

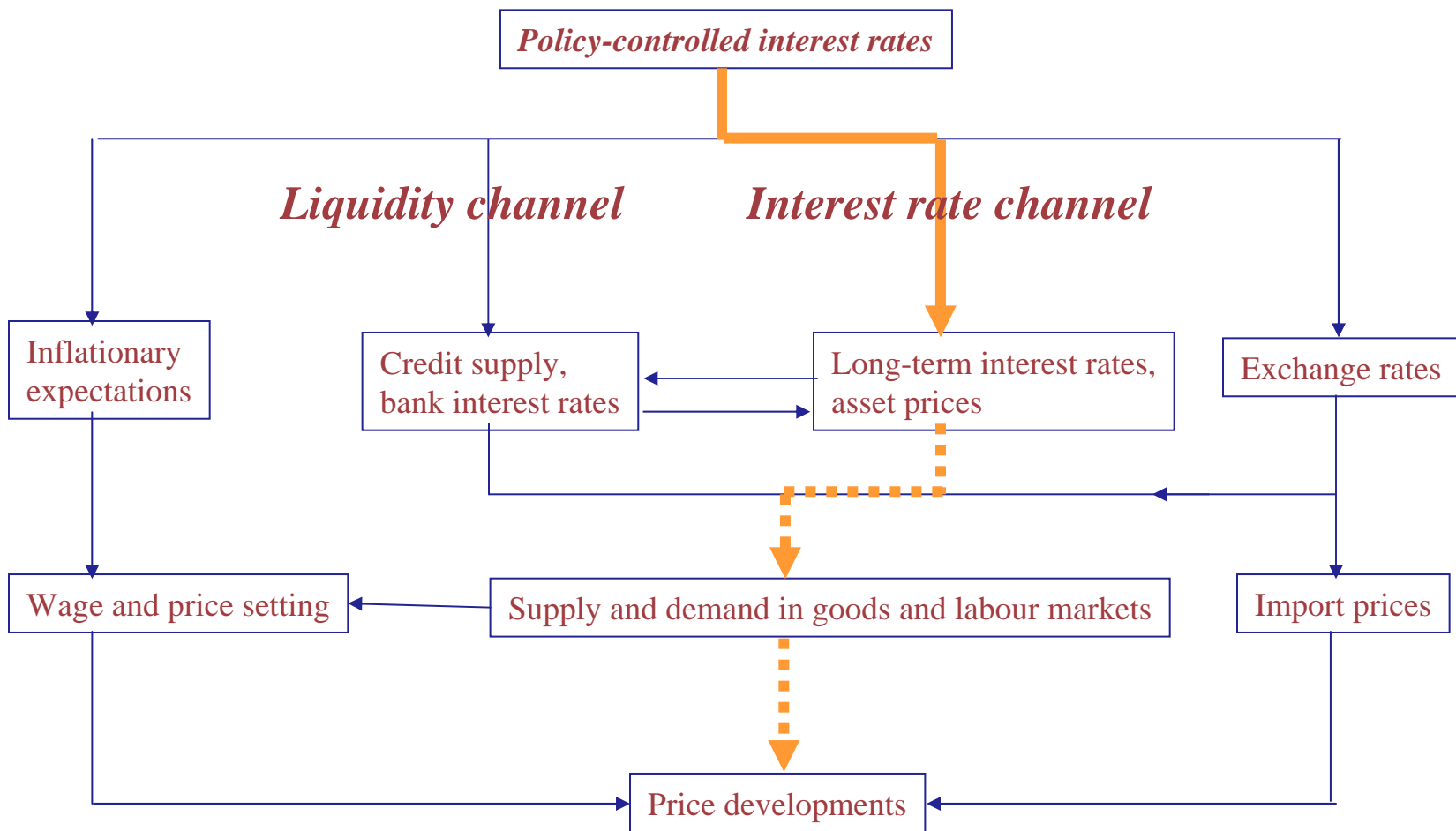
# The monetary policy of the European Central Bank

**Benoît Cœuré**

**Member of the Executive Board  
European Central Bank**

**Barclays' European Conference  
Tokyo, 26 March 2012**

# Transmission Impairments



# A Model of the Transmission Mechanism

- **Long-term Interest Rates:**

- Expectation of Future Monetary Policy Interest Rate
- Plus a Risk Premium

$$(1) \quad i_t^L \simeq \text{average} (i_t^{MP} + E_t i_{t+1}^{MP} + E_t i_{t+2}^{MP} + \dots + E_t i_{t+L}^{MP}) + pr_t$$

- **Monetary Policy Interest Rate:**

- Inflation Objective

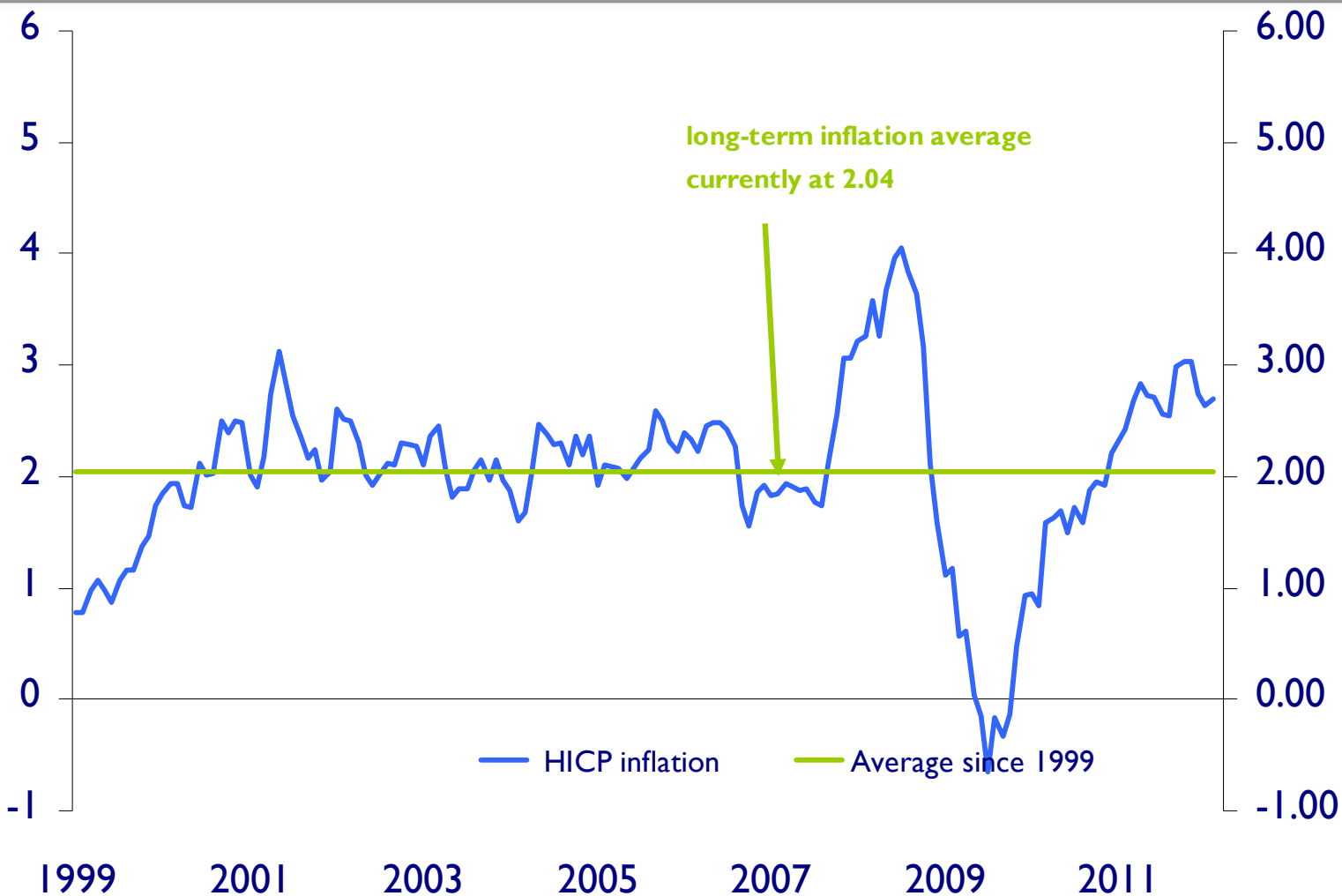
$$(2) \quad i_t^{MP} \simeq r^* + \pi^* + \alpha (E_t \pi_{t+1} - \pi^*) + \lambda m_t$$

- **Risk Premium:**

- Volatility of Inflation and Volatility of Real GDP
- Credit Risk Premium

$$(3) \quad pr_t \simeq \beta \text{var} (\pi_t) + \gamma \text{var} (y_t) + d_t$$

# Inflation

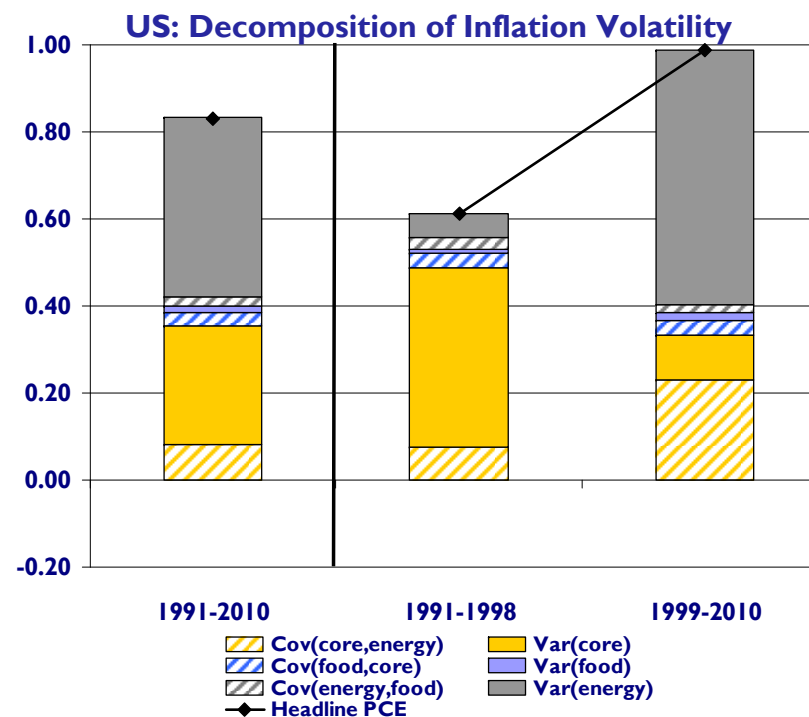
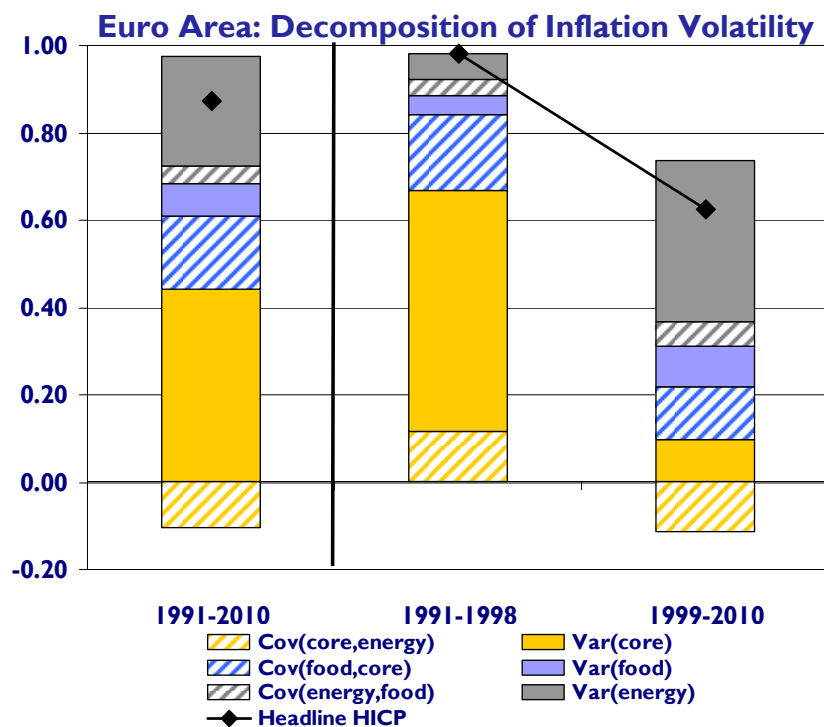


Source: Eurostat

Note: Annual percentage changes in headline HICP; monthly data not seasonally adjusted

# Inflation Volatility

## Energy Price Shocks and Inflation Volatility

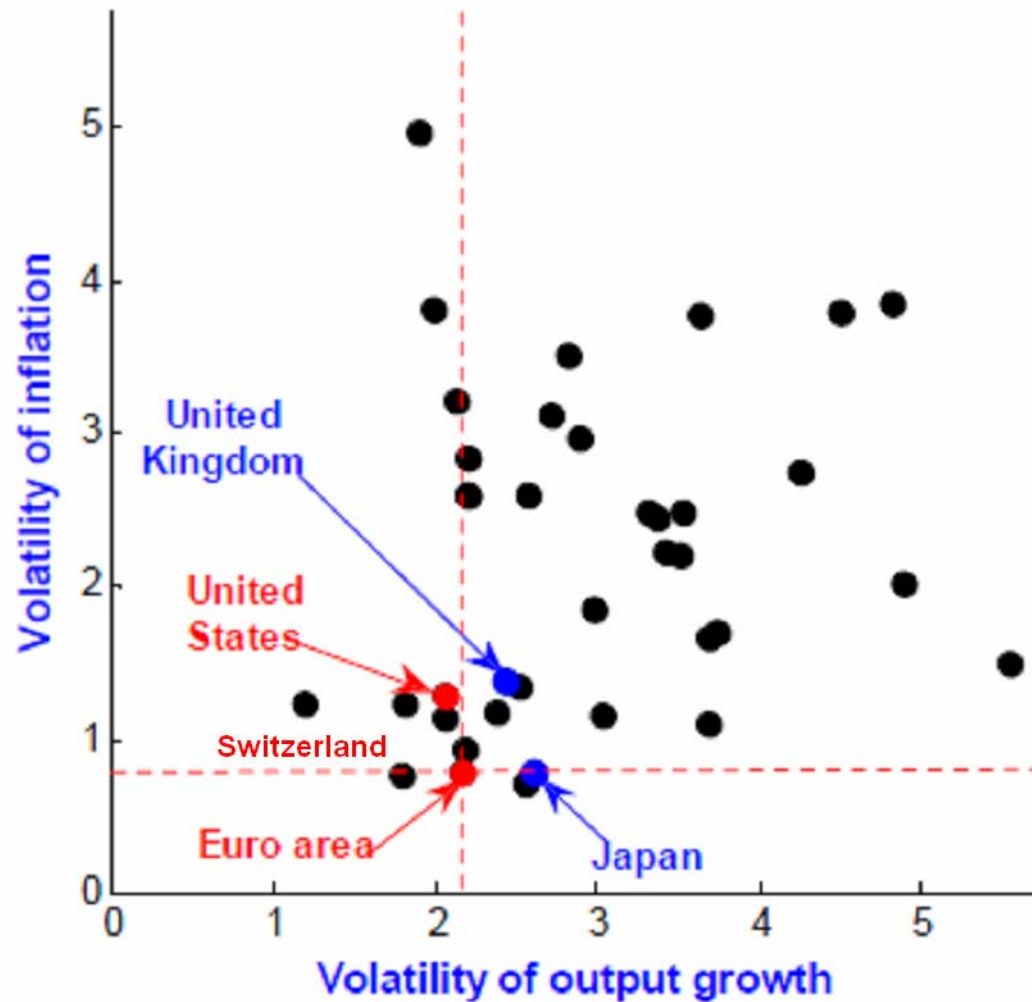


**Inflation volatility falls despite larger energy price volatility**



**Larger energy price volatility boosts inflation volatility**

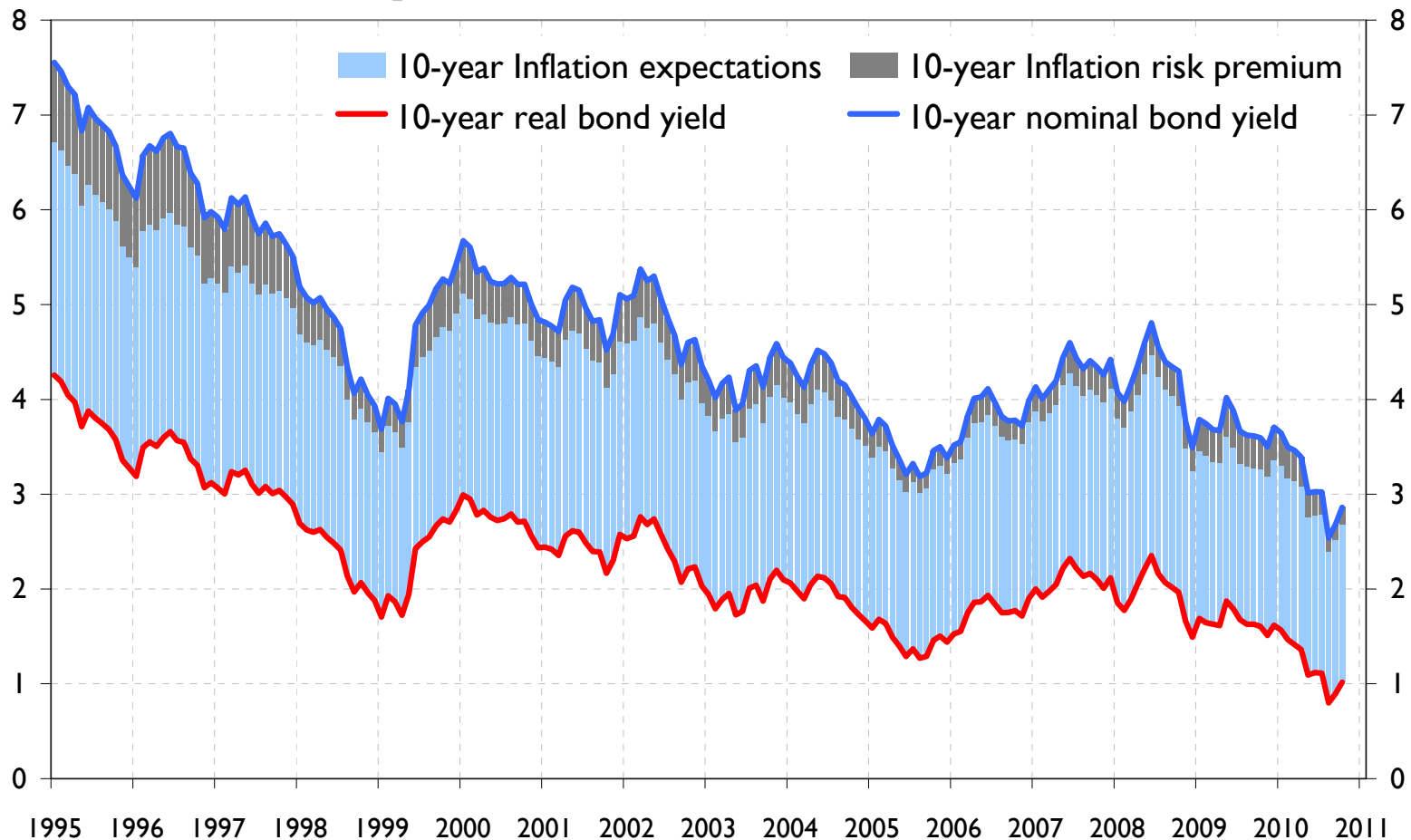
# Inflation / Growth Volatility Space



Source: ECB calculations.

# Long-term Interest Rates

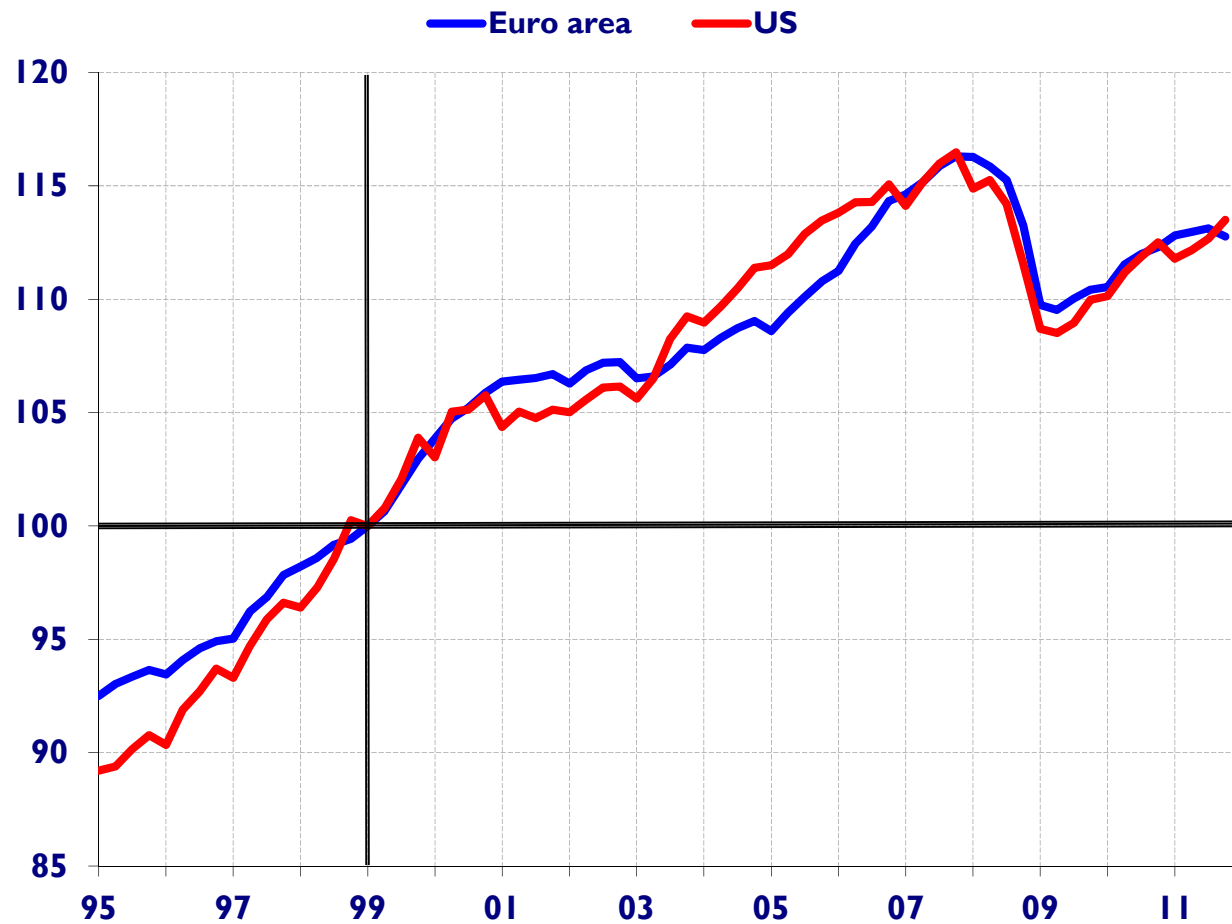
## Point Expectations and Risk Premium



Source: García, J.A. and T. Werner (2010), "Inflation risks and Inflation risk premia", ECB Working Paper No 1162.  
Note: Inflation expectations are BEIR. Last observation: October 2010.

# Growth

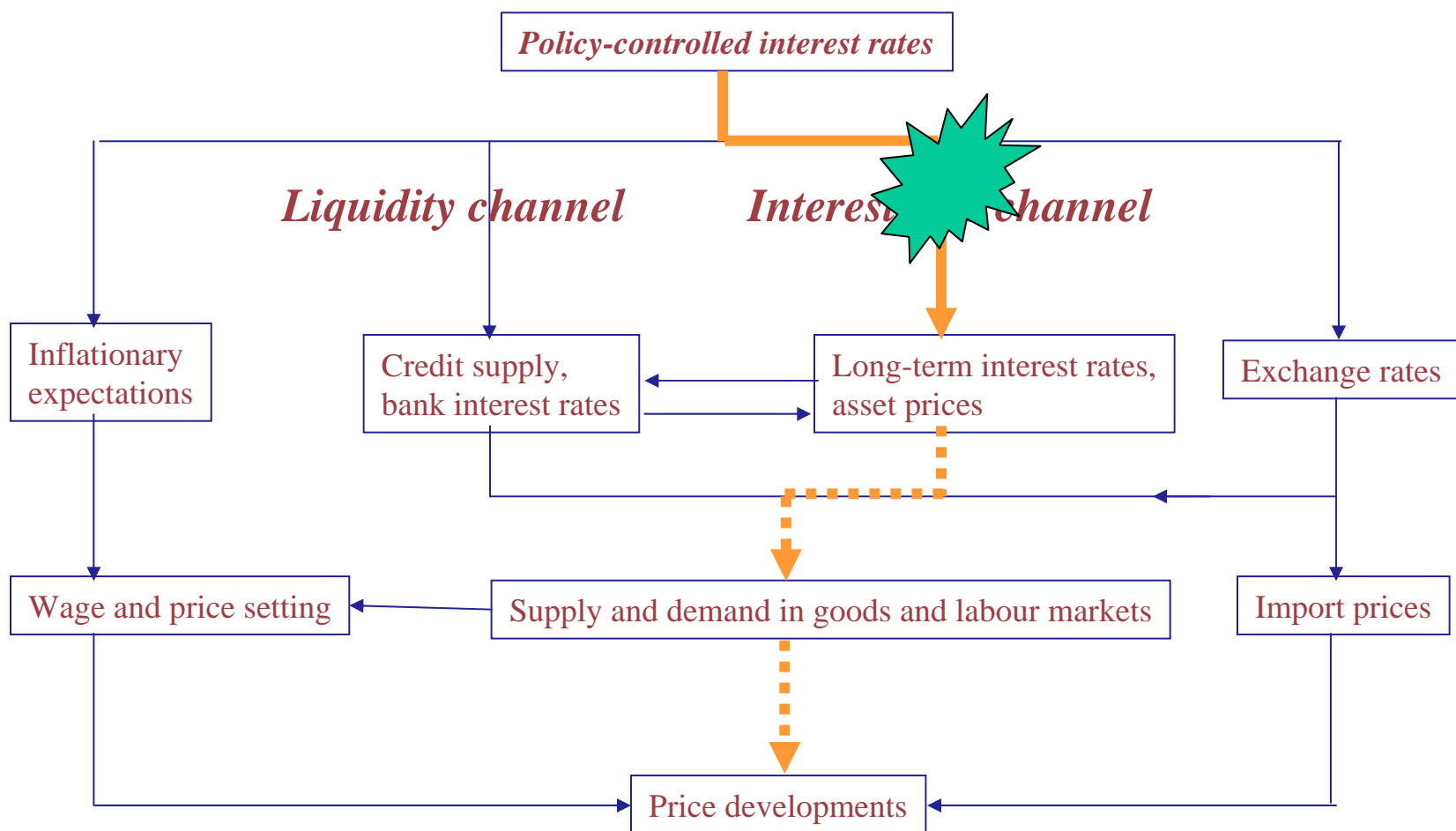
## GDP per capita growth



*Stability in euro area achieved with comparable average per-capita growth performance to the US.*



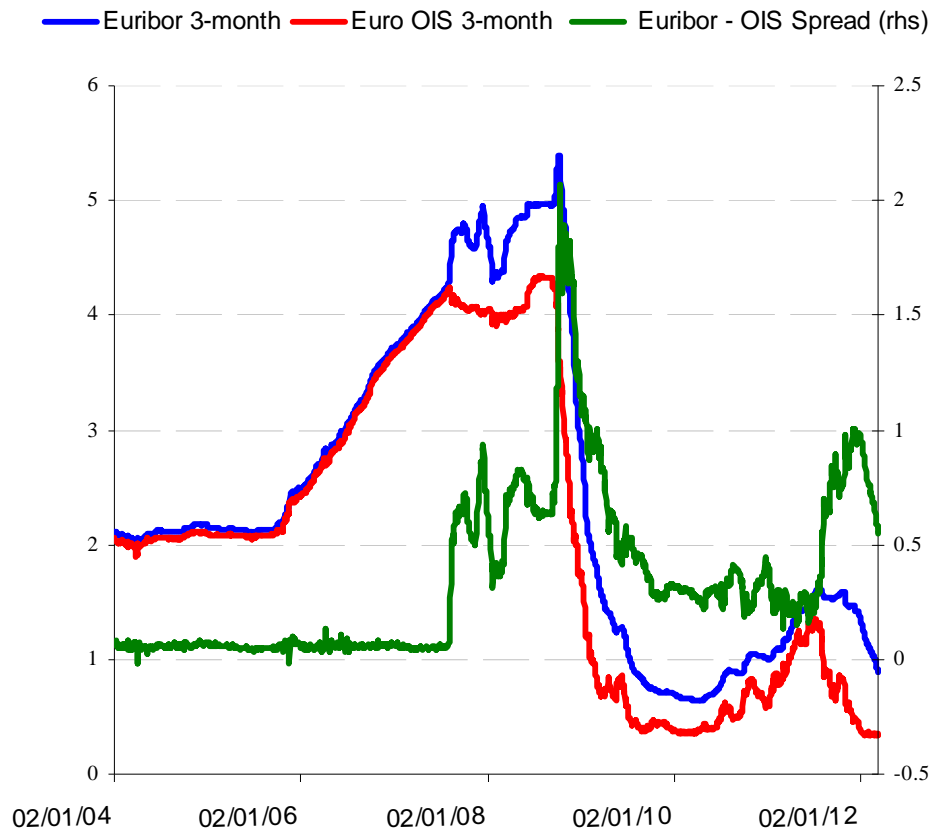
# Transmission Impairments



# Money Market Segmentation

## 3-m EURIBOR and EONIA/OIS

(in percentage points)



Sources: ECB, Bloomberg

## Cross-country standard deviation of unsecured interbank lending rates

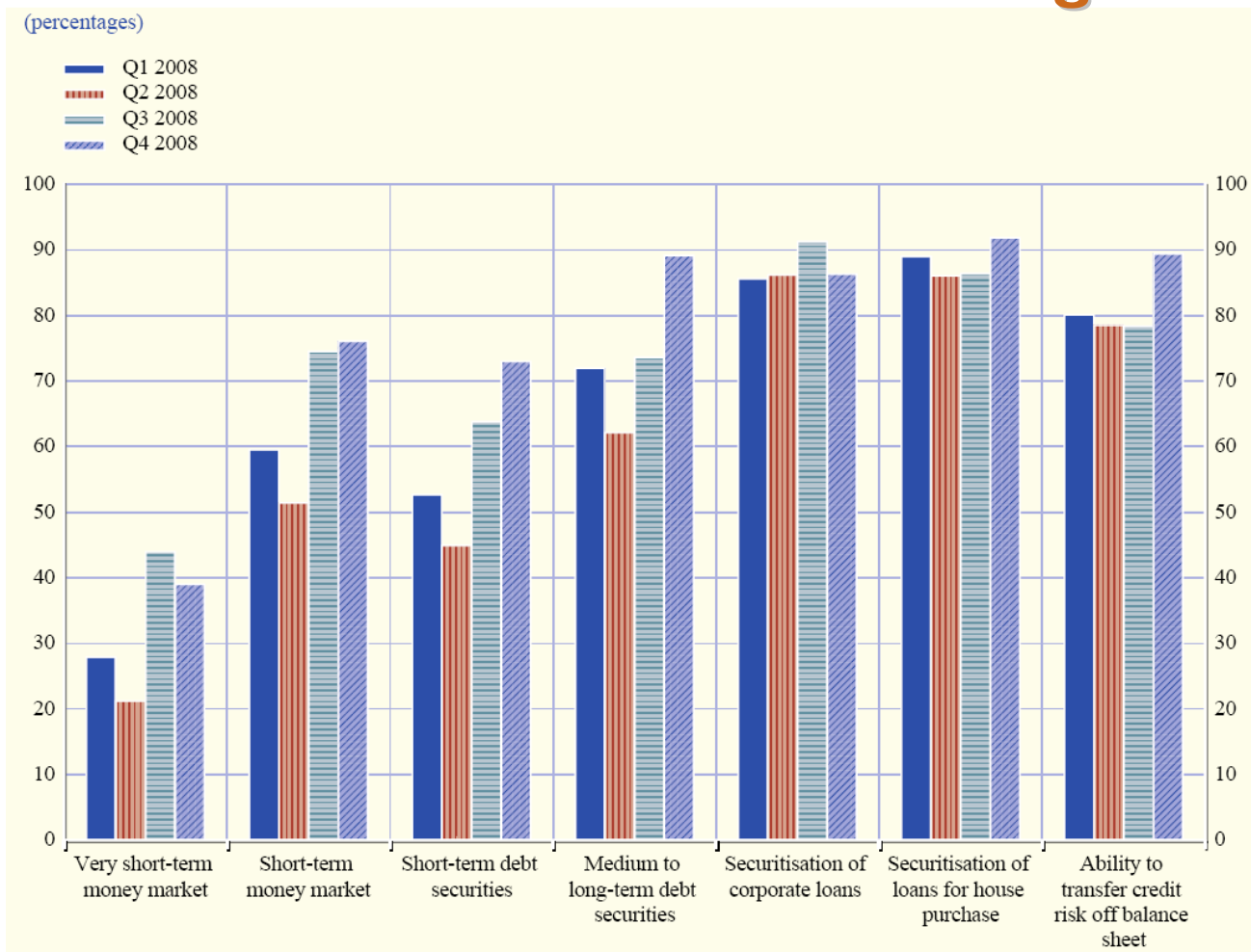
(61-day moving average; basis points)



Source: ECB Financial Integration Report April 2009, page 14

# Bank Funding Stress

## Access to wholesale funding

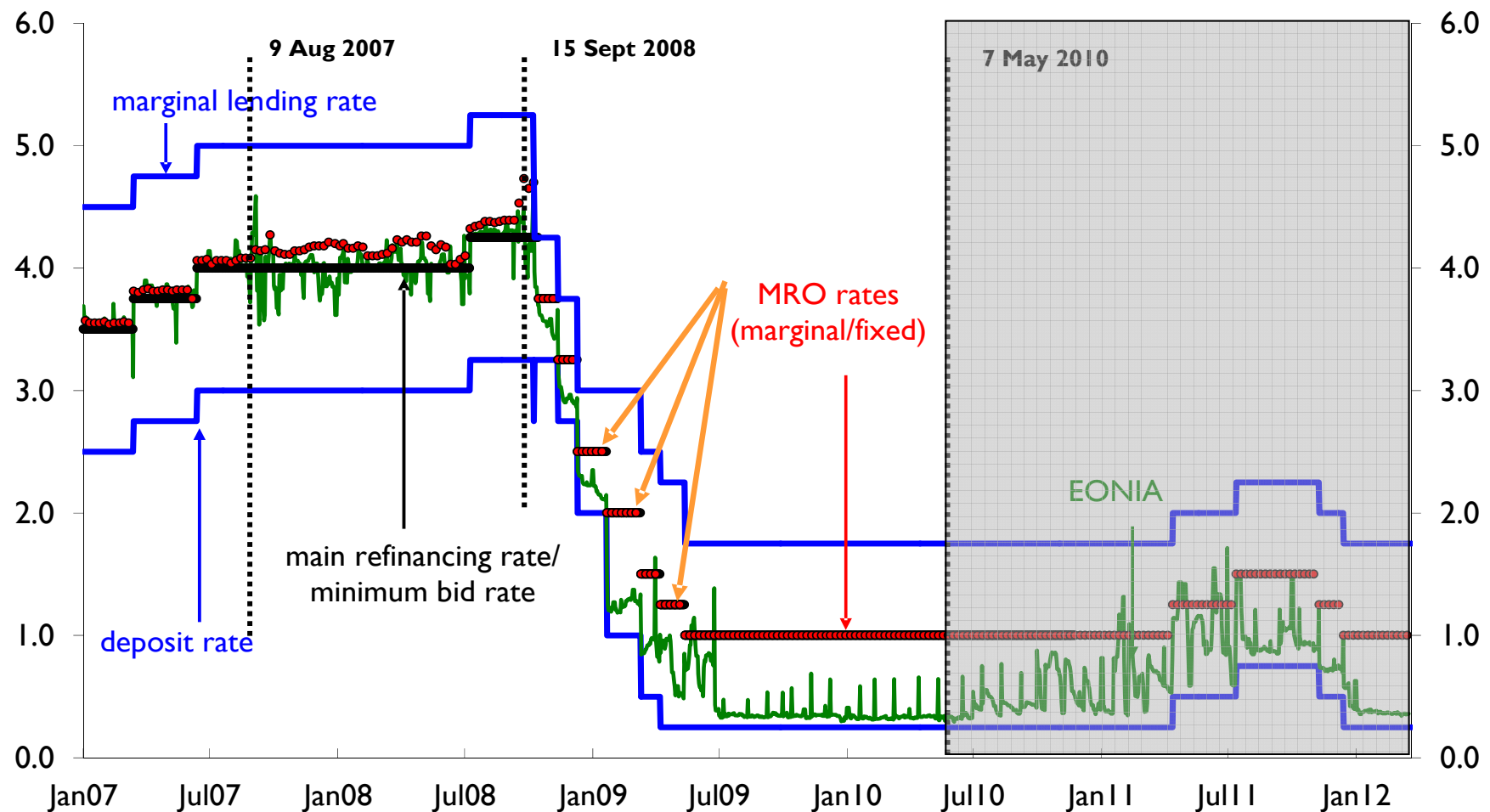


Source: ECB Monthly Bulletin February 2009, page 29; Result from Bank Lending Survey Q4 2008

Notes: Figures indicate the percentage of banks reporting that access to particular sources of wholesale funding have been hampered.

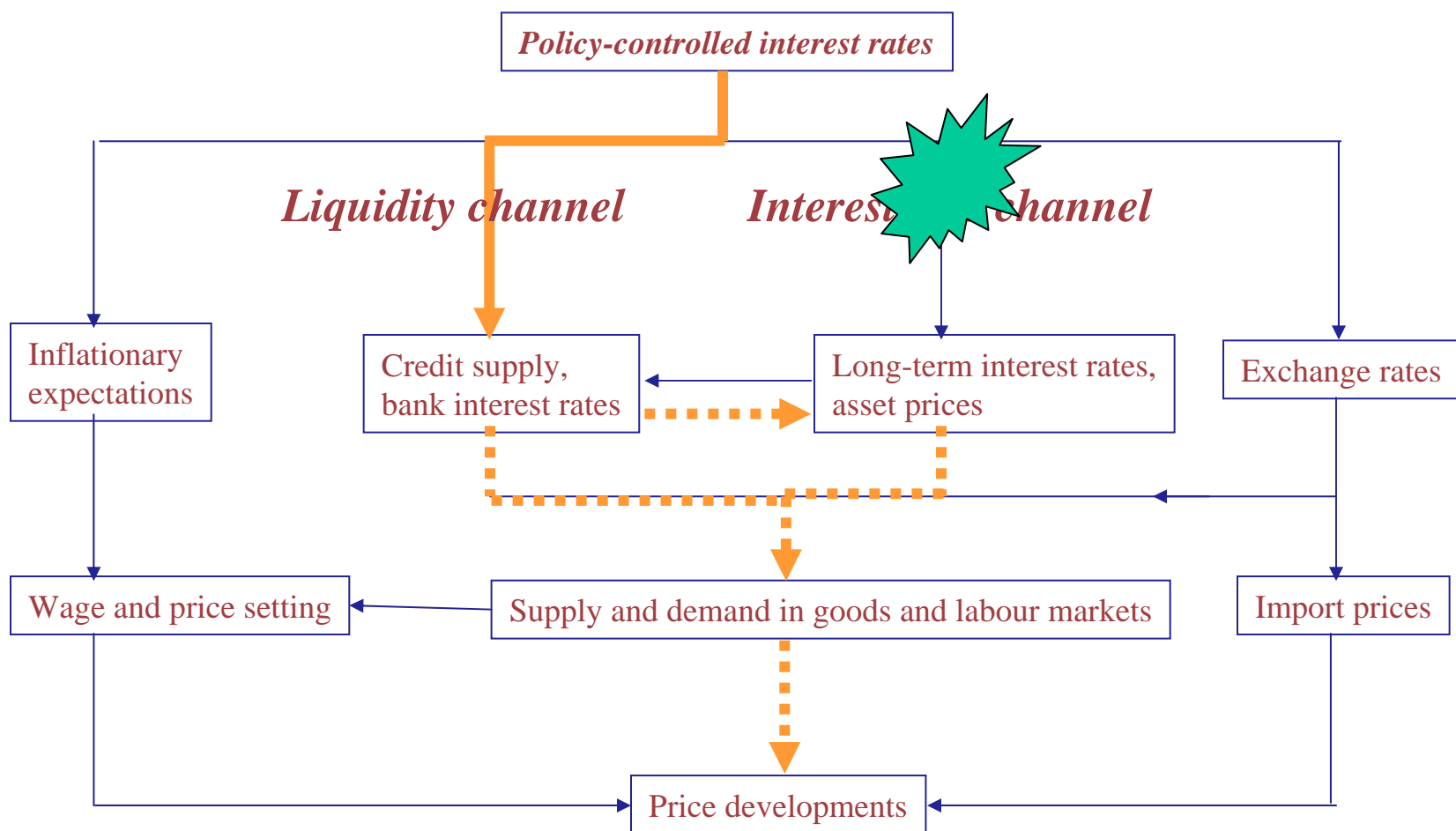
# Monetary Policy in the First Phase of the Crisis

## Post-Lehman: Monetary Policy Response



*Note: data in percent. The lower and the upper bound are the deposit facility and the marginal lending facility rate respectively. Last observation: 19 March 2012.*

# Transmission Plumbing

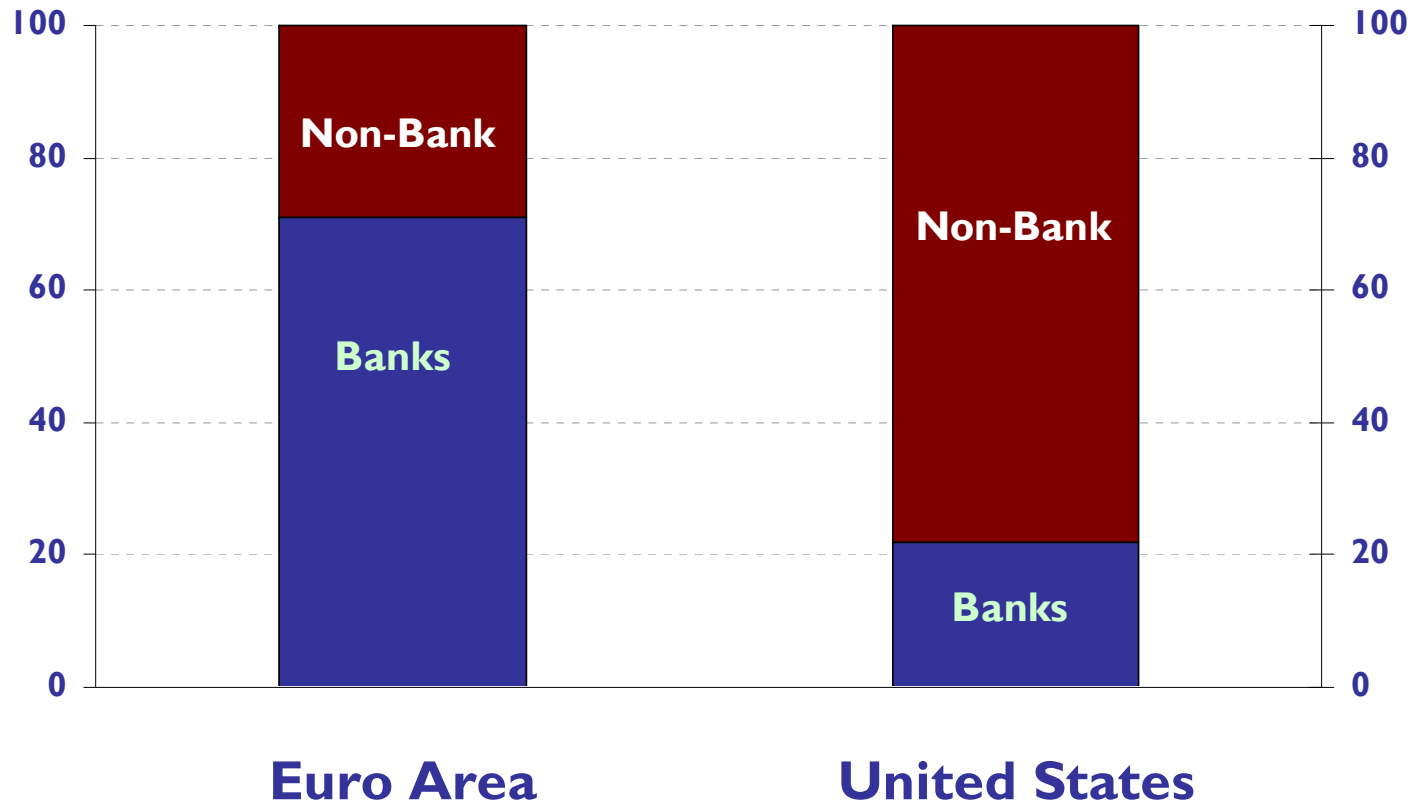


# Monetary Policy Measures in the Euro Area

## First Phase of the Crisis:

- **Full accommodation of liquidity needs at a fixed rate**
- **Extended range of collateral for open market operations with stringent risk control**
- **Extended range of maturities for open market operations up to 1 year**
- **Provision of foreign currency denominated liquidity**
- **Outright purchases of covered bonds**

# External Financing for Non-financial Corporations

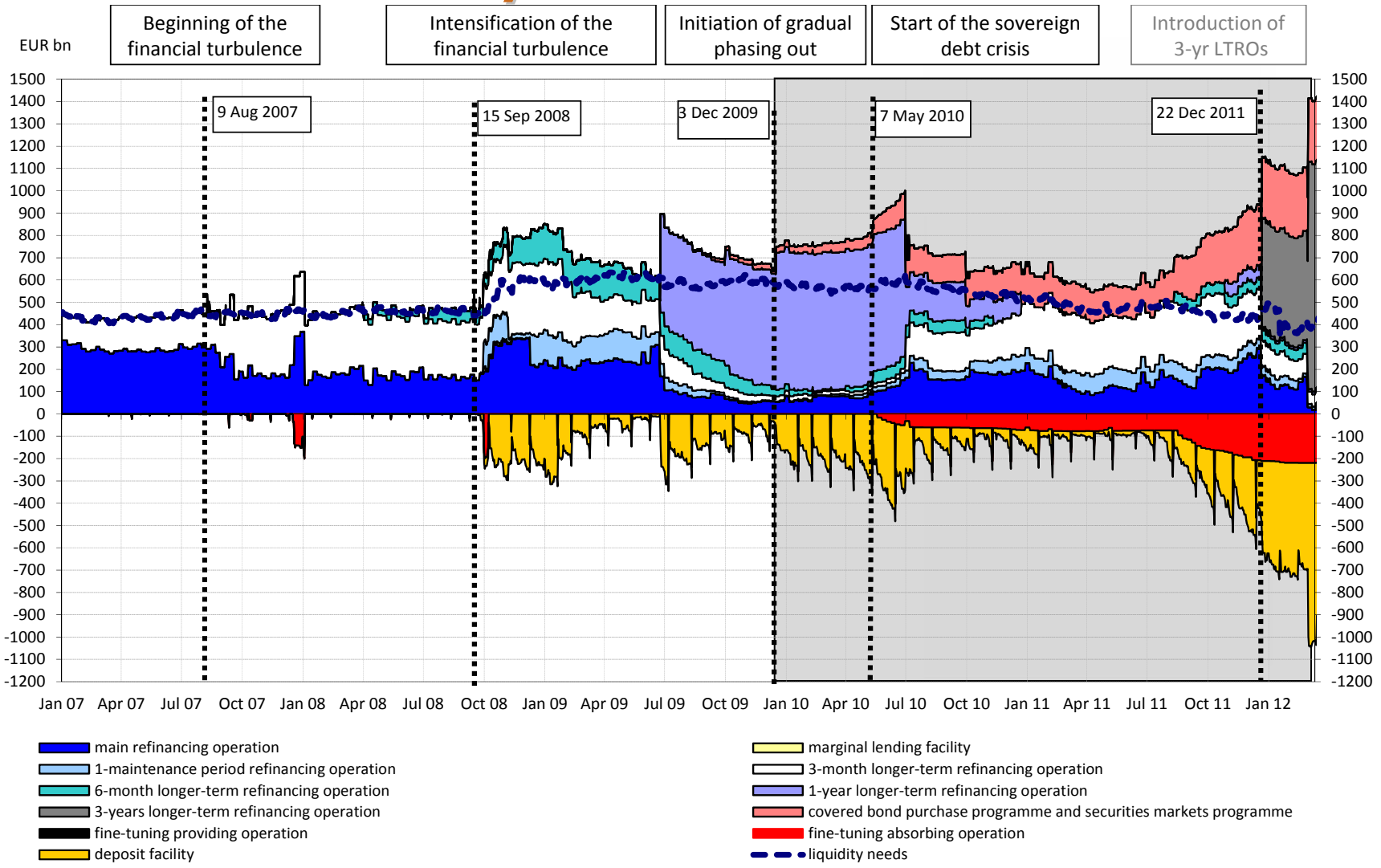


Source: ECB Monthly Bulletin April 2009

Note: Breakdown of the sources of external financing of non-financial corporations, in percent, average 2004 – 2008

# Monetary Policy in the First Phase of the Crisis

## The Eurosystem Balance Sheet

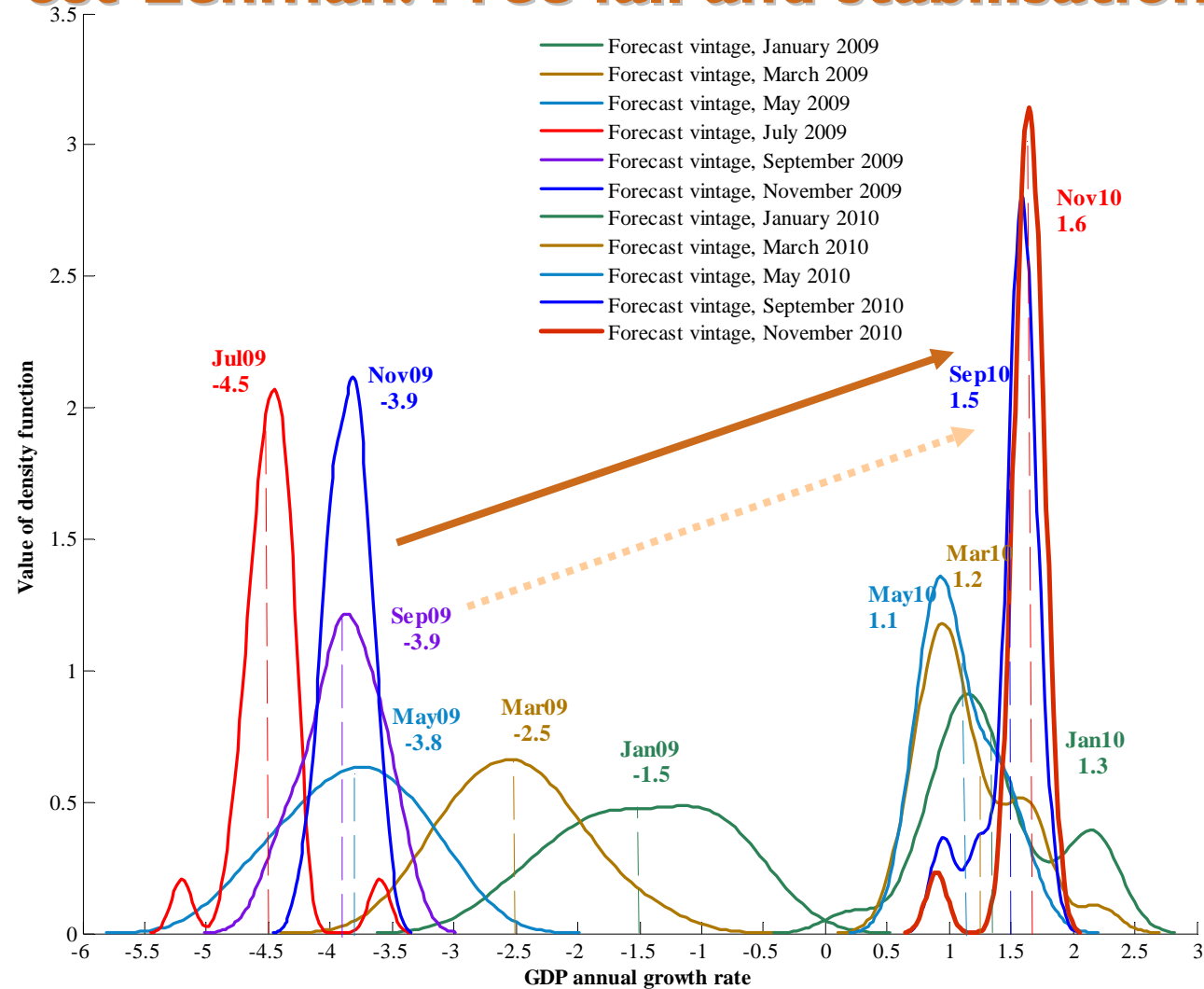


Source: ECB. Last observations: 11 March 2012.



# Monetary Policy in the First Stage of the Crisis

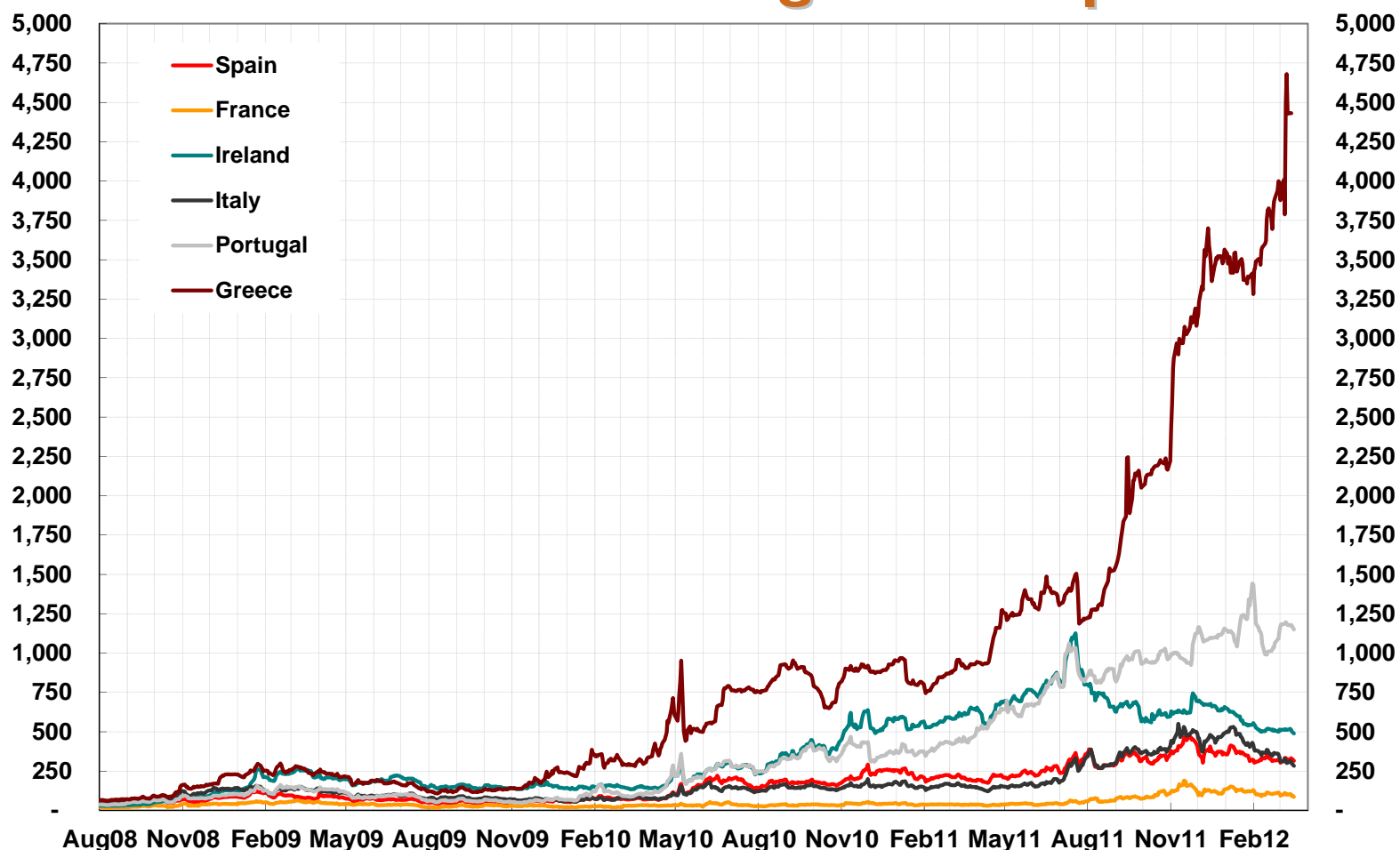
## Post-Lehman: Free fall and stabilisation



Sources: Eurozone Barometer and ECB calculations. Last observation: November 2010

# Second Phase of the Crisis: Credit Risk Shocks

## Credit Risk: Sovereign Bond Spreads



Aug08 Nov08 Feb09 May09 Aug09 Nov09 Feb10 May10 Aug10 Nov10 Feb11 May11 Aug11 Nov11 Feb12

Sources: Bloomberg, Thomson Reuters Datastream and ECB calculations. Note: bond yield spreads are vis-à-vis the German 10-year government bond, end-of-day data (last value 16 Mar 2012, 17:00 CET).

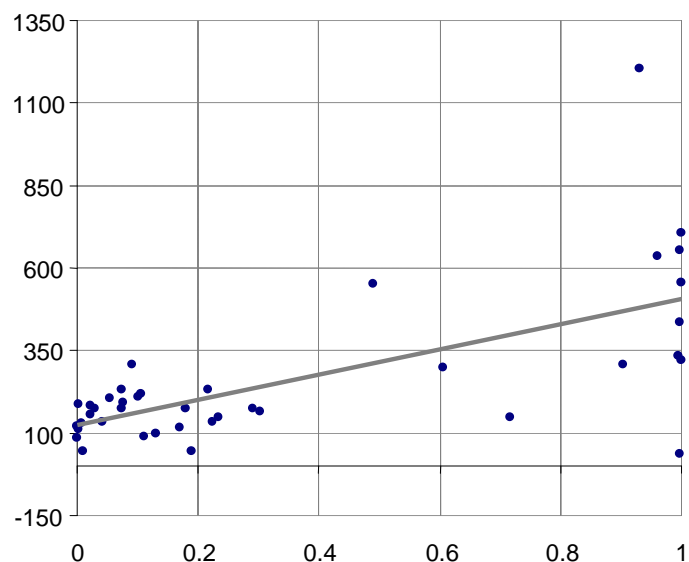
Sample: EA countries excluding Cyprus, Luxembourg, Malta, Slovenia and Slovakia, for which data is not comparable and therefore not shown here.

# Transmission with Credit Risk Shocks

## Sovereign Credit Risk and Bank CDS

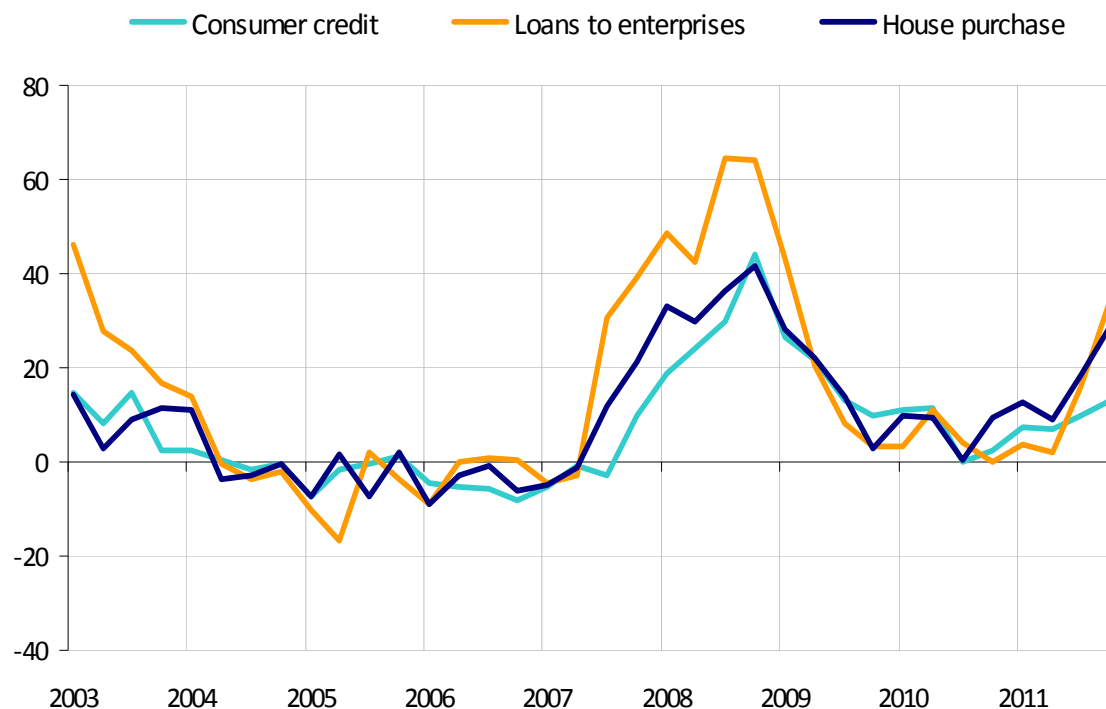
### Annual change in individual bank CDS in 2011 and exposure to stressed sovereigns

(in b.p.; portfolio share)



Source: EBA (8 December), Datastream, ECB calculations. – Notes: Annual changes in banks' CDS (x-axis) vs. proportion of banks' sovereign exposure to countries under stress relative to their overall direct sovereign exposures (y-axis). – 43 EU banks from Dec'11 EBA sample (correlation 66%).

### Banks Lending Standards (Net Percentage)



Source: BLS

# Monetary Policy Measures in the Euro Area

## First Phase of the Crisis:

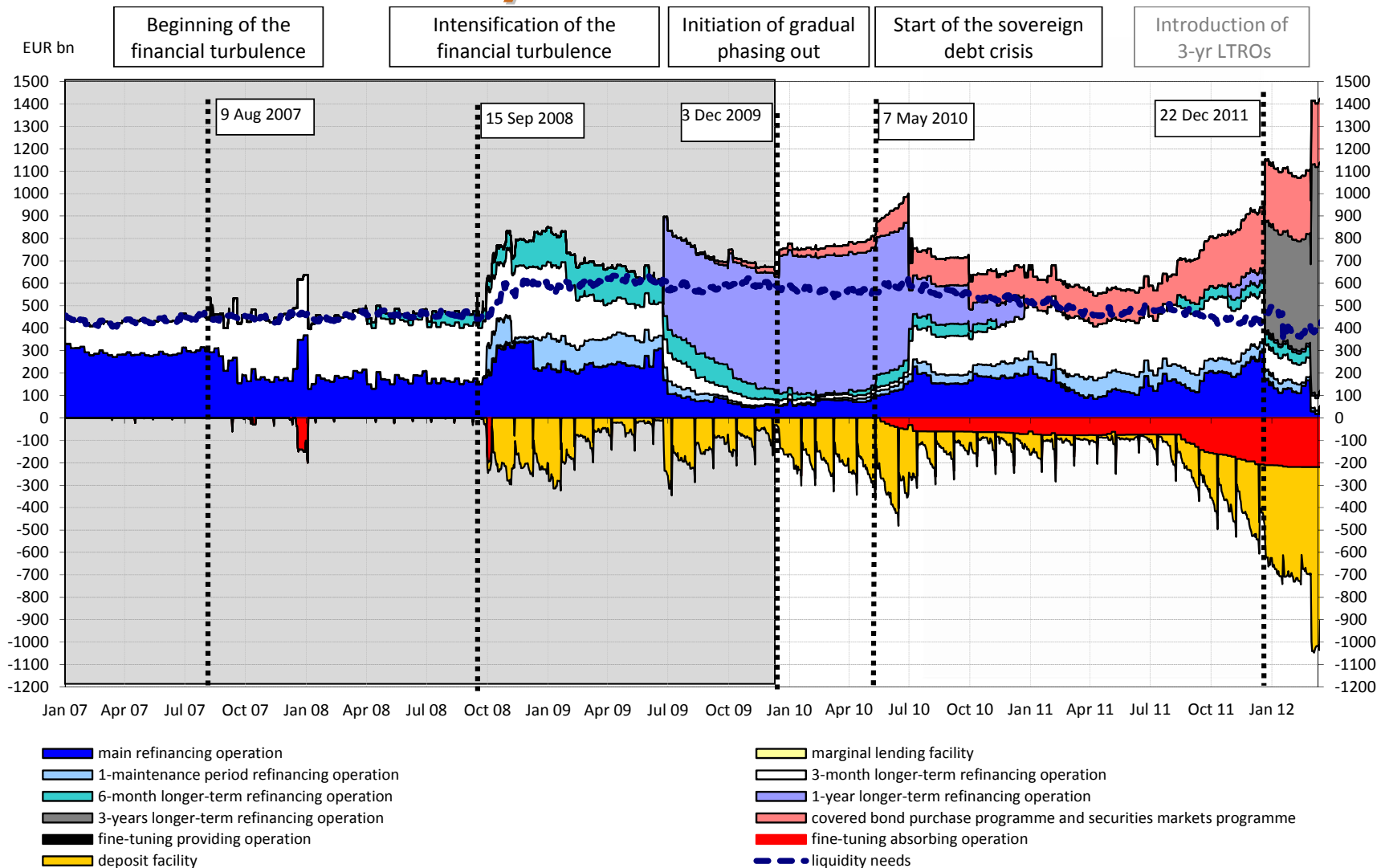
- Full accommodation of liquidity needs at a fixed rate
- Extended range of collateral for open market operations with stringent risk control
- Extended range of maturities for open market operations up to 1 year
- Provision of foreign currency denominated liquidity
- Outright purchases of covered bonds

## Second Phase of the Crisis:

- Securities Markets Programme: Interventions in dysfunctional segments of the securities debt market
- Lower minimum reserve requirements
- Further extension of collateral for open market operations with stringent risk control
- Refinancing operations with a maturity of 3 years

# Monetary Policy in Second Phase of the Crisis

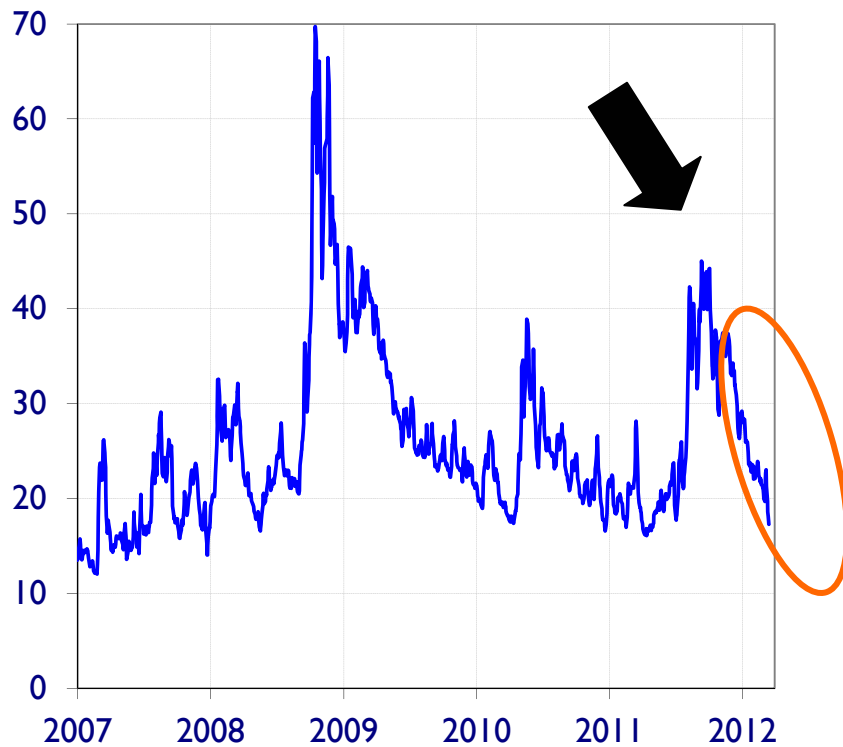
## The Eurosystem Balance Sheet



Source: ECB. Last observations: 11 March 2012.

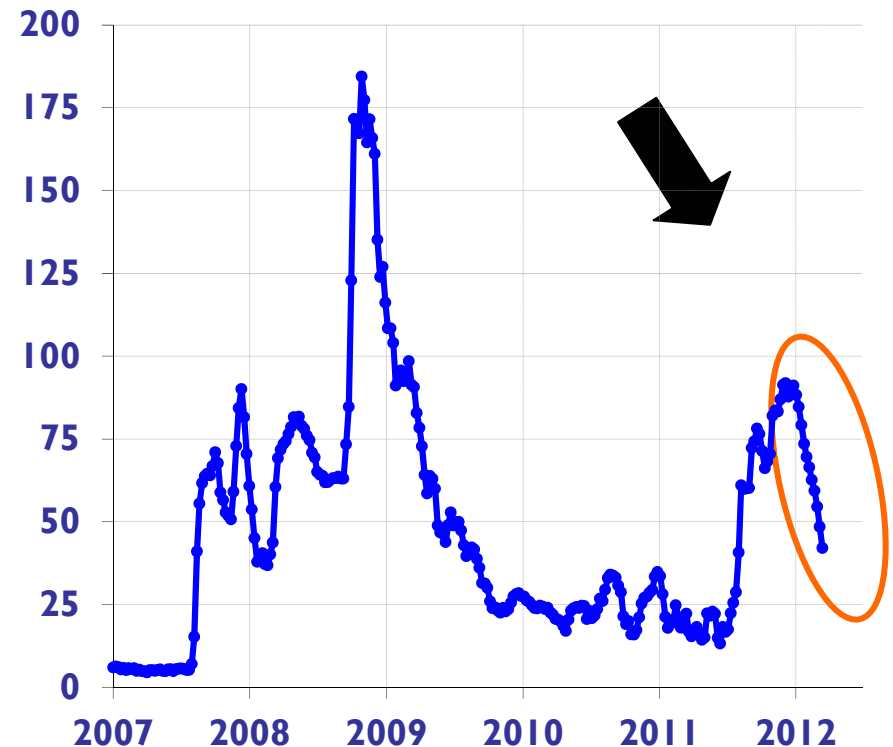
# Euribor-OIS Spread and Stock Market Volatility

## Implied stock market volatility in the euro area



Sources: ECB, Bloomberg

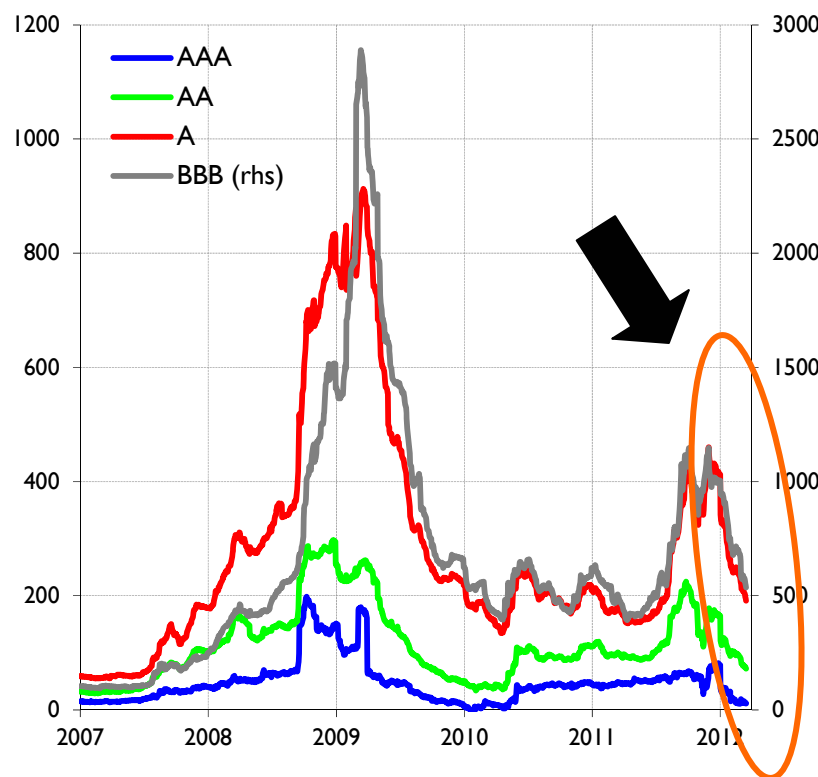
## 3 month Euribor-OIS spread (basis points)



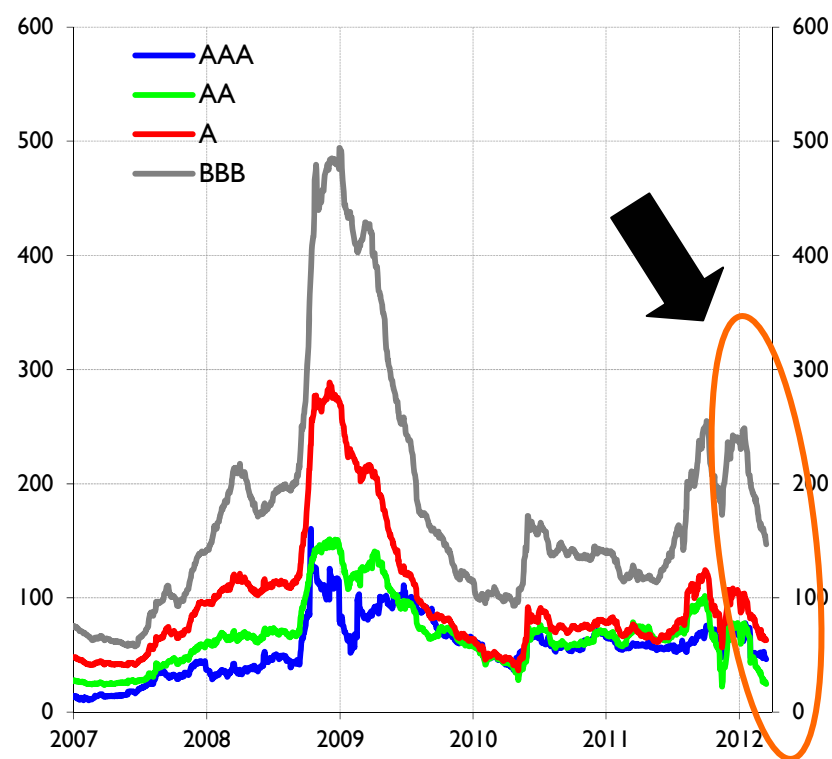
Source: Bloomberg

# Euro Area Corporate Bond Spreads

## Financials (basis points)



## Non-Financials (basis points)



Source: Thomson Financial Datastream

Note: Bonds with maturities of over one year are included in the indices. Benchmark is the EMU AAA government bond index calculated by Merrill Lynch. The last observation is dated 16 March 2012.

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