



OESTERREICHISCHE NATIONALBANK
EUROSYSTEM

The Future of EMU: How Could the „New Normal“ of Monetary Policy Look Like?

Peter Mooslechner

Executive Director and Member of the Governing Board

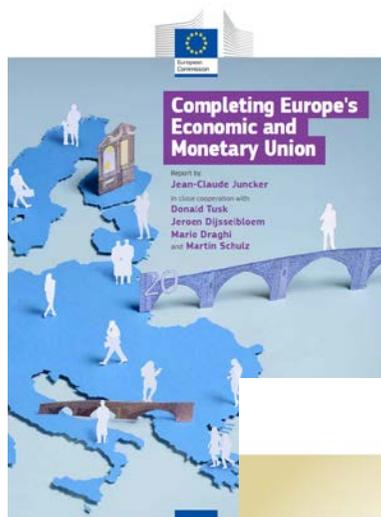
Oesterreichische Nationalbank

ELEC Monetary Commission Conference: “The Future of EMU”

Vienna, February 23, 2018

Prologue:

EMU Deepening and Monetary Policy



5 Presidents Report:

„Europe’s Economic and Monetary Union (EMU) today is like a house that was built over decades but only partially finished.“ (p.4)

„In EMU, monetary policy is centralised, but important parts of economic policy remain national.“ (p.6)



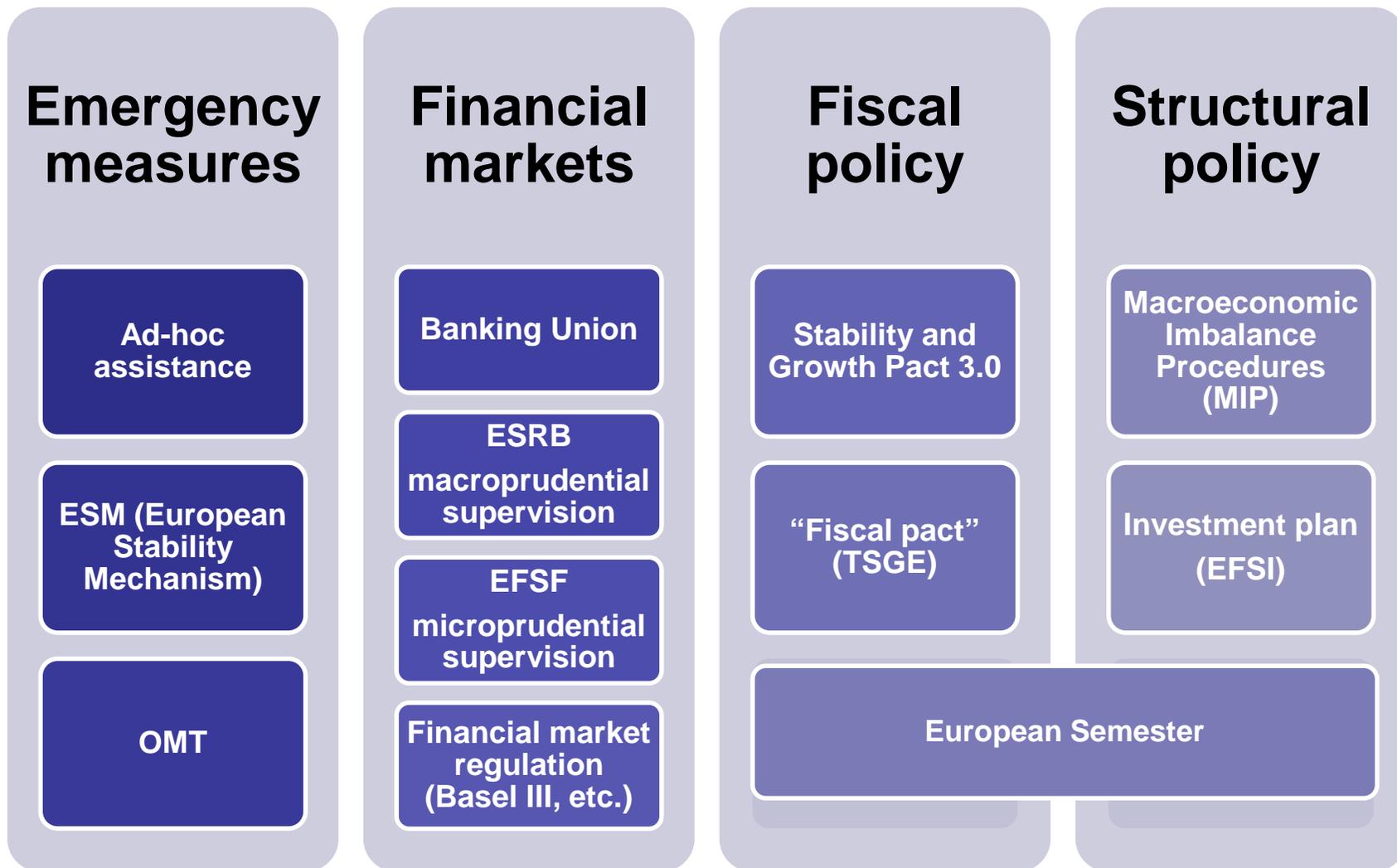
Reflection Paper:

„The „Monetary“ pillar of the EMU is well developed, as illustrated by the role of the European Central Bank (ECB). However, the „Economic“ component is lagging behind, with less integration at EU level hampering its ability to support fully the monetary policy and national economic policies.“ (p.7)

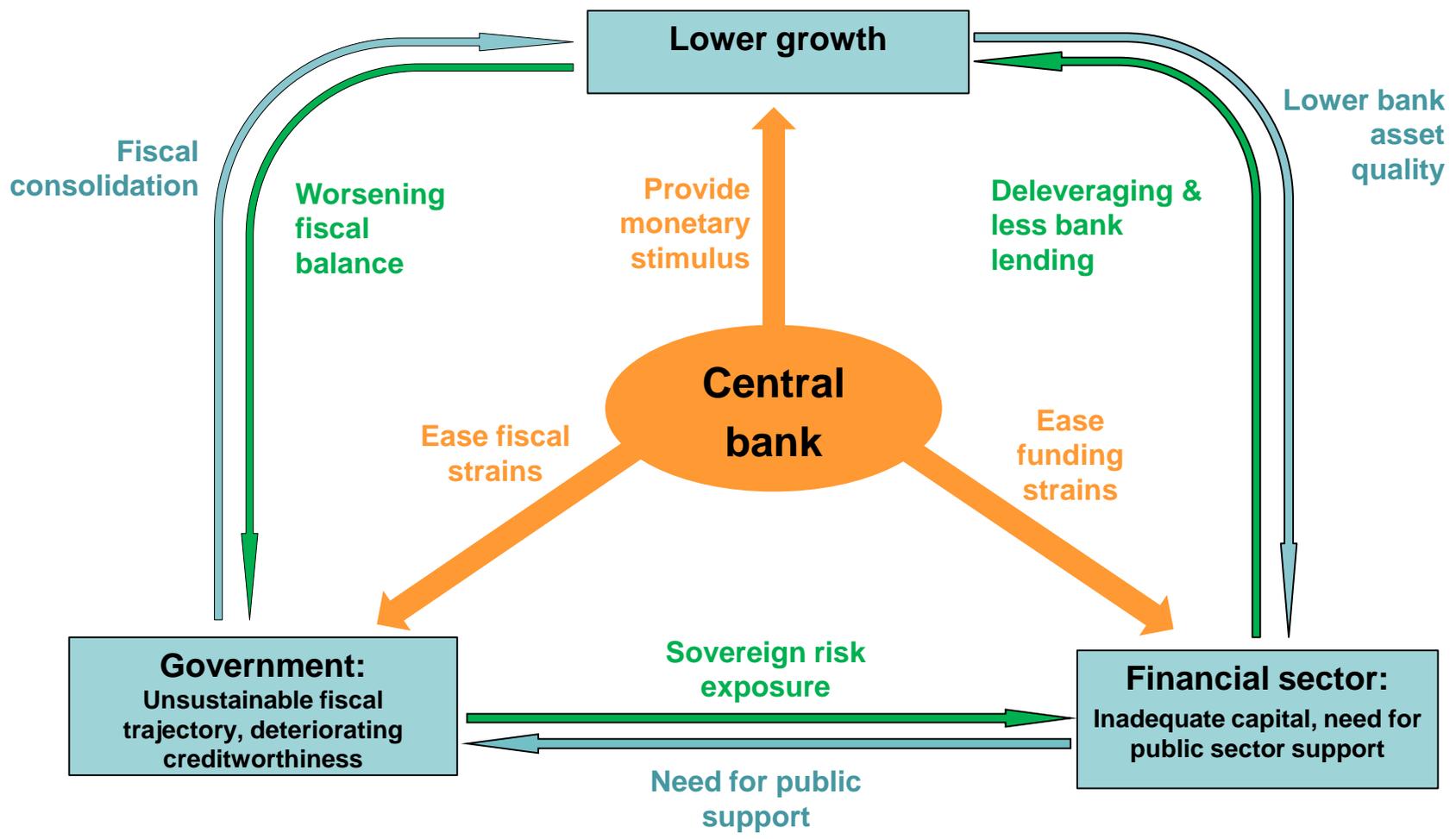
„While the European Central Bank played its role in mitigating the effects of the crisis,“ (p.10)

Prologue:

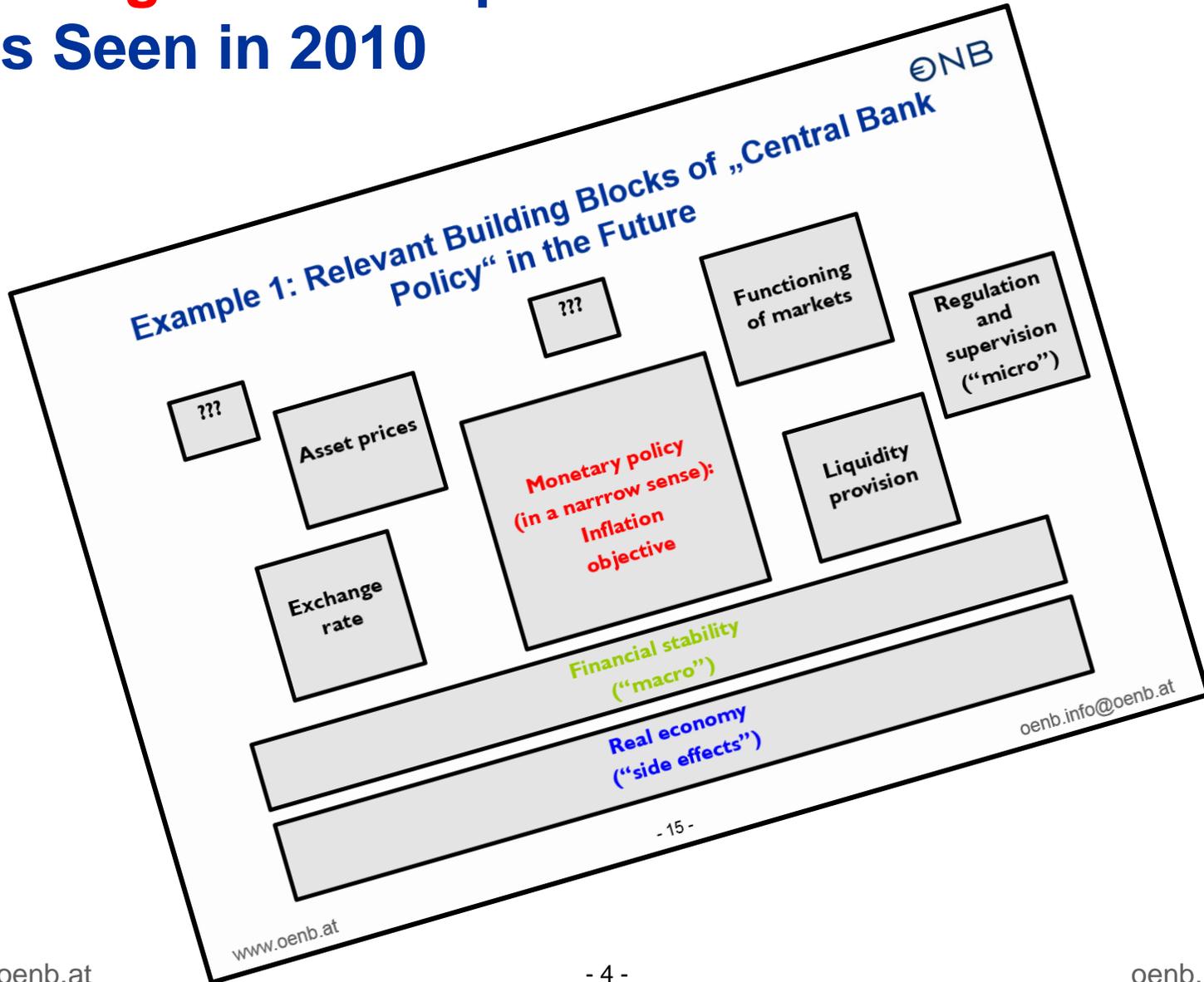
Broad Based EU Crisis Response Since 2008



Prologue: Central Role of Central Banks In Crisis Management



Prologue: Development of Central Bank Tasks as Seen in 2010



Outline

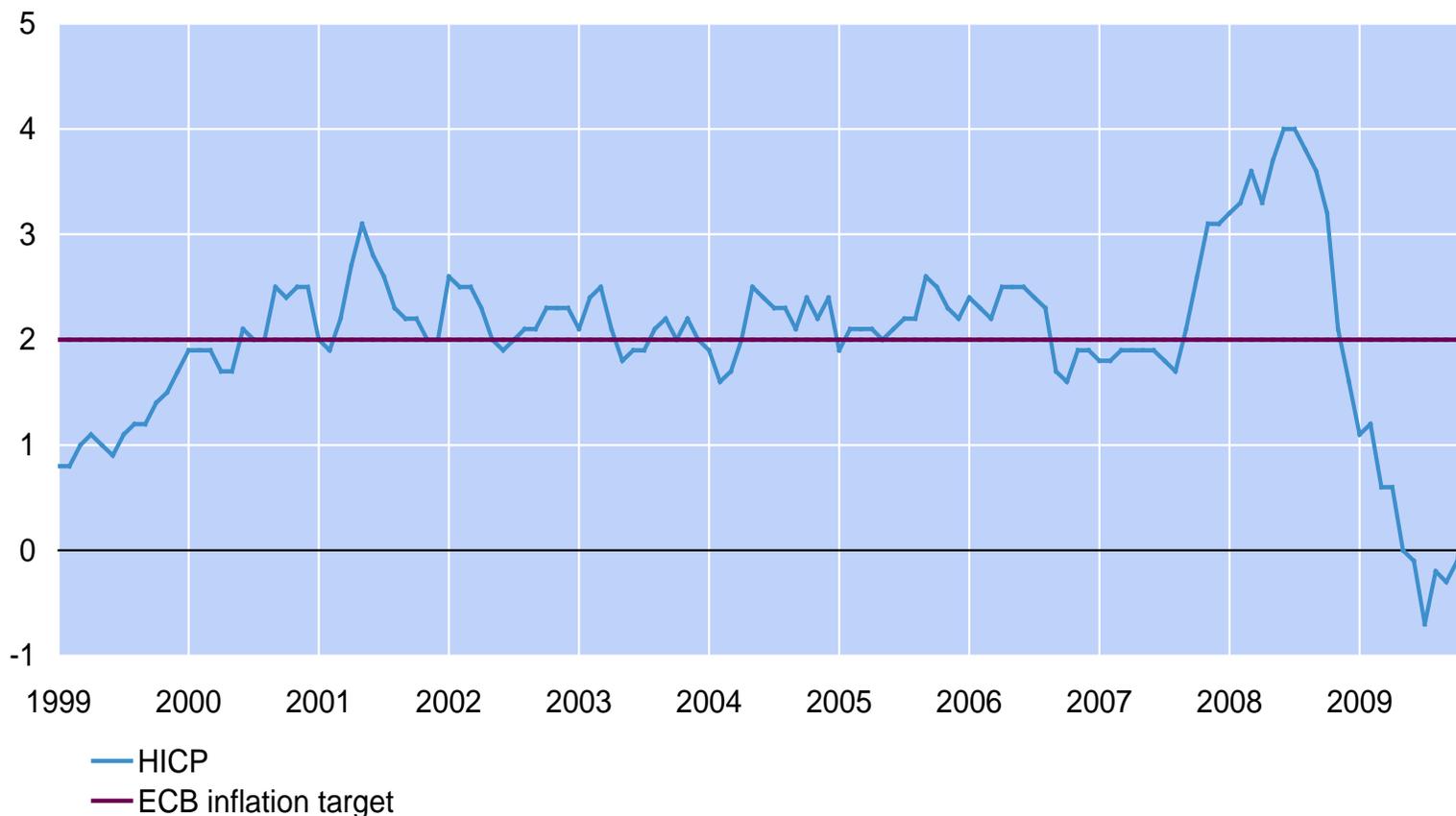
- **Prologue:**
Financial Crisis and EMU Deepening
- **What** Has Changed in the Course of the Crisis?
- **Three Elements** to be Looked at in More Detail
- **Monetary Policy Exit** as a Particular Challenge
- **Any** Conclusions?

I. WHAT HAS CHANGED IN THE COURSE OF THE CRISIS?

Historical Starting Point “Great Moderation”: A Decade of Highly Successful Monetary Policy

Price developments in the euro area: HICP

annual percentage change



Source: Eurostat.

Evaluation of Monetary Policy Strategy in 2003...



PRESS RELEASE

The ECB's monetary policy strategy

8 May 2003

After more than four years of conducting monetary policy for the euro area, the Governing Council of the ECB has undertaken a thorough evaluation of the ECB's monetary policy strategy.

This strategy, which was announced on 13 October 1999, consists of three main elements: a quantitative definition of price stability, a prominent role for money in the assessment of risks to price stability, and a broadly based assessment of the outlook for price developments.

More than four years of implementation have worked satisfactorily. Nevertheless, the Governing Council deemed it useful to evaluate the strategy in the light of this experience, taking into account the public debate and a series of studies undertaken by staff of the Eurosystem.

"Price stability is defined as a year-on-year increase in the Harmonised Index of Consumer Prices (HICP) for the euro area of below 2%. Price stability is to be maintained over the medium term." Today, the Governing Council confirmed this definition (which it announced in 1999). At the same time, the Governing Council agreed that in the pursuit of price stability it will aim to maintain inflation rates close to 2% over the medium term. This clarification underlines the ECB's commitment to provide a sufficient safety margin to guard against the risks of deflation. It also addresses the issue of the possible presence of a measurement bias in the HICP and the implications of inflation differentials within the euro area.

The Governing Council confirmed that its monetary policy decisions will continue to be based on comprehensive analysis of the risks to price stability. Over time, analysis under both pillars of policy strategy has been deepened and extended. This practice will be continued. However, the Council wishes to clarify communication on the cross-checking of information in coming to its overall judgement on the risks to price stability.

To this end, the introductory statement of the President will henceforth follow a new structure with the economic analysis to identify short to medium-term risks to price stability. As in the include an analysis of shocks hitting the euro area economy and projections of key macroeconomic variables.

The monetary analysis will then follow to assess medium to long-term trends in inflation in a close relationship between money and prices over extended horizons. As in the past, money will take into account developments in a wide range of monetary indicators including M3, its counterparts, notably credit, and various measures of excess liquidity.

This new structure of the introductory statement will better illustrate that these two perspectives complementary analytical frameworks to support the Governing Council's overall assessment price stability. In this respect, the monetary analysis mainly serves as a means of cross-check medium to long-term perspective, the short to medium-term indications coming from economy

To underscore the longer-term nature of the reference value for monetary growth as a benchmark assessment of monetary developments, the Governing Council also decided to no longer coin of the reference value on an annual basis. However, it will continue to assess the underlying and assumptions.

The ECB will today publish on its website a number of background studies prepared by its staff together with papers published earlier, served as input into the Governing Council's reflection ECB's monetary policy strategy.

Background Studies for the ECB's Evaluation of its Monetary Policy Strategy

**Background Studies
for the ECB's
Evaluation of its
Monetary Policy Strategy**

EUROPEAN CENTRAL BANK

...Reflecting (Mainstream) Understanding of Basic Building Blocks of „Good“ Monetary Policy Design Before Crisis:

- Central Bank Independence
- Price Stability Mandate
- (Flexible) Inflation Targeting
- Short-term Interest Rate Setting
- Market-oriented Policy Implementation

Monetary Policy in a „Deepening“ Context

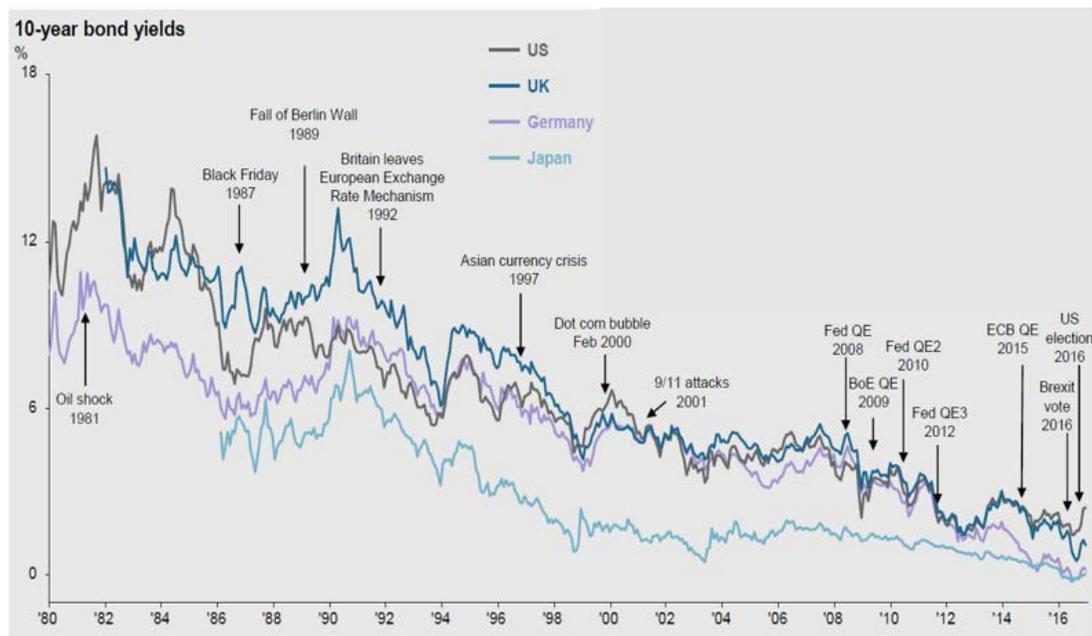
- „Deepening EMU“ can to a large extent be understood as **improving the framework conditions for monetary policy** to act successfully, to deliver on its mandate and to become as effective as possible.
- At the same time monetary policy faces 2 important challenges:
 - **Exit** from monetary policy crisis mode (*When and how to exit?*)
 - How could the „**new normal**“ of monetary policy look like? (*Where to exit?*)
- **Very difficult / challenging task** for a number of reasons:
 - „Uncharted territory“: traditional textbook standards don't apply any more!
 - Did we follow wrong or incomplete mainstream concepts before crisis?
 - What were possible „mistakes“ by entering into non-standard measures and crossing the ZLB? What are the „lessons learned“?
 - After 10 years in crisis and policy crisis mode, the world looks different today in many important aspects!
- **The conduct of monetary policy has changed significantly** and (at least in Europe) in previously unexpected ways. Under these conditions, the necessary „mirror image“ to „Deepening“ is to look into these monetary policy changes to see how these two parts may fit together in a new normal.

▶ SIGNIFICANT CHANGES IN FRAMEWORK CONDITIONS

Change in Framework Conditions (I): Relevant Long-term Economic Trends

- **structurally low inflation** (because of globalization, change in wage formation processes...)
- **lower potential growth** (because of secular stagnation, productivity slowdown, aging population...)

- leading into (permanent?) **low interest rate environment** (because of savings glut, low capital formation...) as indicated by falling long-term trend in bond yields.



Source: FactSet, Tullett Prebon, J.P. Morgan Asset Management.

Change in Framework Conditions (II): Relevant Long-term Financial Market Trends

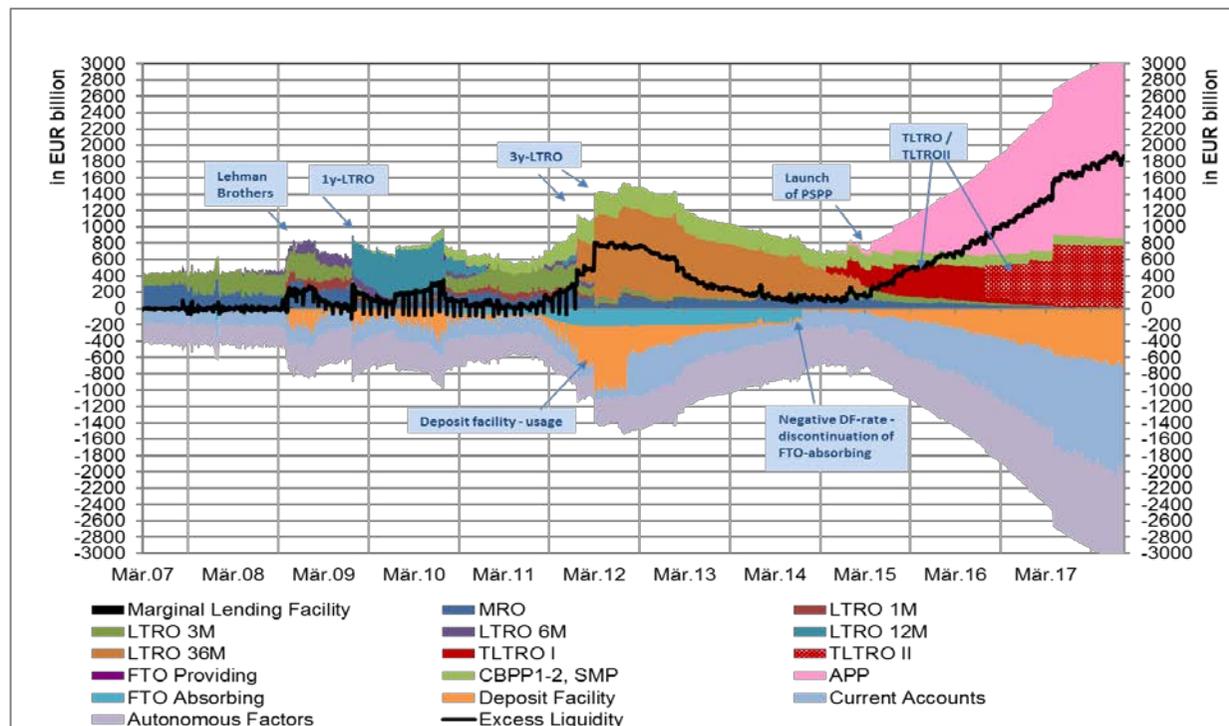
- significantly increased financial market **globalization** and financial market integration
- significantly increased financial market **complexity** (products, trading technologies....)
- increased focus on financial stability because of higher **systemic and contagion risks**



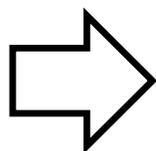
▶ SIGNIFICANT CHANGES IN MONETARY POLICY IMPLEMENTATION

What Have Central Banks Done, What Can They Do in the Course of a Financial Crisis?

- Overall provision of (excess) liquidity
- Targeted liquidity provision
- Forward Guidance
- Selective Asset Purchases



Bernanke (2009) lists more than 20 additional Programs and Measures of the Fed implemented in the course of the crisis.



Central Bank Measures in Times of Crisis: Provide Insurance Against Excessive (i) Financial Sector Instability and (ii) Financial Markets Instability

Eurosystem: Portfolio of Non-standard Monetary Policy Measures

- **Ample liquidity (to the banking system)**
 - Fixed rate full allotment (“unlimited liquidity provision”)
 - Long maturities (TLTROs), “funding for lending”
 - Change of eligibility rules for collateral
 - Change of interest rate corridor (“negative DFR”)
- **Forward guidance (mainly addressed to markets)**
 - On future interest rate path, on future liquidity amounts...
- **Asset purchase program (impact on banks and markets)**
 - Sovereign bonds, covered bonds, corporate bonds, ABS
 - Currently reduced from EUR 60 to EUR 30 billion per month

II. THREE ELEMENTS TO BE LOOKED AT IN MORE DETAIL

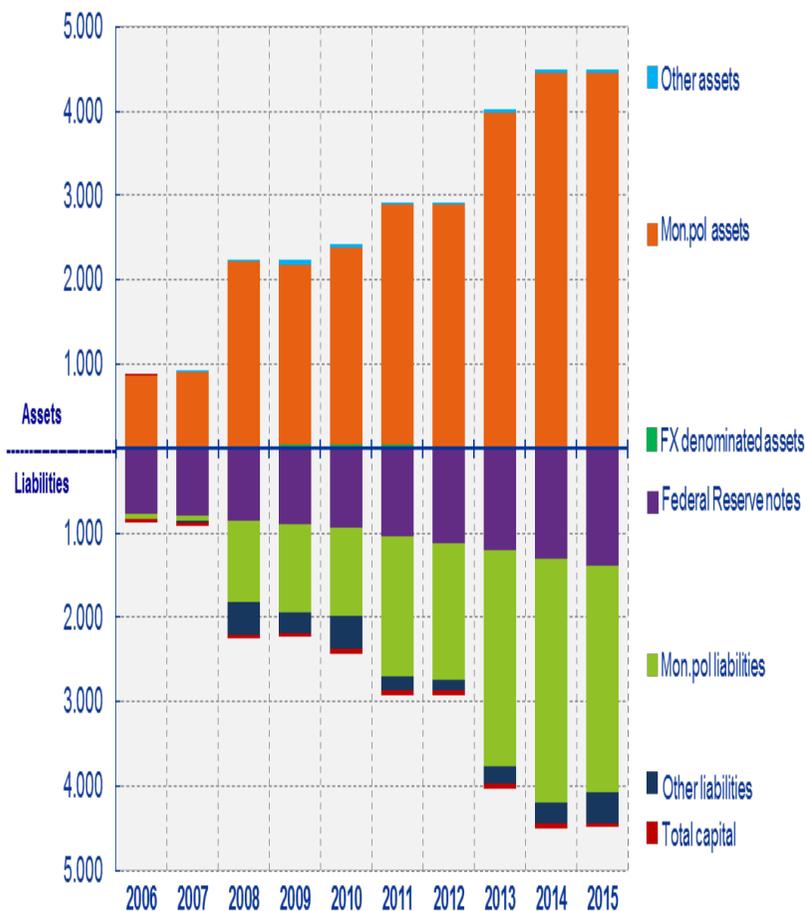
Three Elements to be Looked at in More Detail

- ▶ **Liquidity Provision:**
From Scarcity to Balance Sheet Expansion
- ▶ **Interest Rate Policy:**
Into Negative Territory and More Complex Transmission
- ▶ **Forward Guidance:**
The (New) Art of Monetary Policy by Expectation Management

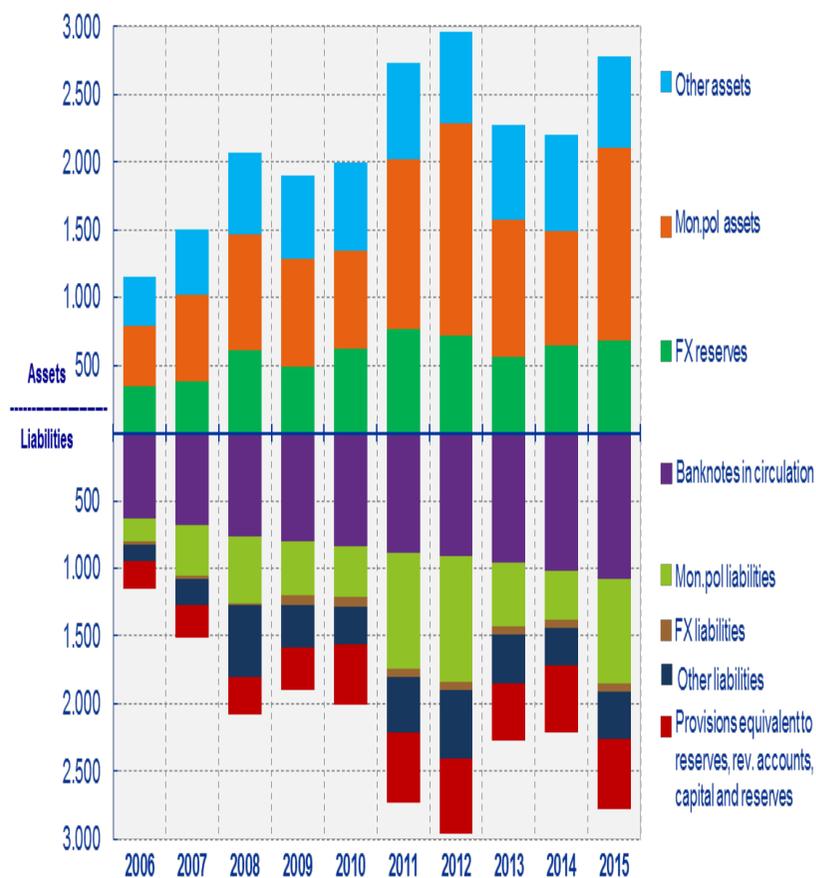
▶ LIQUIDITY PROVISION

FED and Eurosystem Balance Sheet Structure Developments Compared

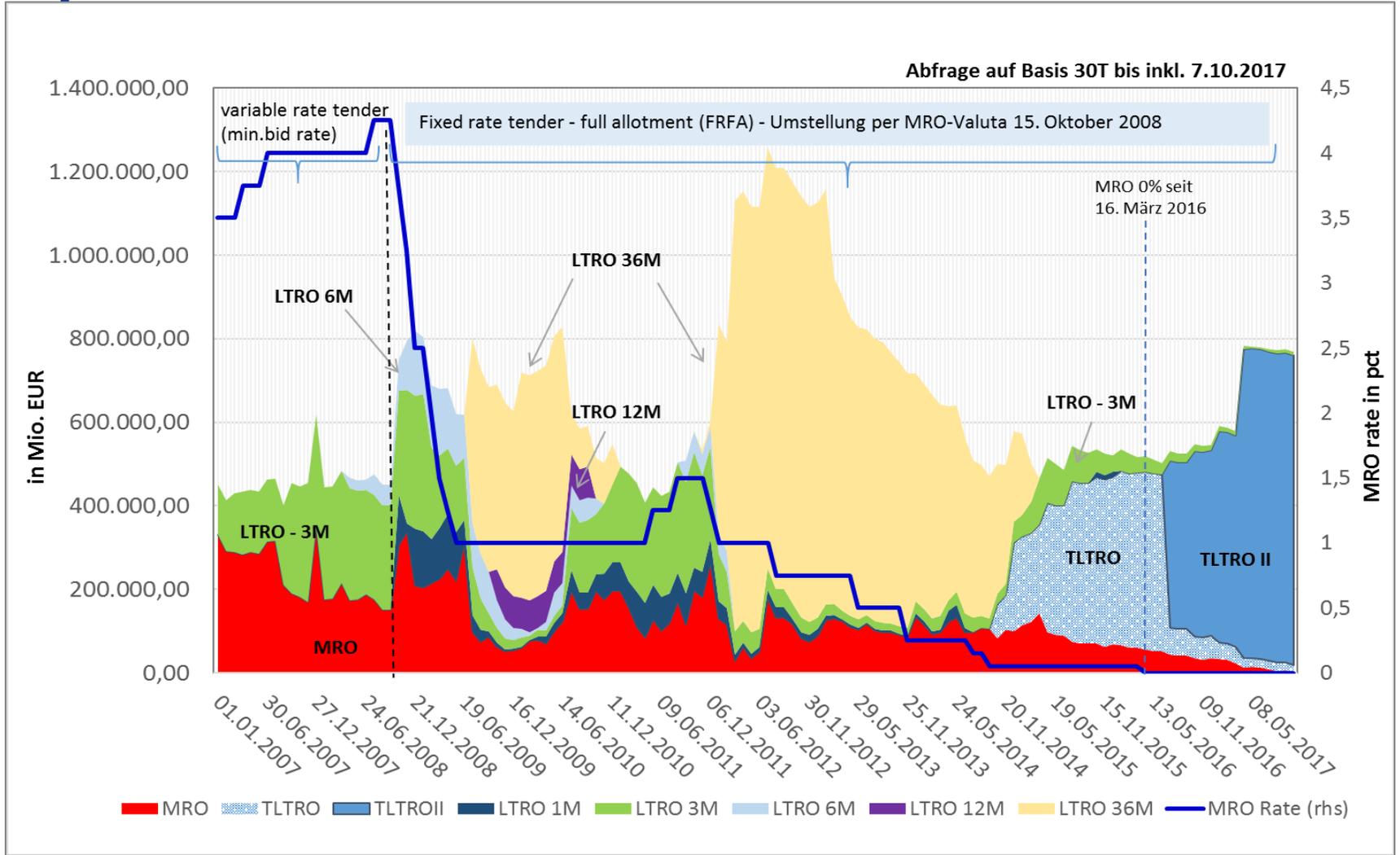
Federal Reserve



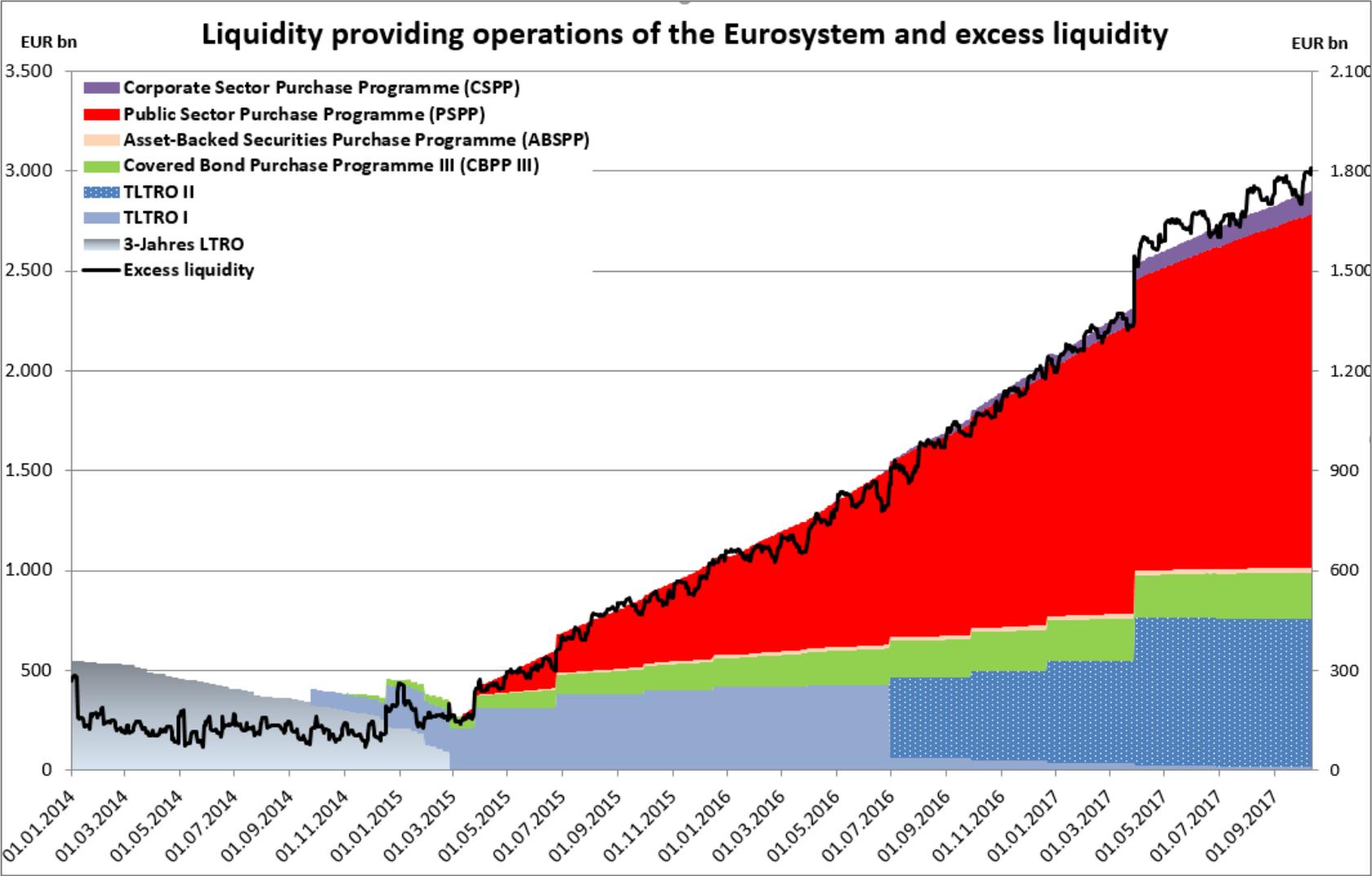
Eurosystem



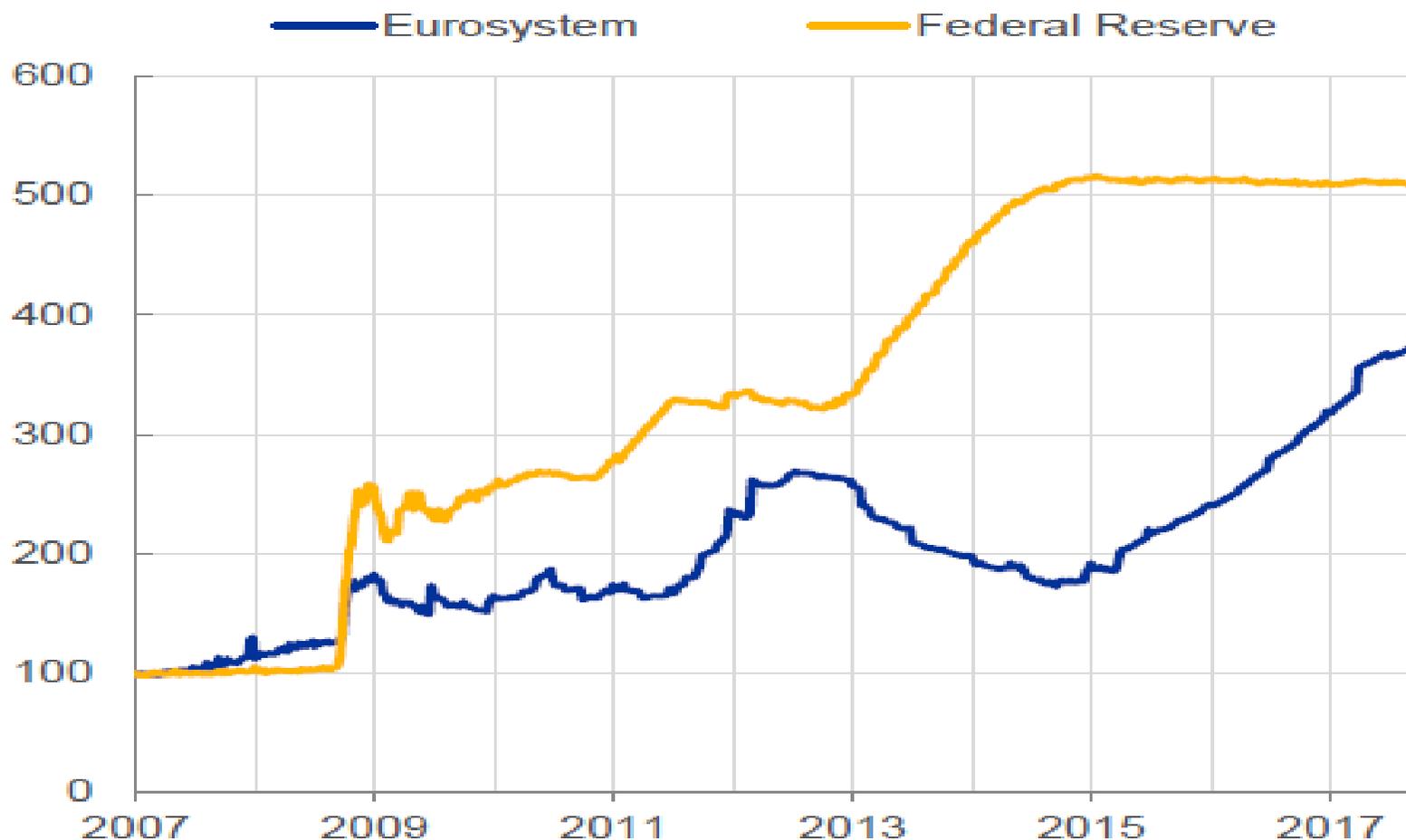
Structural Change in Eurosystem Tender Operations



Quantitative Easing – European Style

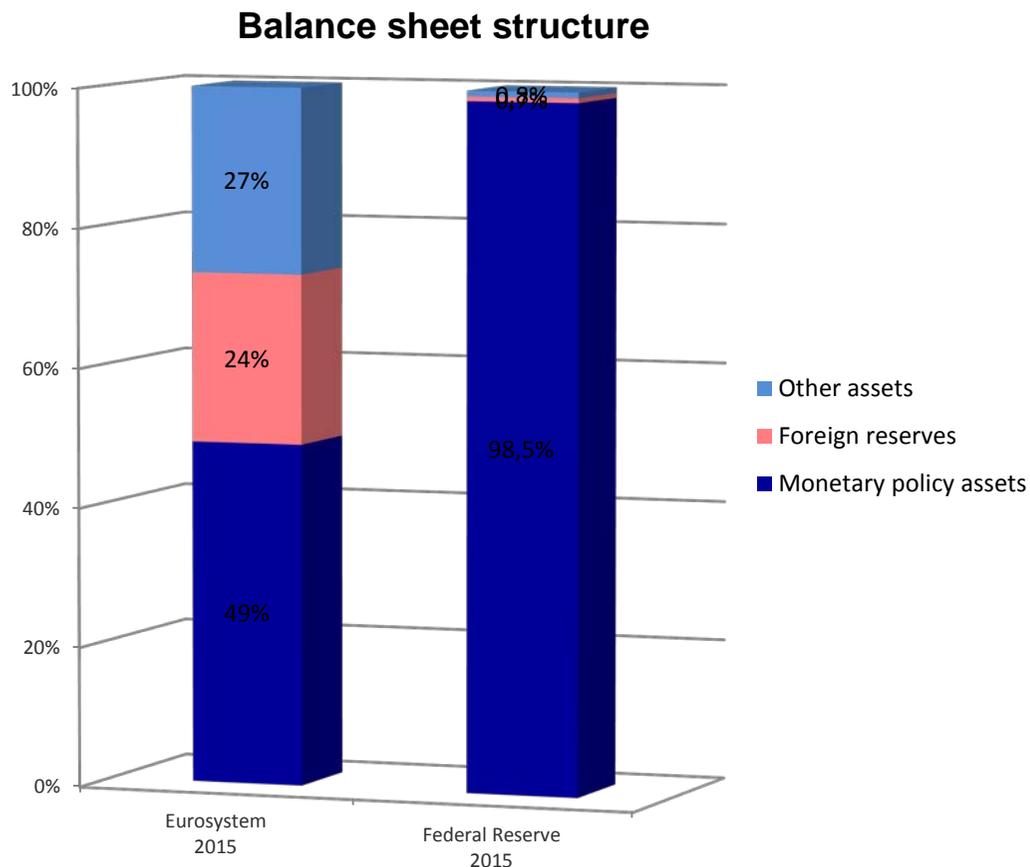


Balance Sheet Expansion as a Monetary Policy Instrument



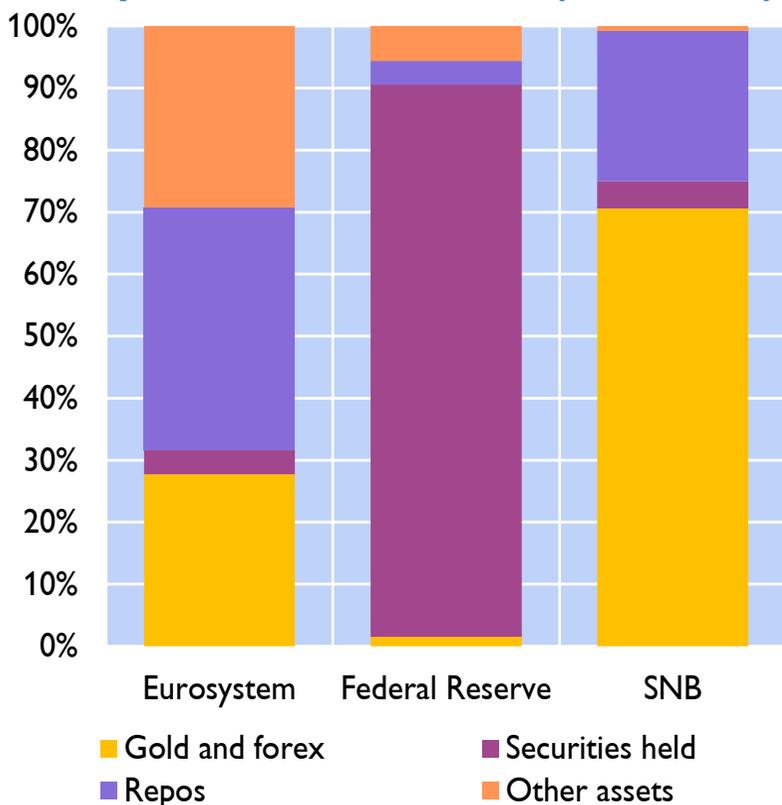
Different Design of Liquidity Provision by Fed and Eurosystem

- **Eurosystem:** open market operations (41%) and securities (59%)
- **Federal Reserve:** almost exclusively Treasury and MBS (99.9%)



Different „Sources“ of Central Bank Assets Even in „Normal Times“

Composition of CB assets (Dec. 2006)



Source: Thomson Reuters.

Differences relate to:

- Outright vs. Credit
- Number of Counterparties
- Accepted Collateral
- Domestic vs Foreign Assets
- ...

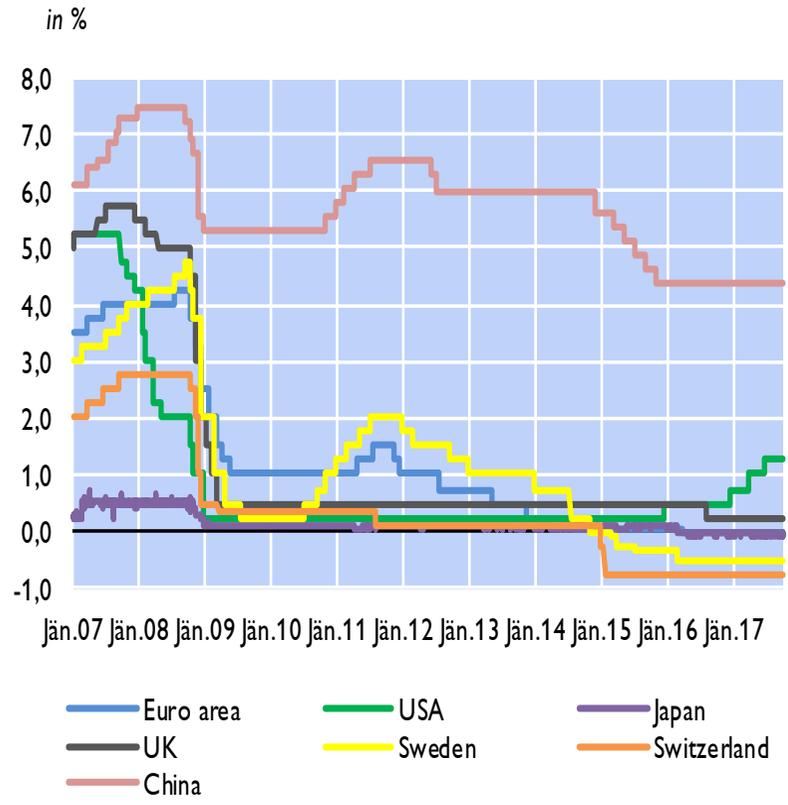
Differences due to different historical traditions and differences in structures of financial systems.

From an economic point of view these differences are „technical“ and not expected to change the monetary policy impact significantly.

▶ INTEREST RATE POLICY

Monetary Policy Interest Rates Cut to Record Low Levels since 2008

Monetary policy interest rates worldwide



Source: Macrobond.

Central bank comfort zone



- **Zero nominal rate**
 - Negative rates empower other monetary policy instruments

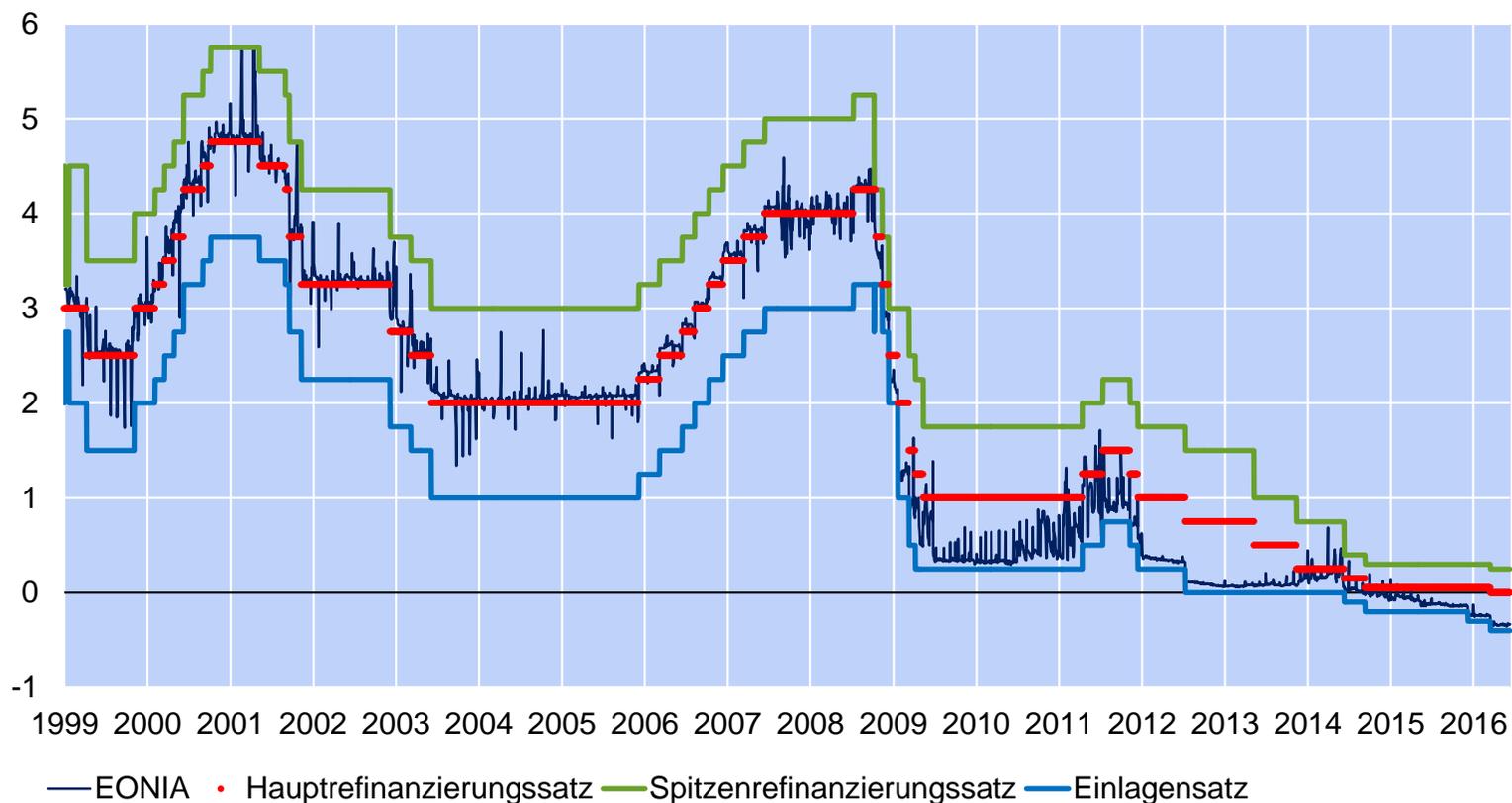
- **“Economic lower bound”**
 - Detrimental effects on the banking sector dominate
 - Negative rates have both a one-off and a persistent impact
 - Rate cuts cease to provide stimulus to the economy
 - Depends on banking structures and competition

- **“Physical lower bound”**
 - Large-scale hoarding of cash

Effective Nominal Lower (ELB) Bound Driven Below Zero Lower Bound (ZLB)...

Geldpolitik des Euroraums: Leitzinsen seit 1999

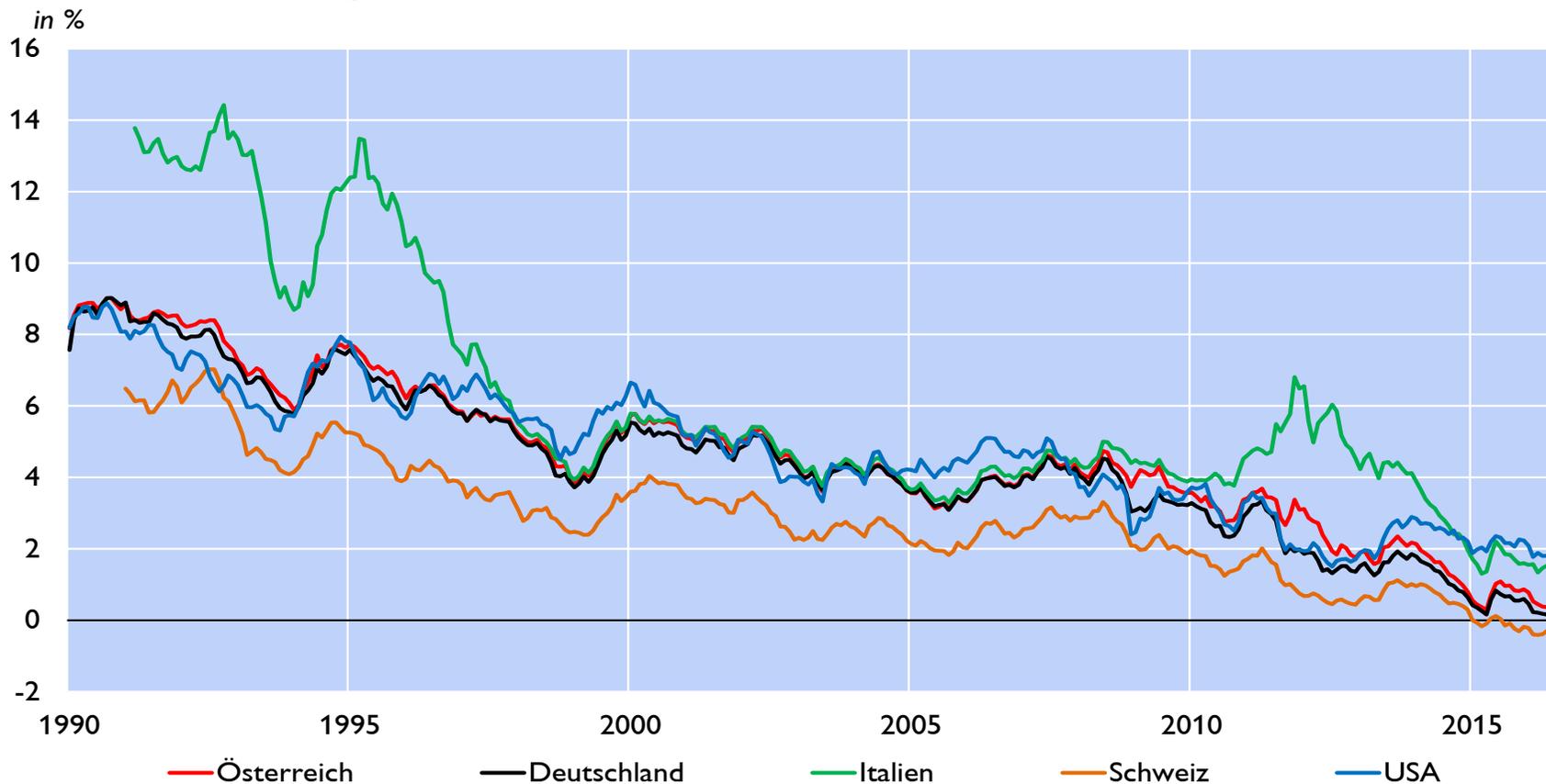
Zinssätze in %



Quelle: EZB.

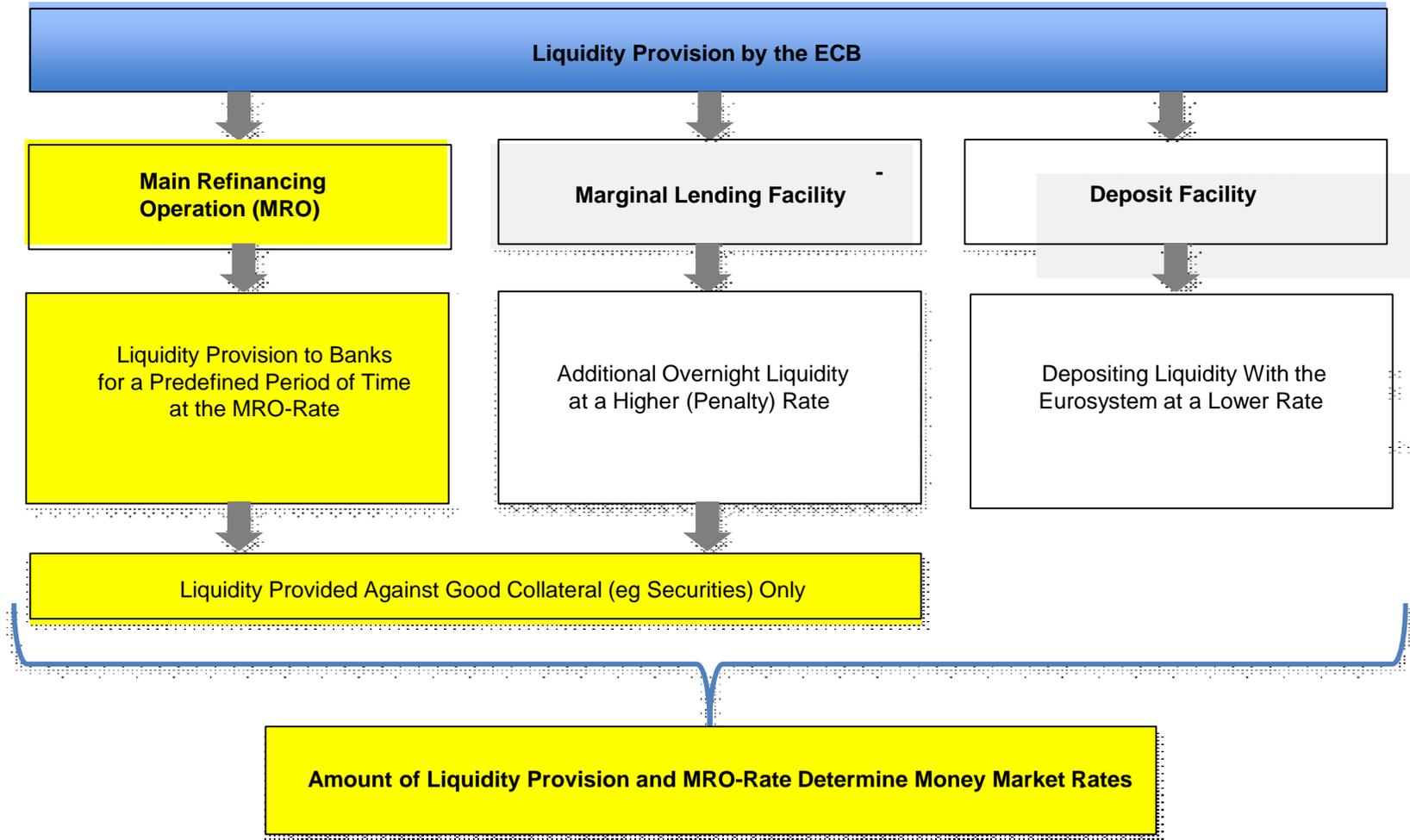
...in an Environment of Overall and Widespread Negative Market Rates for Safe Assets

Renditen 10-jähriger Staatsanleihen

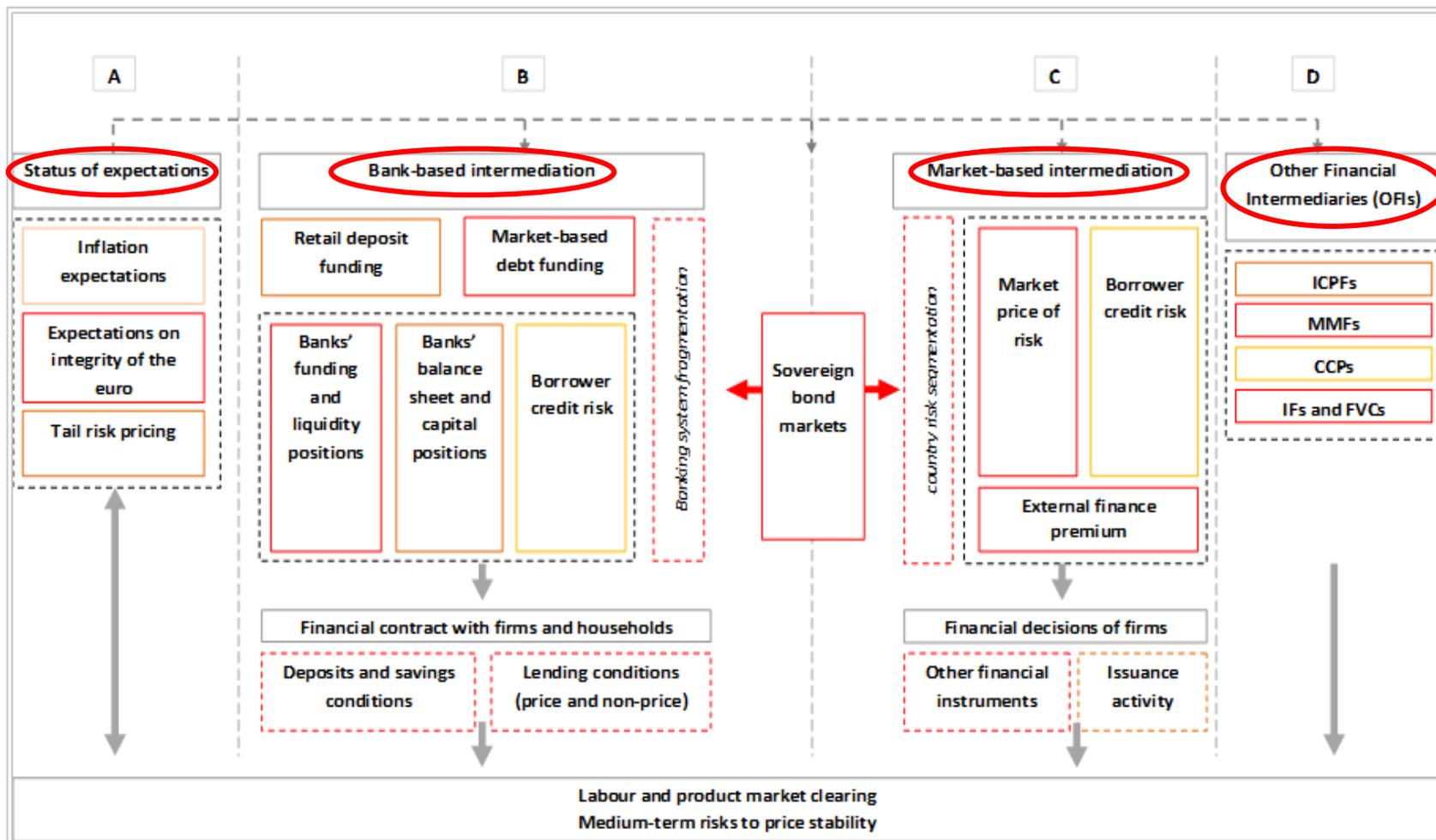


Quelle: Thomson Reuters.

The Simplistic Model of Interest Rate Setting and Liquidity Provision Before the Crisis



The (Much More) Complex Monetary Policy Transmission Mechanism in (Crisis) Reality



▶ FORWARD GUIDANCE

Forward Guidance As a (New?) Central Bank Tool to Steer Market Expectations

The ECB's forward guidance

Key ECB interest rates

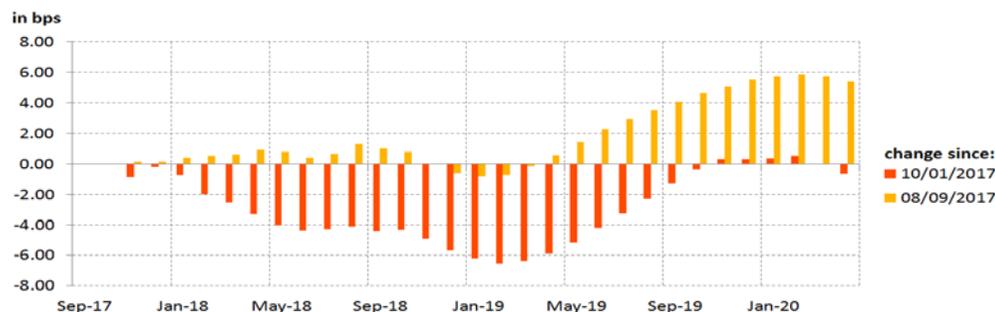
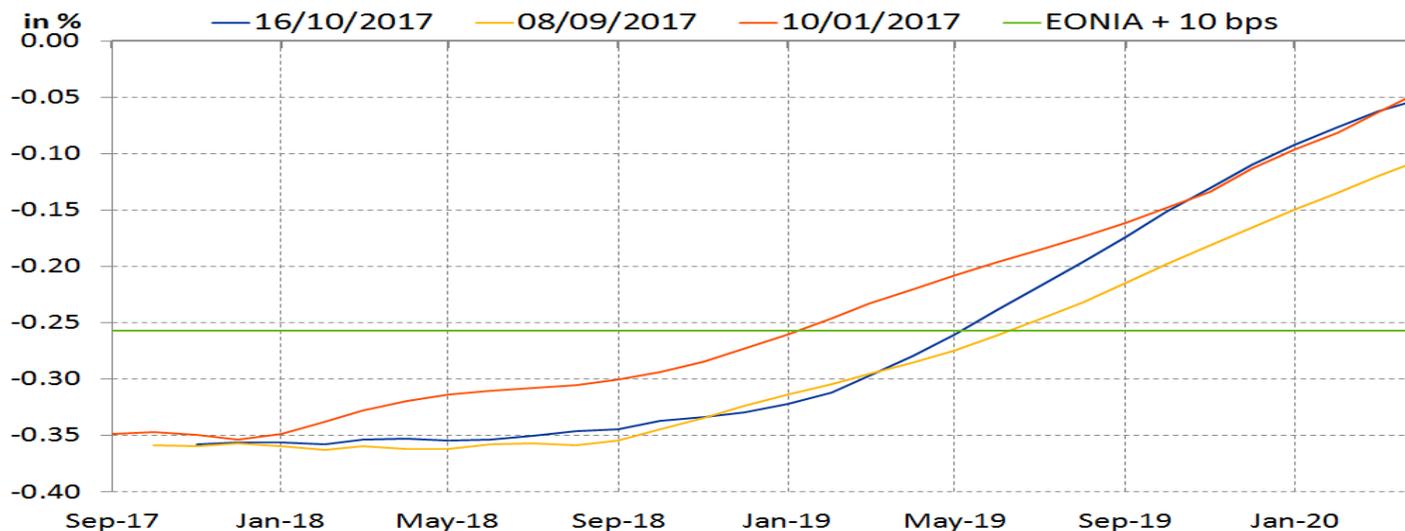
- expected to remain at present levels for an extended period of time
- and well past horizon of **net asset purchases**

Asset Purchase Programme (APP)

- **net asset purchases** intended to continue at monthly pace of €30 billion, until end-Sep 2018
- or beyond, if necessary & in any case until GovC sees sustained adjustment in path of inflation (SAPI) consistent with inflation aim
- if outlook becomes less favourable, or if financial conditions become inconsistent with further progress towards SAPI, stand ready to increase APP in size and/or duration
- Eurosystem will reinvest principal payments from maturing securities for an extended period of time after end of net purchases, and in any case for as long as necessary

Example: First Money Market Implied ECB-Rate Hike Expected in May 2019

(= “well past” estimated by markets at about 5-7 months)



Note: Euro-area OIS forward curves.

Last updated: 16/10/2017

source: ECB

III. MONETARY POLICY EXIT AS A PARTICULAR CHALLENGE

The Sequencing Challenge: Monetary Policy Exit from Non-Standard Measures Particular Market Sensitive

End of Asset Purchases

- €30bn per month till September 2018

First Hike in Deposit Facility Rate

- End of negative DFR

First Hike in Main Refinancing Rate

- Main signalling effect for change of monetary policy stance

Balance Sheet Reduction

- End of reinvestments

Reduction of Excess Liquidity

- Reduction of other elements of liquidity provision

The Forward Guidance on a Slow and Cautious Exit

- In its meeting on June 8, 2017 the Governing Council changed the **wording on the outlook for monetary policy rates**. Previously, the wording did not exclude a further reduction in monetary policy rates.

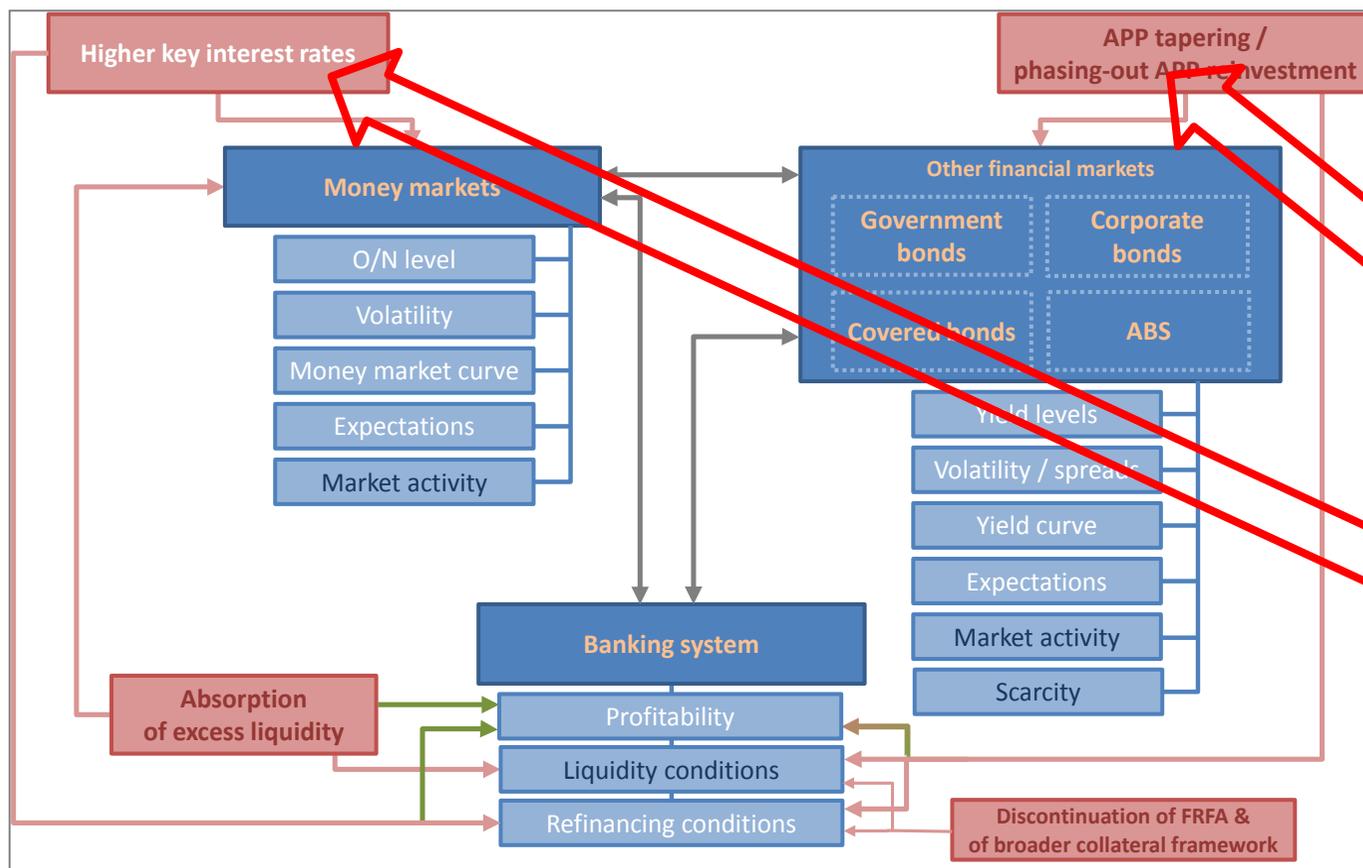
*„First, the key ECB interest rates were kept unchanged and we continue to expect them to remain at their present levels for an extended period of time, and well past the horizon of our net asset purchases.“ (Introductory Statement, **unchanged since June 8, 2017**)*
- The **asset purchase programme (APP)** will continue in 2018 at a reduced monthly level until September:

*„...as regards non-standard monetary policy measures, we will continue to make purchases under the asset purchase programme (APP) at the current monthly pace of €60 billion until the end of December 2017. From January 2018 our net asset purchases are intended to continue at a monthly pace of €30 billion until the end of September 2018, or beyond, if necessary...“ (Introductory Statement, **October 26, 2017**)*
- The wording remains unchanged regarding **possible future recalibrations** of the APP **in size and length**:

*„ If the outlook becomes less favourable, or if financial conditions become inconsistent with further progress towards a sustained adjustment in the path of inflation, we stand ready to increase the APP in terms of size and/or duration.“ (Introductory Statement, **October 26, 2017, no change**)*
- The **reinvestment of principal payments from maturing securities purchased under the APP** will be continued:

*„...for an extended period of time after the end of its net asset purchases, and in any case for as long as necessary.“ (Introductory Statement, **October 26, 2017**)*
- The main refinancing operations and three-month longer-term refinancing operations will be conducted as **fixed rate tenders with full allotment (FRFA)** for as long as necessary, and *at least until the end of the last reserve maintenance period of 2019.*

Looking Ahead: Significant and Complex Potential Financial Market Effects in Monetary Policy Exit Mode



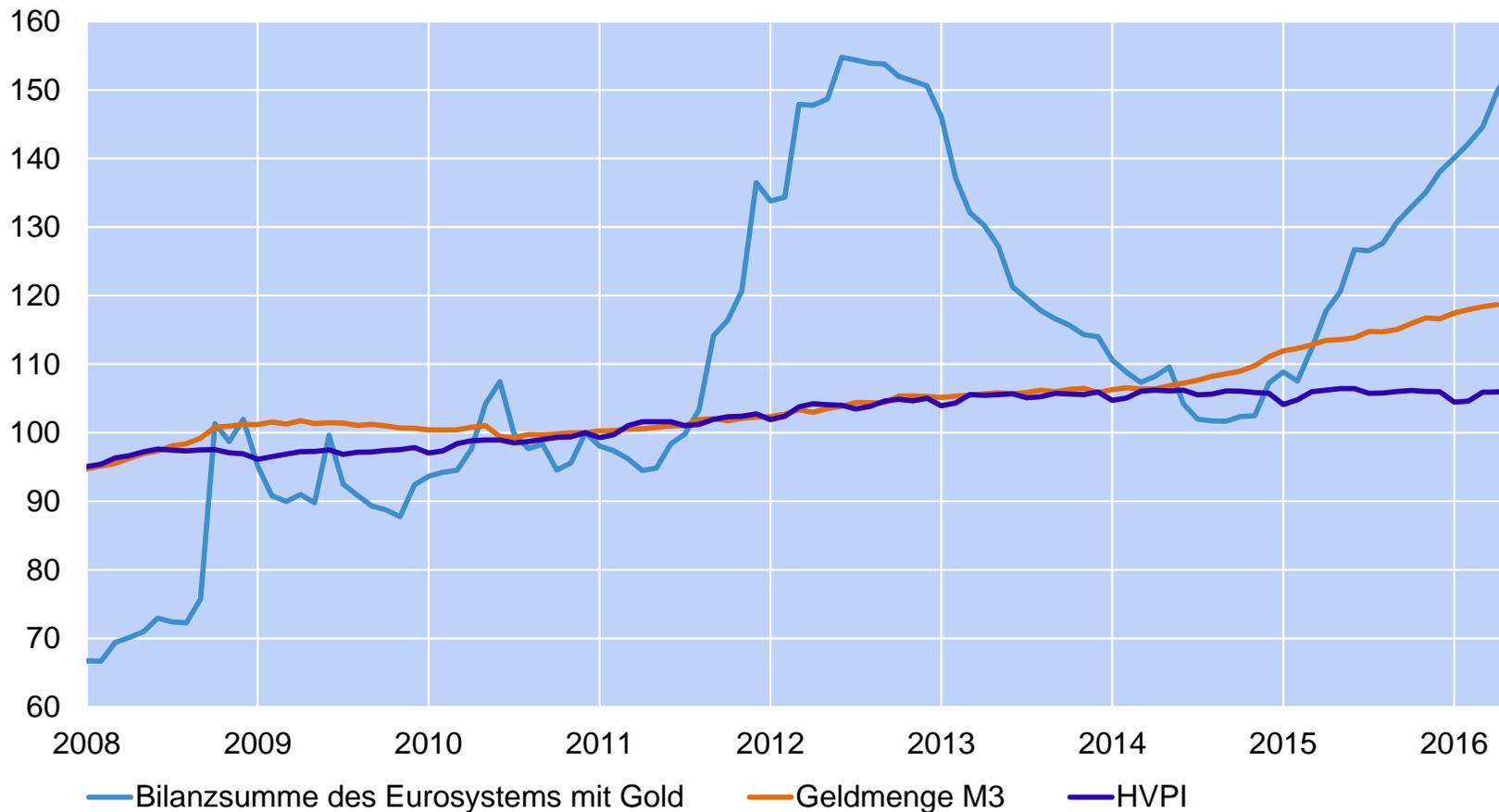
Remember:
Bernanke's Taper Tantrum of May/June 2013
Stock Market Correction of February 2018

Note: White fonts indicate price/rate effects/channels, while dark fonts show quantity effects/channels. Red arrows represent predominantly restrictive effects, while green arrows indicate potentially expansionary effects.

And What About Inflation?

Bilanzausweitung, Geldmenge und Preisentwicklung

Dezember 2010=100



Quelle: EZB, Eurostat.

ANY CONCLUSIONS?

Any (*Tentative*) Conclusions?

- Given the **rise of financial market fragility** Central Banks are increasingly playing an important role in dealing with **all** aspects of financial crises as they are well equipped and able **to deal with crisis challenges**.
- What Central Banks have shown they can do and have done is to provide **„insurance“ against a deepening of financial crisis**, thereby avoiding contagion, deflation and a worsening of the overall economic situation.
- Beside this crisis related assessment, it seems **very unlikely**, that the „new normal“ of monetary policy will look like the „old normal“ before the crisis.
- There were **significant changes in framework conditions as well as in monetary policy implementation**, which will stay for the future.
- Examples in this respect are: (i) a considerably **higher demand for gross(!) Central Bank liquidity provision**, (ii) a **wider spektrum of monetary policy instruments**, (iii) a **broader view on monetary transmission channels and intermediate targets** as well as (iv) an increased importance of Central Bank **communication and Forward Guidance**.
- ***However, to get the „Exit“ and the „Sequencing“ right remain the most immediate challenge to be tackled successfully - as a precondition for everything which might come afterwards.***



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