

Monetary Policy in Practice

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Advanced Macroeconomics II

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The European Central Bank

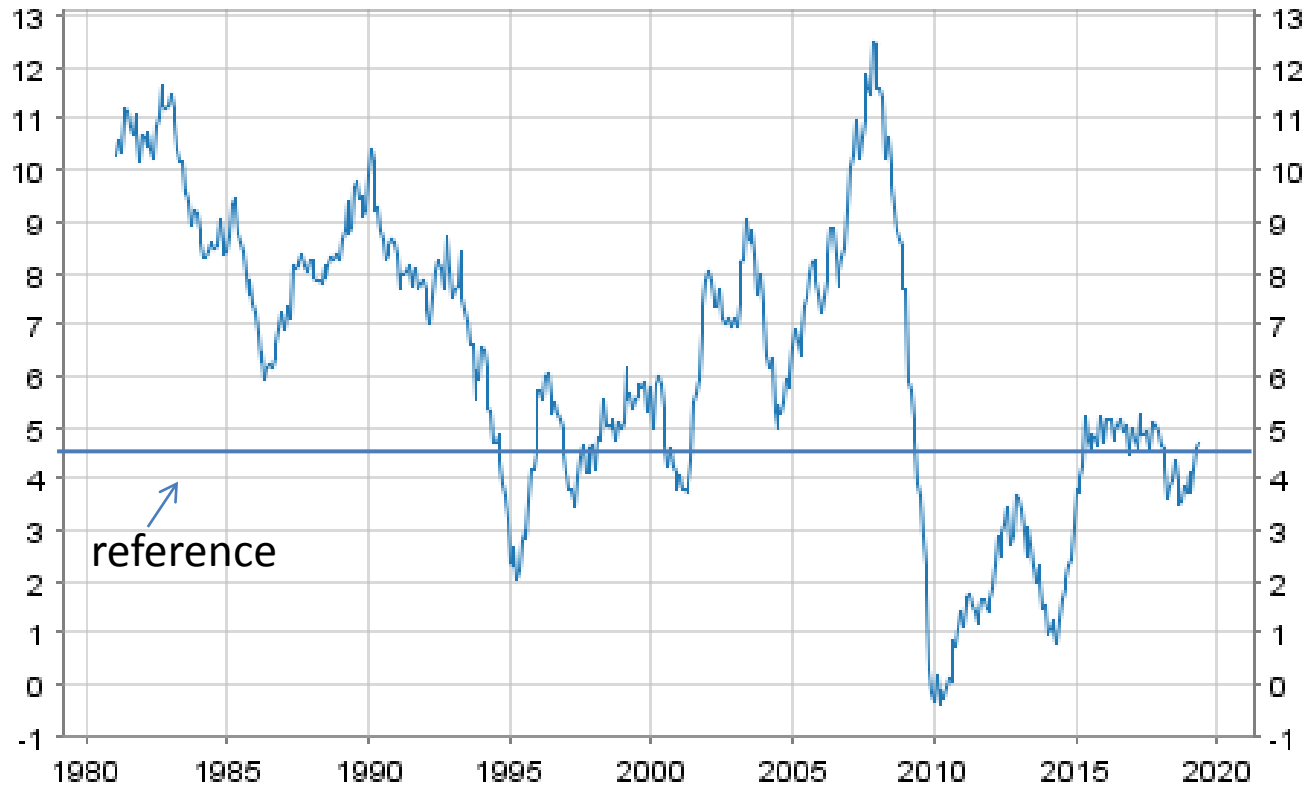
- ECB, Eurosystem and European System of Central
- Euro area members: 19
 - 11 founding members (1999)
 - Enlargement: Greece (2001), Slovenia (2007), Cyprus and Malta (2008), Slovakia(2009), Estonia (2011), Latvia (2014), Lithuania (2015)
 - U.K. and Denmark:“opt-out” clause

- “Convergence criteria”
 - Inflation $< 1.5\%$ + average inflation among three members with lowest inflation
 - Deficit/GDP $< 3\%$
 - Debt/GDP $< 60\%$ (o getting close to it)
 - Exchange rate: two years within ERM II without devaluations
 - Long term interest rate $< 2\%$ + average rate among three members with lowest inflation
- ECB: decision bodies
 - Executive Board (6 members: P+VP+4)
 - Governing council: EB + EA NCB
 - Since January 2015: rotation of voting rights (4/5,11/14)
 - General Council: EB + EU NCB

- Mandate (Treaty Art. 127):
 - Primary objective: price stability
 - Without prejudice of price stability, support the policies that contribute to EU objectives (Art. 3), including “full employment” and “balanced economic growth”.
 - Initially no direct responsibility on financial supervision and regulation, only:
 - “surveillance” of risks to financial stability
 - provision of liquidity in the face of financial shocks
 - payment system
 - Nov. 2014: ECB becomes single banking supervisor of the EA (large banks)
 - Part of European Banking Union (SSM, together with bank resolution (SRM), and (planned) deposit insurance (EDIS))

- Monetary Policy Strategy (October 1998)
 - Quantitative definition of price stability: increase in HICP in the EA $< 2\%$, to be attained in the medium term.
 - Review (2003): “less than, but close to, 2%”
 - Analysis of risks to price stability based on “two pillars”:
 - Monetary analysis
 - until 2003: “prominent role of money,” with reference value for money growth (4.5%).
 - after 2003 review: becomes “second pillar,” focus on medium and long-term.
 - Economic analysis: factors that affect short-term inflation
 - activity, demand, labor demand, exchange rate, fiscal policy,...
 - projections, SPF
 - “Cross-checking”

M3 Growth Rate in the Euro Area



Source: ECB Statistical Data Warehouse

Implementation

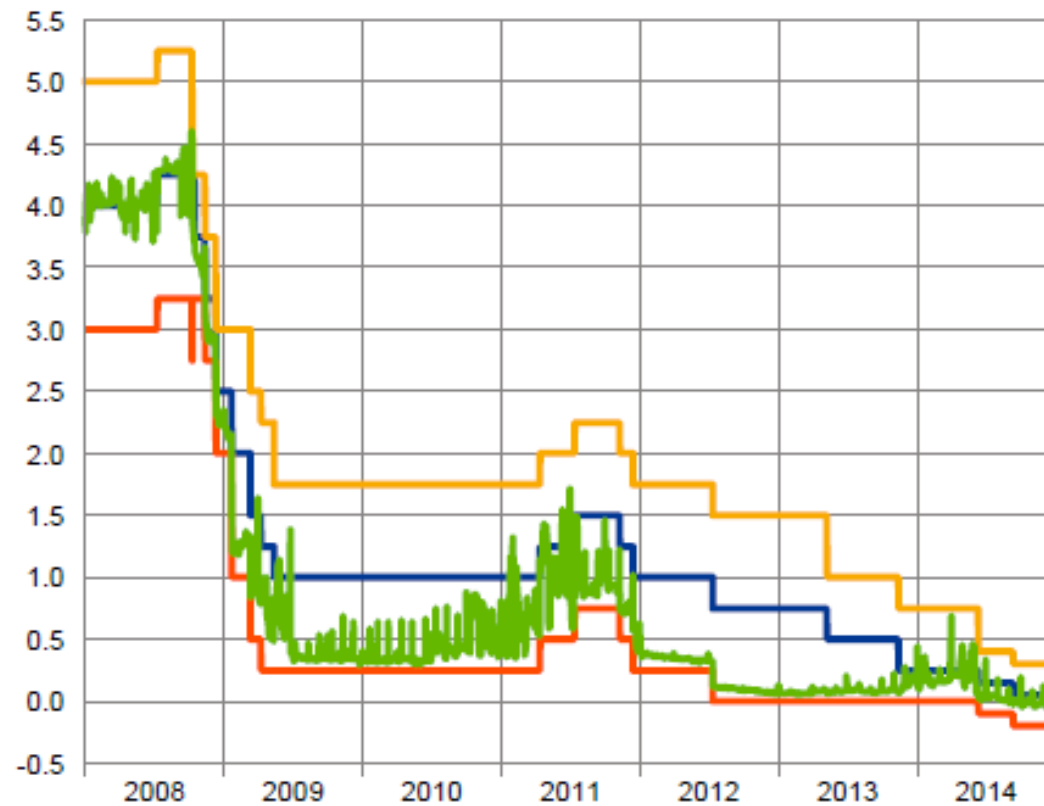
- “Main Refinancing Operations” (MRO)
 - one-week loans to banks (“repurchase agreements”)
 - policy rate = minimum rate at the auction
 - since October 2008: fixed rate, “full allocation” (since June 2016: 0%)
- Longer-Term Refinancing Operations (LTRO)
 - From three months to three years
- Marginal lending facility (MRO + 1% -> +0.25%)
- Marginal deposit facility (MRO – 1% -> -0.25%
-> -0.4%)

Chart 23

ECB interest rates and the overnight interest rate

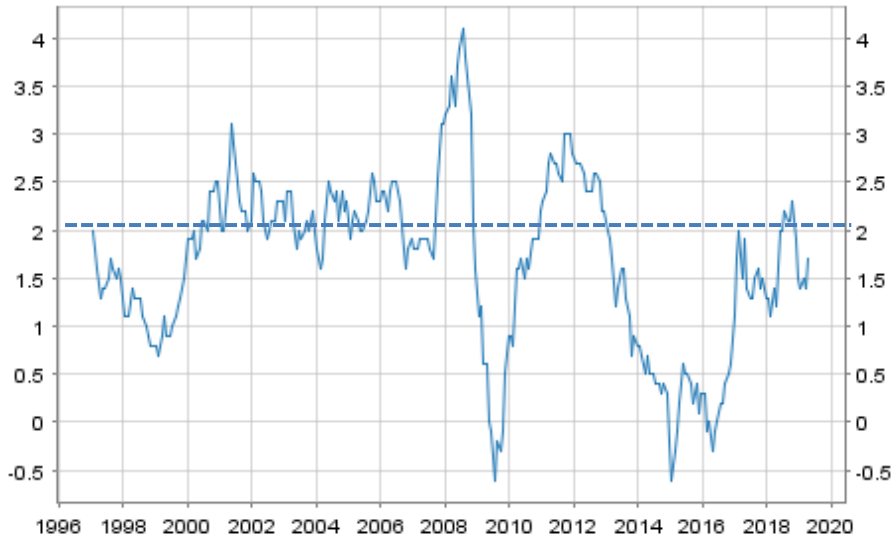
(percentages per annum; daily data)

- interest rate on the main refinancing operations
- interest rate on the marginal lending facility
- interest rate on the deposit facility
- overnight interest rate (EONIA)

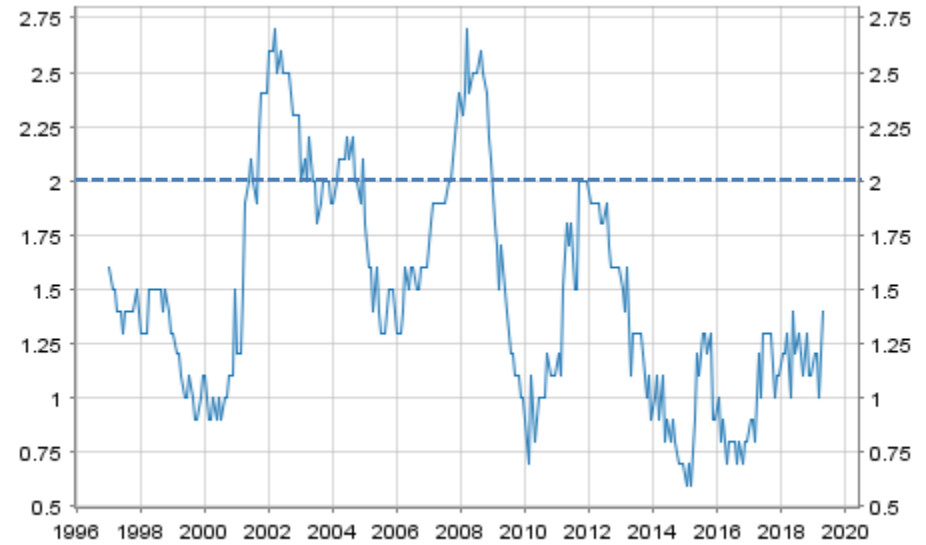


Sources: ECB and Thomson Reuters.

Performance: Inflation



HICP inflation

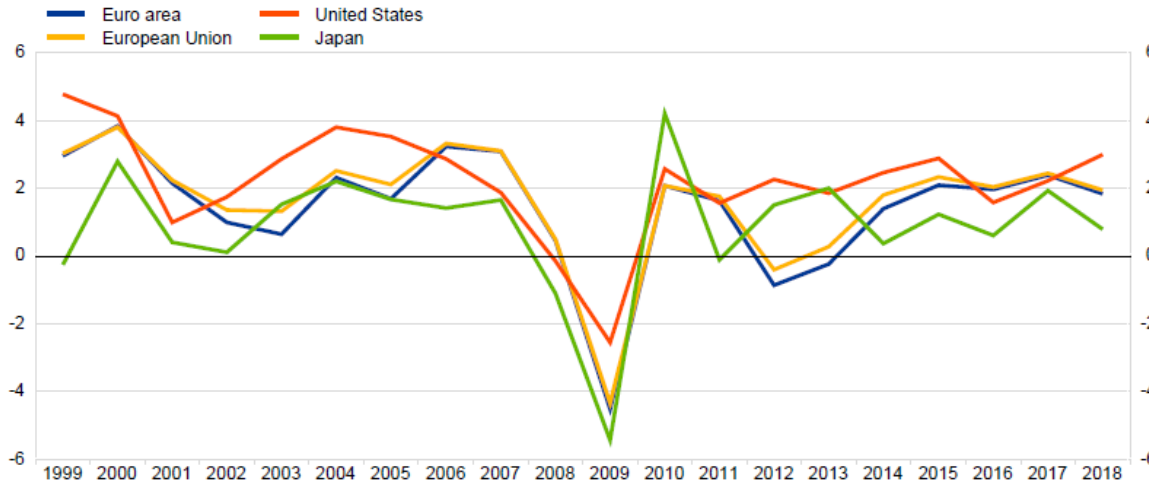


HICP inflation
(excluding food and energy)

Performance: GDP and Employment

Chart 2.1 GDP

(chain-linked volumes; annual percentage changes)

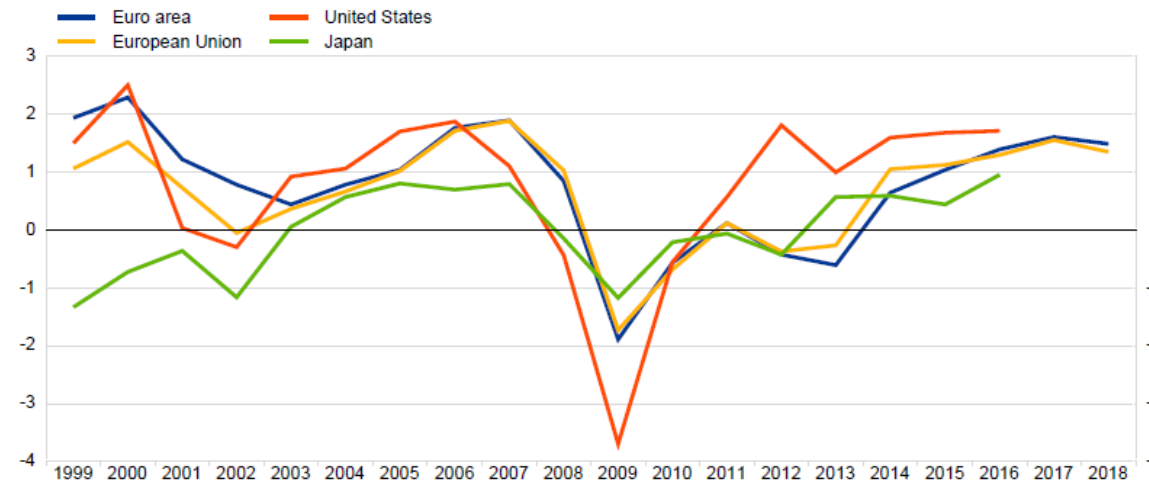


Average 1999-2018

EA: 1.4%
 EU: 1.6%
 US: 2.2%
 Japan: 0.9%

Chart 2.9 Employment

(persons employed; annual percentage changes)



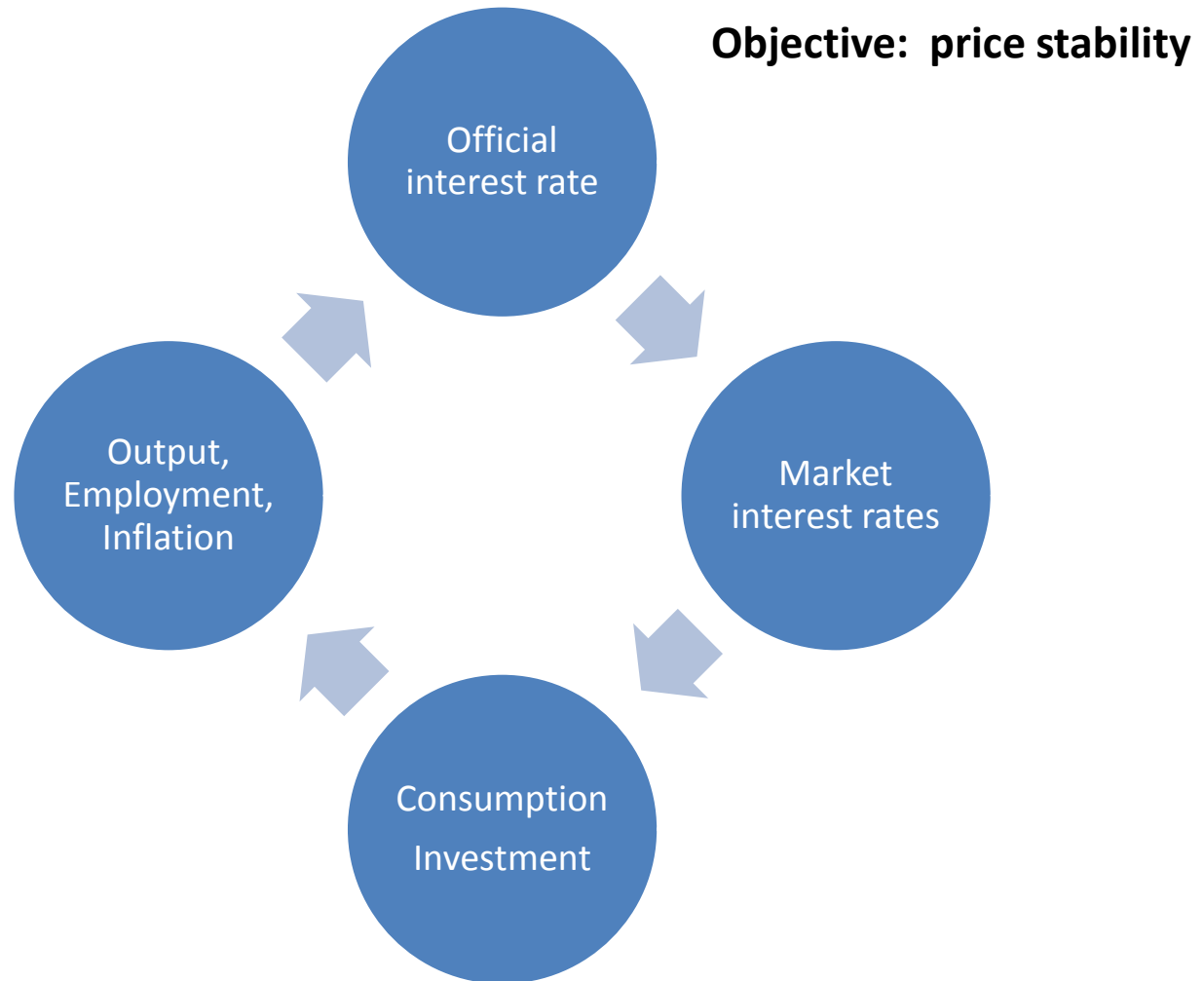
Average 1999-2018

EA: 0.8%
 EU: 0.7%
 US: 0.8%
 Japan: 0.0%

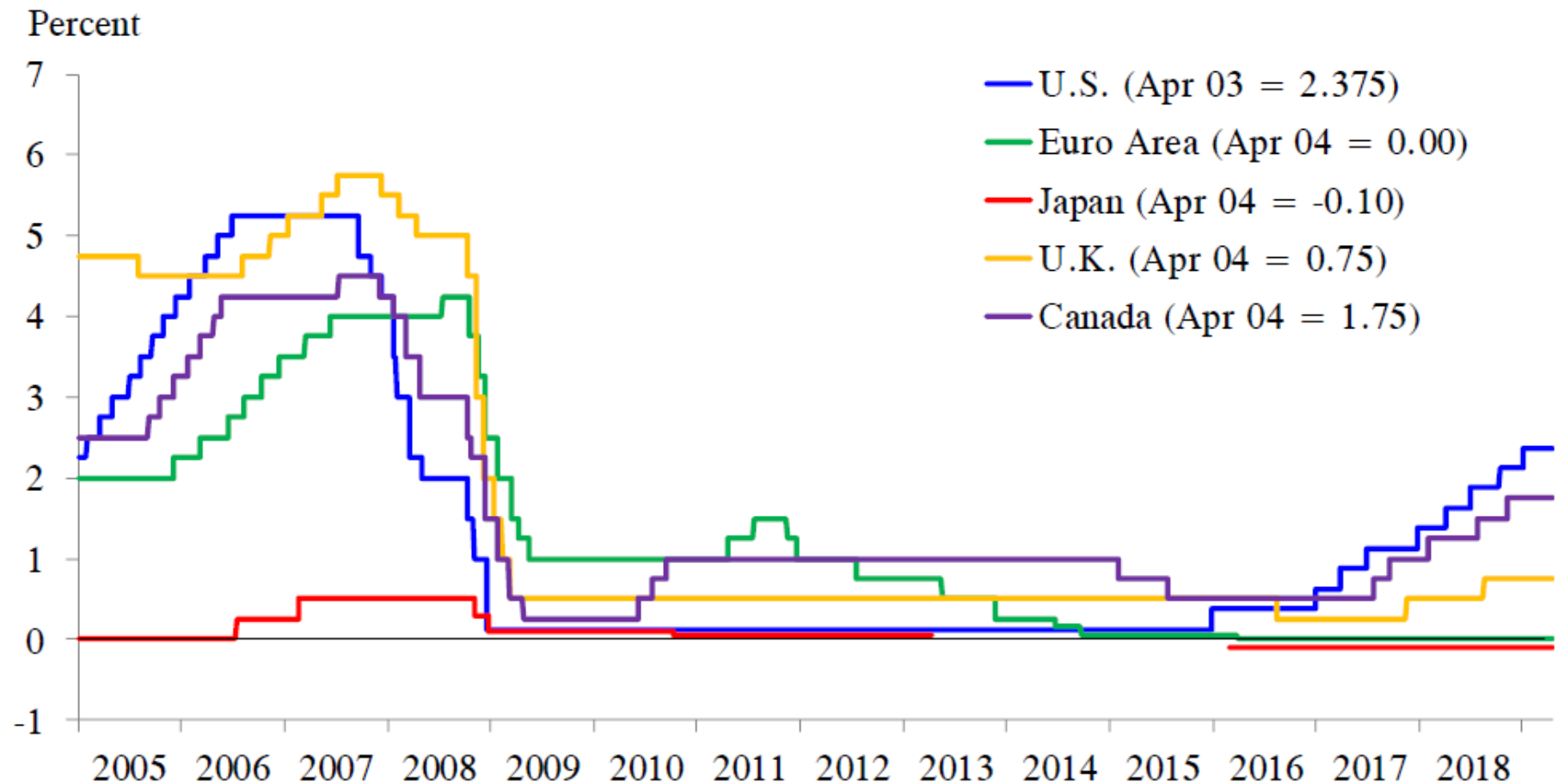
The Federal Reserve

- Federal Open Market Committee:
 - 7 Governors (Chairman+VC +5)
 - 5/12 Presidents de Regional Feds (NY Fed fixed)
- “Dual mandate” (Federal Reserve Act):
 - maximum employment
 - Price stability (since January 2012: 2%)
- Implementation
 - Open market operations
 - Interest rate on reserves

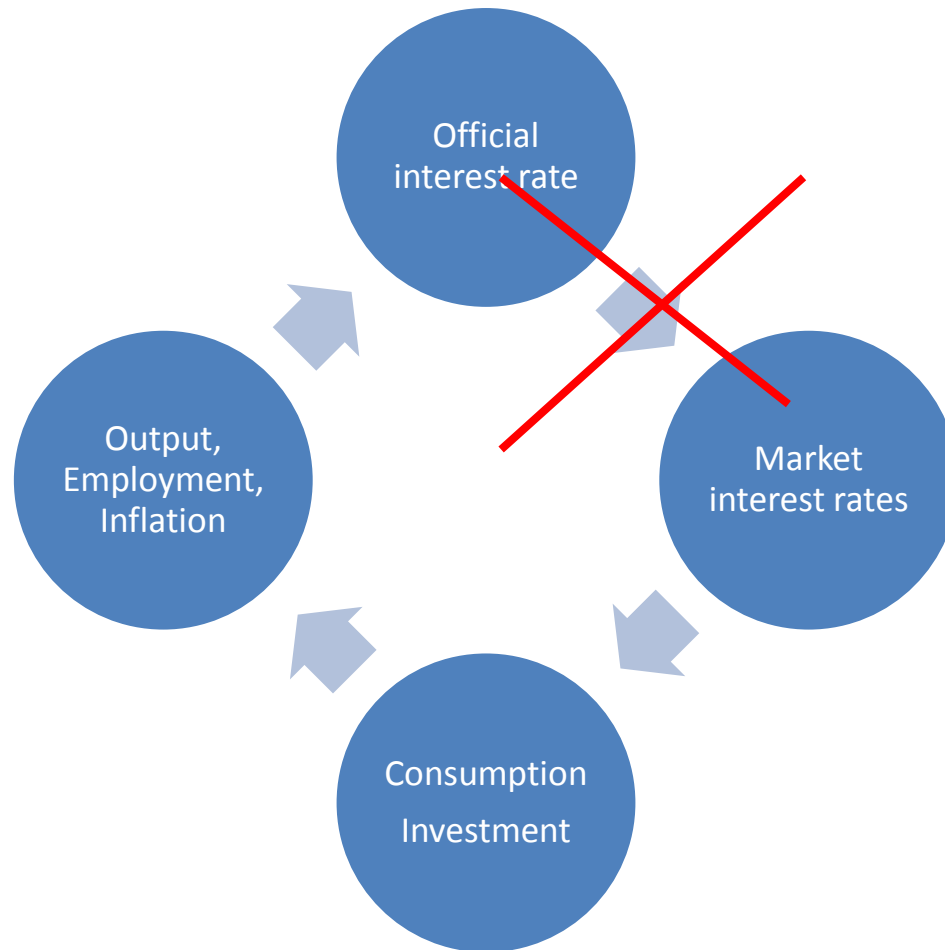
Monetary Policy in “Normal Times”



Monetary Policy and the Financial Crisis: Policy Rates

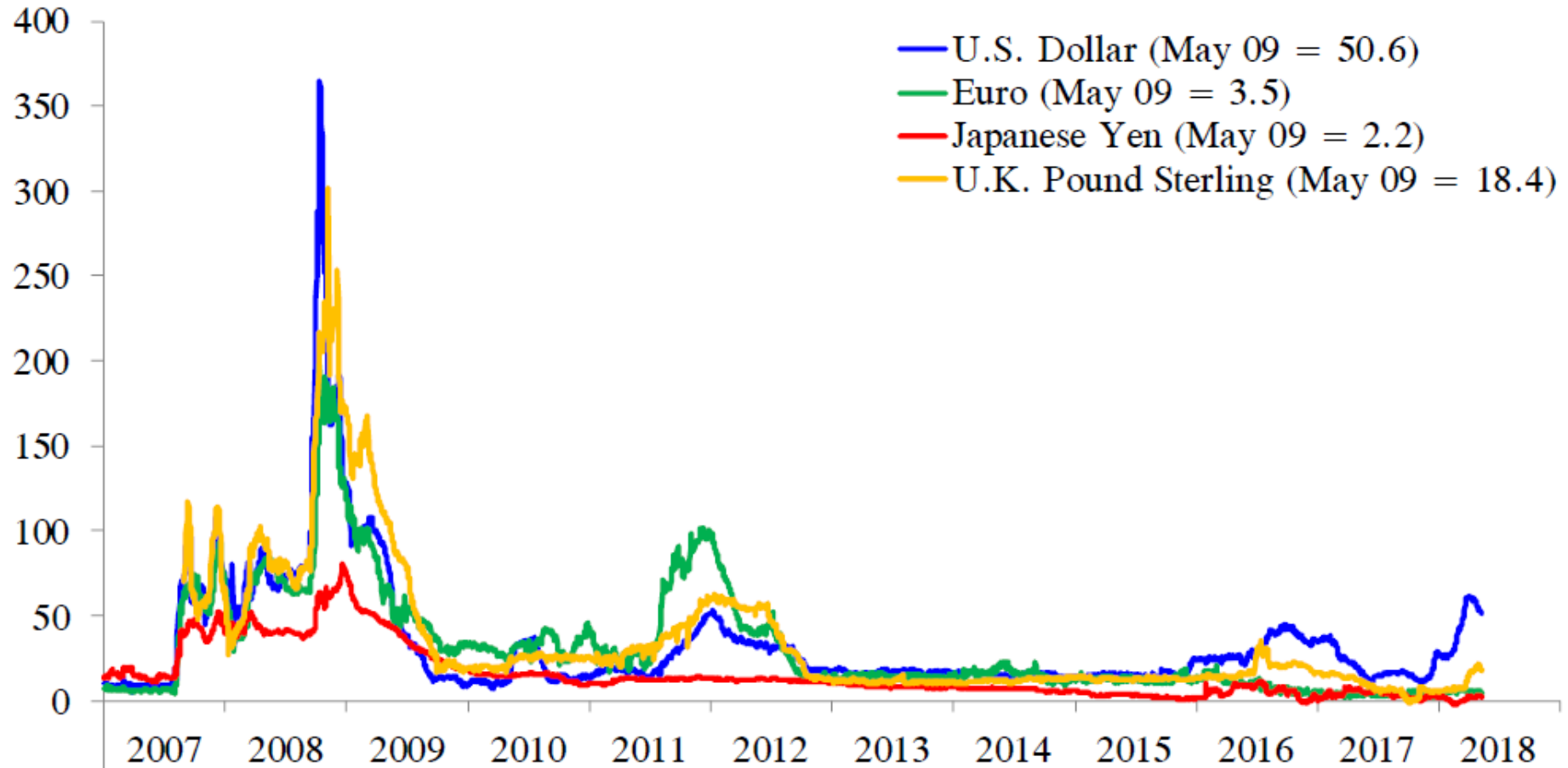


Monetary Policy during the Crisis



Interest rate differentials: money markets (Euribor – OIS)

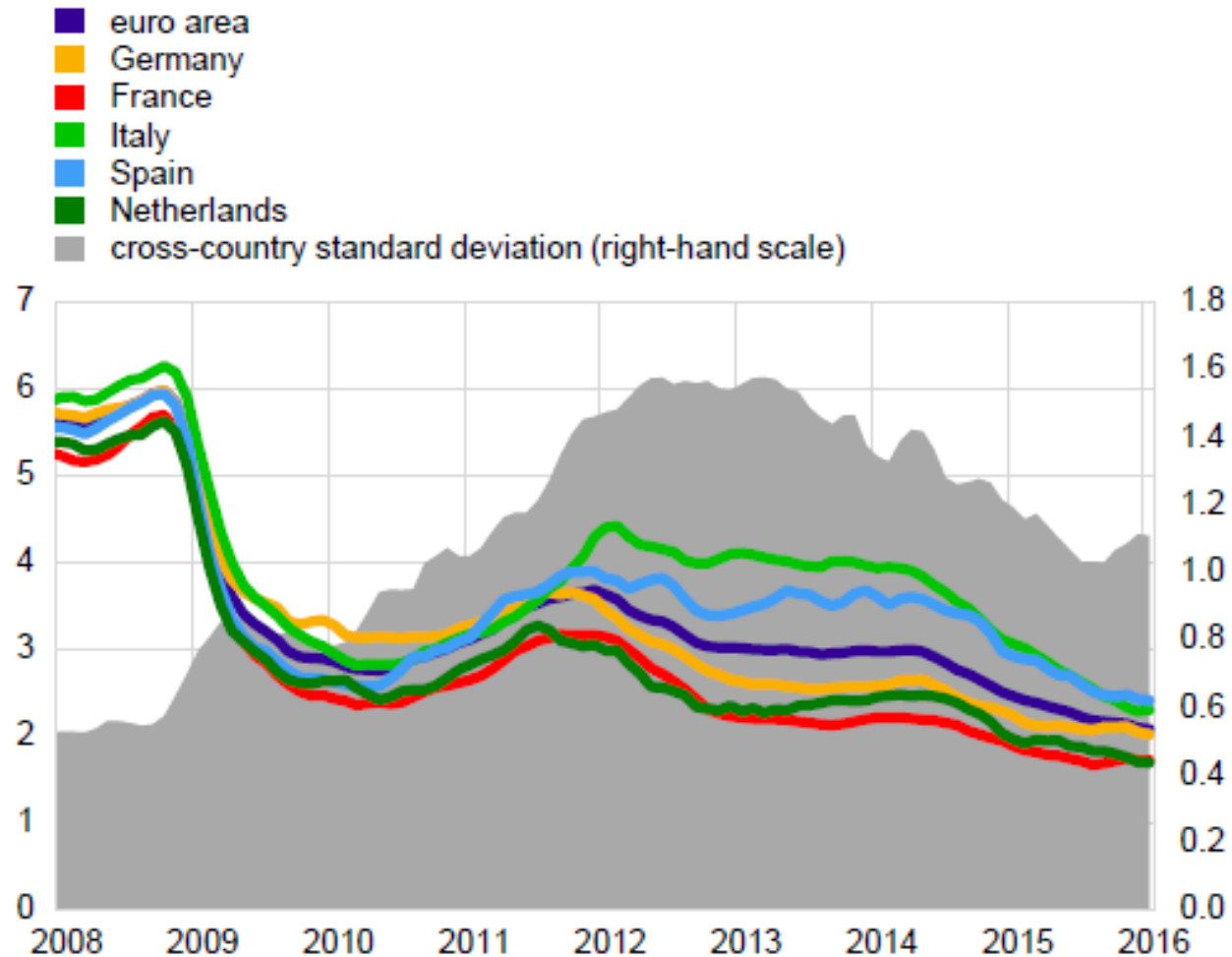
Basis Points



Interest rate differentials: Loans to NFCs

Composite lending rates for NFCs

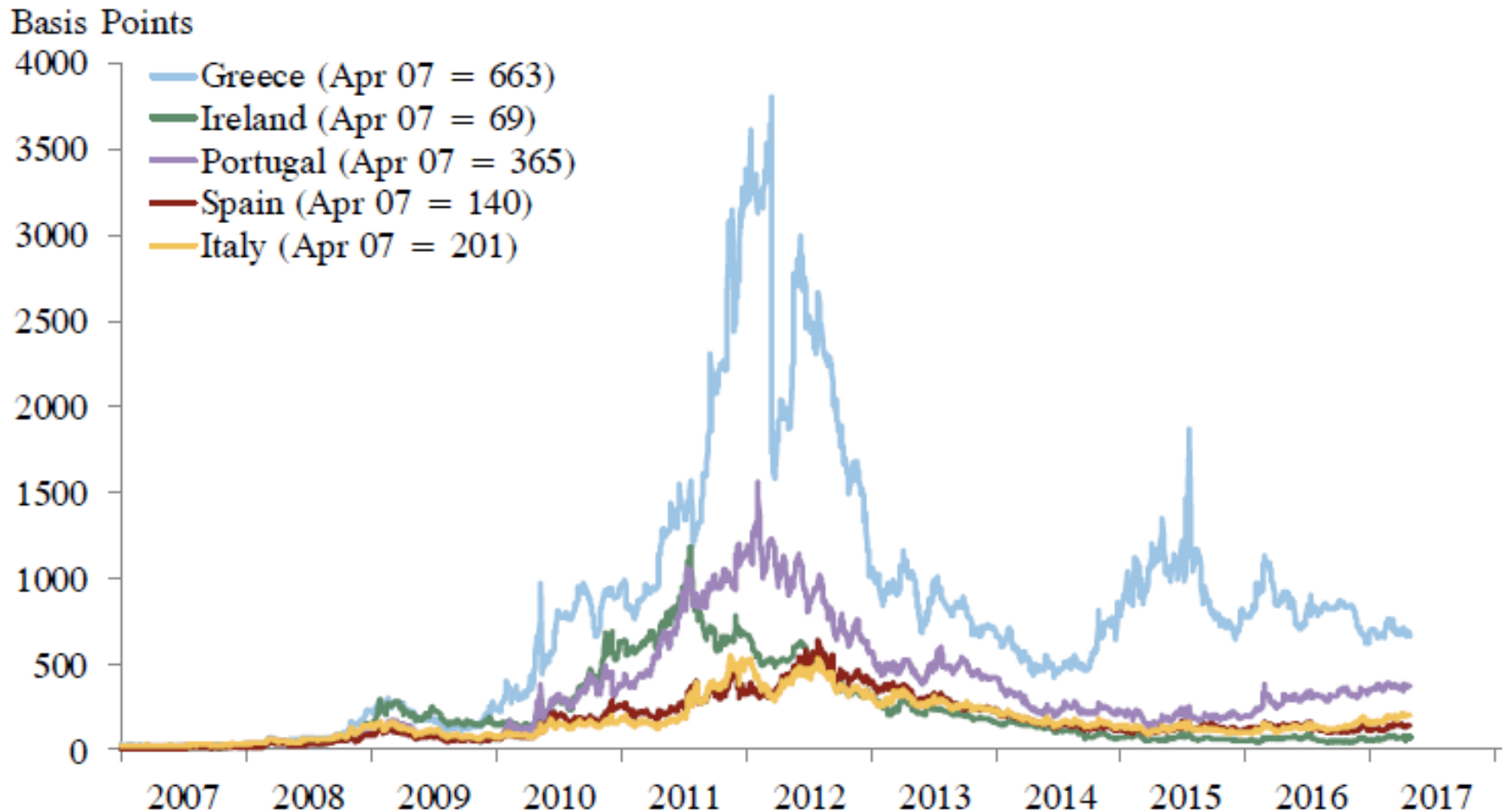
(percentages per annum; three-month moving averages)



Source: ECB

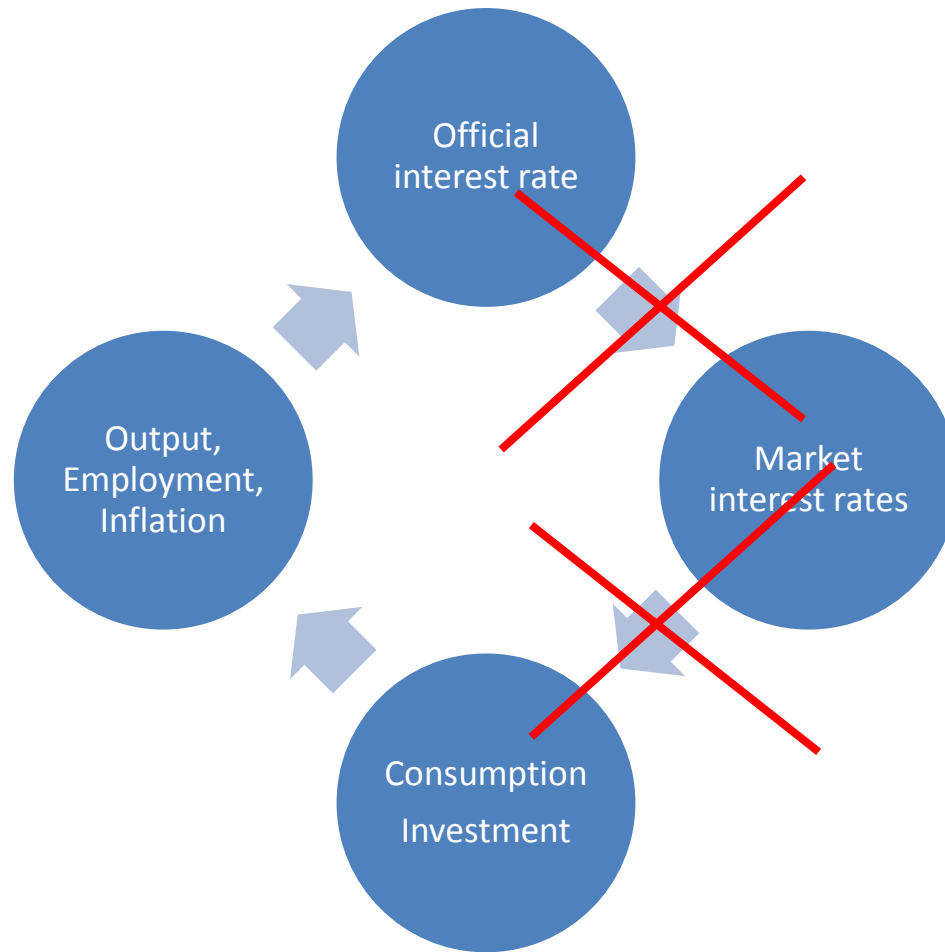
Font: ECB, Economic Bulletin

Interest rate differentials: Government Debt

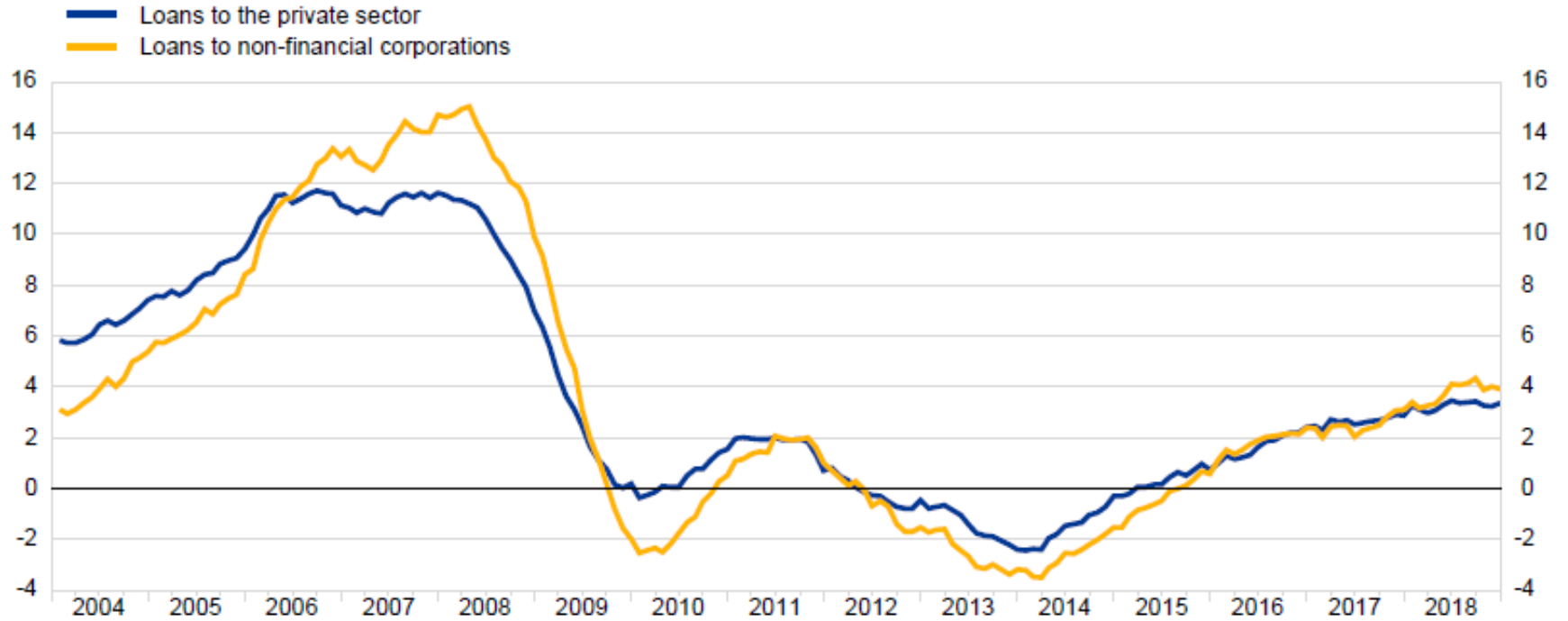


NOTE: The chart shows the spread, or difference, in interest rates between 10-year government bonds for various countries and German 10-year government bonds.

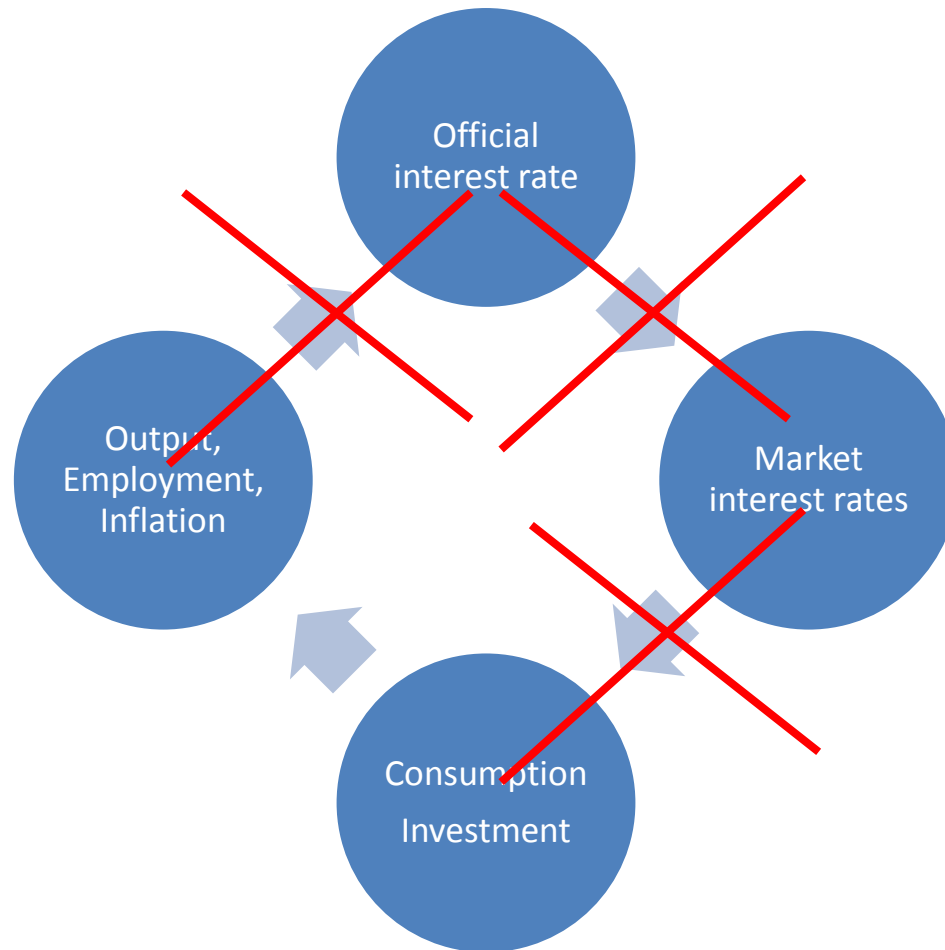
Monetary Policy during the Crisis



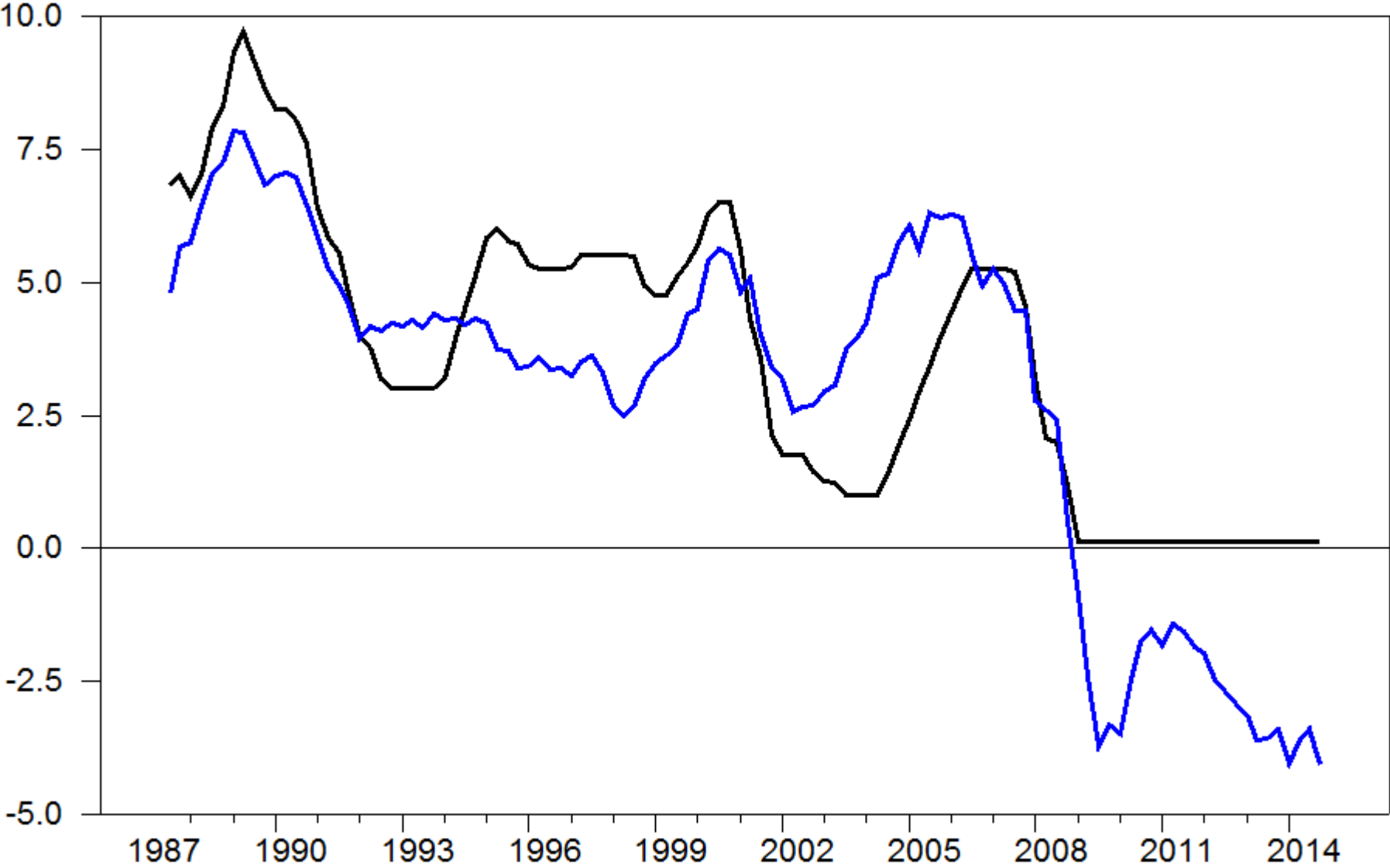
Loans to Private Sector



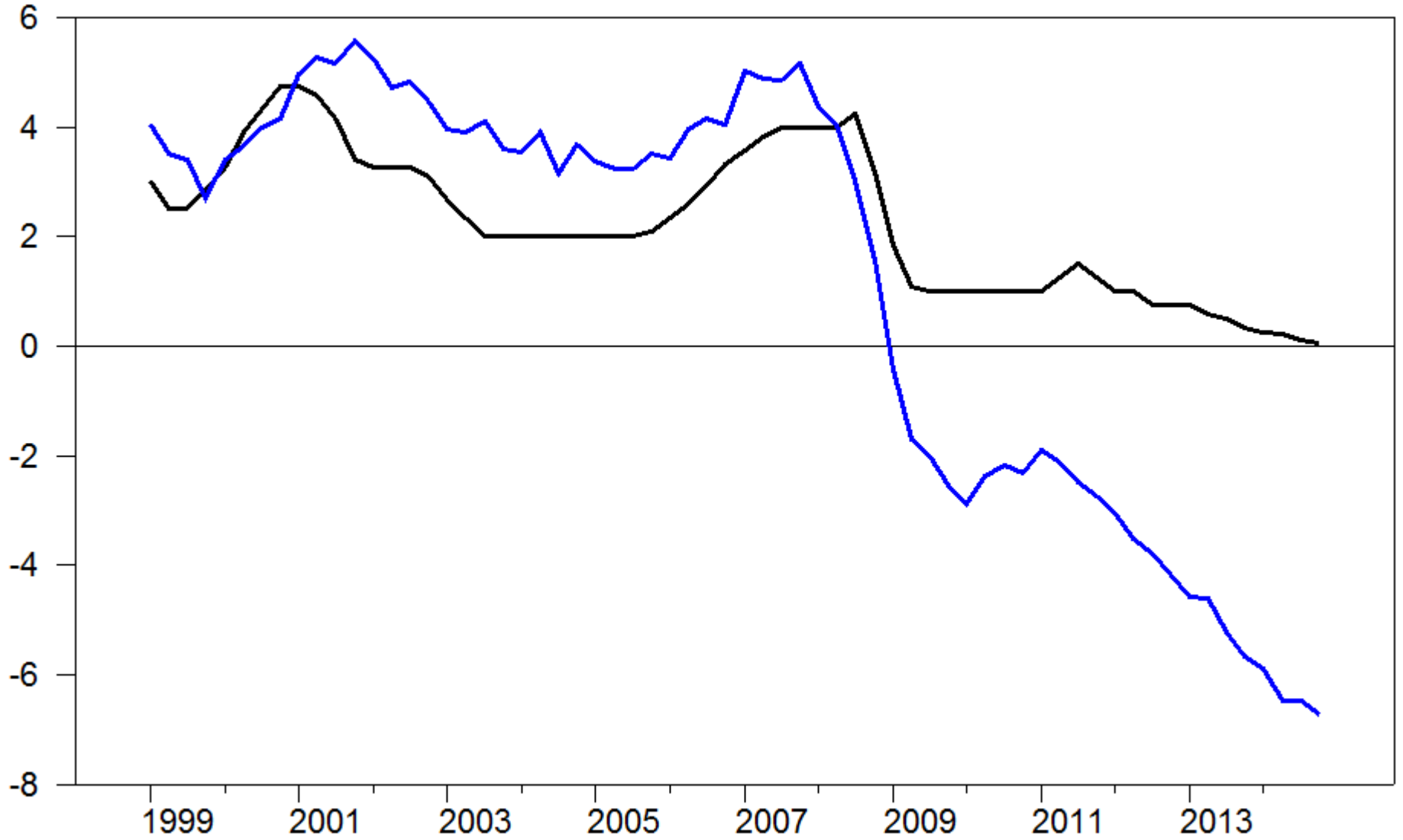
Monetary Policy during the Crisis



Monetary Policy and the Taylor Rule: U.S. (1987-2014)



Monetary Policy and the Taylor Rule: Euro Area (1987-2014)



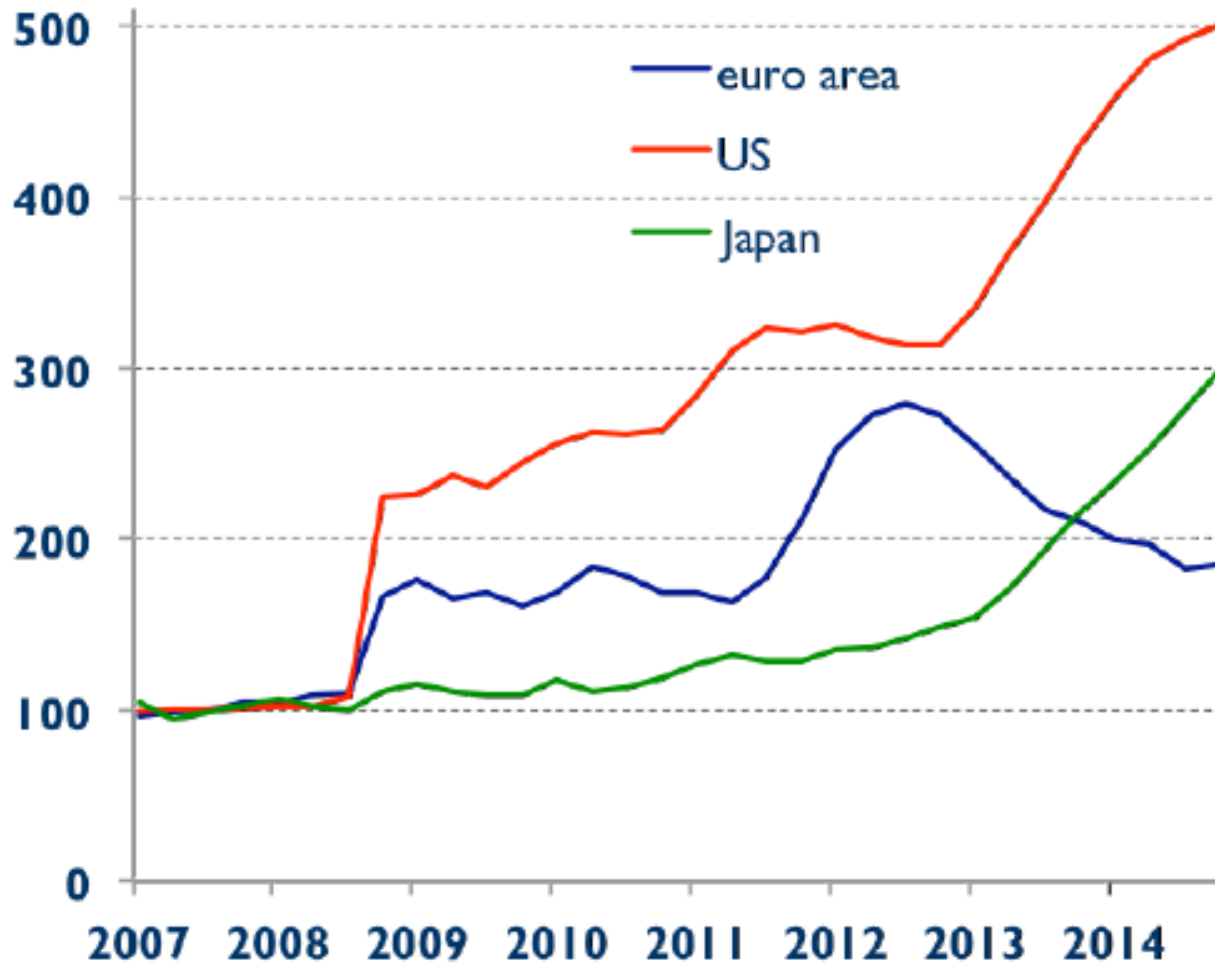
Responses: ECB

- Extraordinary injections of liquidity to the banking sector
 - 2 three year LTROs (Dec. 2011, Feb. 2012)
 - Targeted Long Term Refinancing Operations (TLTROs) (June 2014)
- Asset Purchase Programs:
 - Securities Market Programme (May 2010)
 - Outright Monetary Transactions (OMT) (Sept. 2012)
 - Asset Purchase Programme (APP)
 - Covered bonds (CBPP3), October 2014
 - Asset-Backed securities (ABSPP), November 2014
 - Public Debt (PSPP), March 2015
 - Corporate debt (CSPP), June 2016
 - Monthly purchases: initially 80bn, 60bn (April 2017), 30bn (Jan 2018 until Dec 2018)
 - “reinvestment of principal payments from maturing securities for an extended period of time...past the date when the GC starts raising interest rates” (April 2019)
- “Forward Guidance” (since July 2013):
 - “The key ECB interest rates will remain at present or lower levels for an extended period of time” (Mario Draghi, Press conference, July 2013)
 - “The Governing Council expects the key ECB interest rates to remain at their present levels at least through the end of 2019...and as long as necessary to ensure convergence to inflation target” (April 2019)

Responses: Federal Reserve

- “Quantitative easing” (QE, QE2, QE3)
 - Des. 2013: beginning of “tapering”
 - Oct. 2017: end of purchases
- “Operation Twist”
- “Forward guidance”
 - Des. 2012: “threshold guidance” (u=6.5%, inf=2.5%)
- December 2015: first increase in policy rate

Central Banks' Balance Sheets

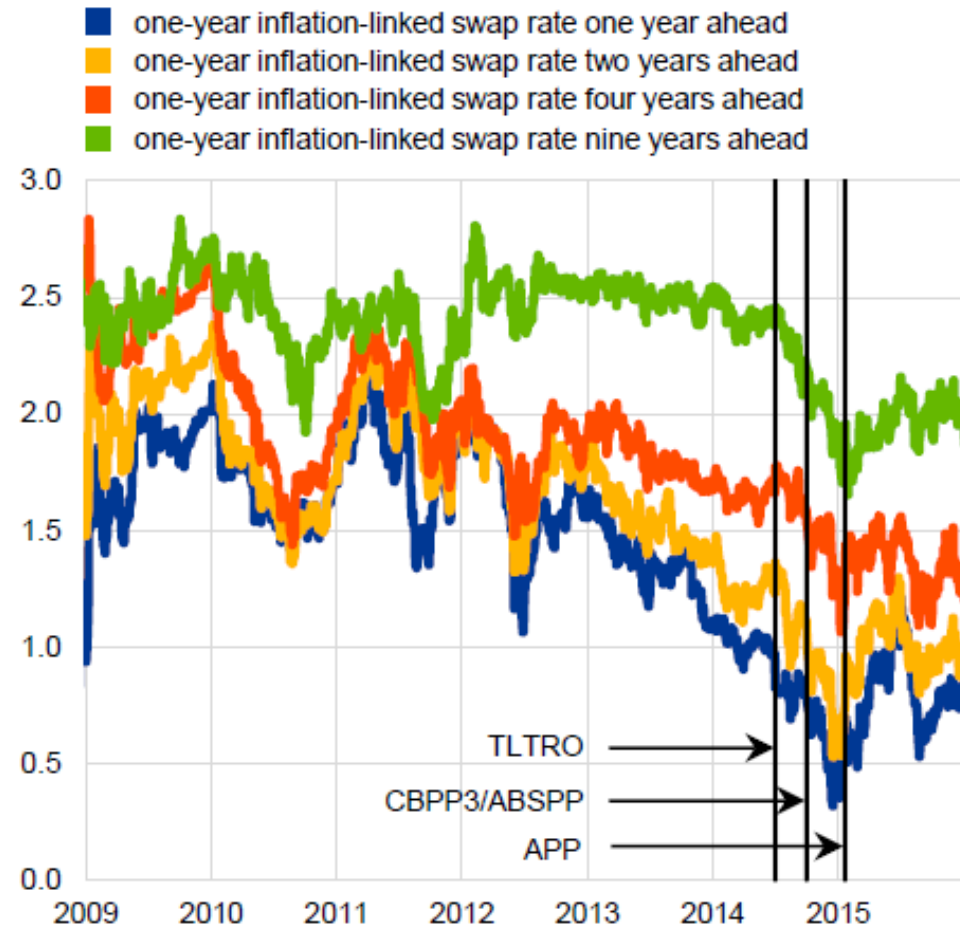


Sources: ECB, Federal Reserve Board, Bank of Japan and ECB staff

Effects of Unconventional Policies

Market-based inflation expectations

(implied forward inflation-linked swap rates in percentages per annum)

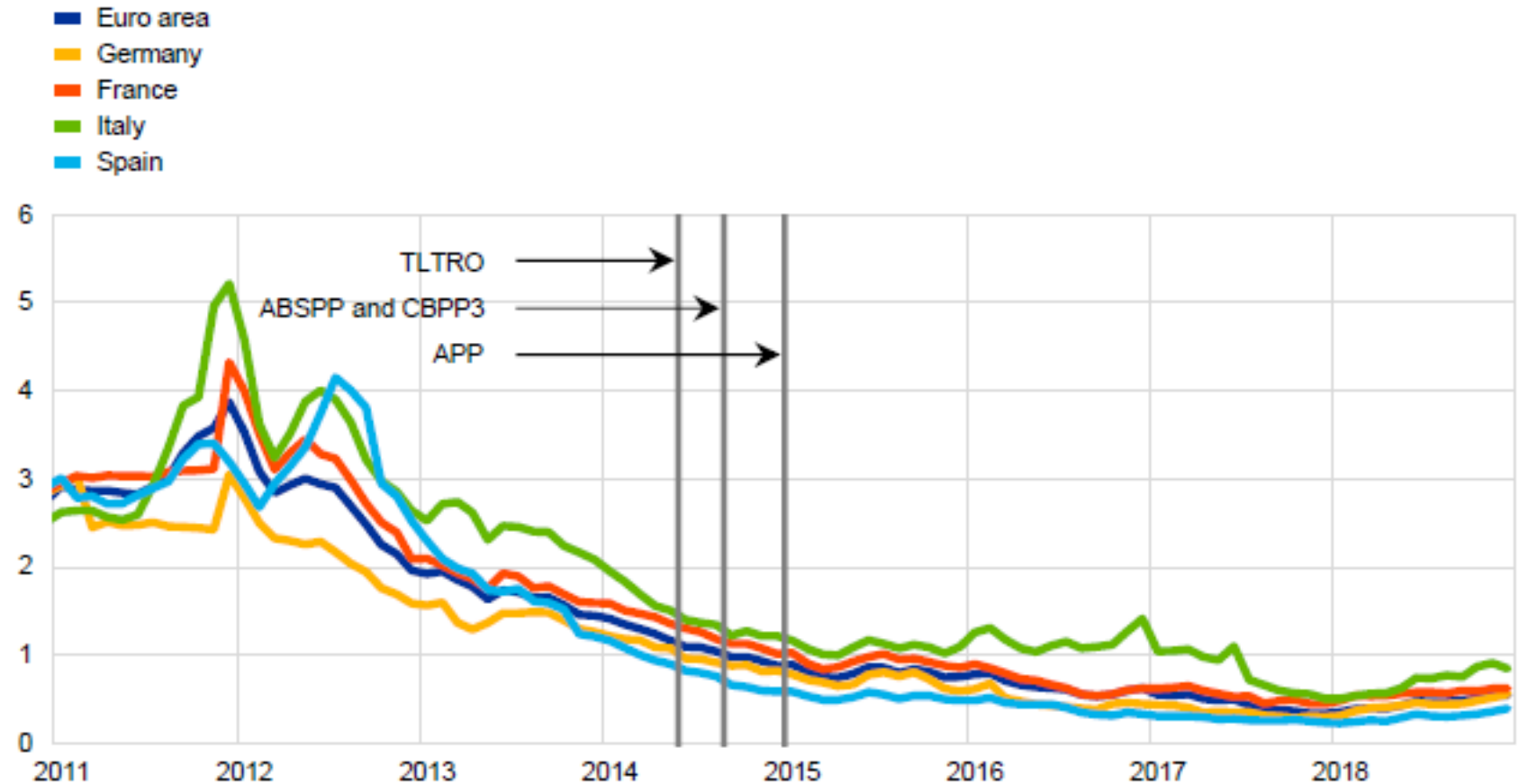


Sources: Reuters and ECB calculations

Effects of Unconventional Policies

Composite cost of debt financing for banks

(composite cost of deposit and unsecured market-based debt financing; percentages per annum)

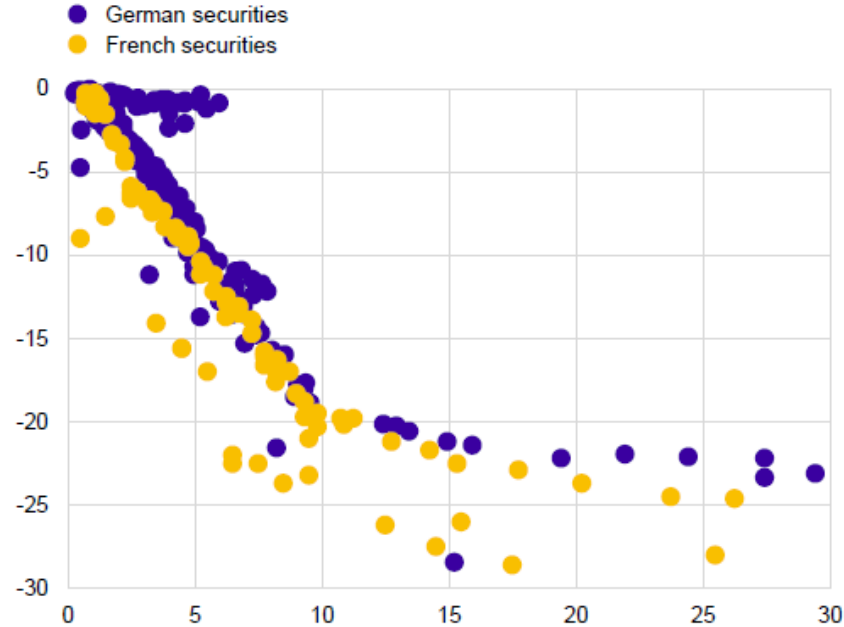


Effects of Unconventional Policies

Chart D

Changes in yields of German and French securities following the announcement of the APP on 22 January 2015

(basis points; years to maturity)

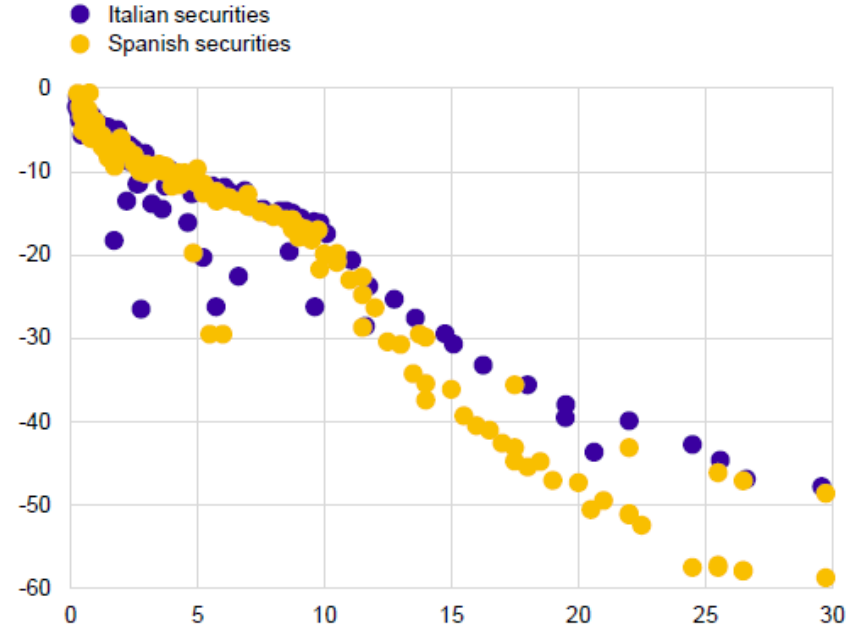


Source: ECB calculations.

Chart E

Changes in yields of Italian and Spanish securities following the announcement of the APP on 22 January 2015

(basis points; years to maturity)



Source: ECB calculations.