SACHVERSTÄNDIGENRAT
zur Begutachtung der
gesamtwirtschaftlichen Entwicklung

Some thoughts on monetary policy and normalization

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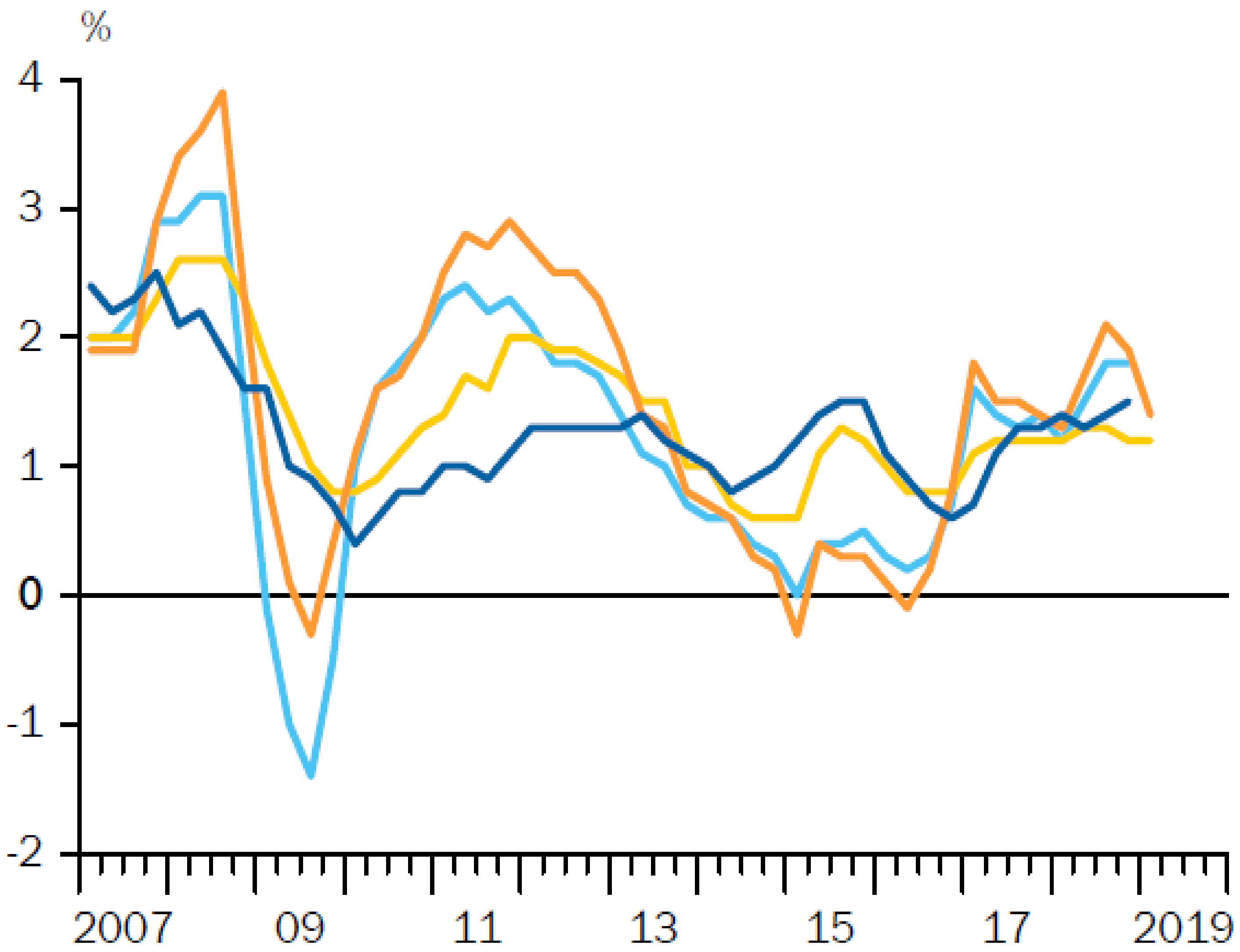
ECB Central banking seminar

July 3, 2019

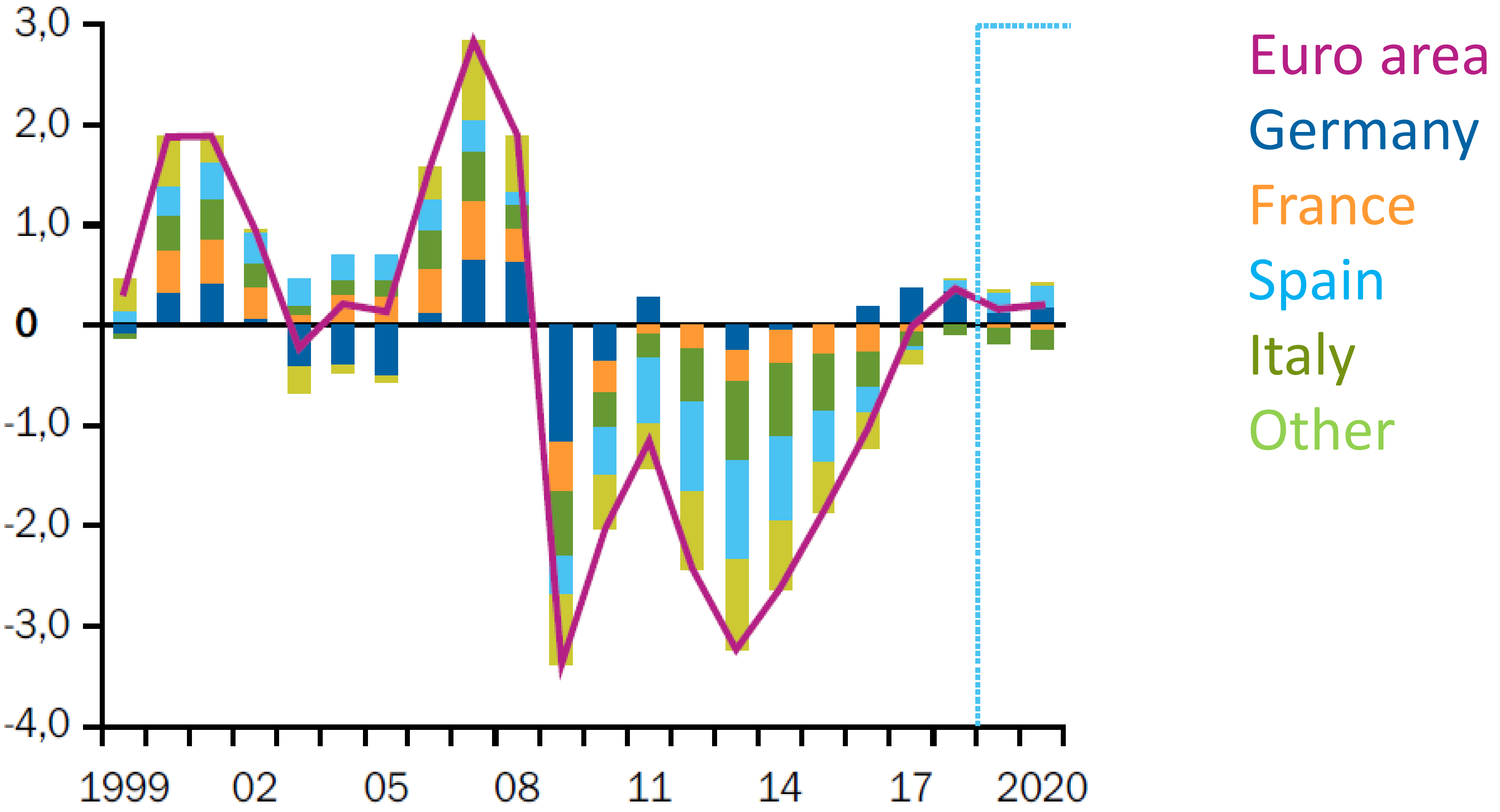
Inflation measures in the euro area



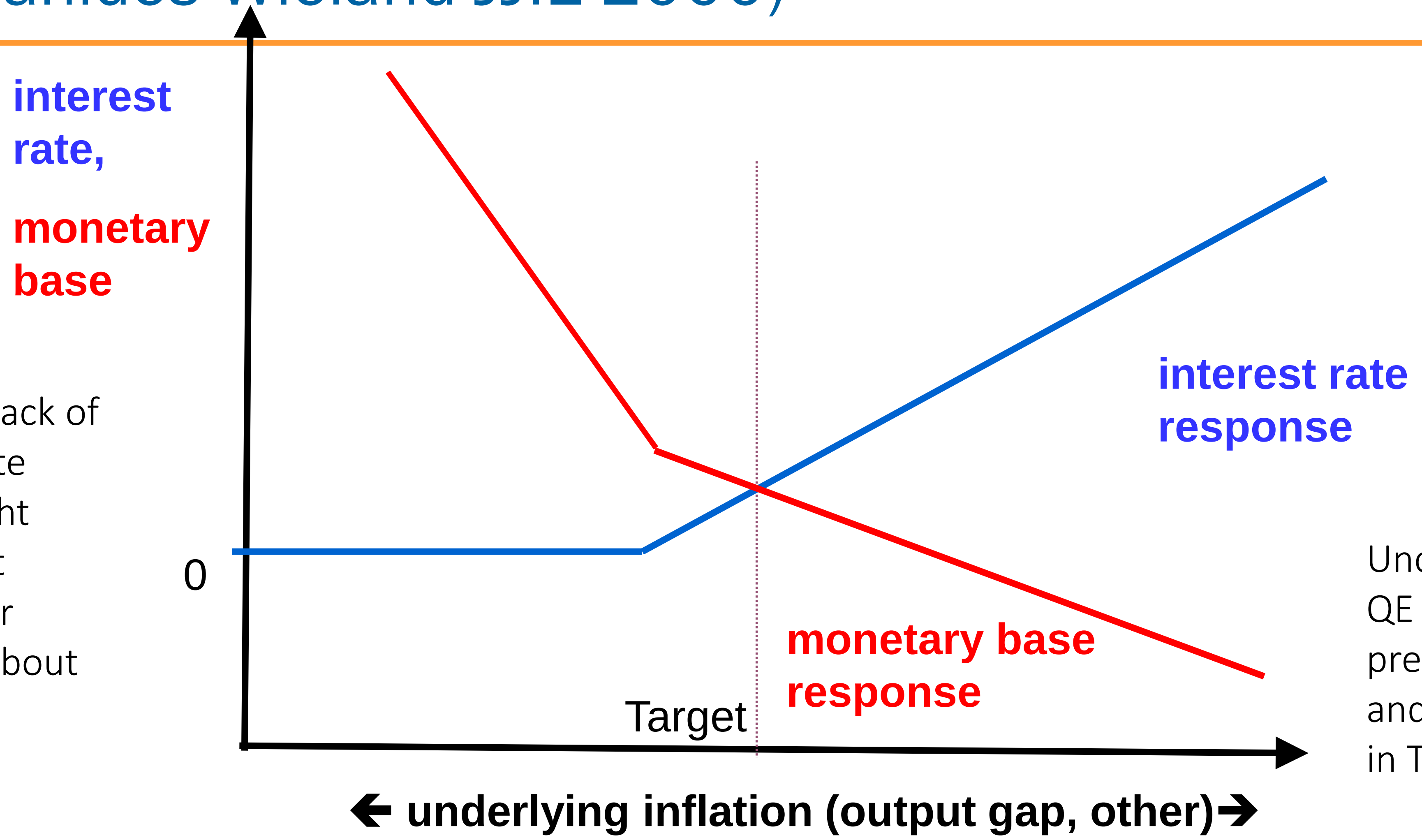
HICP
HICP less energy
GDP Deflator
PCE Deflator

Euro area output gap and contributions

Contributions to euro area output gap



Optimal inflation targeting with zero bound and QE (Orphanides-Wieland JJIE 2000)



Make up for lack of of interest rate change to fight deflation, but caution under uncertainty about QE effects.

Uncertainty about QE effects justifies pre-emptive easing and lower for longer in Taylor rule.

Orphanides-Wieland JJIE 2000

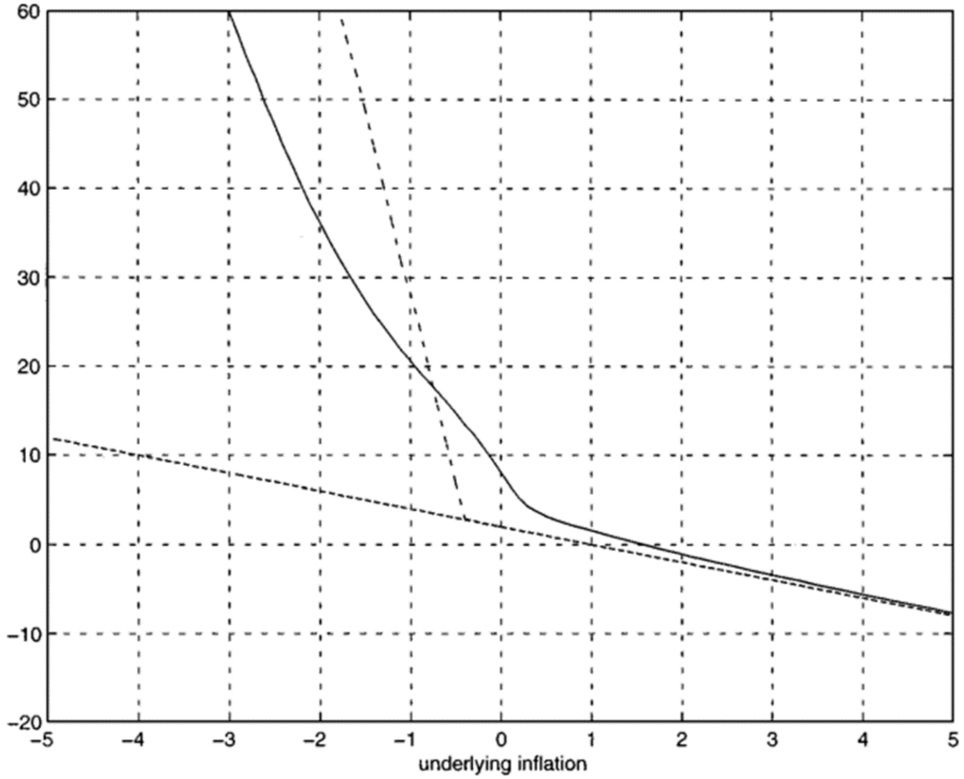


FIG. 3. Optimal policy for the Marshallian K gap. The solid line shows the optimal policy with the zero bound and uncertainty regarding policy effectiveness for our baseline parameters: $r^* = 2$, $\pi^* = 1$, $\sigma_\eta = \sigma_\epsilon = 1$, and $\sigma_\kappa = 0.4$ (all in percent). The dash-dot lines illustrate the corresponding deterministic benchmarks as explained in the text.

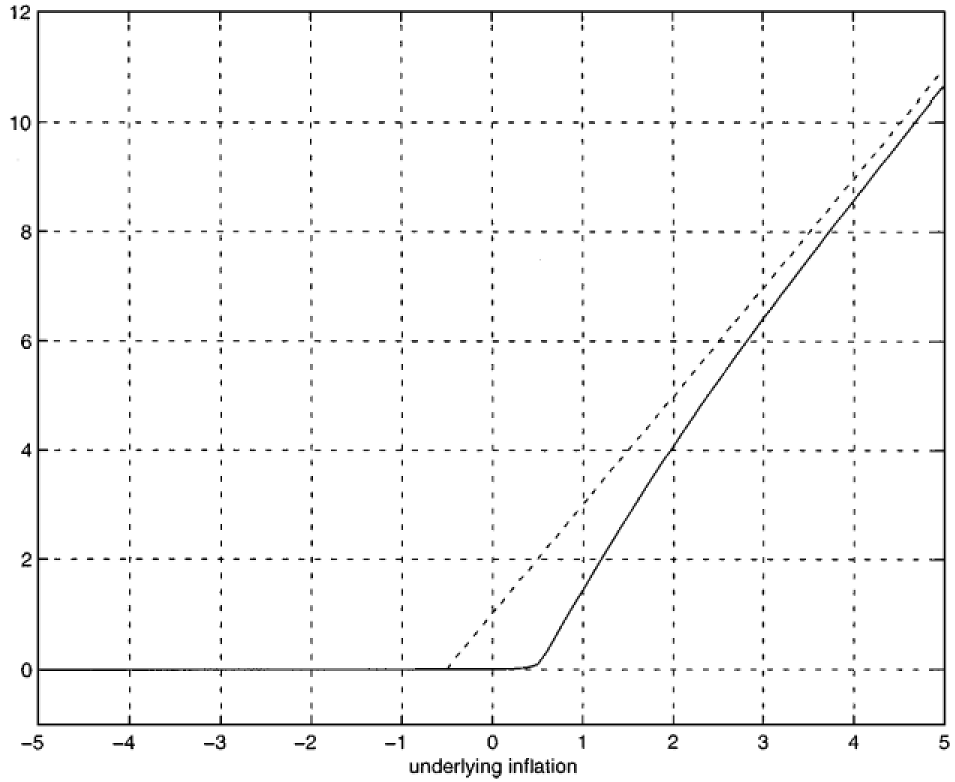
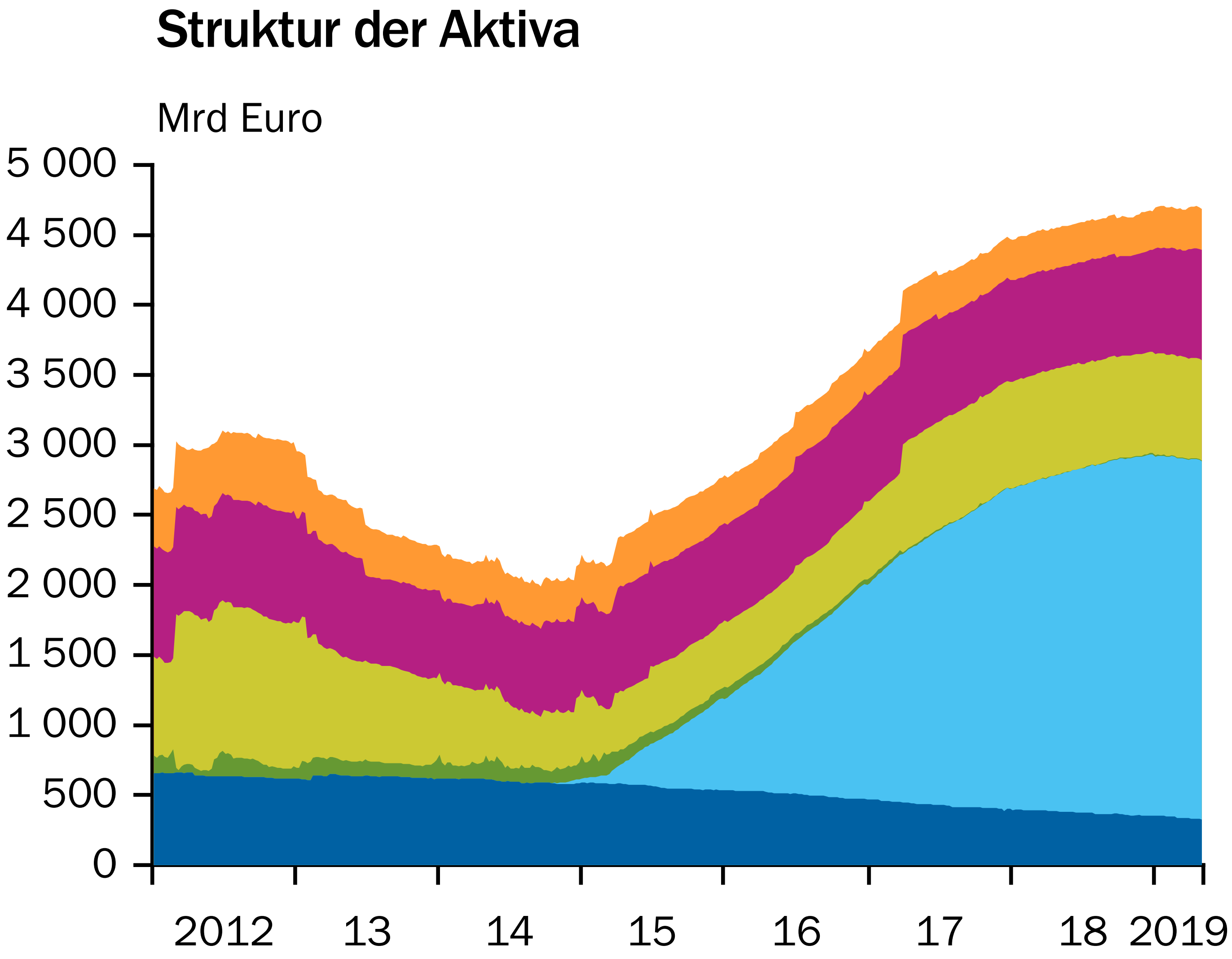


FIG. 4. Optimal interest rate setting. The solid line shows the optimal policy for the federal funds rate with the zero bound and uncertainty regarding policy effectiveness corresponding to the optimal policy for the Marshallian K shown in Fig. 3. The dash-dot line illustrates the corresponding deterministic benchmark.

Central bank balance sheet expansion



ECB Assets

Bonds

CBPP3, ABSPP, CSPP, PSPP

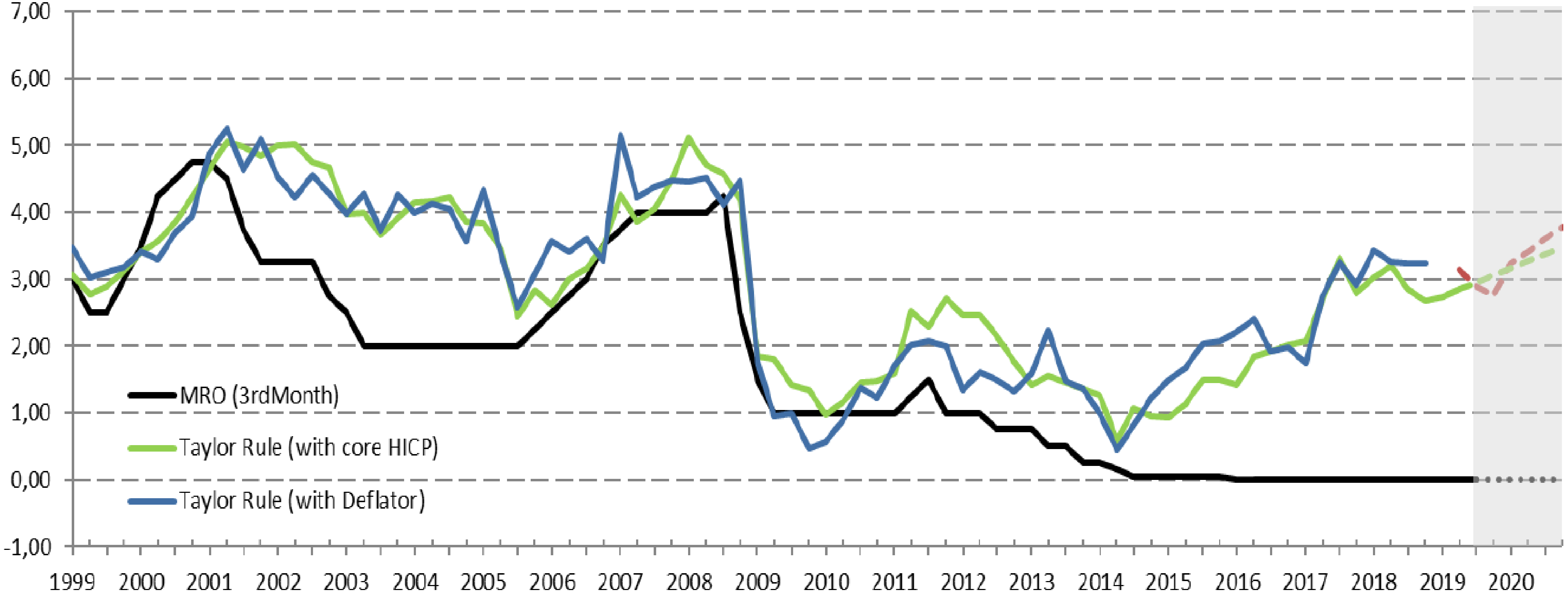
MRO, (T)LTRO

Gold and reserves

Other

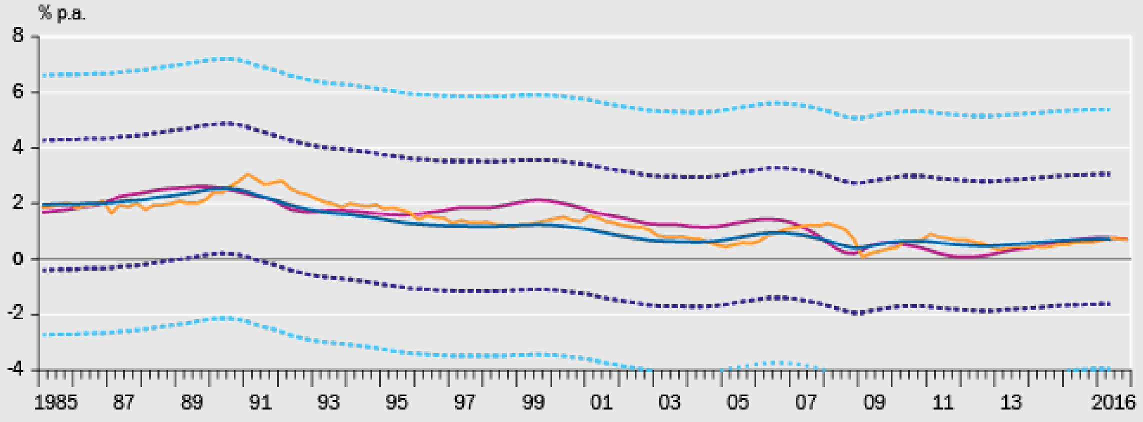
Policy rate versus Taylor-Rule

Interest rate prescription = Equilibrium rate + Inflation rate
+ 0.5 (Inflation – Target) + 0.5 (ouput gap) equil.rate =2%



R-Star may have declined (but raises output gap)

Estimates for medium-run equilibrium interest rates and associated output gaps in Germany and the Eurozone, Michaelis and Wieland, Vox EU



Medium-term equilibrium interest rates (Laubach-Williams method)[1]:

Germany: one-sided estimation; two-sided estimation; 68 % confidence interval (two-sided); 95 % confidence interval (two-sided)

Euro area: two-sided estimation

1 – Modified according to Garnier and Wilhelmsen (2009).

Sources: Beyer and Wieland (2017), own calculations

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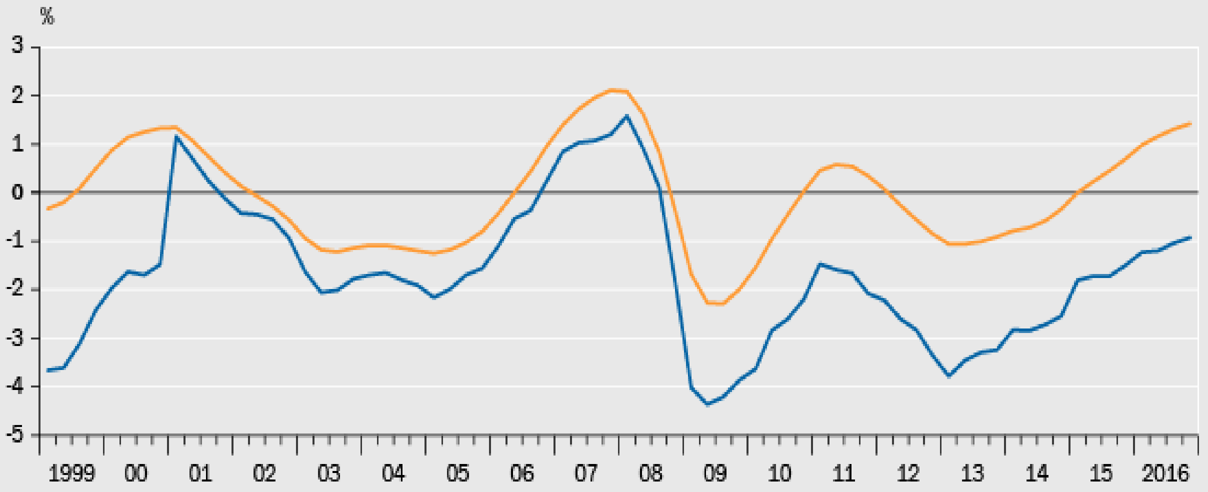

AMECO output gap; Medium-run output gap[1]

1 – Based on the Laubach-Williams (2003) method in the version which was developed by Garnier and Wilhelmsen (2009) for the Euro area.

Sources: Beyer and Wieland (2017), AMECO, own calculations

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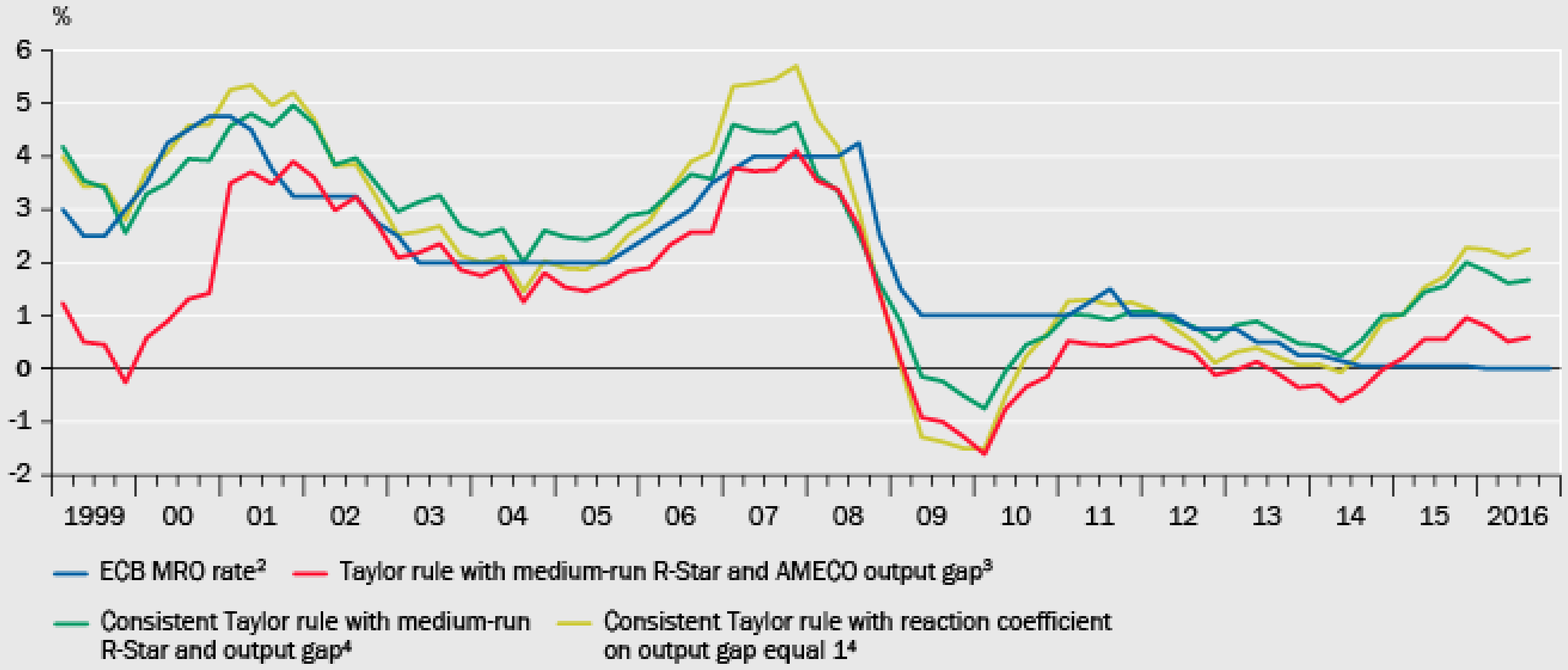
Partially offsetting effects on Taylor rule recommendation

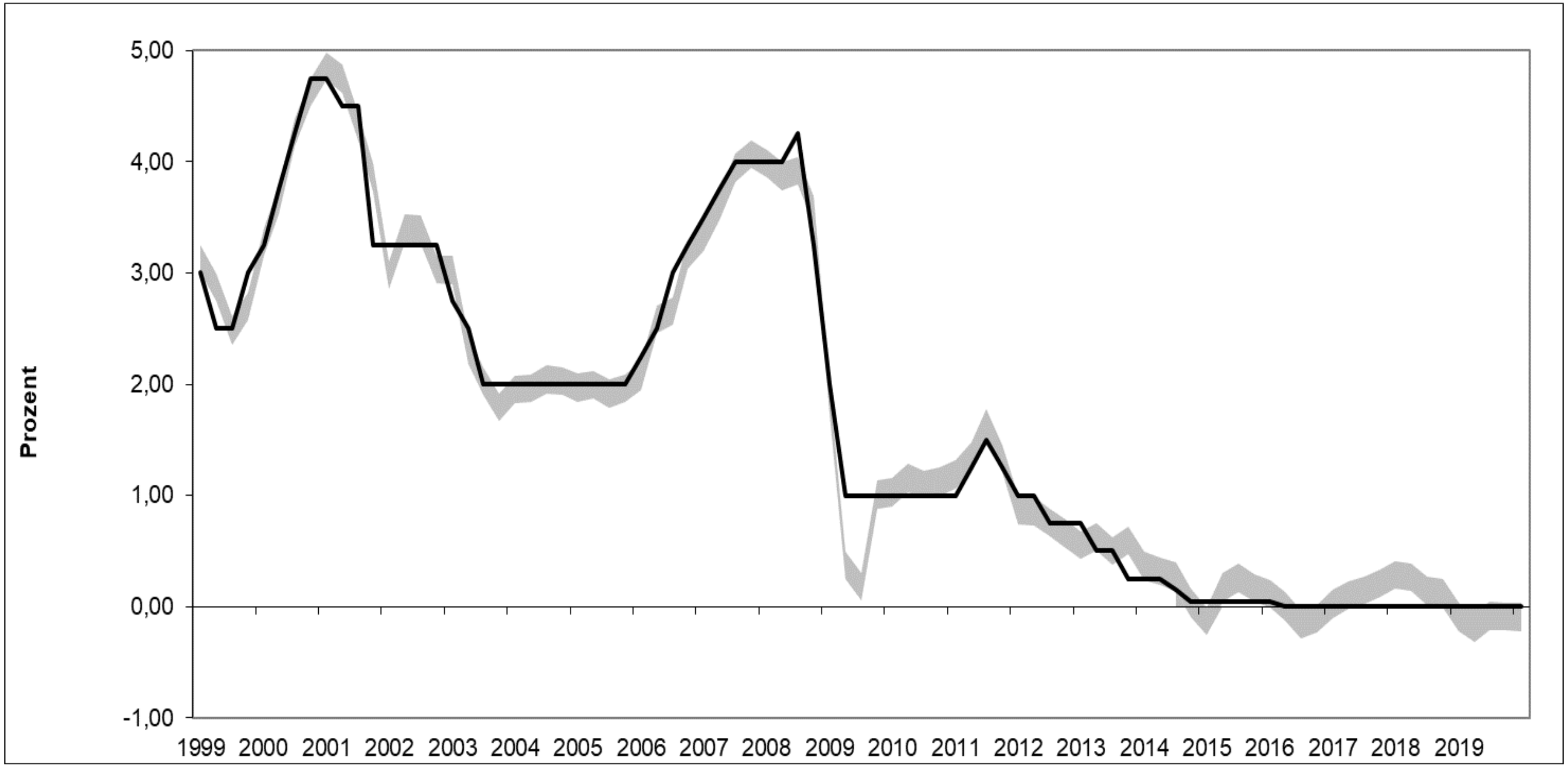


1 – Equation: $i = r^* + \pi + 0.5(\pi - \pi^*) + 0.5(y)$. i is the prescribed MRO rate; it depends on the real equilibrium interest rate, r*, on the current inflation rate, π, in deviation from the central bank's target, π^*, and on the output gap, y. 2 – Interest rate on main re-financing operations (MRO), month-end of each quarter. 3 – It depends on the medium-run real equilibrium interest rate, r* (two-sided), based on the Laubach-Williams (2003) method in the version which was developed by Garnier and Wilhelmsen (2009) for the Euro area. 4 – It depends on the medium-run real equilibrium interest rate, r* (two-sided), based on the Laubach-Williams/Garnier-Wilhelmsen method and on its associated output gap, y.

Sources: Beyer and Wieland (2017), ECB, Eurostat, own calculations

Policy rate vs Orphanides-Wieland 2013 Rule

Policy rate change = 0.5 (Inflation forecast – target)
+ 0.5 (GDP growth forecast – Potential growth rate)



GCEE 2017: A strategy for monetary policy normalization

1. Expand forward guidance to a Governing Council forecast

   - inflation, growth, policy rates and balance sheet

   - alternatively, publish survey of individual GC member forecasts

2. Sequencing: End net purchases first, then raise interest rates and start normalizing balance sheet.

3. Policy reaction: respond symmetrically and proportionally to macro developments during normalization. Abandon „lower for longer“.

4. Avoid financial and fiscal dominance (communication strategy).

GCEE 2017: Announce a procedure for reducing balance sheet and returning government debt holdings to pre-crisis level.

Need to gain policy space for future downturns.

Already near maximum relative to self-imposed issue and issuer limits that ensure that ECB is not forced to oppose debt restructuring.

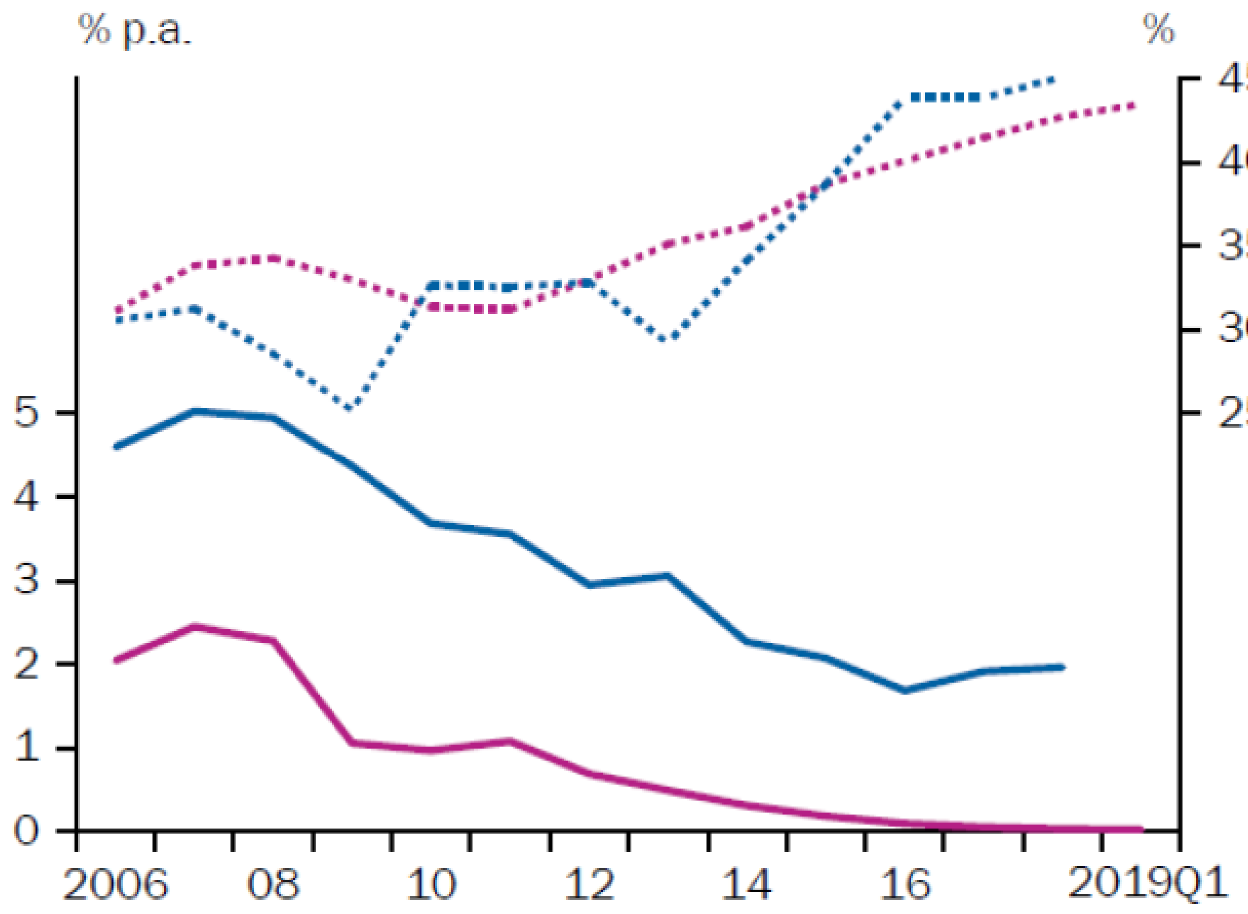
Permanent increase in sovereign debt holdings of euro system would imply monetary financing of government activity.

Exposure to sovereign „risk“ on balance sheet.

Potentially increased desire to influence central bank.

Additional material on important risks and international comparisons

Interest rate risk on bank balance sheets



Data for Germany

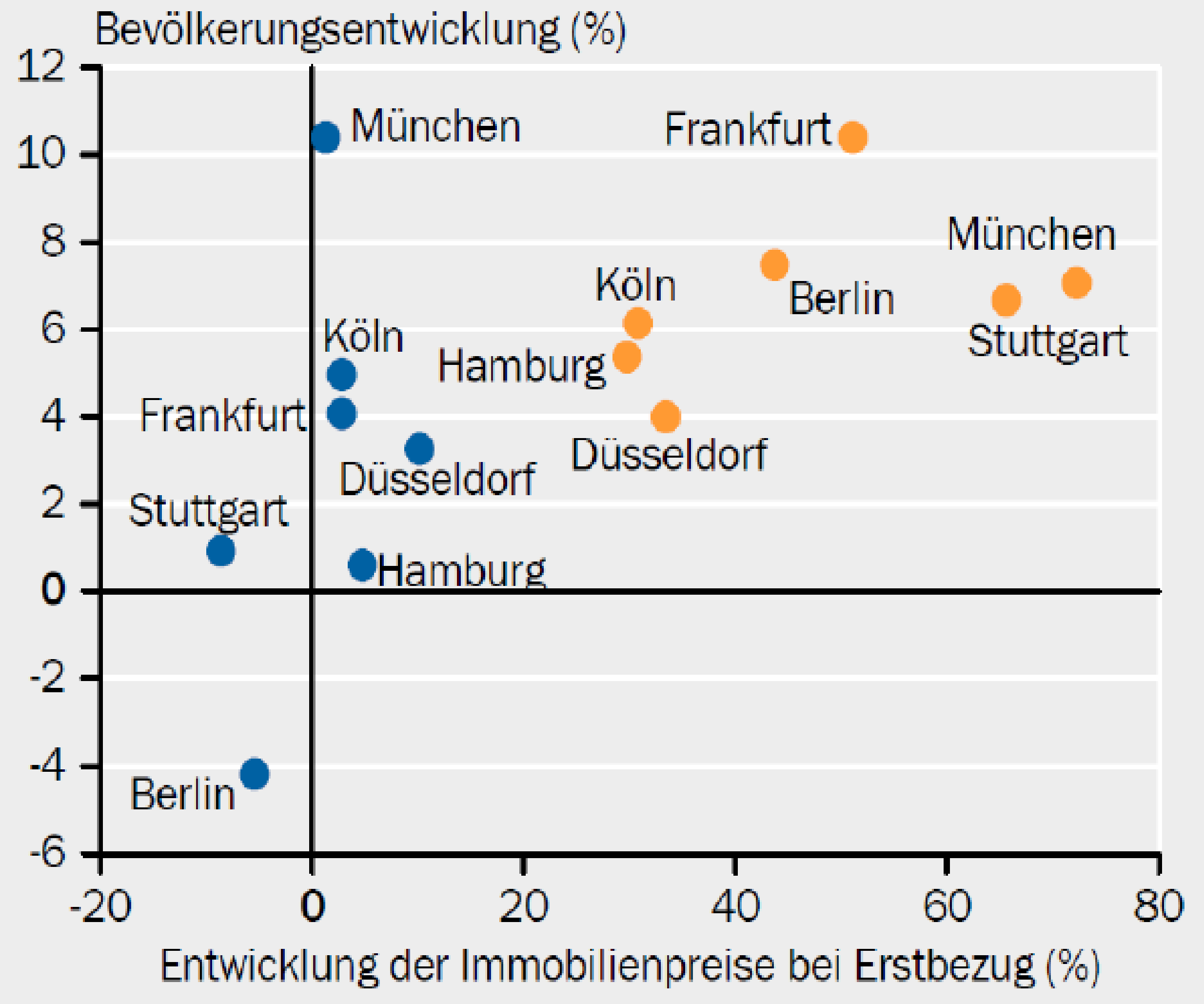
... longterm home loans

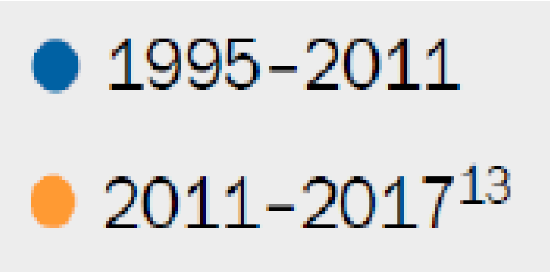
... short-term refinancing

__ Loan rates

__ Deposit rates

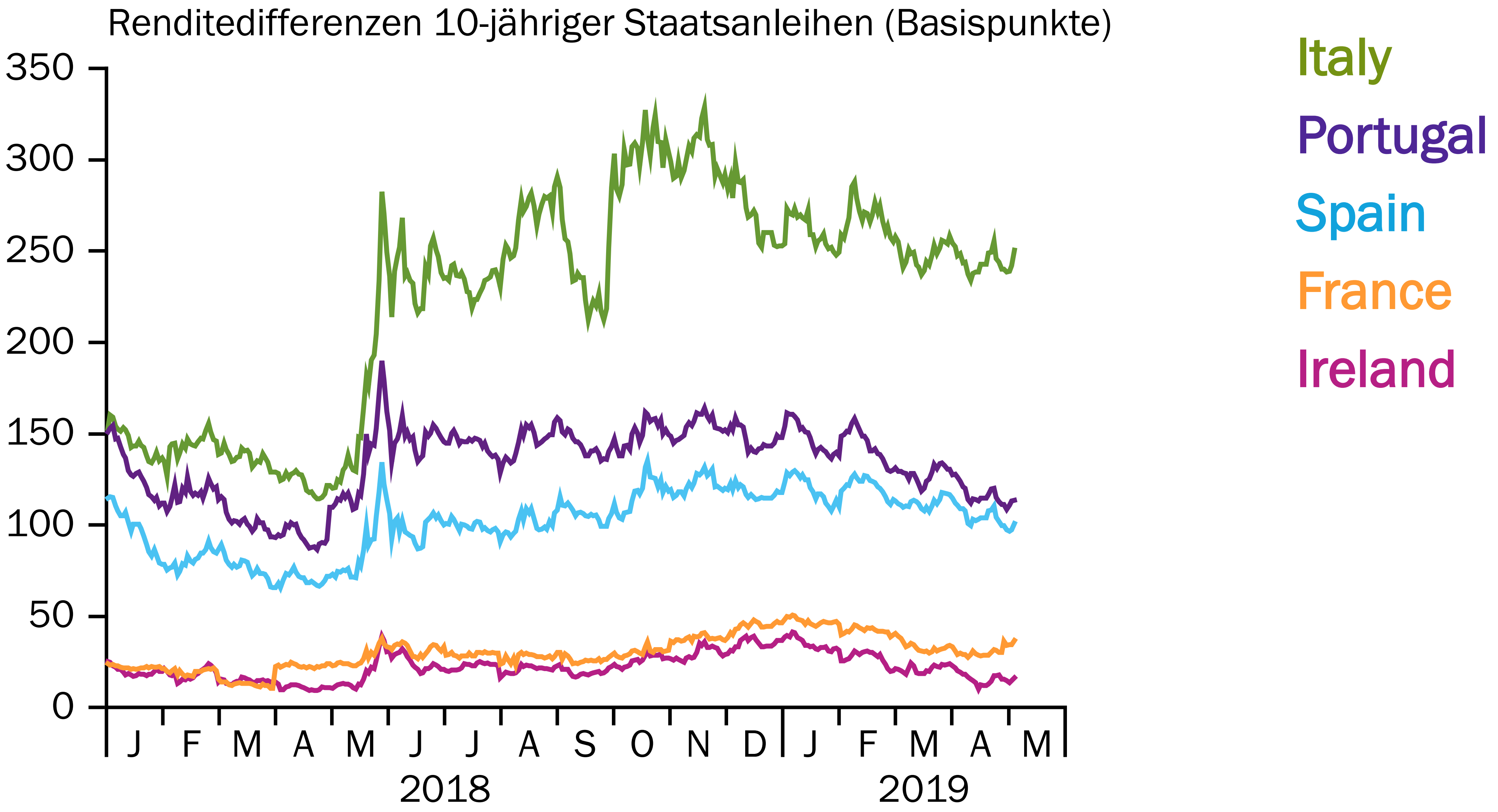
Risks: Real estate prices rising due to lower interest rates (prices in German cities up relative to population growth)





Vertical axis: population growth
Horizontal axis: Price increse

Sovereign risks - Italy



Monetary-fiscal interactions: Governments postpone consolidation, pro-cyclical fiscal policy.

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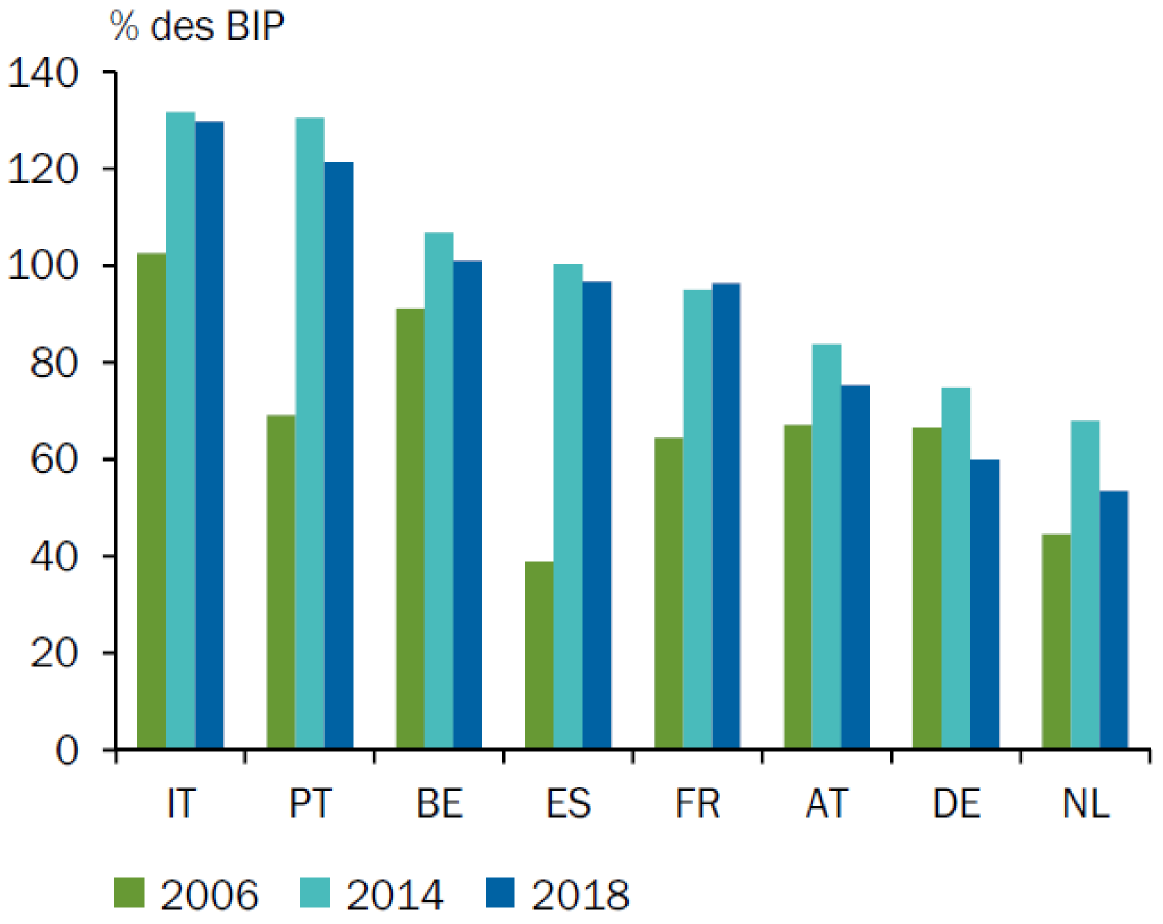
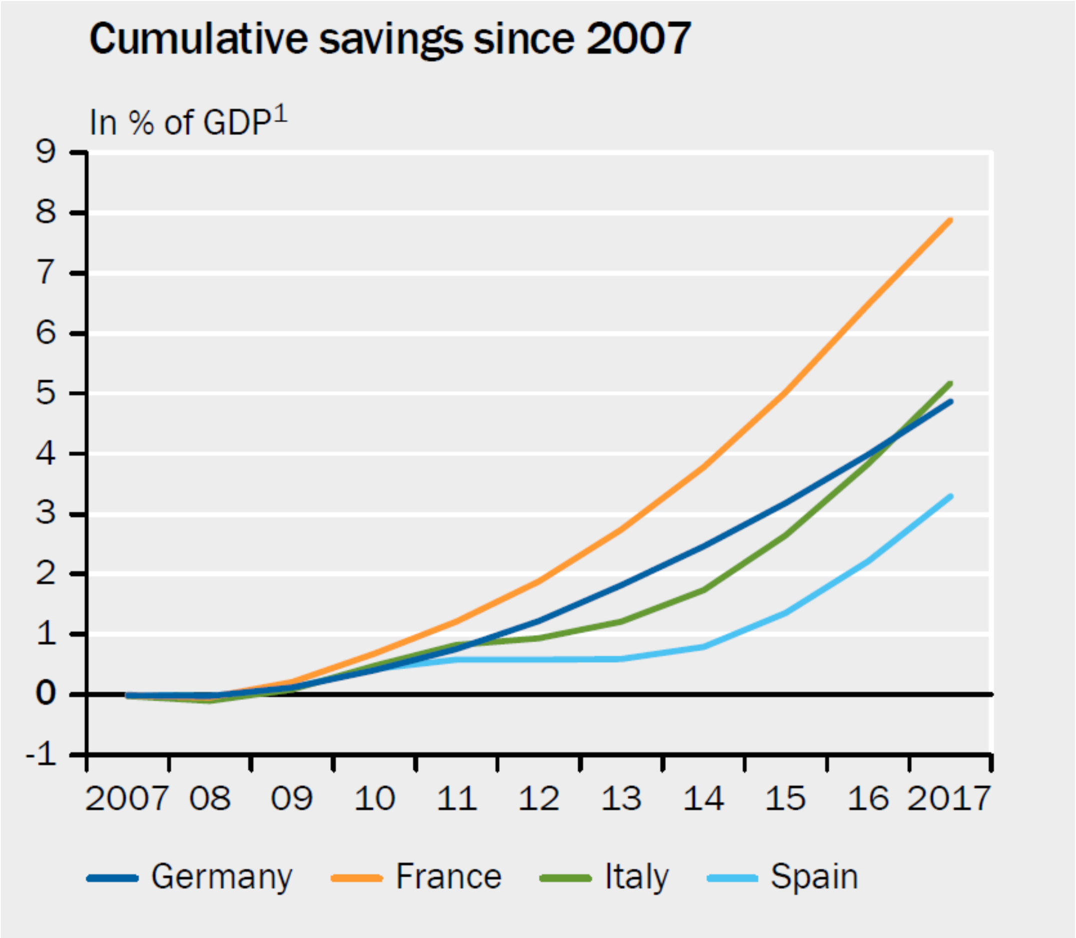
Gov debt % of GDP





Central banks are now major creditors of governments

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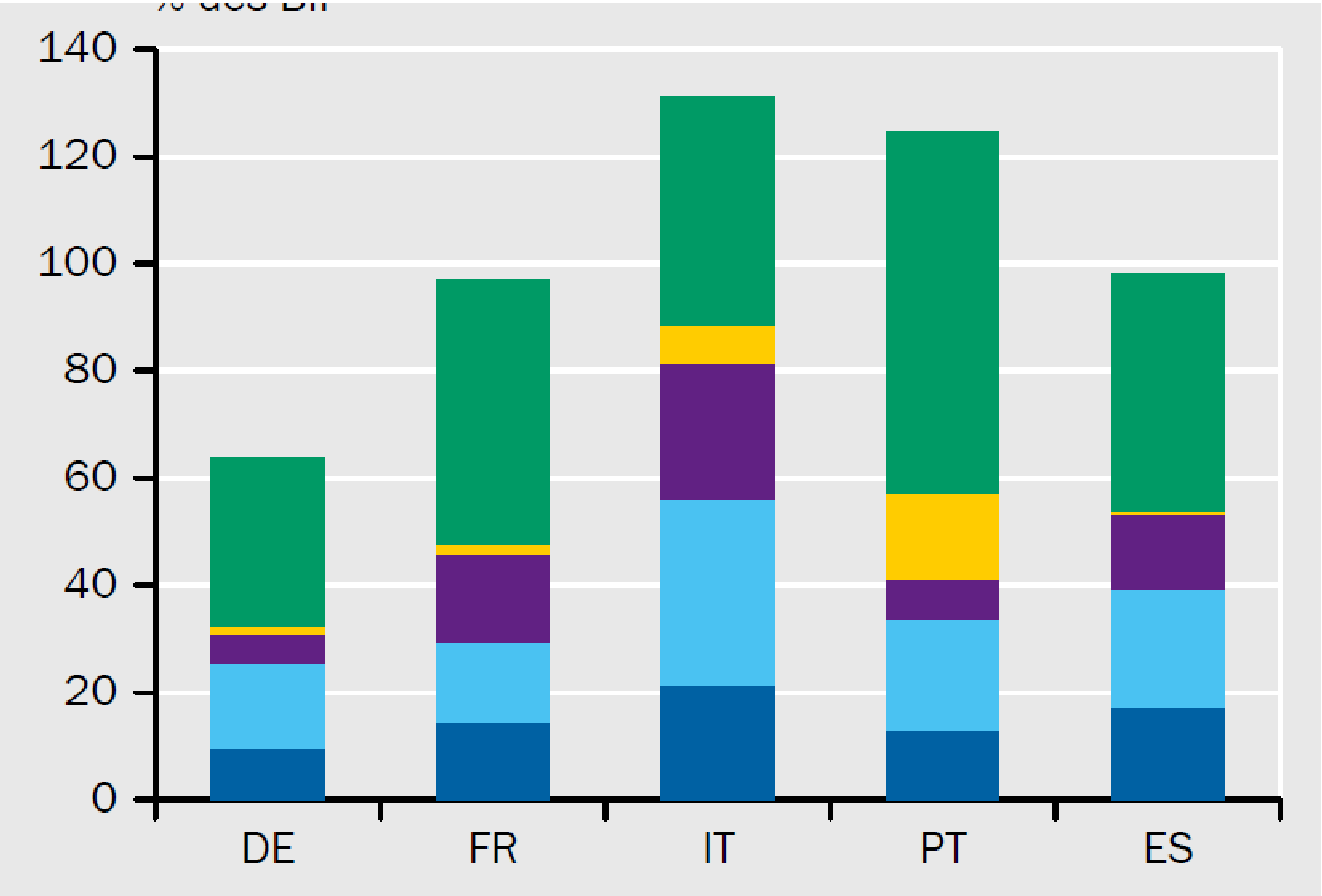
Gov debt % of GDP



Central bank

Domestic MFI

Domestic financial non-MFI

Domestic non-financial sector

Rest of world

Risks to central bank independence

Sovereign debt holdings expose central bank to sovereign member states.

Recall Italian coalition plan to reduce government debt by 250 bln Euro at the expense of Bank of Italy balance sheets.

Bank of Italy financial buffers,

124 bln Euro. (provisions, capital

, reserves, valuation reserves).

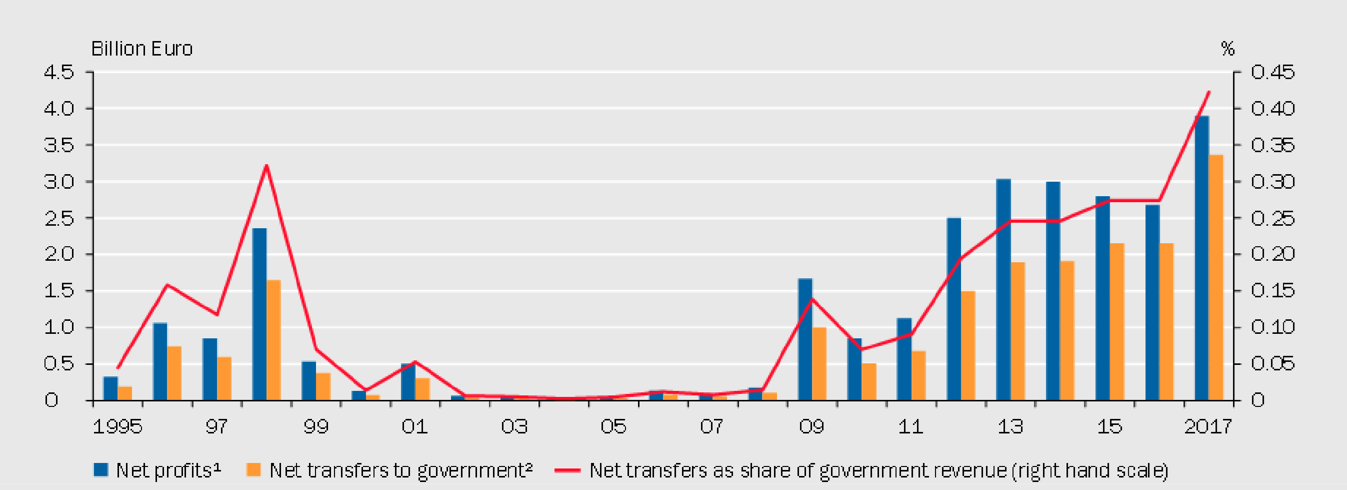
➔ negative equity 126 bln Euro

➔ Profits too small to recover.

2017 net profit of BoI: 3,4 bln.

2005-07, 50-130 mln Euro.

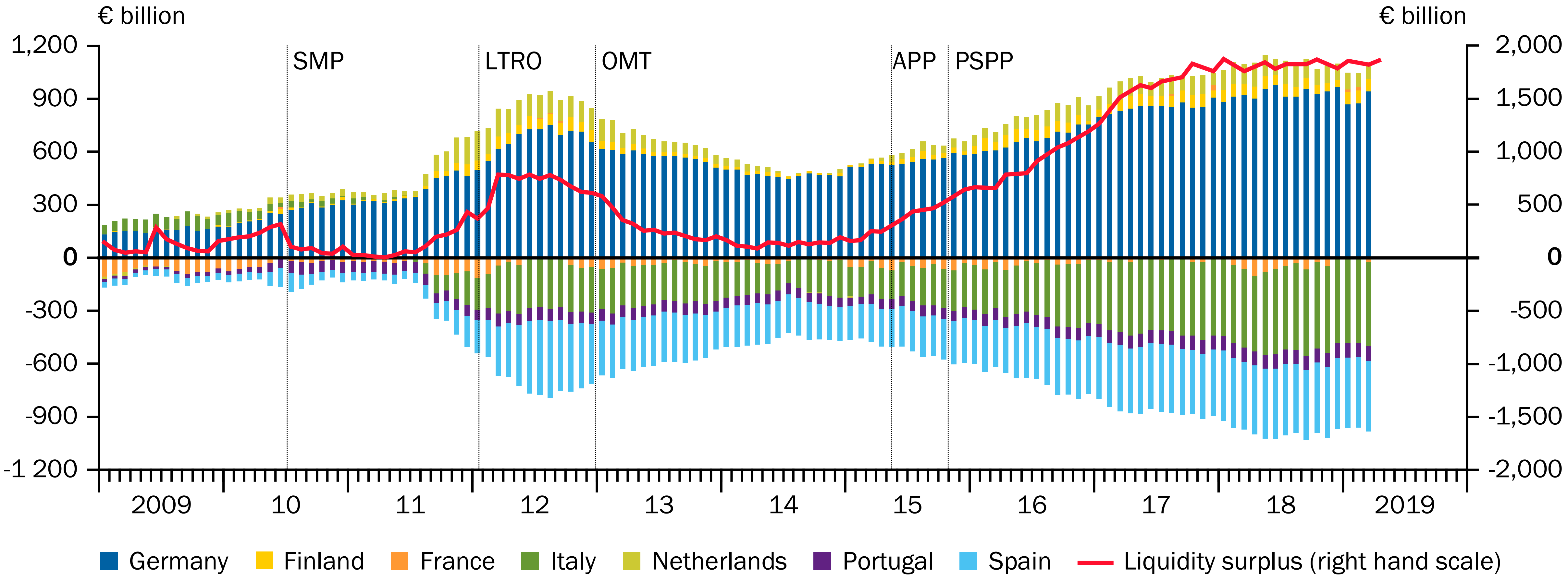
Central Bank Profits in Italy



1 – Sum of net interest income, net result of financial operations, write-downs and transfers to/from risk provisions, net income from fees and commissions, income from participating interests, net result of monetary income, net income from financial assets relating to the investment of reserves and provisions, other transfers from provisions, other income less expenses and other fees as well as taxes on incomes and reserves. 2 – Net profits less ordinary reserve, dividend distributed to shareholders and special item for stabilising the dividend.

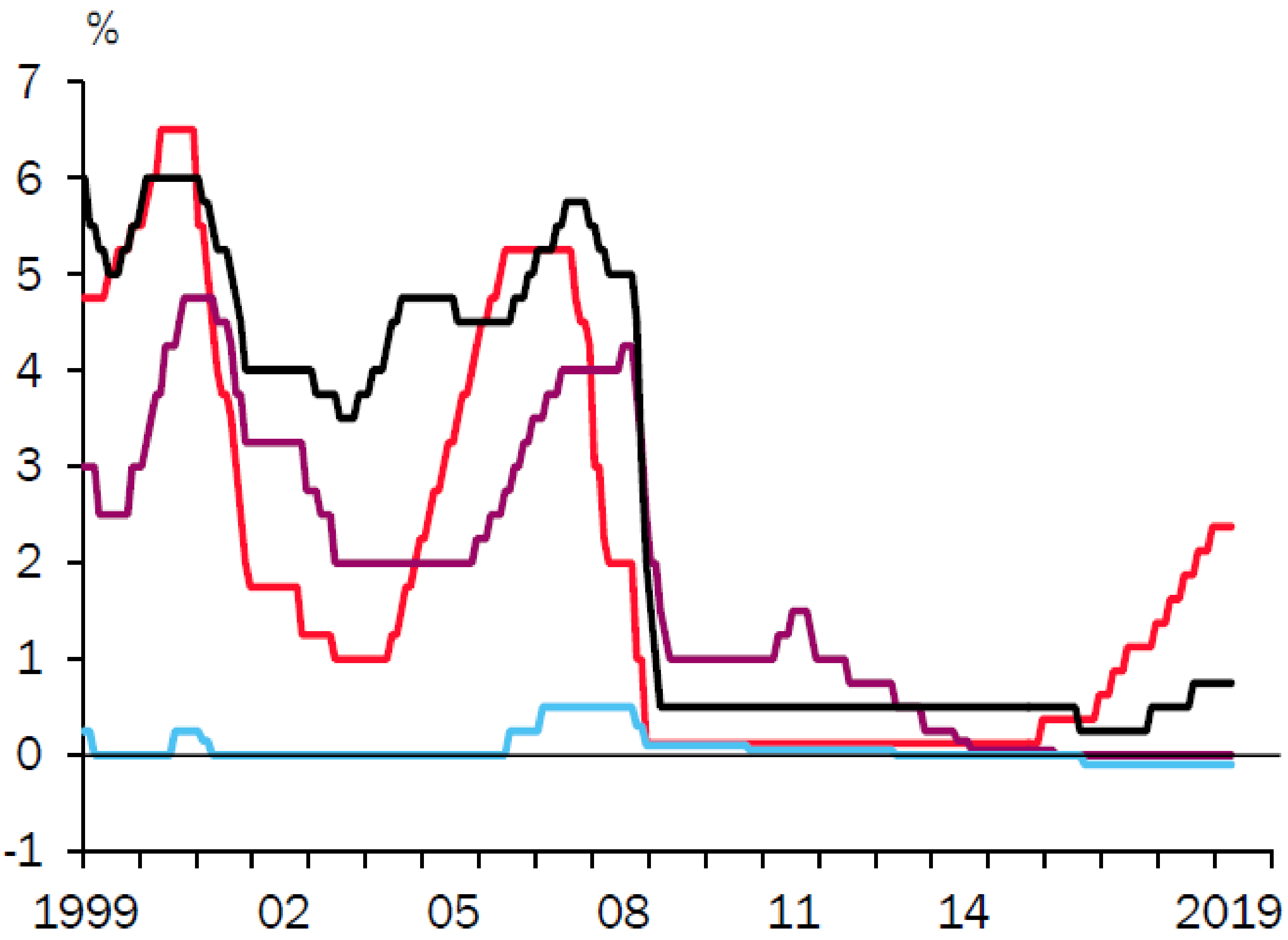
Sources: Banca d'Italia, IMF, own calculations

TARGET2 Balances



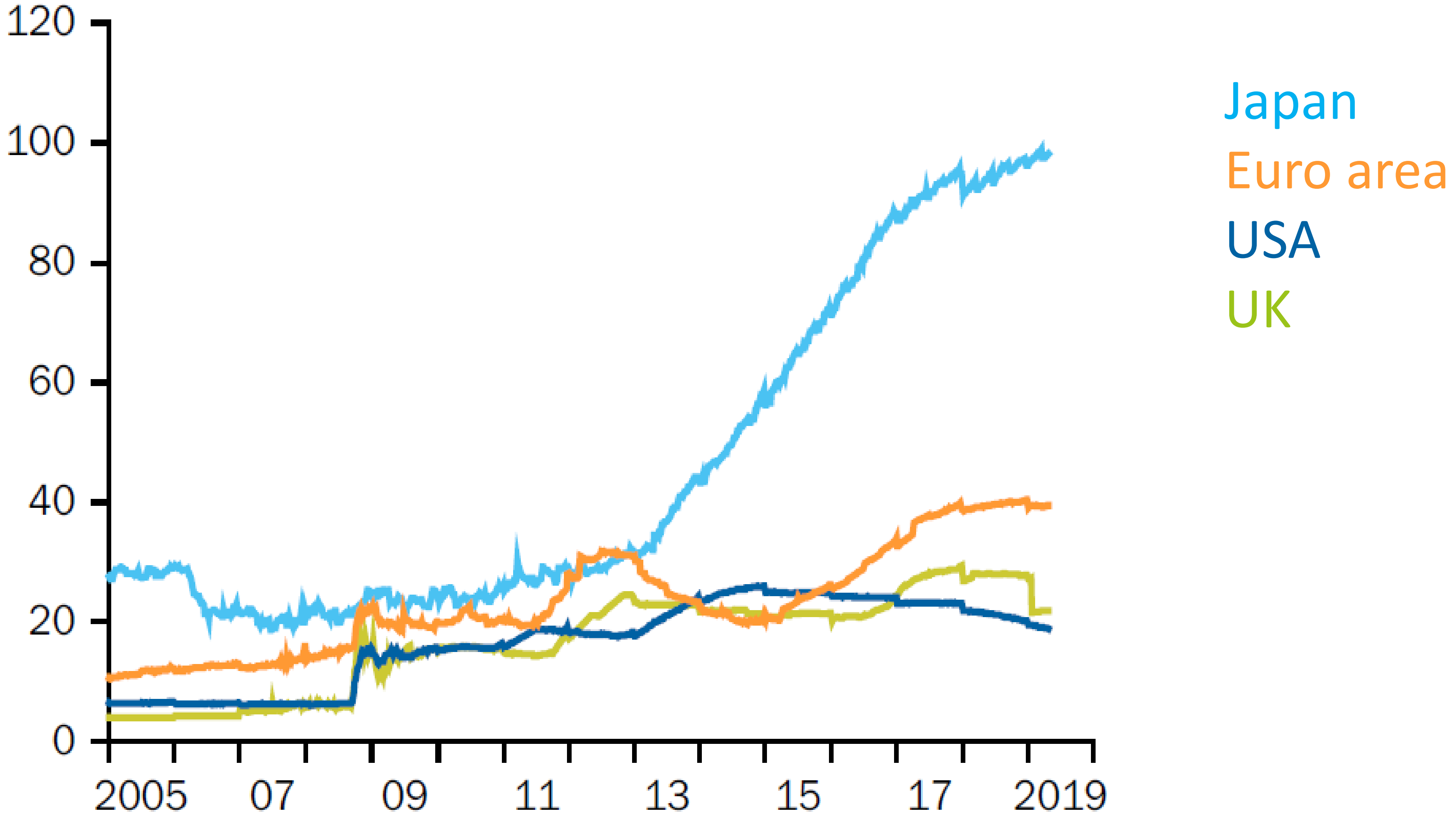
Sources: ECB, own calculations

International comparison of policy rates

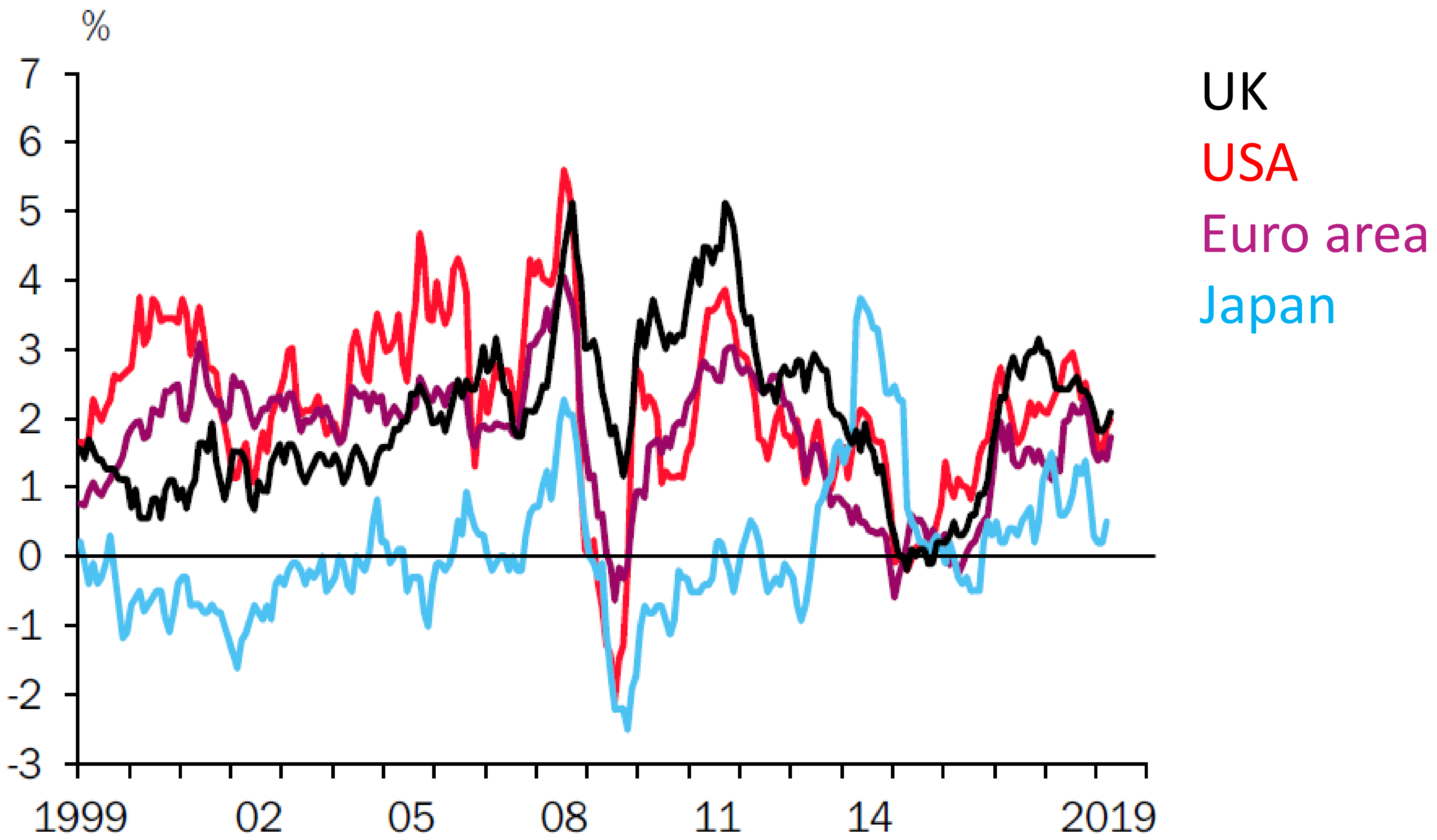


USA
UK
Euro Area
Japan

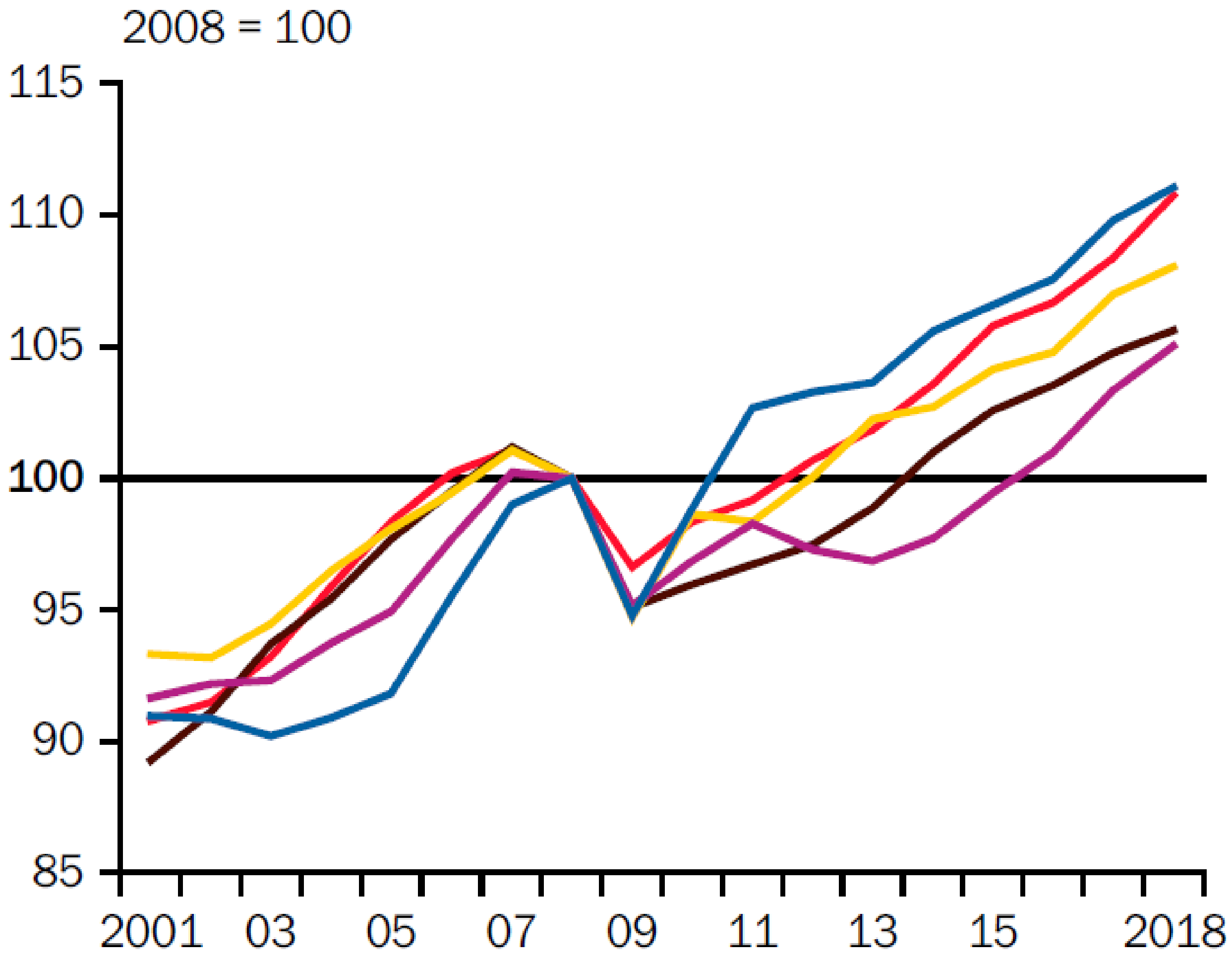
International comparison: Balance Sheets (% BIP)



International comparison: Consumer prices



International comparison – GDP per capita



Germany
USA
Japan
UK
Euro area

International comparison – GDP per capita