

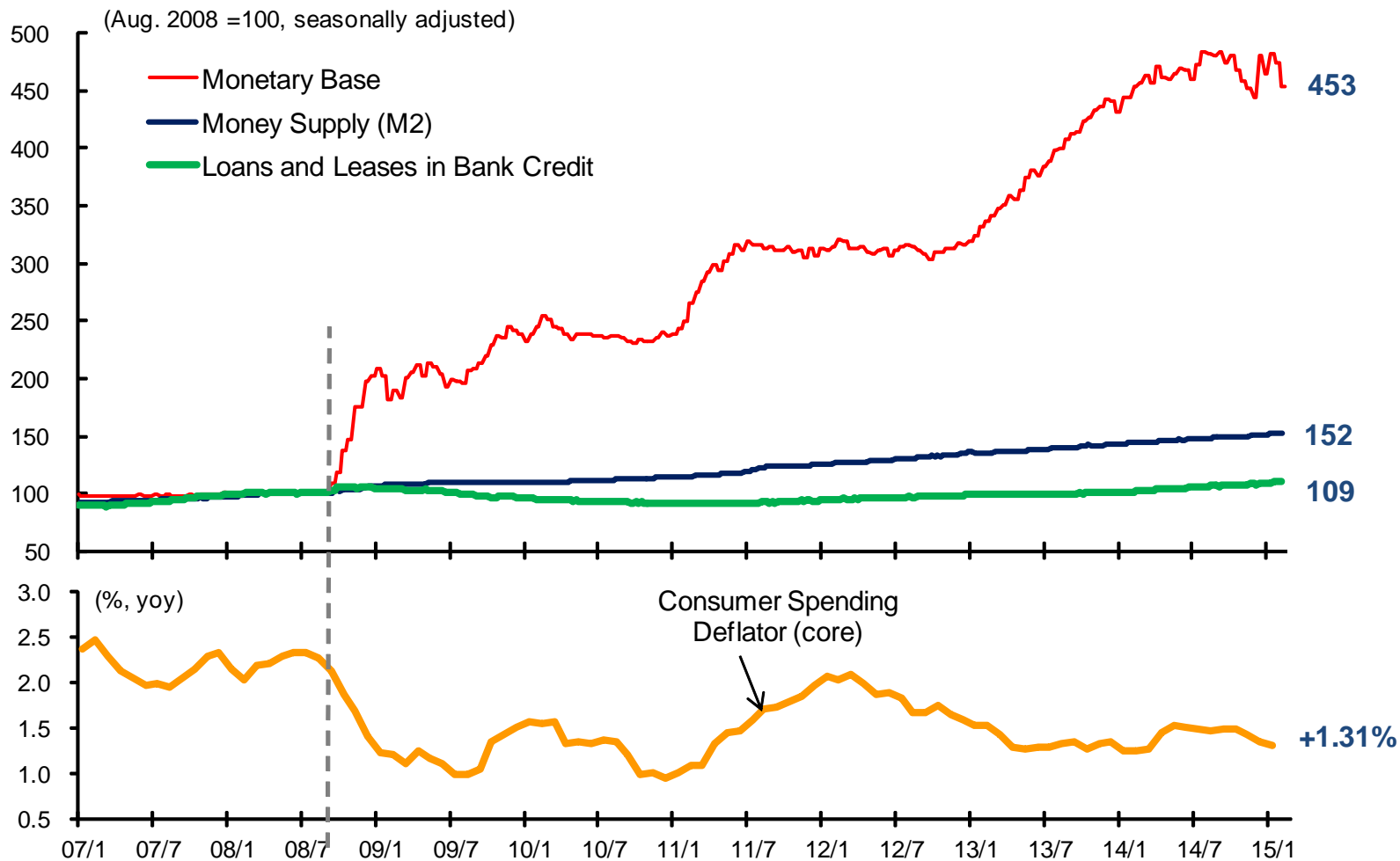
# **The ECB and its Watchers XVI**

## **International Challenges for Monetary Policy**

Richard C. Koo, Chief Economist  
Nomura Research Institute, Tokyo  
+81-3-5533-2160  
[r-koo@nri.co.jp](mailto:r-koo@nri.co.jp)

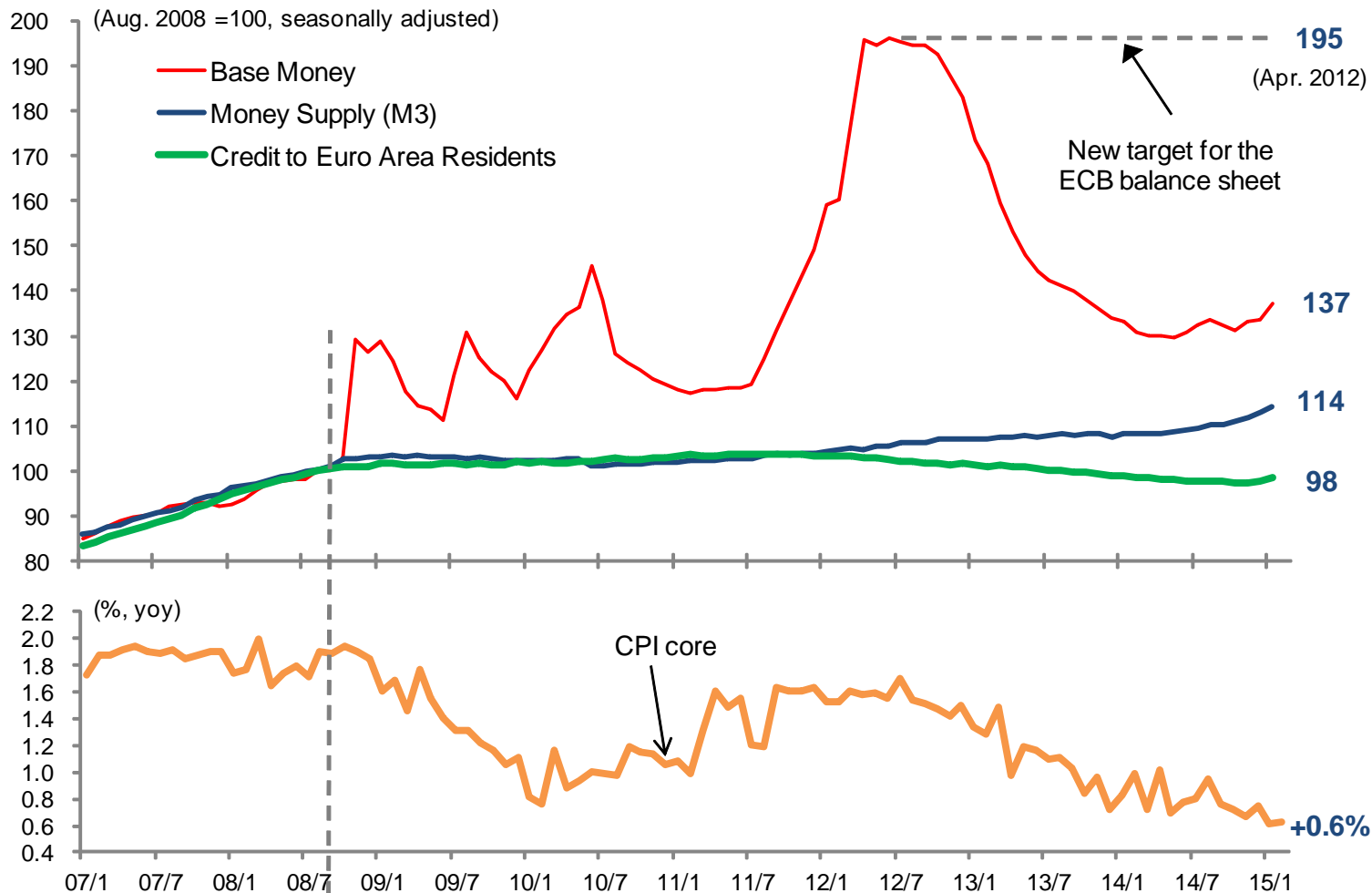
March 11, 2015

# Exhibit 1. Drastic Liquidity Injections Resulted in minimal Increases in Money Supply and Credit (I): US



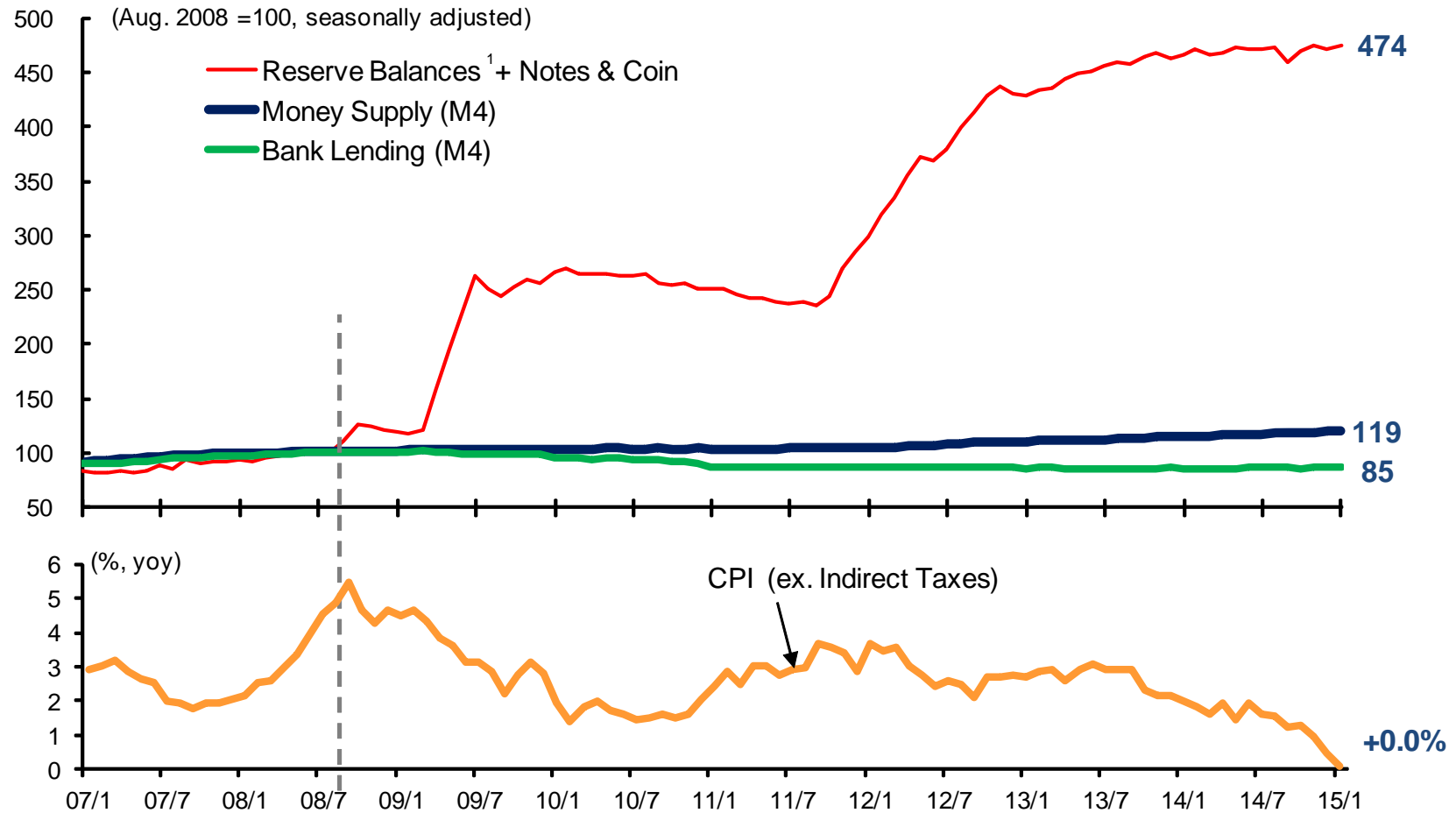
Note: Commercial bank loans and leases, adjustments for discontinuities made by Nomura Research Institute.  
 Sources: Federal Reserve Board; US Department of Commerce

# Exhibit 2. Drastic Liquidity Injections Resulted in minimal Increases in Money Supply and Credit (II): Eurozone



Note: Base money's figures are seasonally adjusted by Nomura Research Institute.  
 Sources: European Central Bank; Eurostat

# Exhibit 3. Drastic Liquidity Injections Resulted in minimal Increases in Money Supply and Credit (III): UK

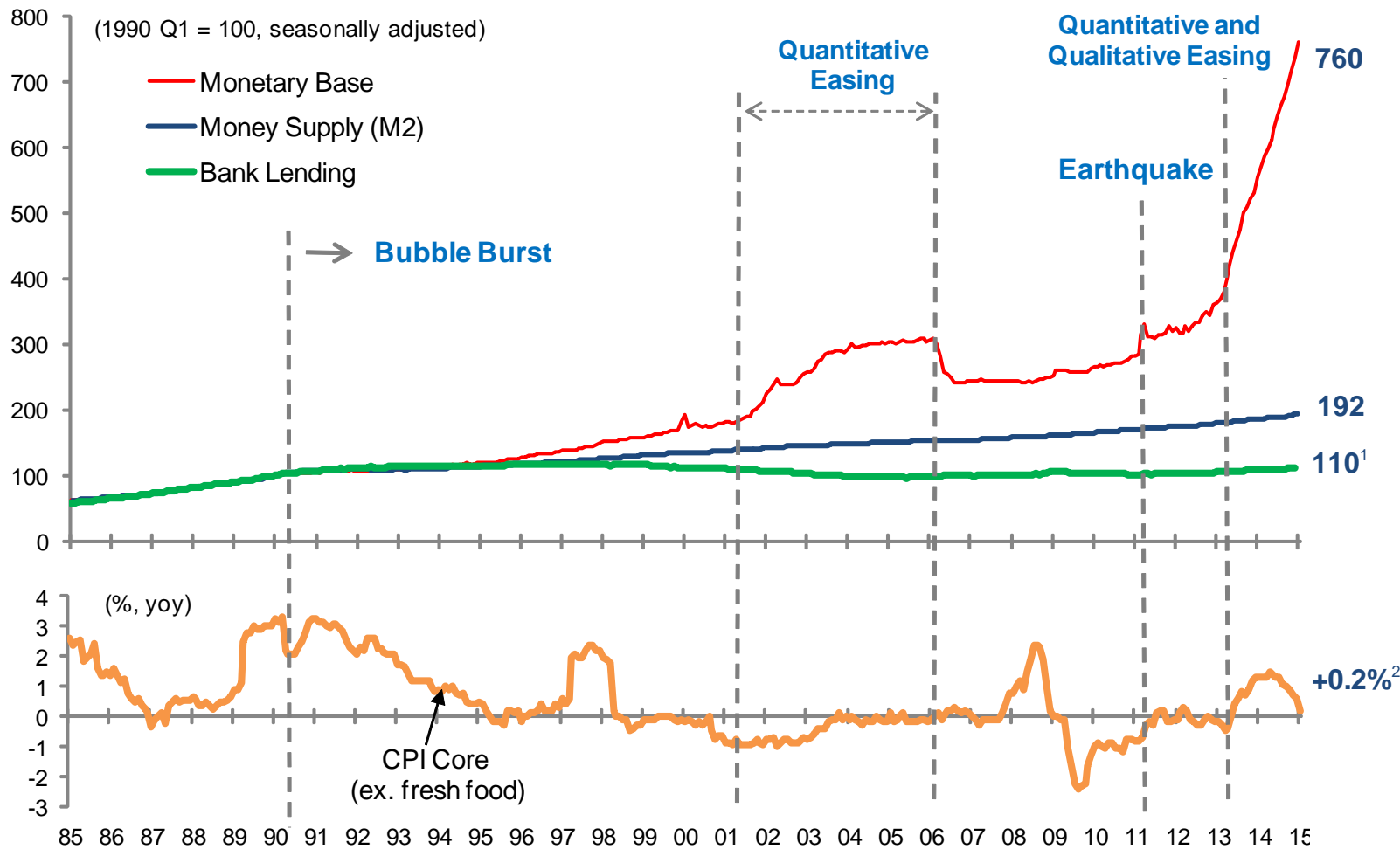


Notes: 1. Reserve balances data are seasonally unadjusted.

2. Money supply and bank lending data exclude intermediate financial institutions.

Sources: Bank of England; Office for National Statistics, UK

# Exhibit 4. Drastic Liquidity Injections Resulted in minimal Increases in Money Supply and Credit (IV): Japan

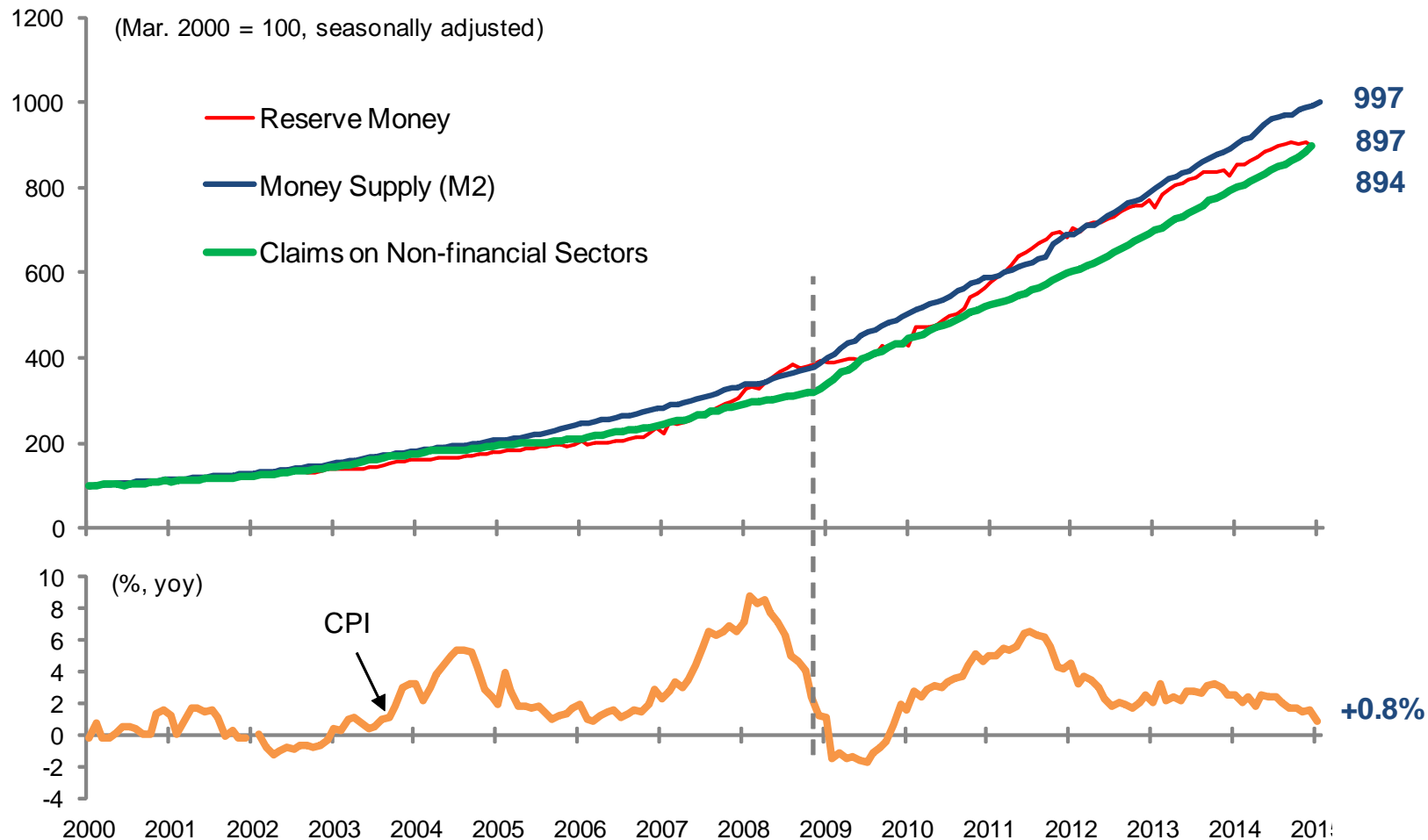


Notes: 1. Figures for bank lending are seasonally adjusted by Nomura Research Institute.

2. Excluding the impact of consumption tax.

Source: Bank of Japan

# Exhibit 5. China Is Not (yet?) in Balance Sheet Recession: No Monetary Decoupling Is Observed

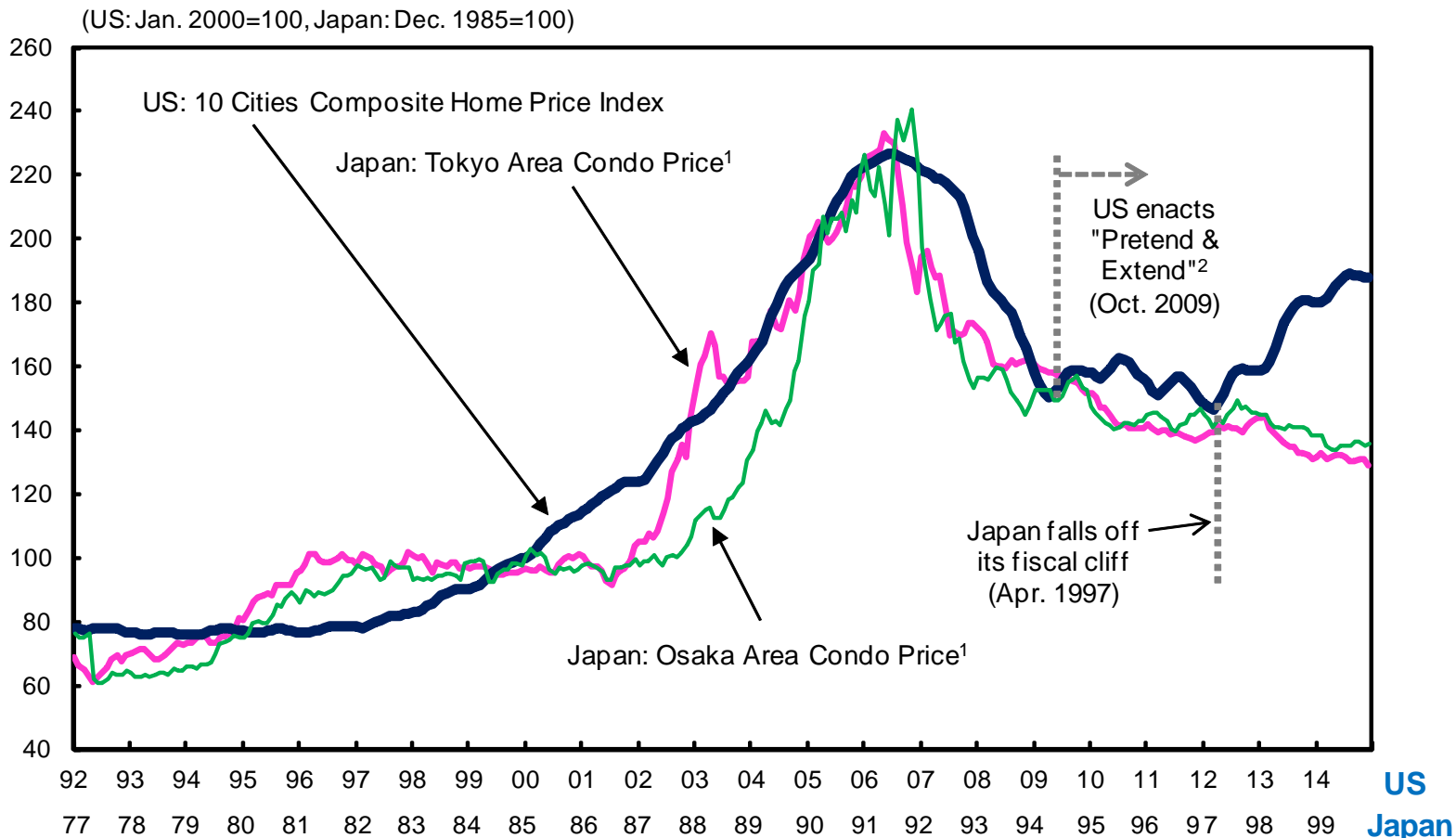


Note: Seasonal adjustments by Nomura Research Institute.

Source: Nomura Research Institute, based on the data from CEIC Data and People's Bank of China

# Exhibit 6. The Cause of Breakdown in Monetary Transmission: Bursting of Debt-Financed Bubbles

## US House Prices Followed the Japanese Experience until 2012

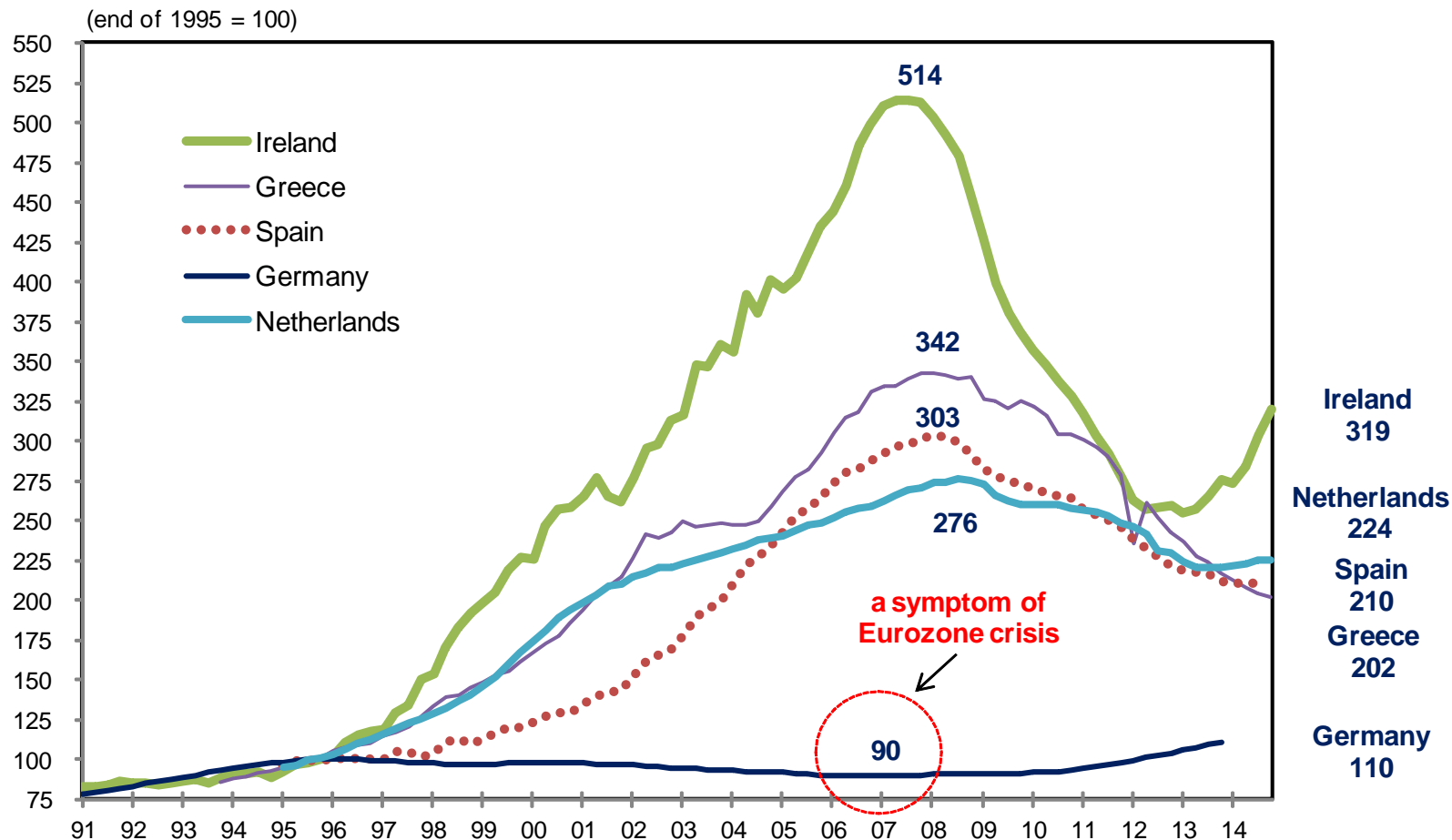


Notes: 1. per m<sup>2</sup>, 5-month moving average.

2. "Policy Statement on Prudent Commercial Real Estate Loan Workouts" (October 30, 2009)

Sources: Real Estate Economic Institute, Japan; S&P, S&P/Case-Shiller® Home Price Indices.

# Exhibit 7. Europe also Experienced House Price Bubbles, except Germany



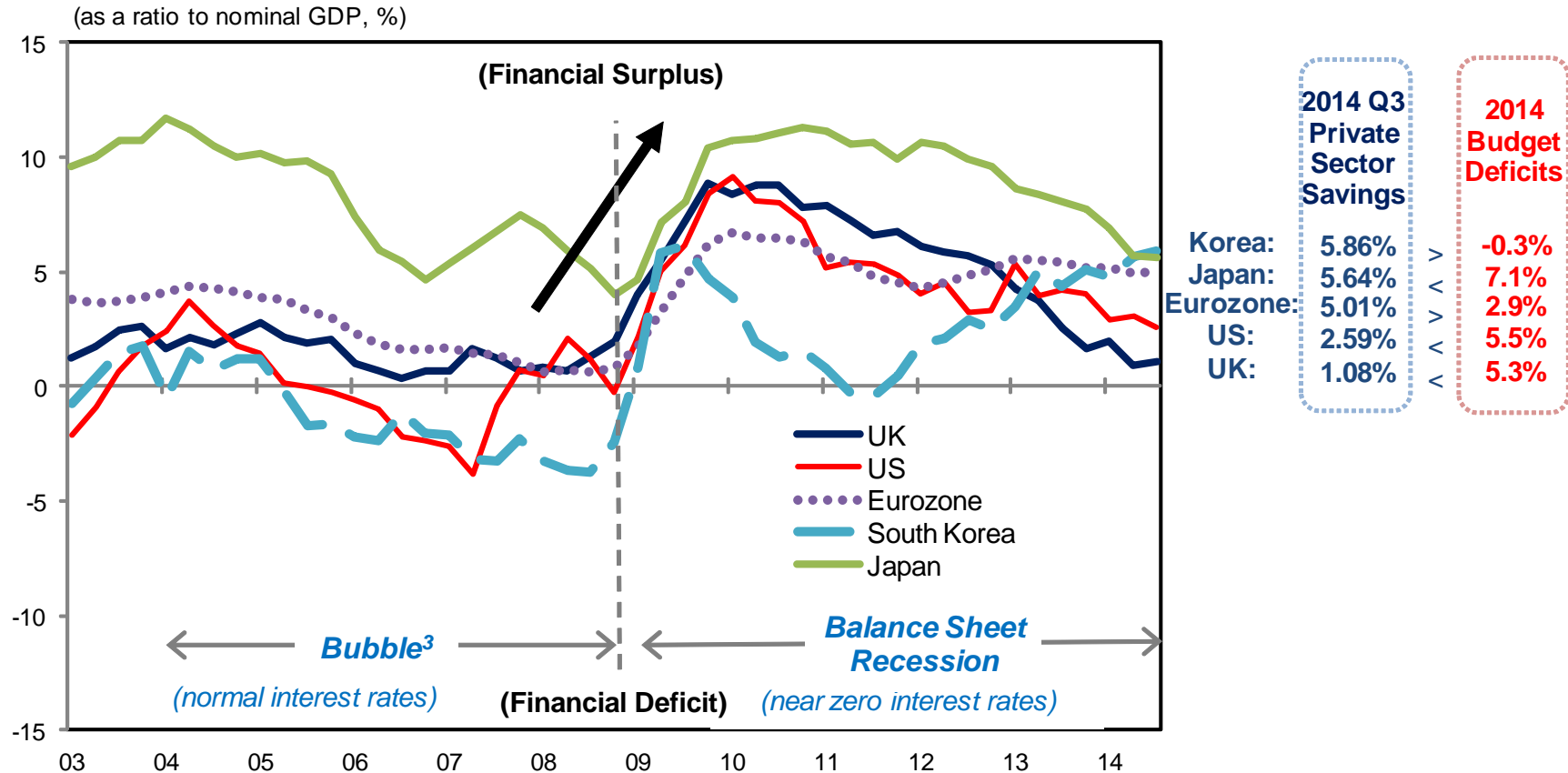
Notes: 1. Ireland's figures before 2005 are existing house prices only.

2. Greece's figures are flats' prices in Athens and Thessaloniki.

Sources: Nomura Research Institute, calculated from Bank for International Settlements data.



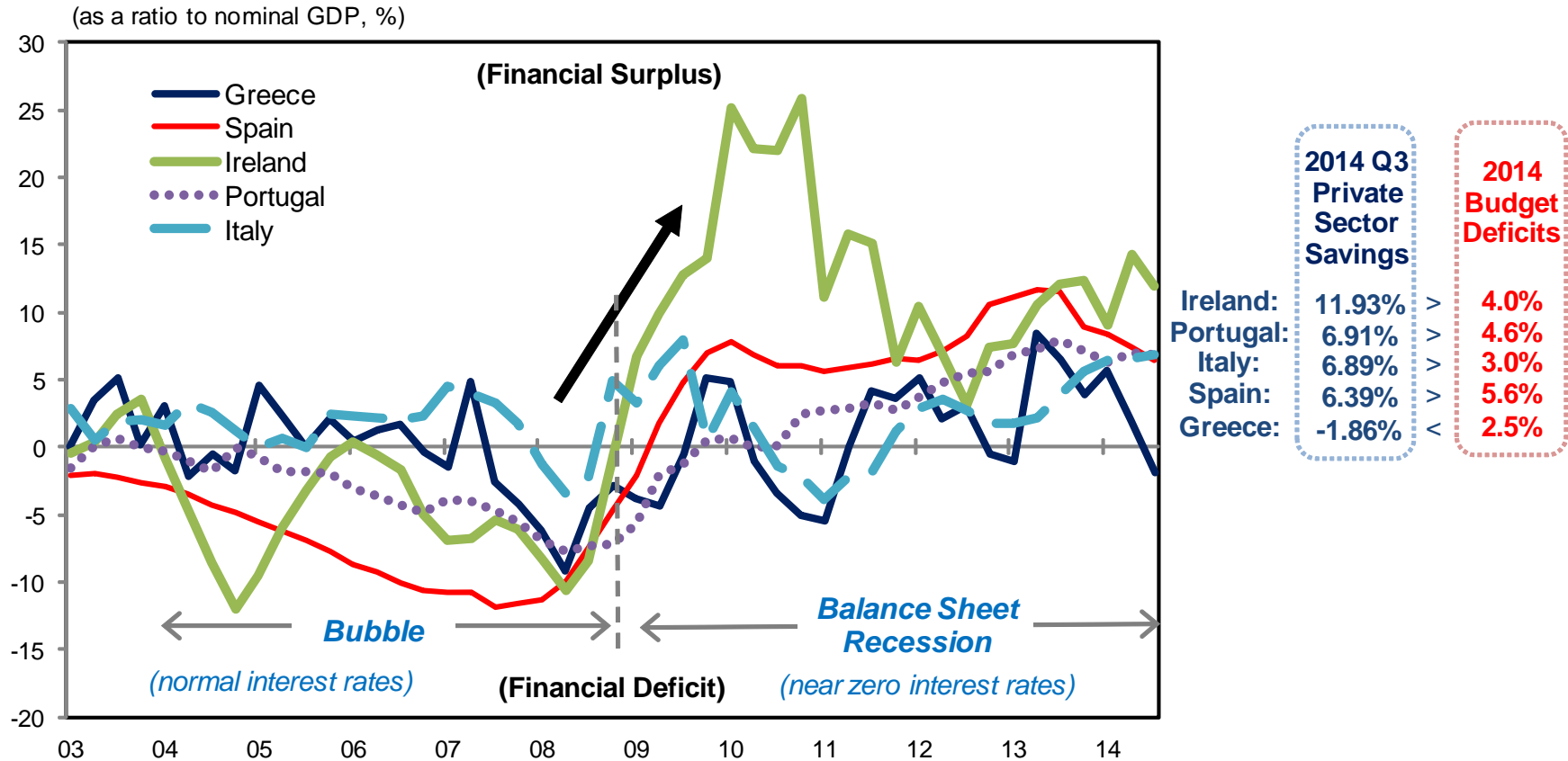
# Exhibit 8. Private Sectors<sup>1,2</sup> Are Not Borrowing Money after the Bubble in the Developed World (I)



Notes: 1. Private Sector = Household Sector + Non-Financial Corporate Sector + Financial Sector  
 2. All entries are four-quarter moving averages. For the latest figures, four-quarter averages ending in 2014 Q3 are used. Budget deficits in these countries in 2014 are from Oct. 2014 release by IMF.  
 3. Except Japan which has been in balance sheet recession since 1990.

Sources: Based on the flow of funds data from BOJ, Cabinet Office, Japan, Office for National Statistics, UK, FRB, ECB, Eurostat, Bank of Korea and IMF

# Exhibit 9. Private Sectors<sup>1,2</sup> Are Not Borrowing Money after the Bubble in the Developed World (II)



Notes: 1. Private Sector = Household Sector + Non-Financial Corporate Sector + Financial Sector  
 2. All entries are four-quarter moving averages. For the latest figures, four-quarter averages ending in 2014 Q3 are used.  
 Budget deficits in Euro area in 2014 are from Feb. 2015 release by European Commission.

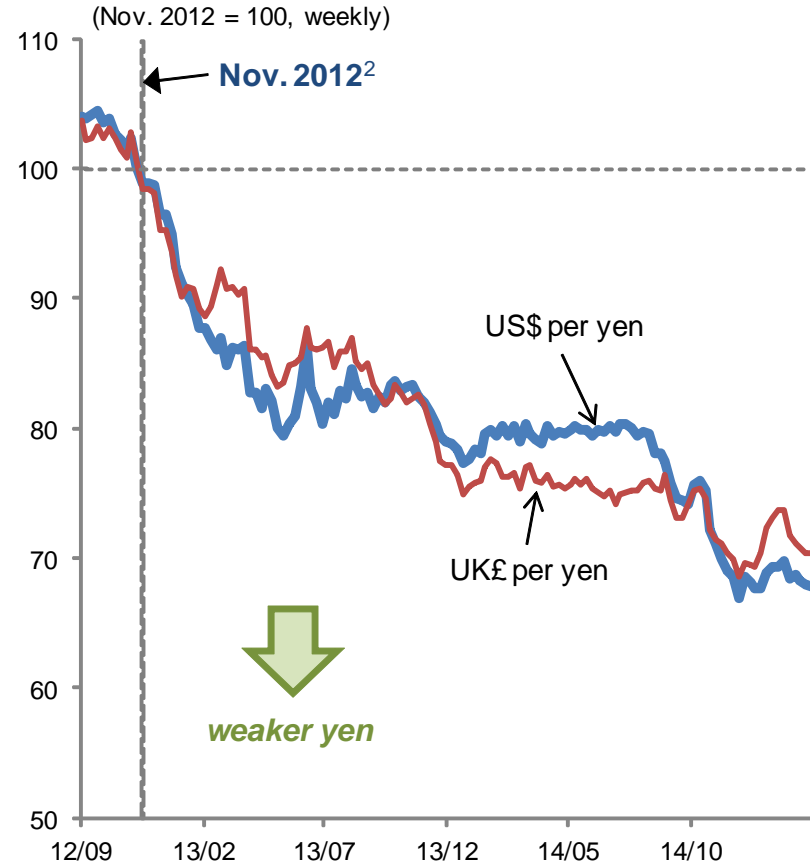
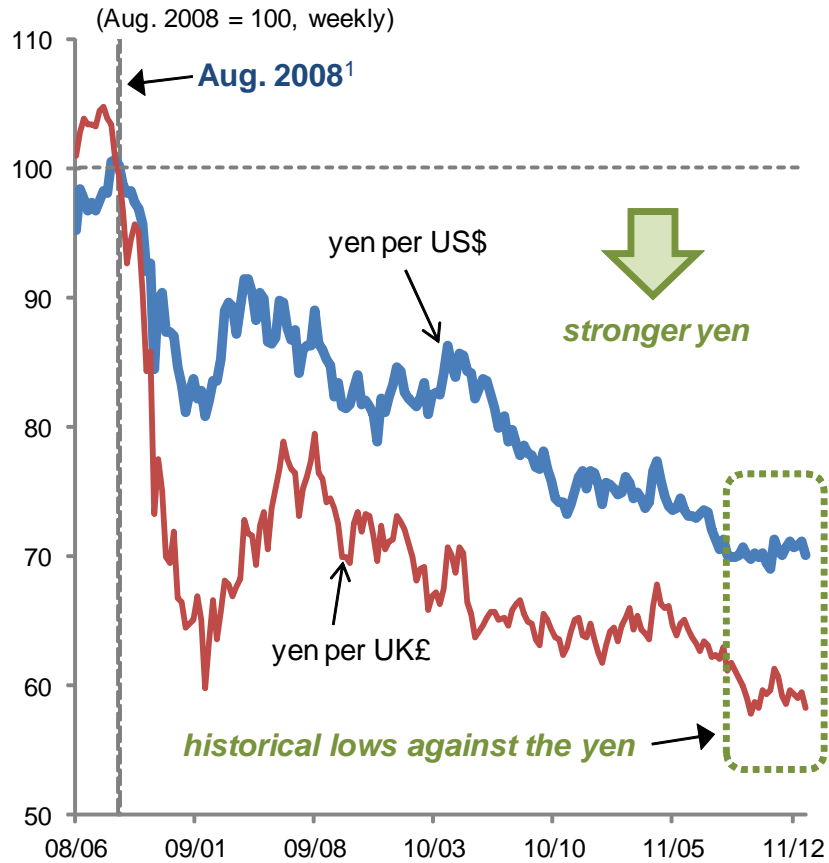
Sources: Based on the flow of funds data from Bank of Greece, Banco de España, National Statistics Institute, Spain, The Central Bank of Ireland, Central Statistics Office Ireland, Banco de Portugal, Banca d'Italia and Italian National Institute of Statistics

# Exhibit 10. QE Has large Beggar-thy-Neighbor or Zero-Sum Component

2008 Anglo-Saxon QE Brought down US\$ and UK£ against yen



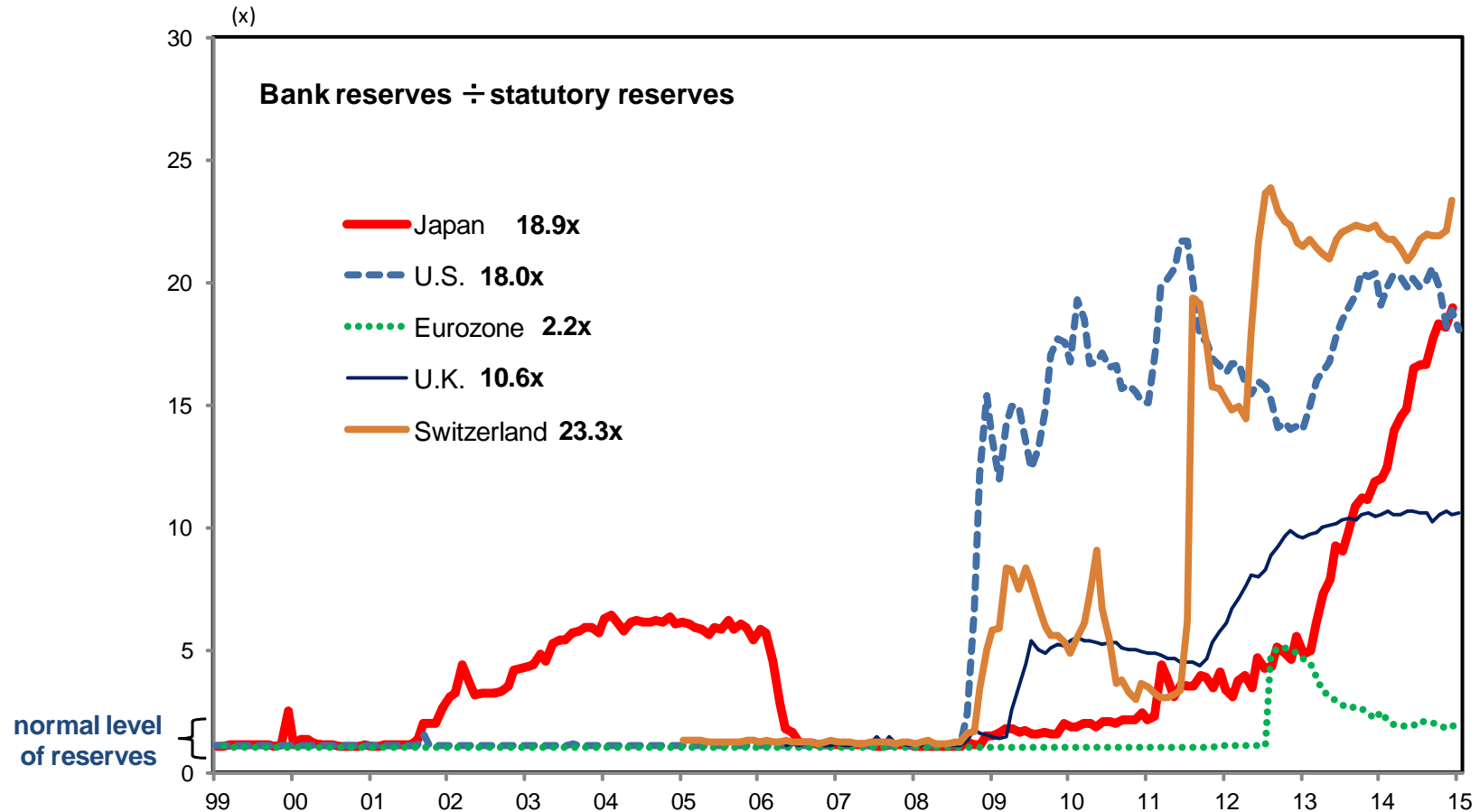
2013 Japanese QE Brought down yen against US\$ and UK£



Notes: 1. One month before the Lehman Shock  
 2. One month before the start of Abenomics  
 Source: Nomura Research Institute, based on the data from Nikkei

# Exhibit 11. QE Exit Is far more Difficult than QE Entrance: QE Central Banks Must Reduce Reserves massively to Avoid Credit Explosion

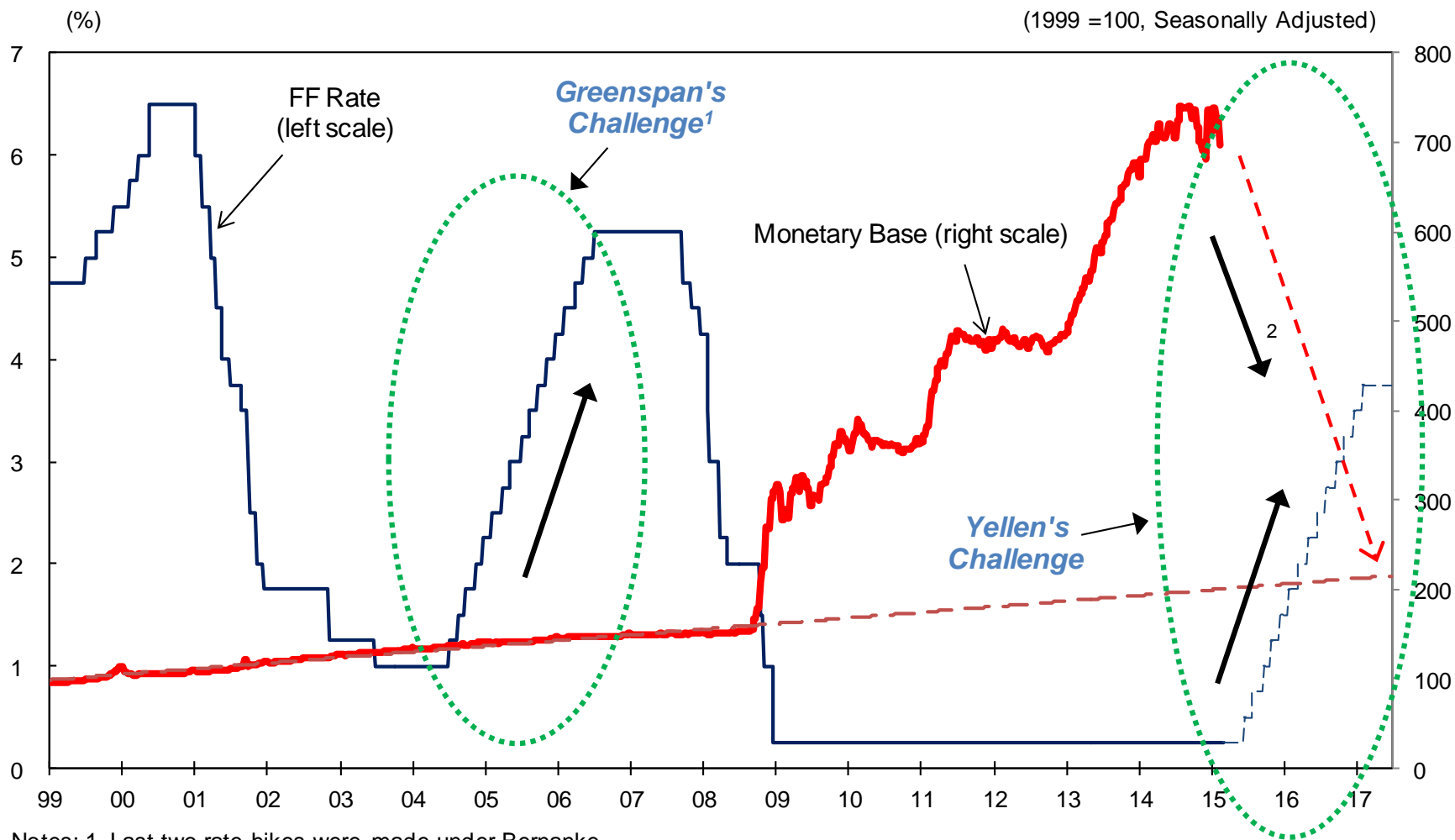
## Bank Reserves as Multiples of Required Reserves



Note: The Bank of England has suspended reserve requirement in March 2009. The post-March 2009 figures are based on the assumption that the original reserve requirement is still applicable.

Sources: Nomura Research Institute, based on BOJ, FRB, ECB, BOE and SNB data

# Exhibit 12. Yellen Must both Raise Rates and Shrink Monetary Base to Normalize Monetary Policy



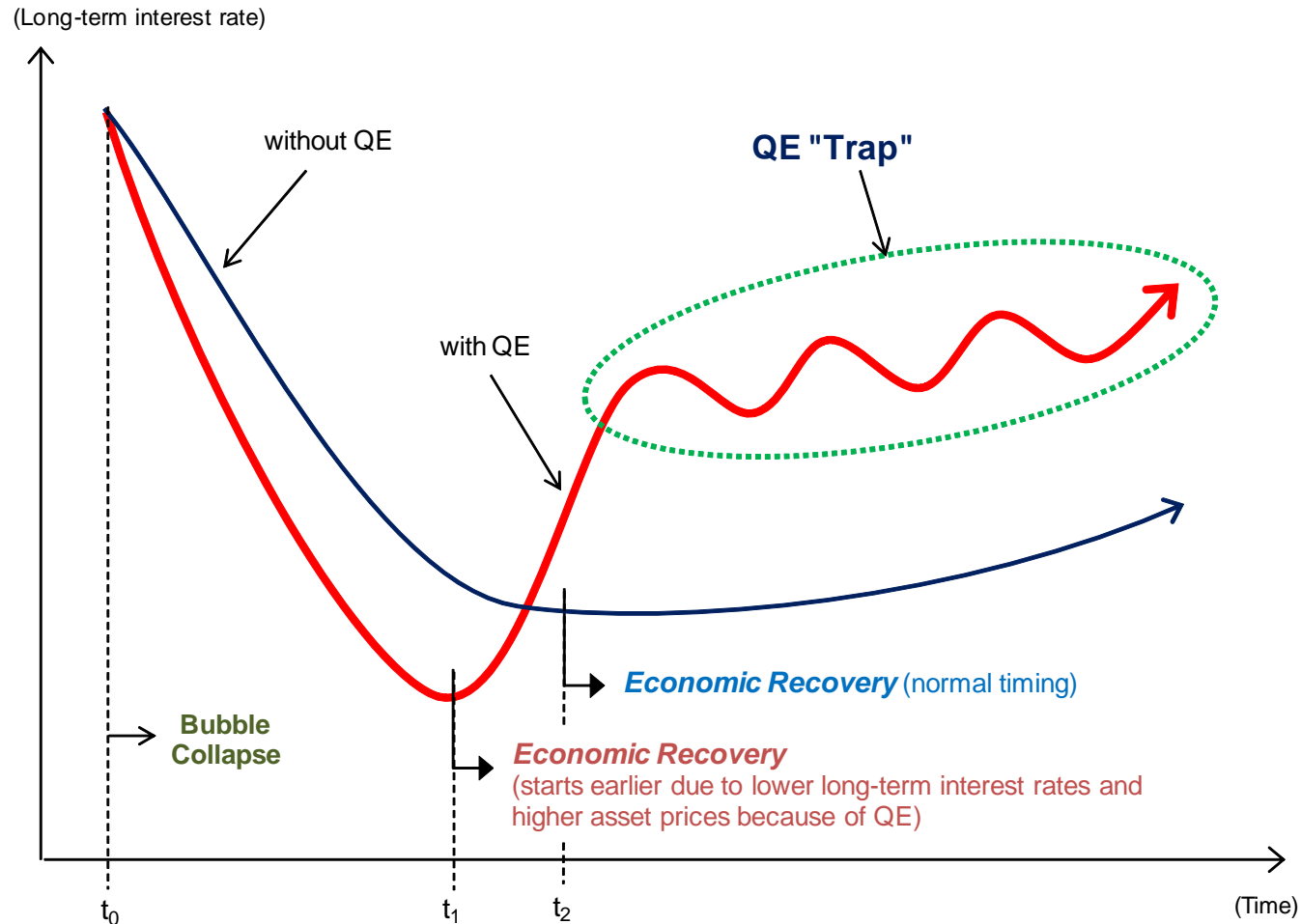
Notes: 1. Last two rate hikes were made under Bernanke.

2. Supposed to take 5 to 8 years.

Sources: Nomura Research Institute, Board of Governors of the Federal Reserve System

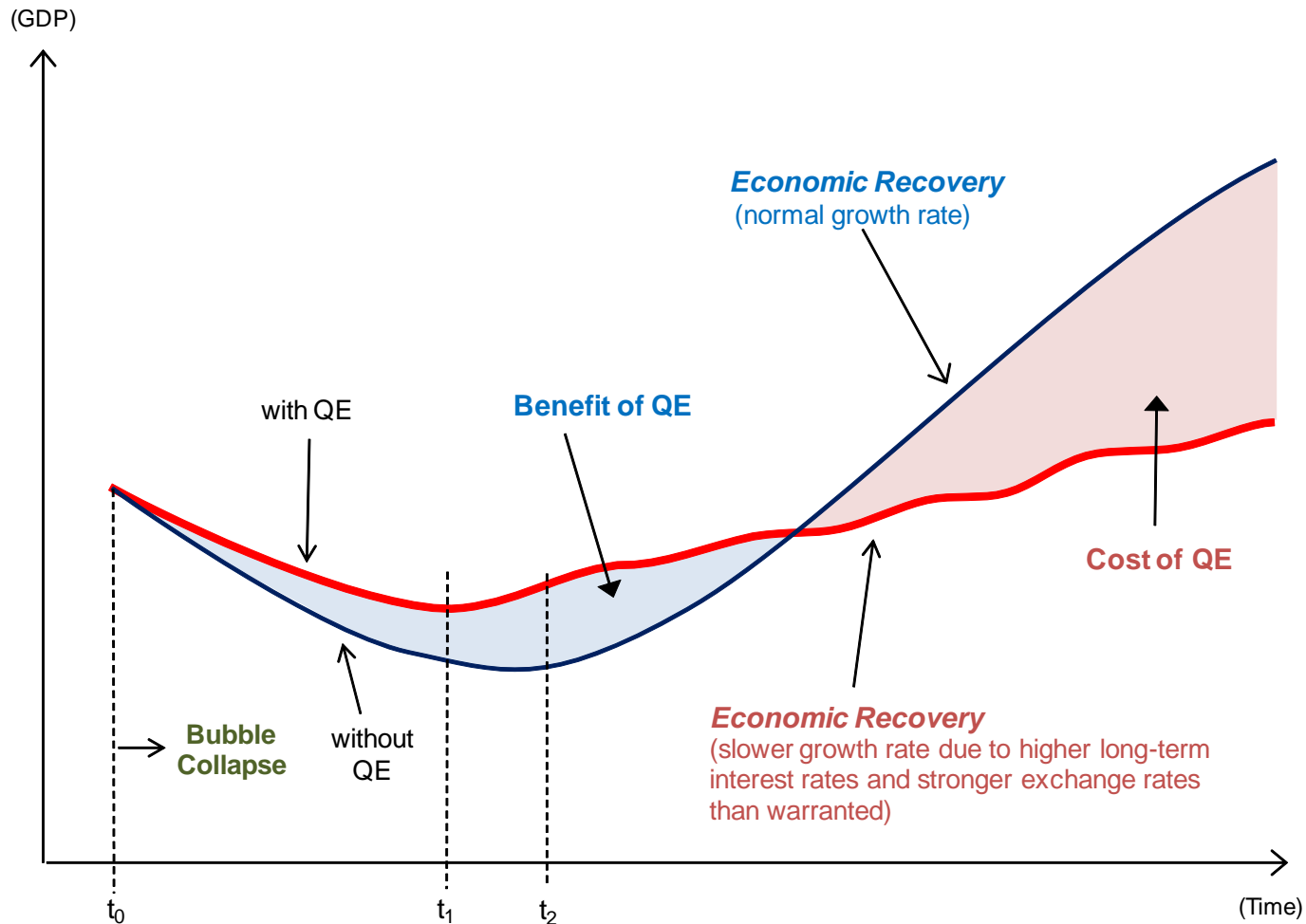
# Exhibit 13. QE Countries May Face a QE 'Trap' (1): Long-term Rates Could Increase sharply when the Central Bank Unwinds QE

### Images of Long-term Interest Rates with and without QE

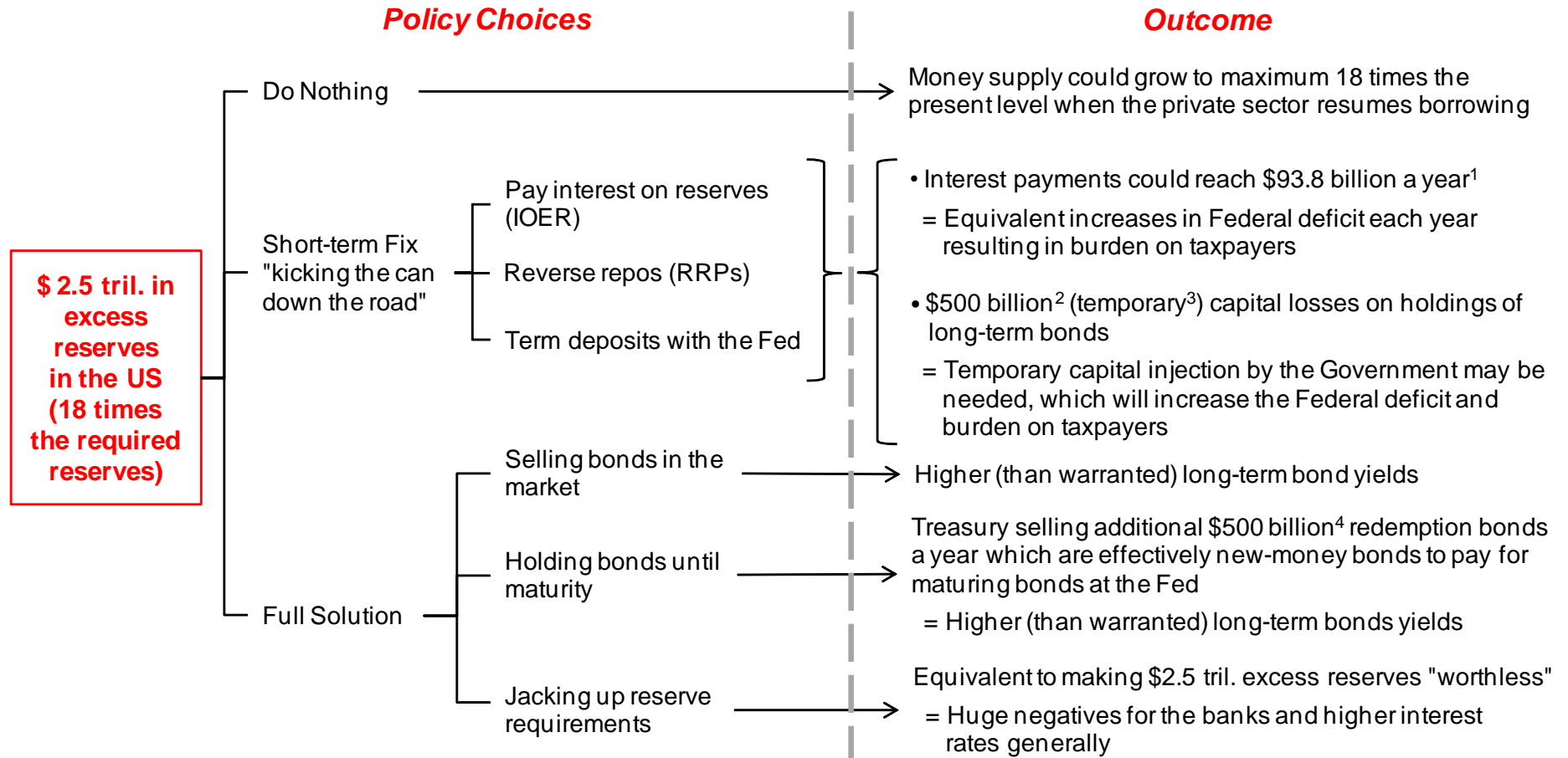


# Exhibit 14. QE Countries May Face a QE 'Trap' (2): Higher Long-term Rates Could Weigh on Economic Recovery for Years

### Images of GDP with and without QE



# Exhibit 15. No Easy Way to Unwind QE

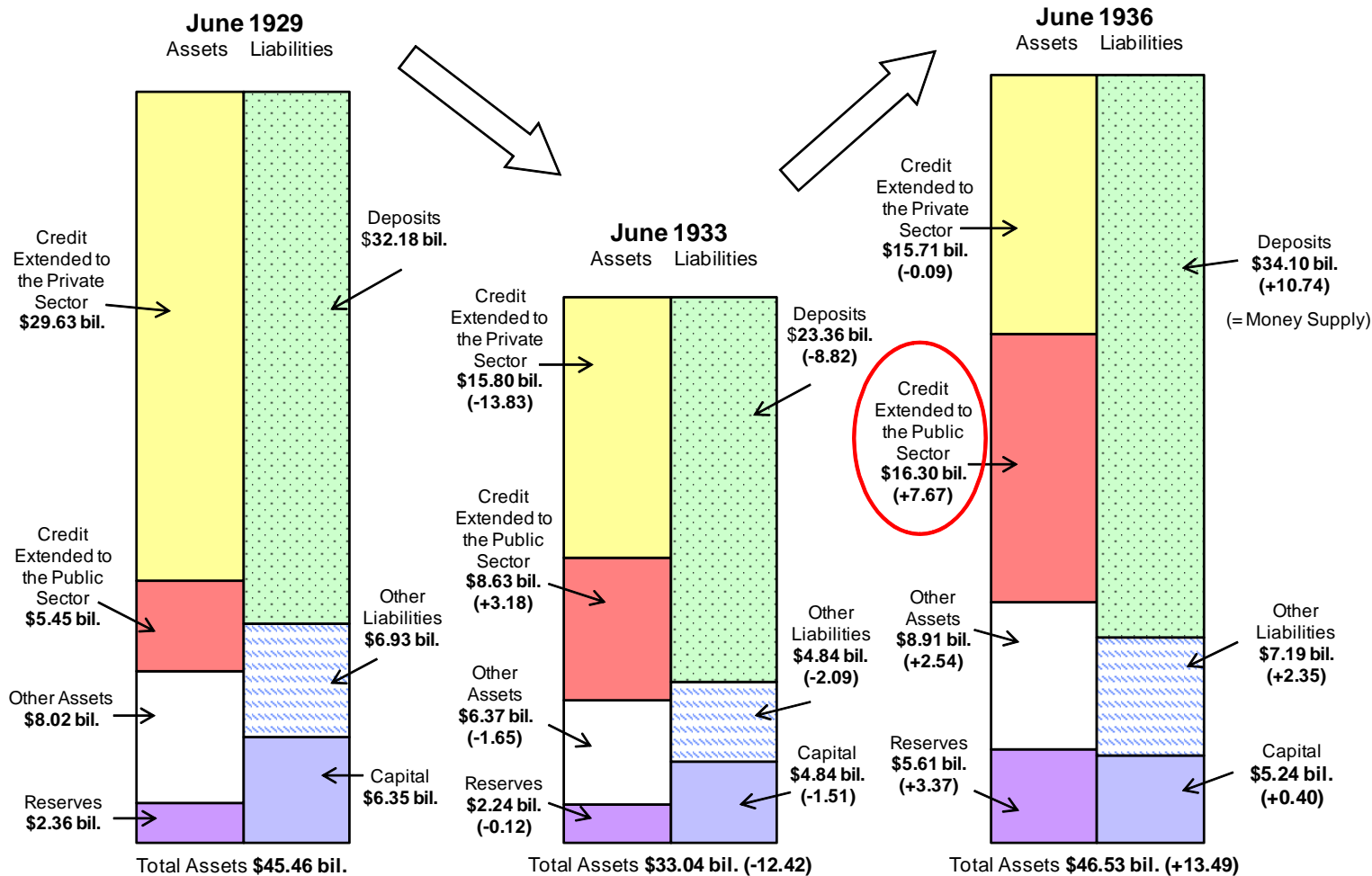


Notes: 1. \$2.5 tril. times 3.75% (= FOMC members' "normal rate")  
 2. Best case scenario estimate from IMF report "Unconventional Monetary Policies - Recent Experience and Prospects" Apr. 2013.  
 3. If bonds were held until maturity.  
 4. \$2.5 tril. divided by 5 years based on Fed Chair Yellen's comment that the Fed's balance sheet will be normalized in 5 to 8 years.



# Exhibit 16. Reflationists Overlooked the Fact that Post-1933 US Money Supply Growth Was Made Possible by Government's *NEW DEAL* Borrowings

## Balance Sheets of All Member Banks



Source: From Richard C. Koo, *The Holy Grail of Macroeconomics: Lessons from Japan's Great Recession* (John Wiley, 2008), p.112, based on data from The Board of Governors of the Federal Reserve System (1976) *Banking and Monetary Statistics 1914-1941* pp.72-78