▲2.0%	▲0.3%	▲0.1%
5Y 5Y Inflation Swap Rate	0.8%	0.9%	0.2%

Note: CPI excludes the direct impact of the consumption tax hike.

Basic Facts about Japan's Deflation

Households' Upward Bias

- Household's **perceived inflation** and inflation expectations are always **higher** than actual CPI Inflation. Households do NOT have deflationary mindset.

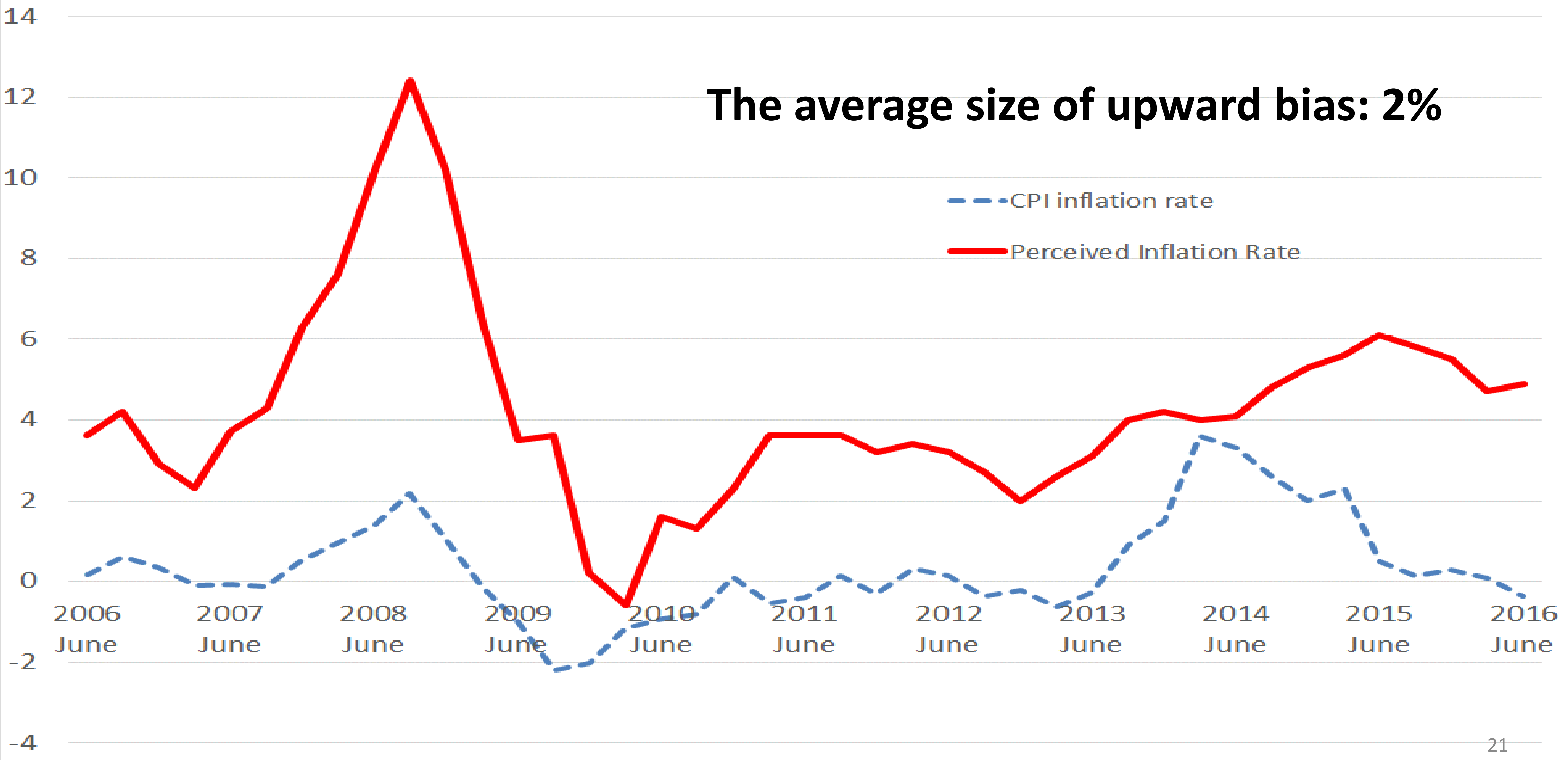
- Contributing Factors:

(1) Long-standing **stagnant income growth** and **expectation on lower income**

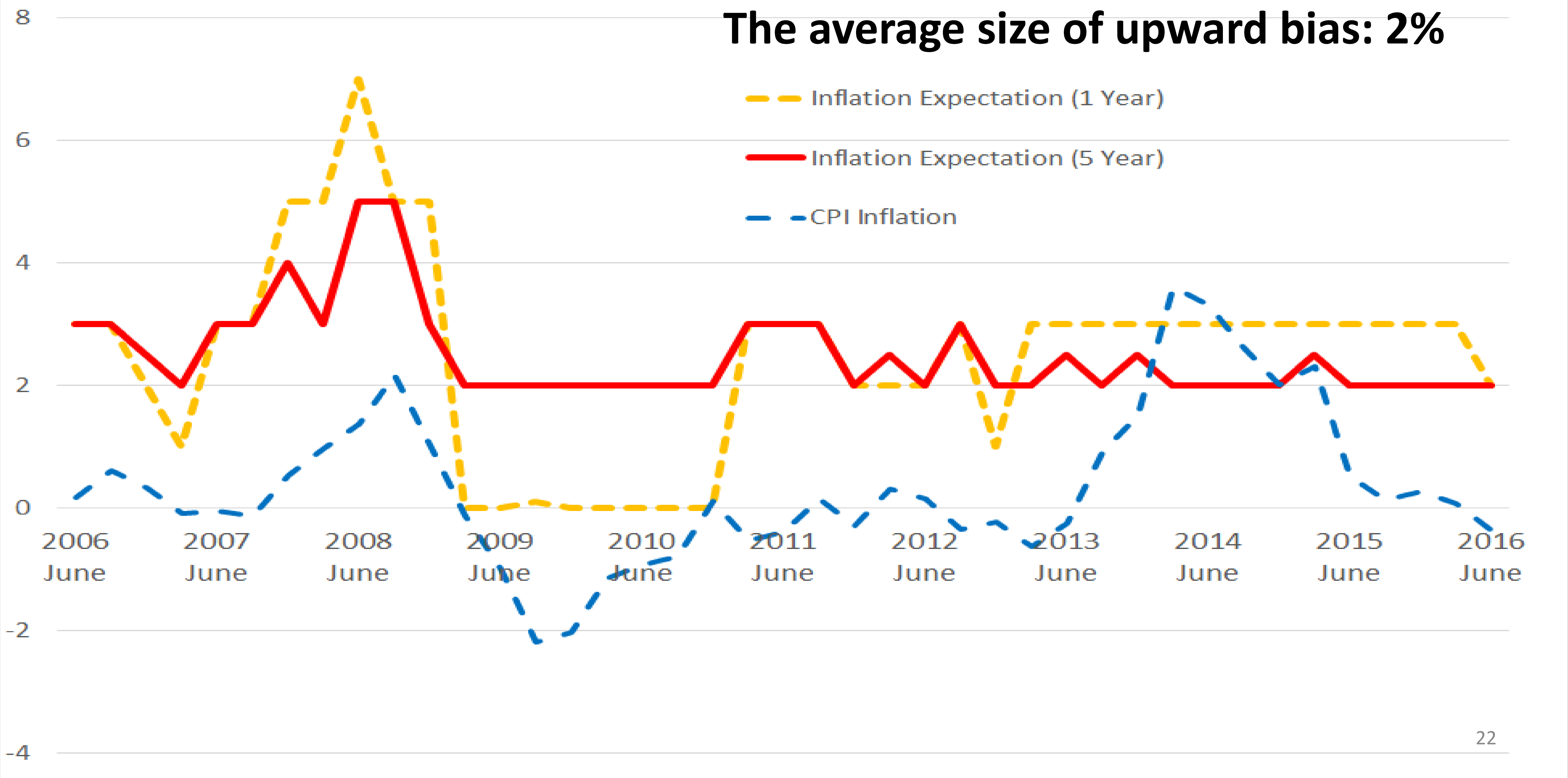
(2) Rapidly-rising prices of **non-durable goods** (i.e. foods) from early 2000's

- Since more than 80% of households do not accept the price rise, **firms** find it **difficult to raise** sales prices in the presence of shrinking markets.
- The **virtuous cycle** from higher prices to higher wages has not materialized yet.
- Thus, the **deflation-oriented mindsets** apply to the state of the corporate sector.

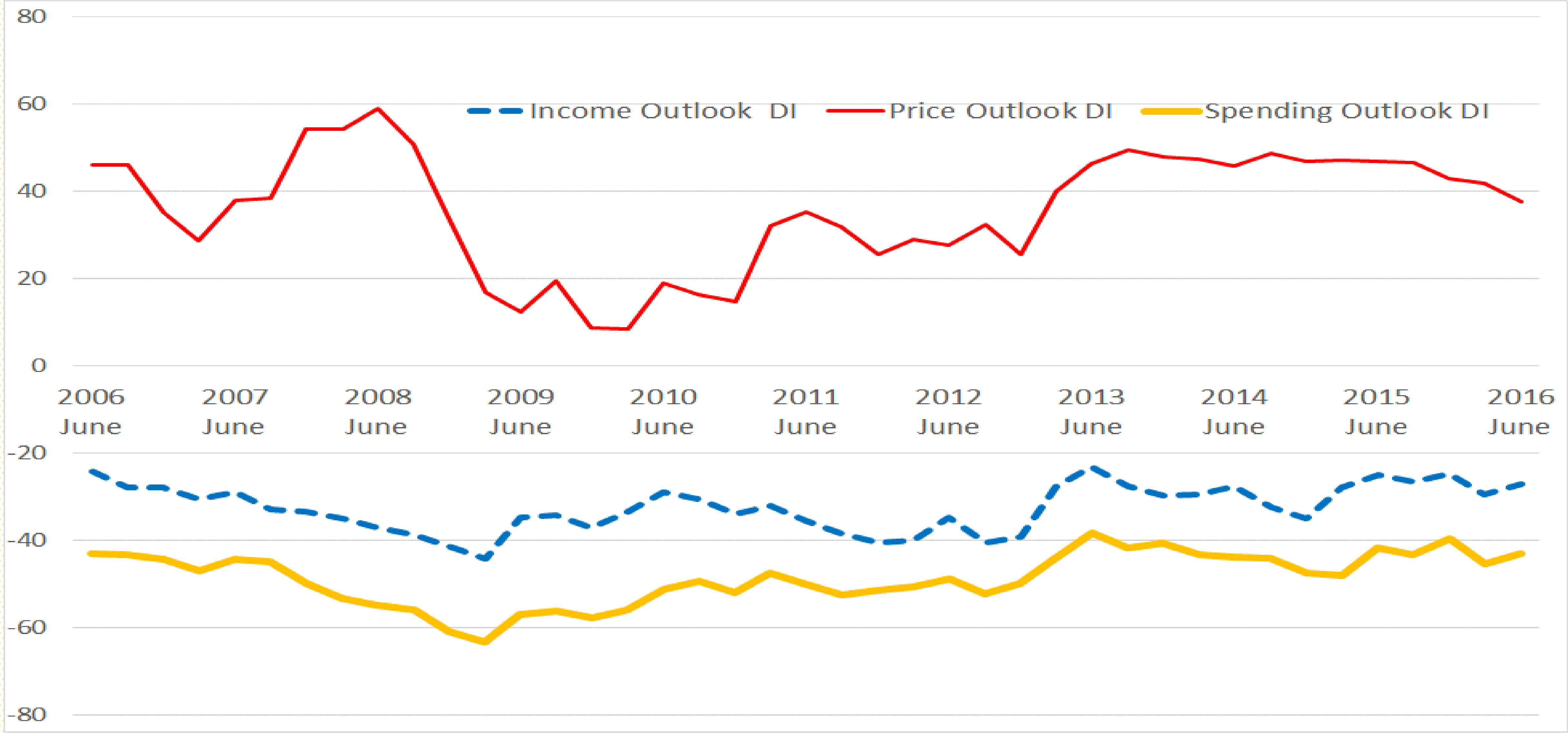
Upward Bias in Households' Perceived Inflation



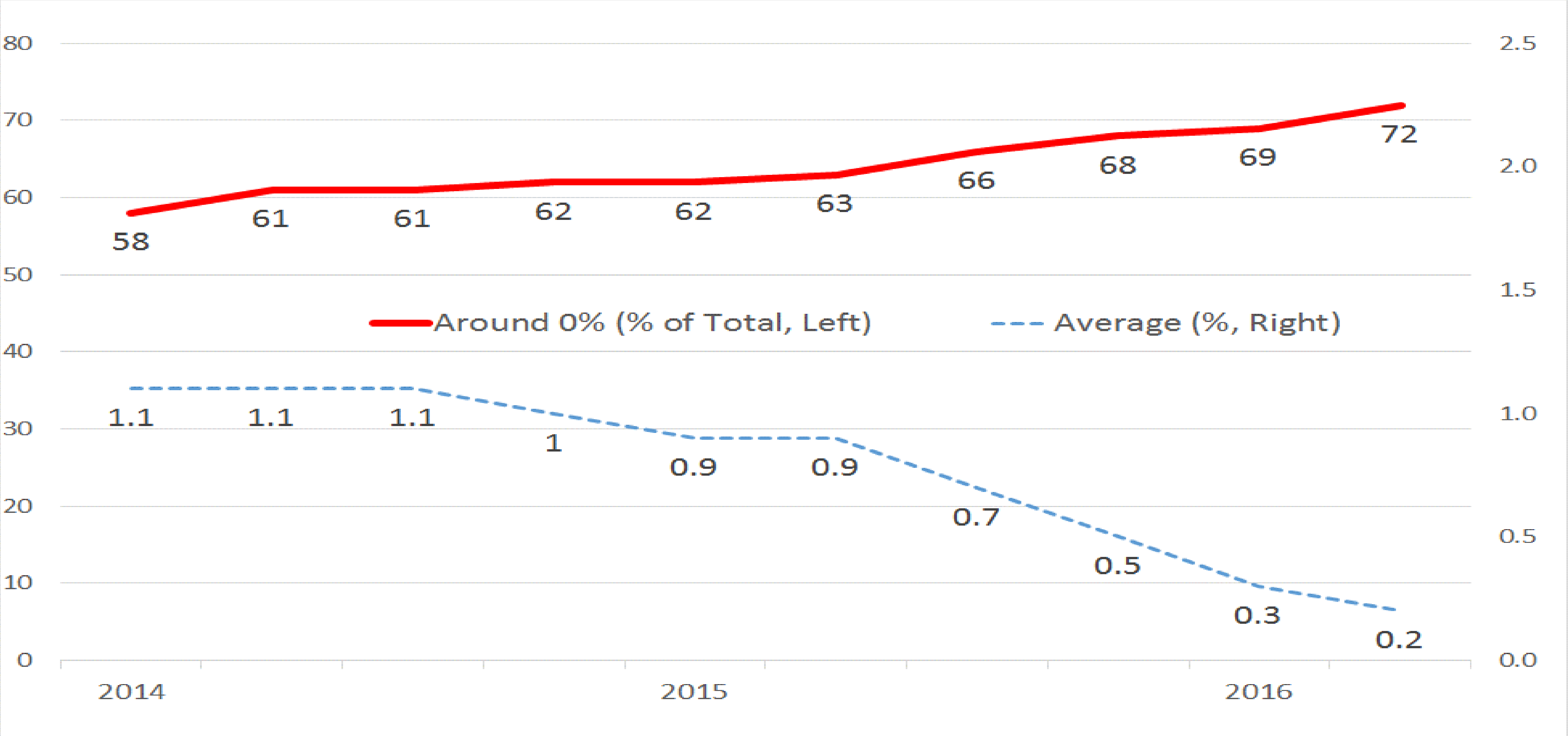
Upward Bias in Households' Inflation Expectation



Decline in Expected Nominal Income and Spending (1 year ahead)



Sluggish Firms' Sales Price Outlook (1 Year Ahead)



Implications on Monetary Policy

- Since the adoption of **QQE**, firms began to raise sales prices. But, this is mostly out of the necessity to pass higher imported cost to output prices.

- Households' **upward bias** continue to prevail. Firms continue to find it difficult to raise prices sustainably.

- BOJ's task is challenging. It must **reduce** households' upward bias so that the tolerance to the price rise will improve.
    - ➢ Need a sustainable increase in nominal and real wage (economic growth expectation)
    - ➢ **My proposal** is to take a **two-step approach** (achieve 1% target while keeping the 2% target as an ultimate target)

My View: BOJ's Assessment on the Effectiveness of Monetary Easing

- Transmission mechanism of BOJ's policy:

(1) Commitment toward 2% target → higher inflation expectation → higher inflation

(2) A decline in real interest rates (higher inflation expectation and lower nominal interest rates) → positive output gap → higher inflation

  - This mechanism appeared to have worked for the first year

- Since then, the BOJ faces the challenging environment:

(1) Lack of credibility over 2% target

(2) The negative interest rate policy has not improved the output gap and inflation expectations, yet the BOJ placed it as a primary tool.

  - Weak expectation on potential economic growth and income growth have resulted in mediocre price performance.