

*Unconventional Policies  
of Central Banks in Europe  
in the Period of Disinflation*

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## *Outline*

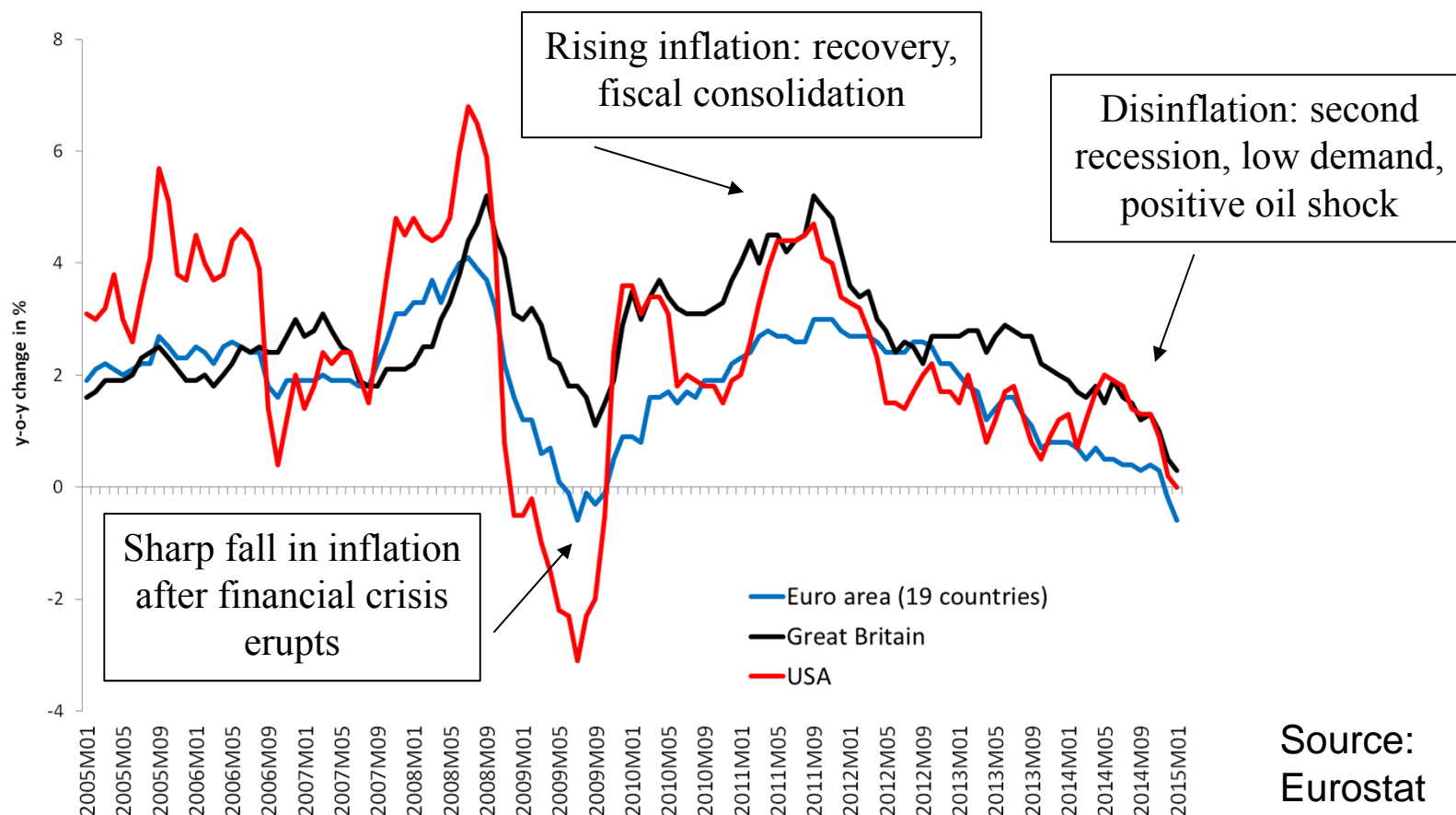
- Unconventional instruments of selected European CBs during crisis
- CNB monetary policy before November 2013 and reasons for weakening koruna; impacts of weak koruna on Czech economy

# *Unconventional policies of CBs during crisis – overview*

- Short-term interest rates were primary instrument before crisis; monetary aggregates and exchange rates adjusted to interest rates
- Crisis disrupted relatively reliable transmission mechanism
- Post-crisis unconventional policies had two main objectives:
  - ◆ To restore functioning of financial markets + financial intermediation:
    - ▶ liquidity injections
    - ▶ private asset purchases
  - ◆ To support economic activity at ZLB:
    - ▶ government bond purchases
    - ▶ forward guidance: CB commitment not to follow old interest rate rule
  - ◆ Two objectives closely interlinked; common denominator: safeguarding macroeconomic stability
- Other CB instruments: forex interventions, negative interest rates

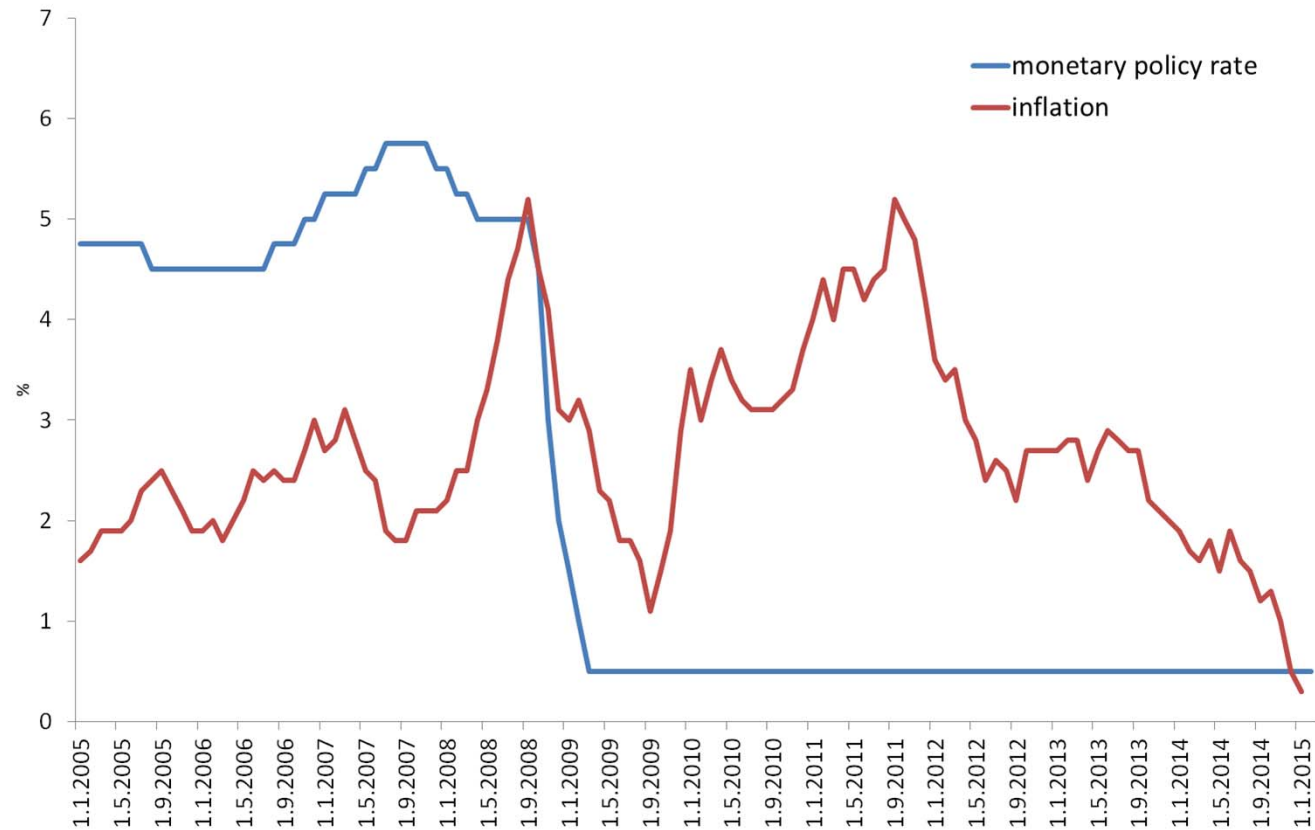
The objective of the unconventional policies was to restore the crisis-hit transmission mechanism and, after 2012, to boost demand and increase inflation

# *Inflation during crisis: stylised facts for advanced economies*



Low inflation started to be a problem after 2012; central banks responded to it in different ways

## *Inflation and MP rates: UK*



Source:  
Eurostat,  
BoE

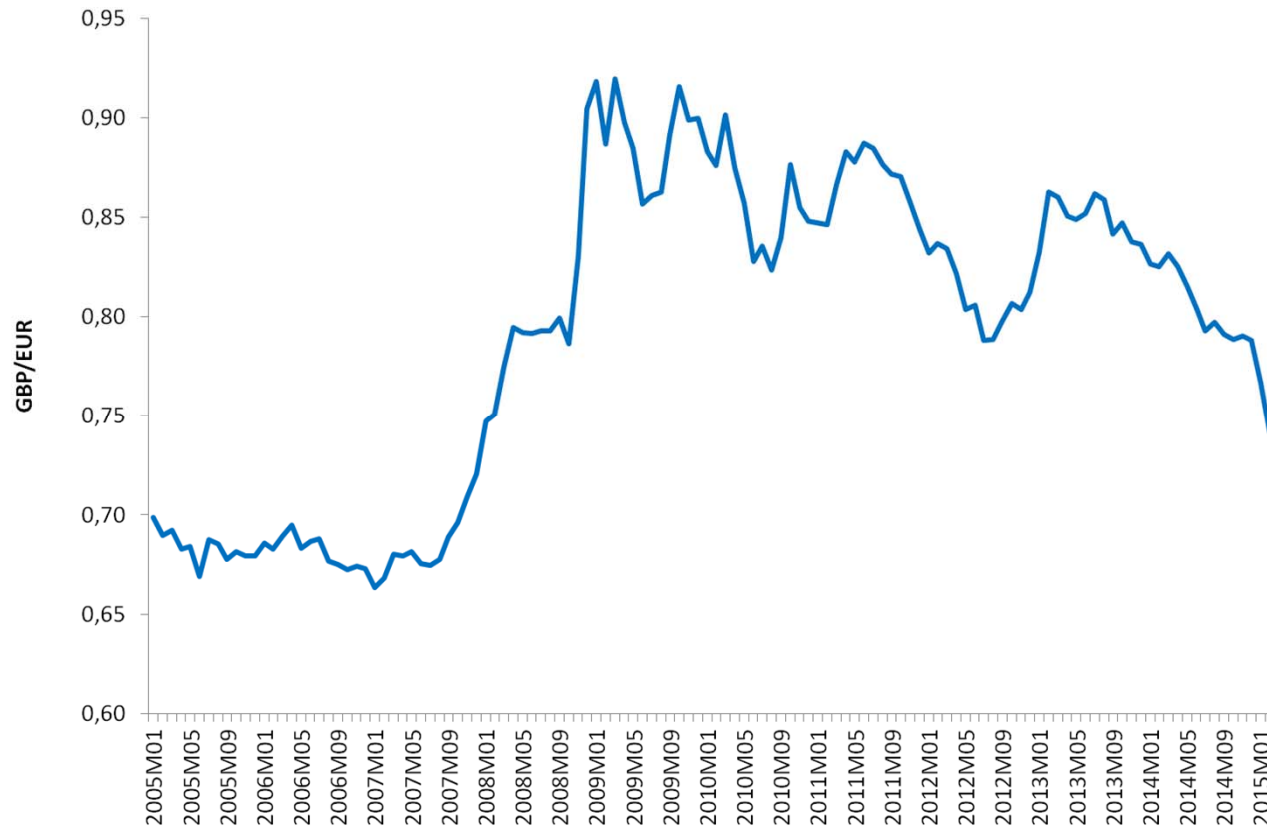
The Bank of England cut rates to 0.5% in March 2009 and has left them there regardless of inflation staying above the target for several years

## *BoE's unconventional instruments*

- Bond purchases: APP1 – GBP 75bn after 5/3/2009, extended by GBP 125bn after 7/5/2009, GBP 175bn after 6/8/2009 and GBP 200bn after 5/11/2009; APP2 – GBP 75bn after 6/10/2011, GBP 50bn after 9/2/2012 and GBP 50bn after 5/7/2012
- Liquidity injections and private asset purchases: Funding for Lending Scheme launched on 12/7/2012; financing volume: GBP 56bn (3.1% of GDP) as of 31/12/2014; extended to 2016
- Forward guidance in 2013Q3: monetary policy will remain highly stimulative until unemployment rate has fallen to 7%, unless inflation 18–24 months ahead will be 2.5% or higher, medium-term inflation expectations no longer remain anchored or MP stance poses significant threat to financial stability
- BoE was surprised in 2014Q1 by sharp fall in unemployment below 7% and re-oriented to production capacity utilisation

**The purchases have totalled around 22% of GDP**

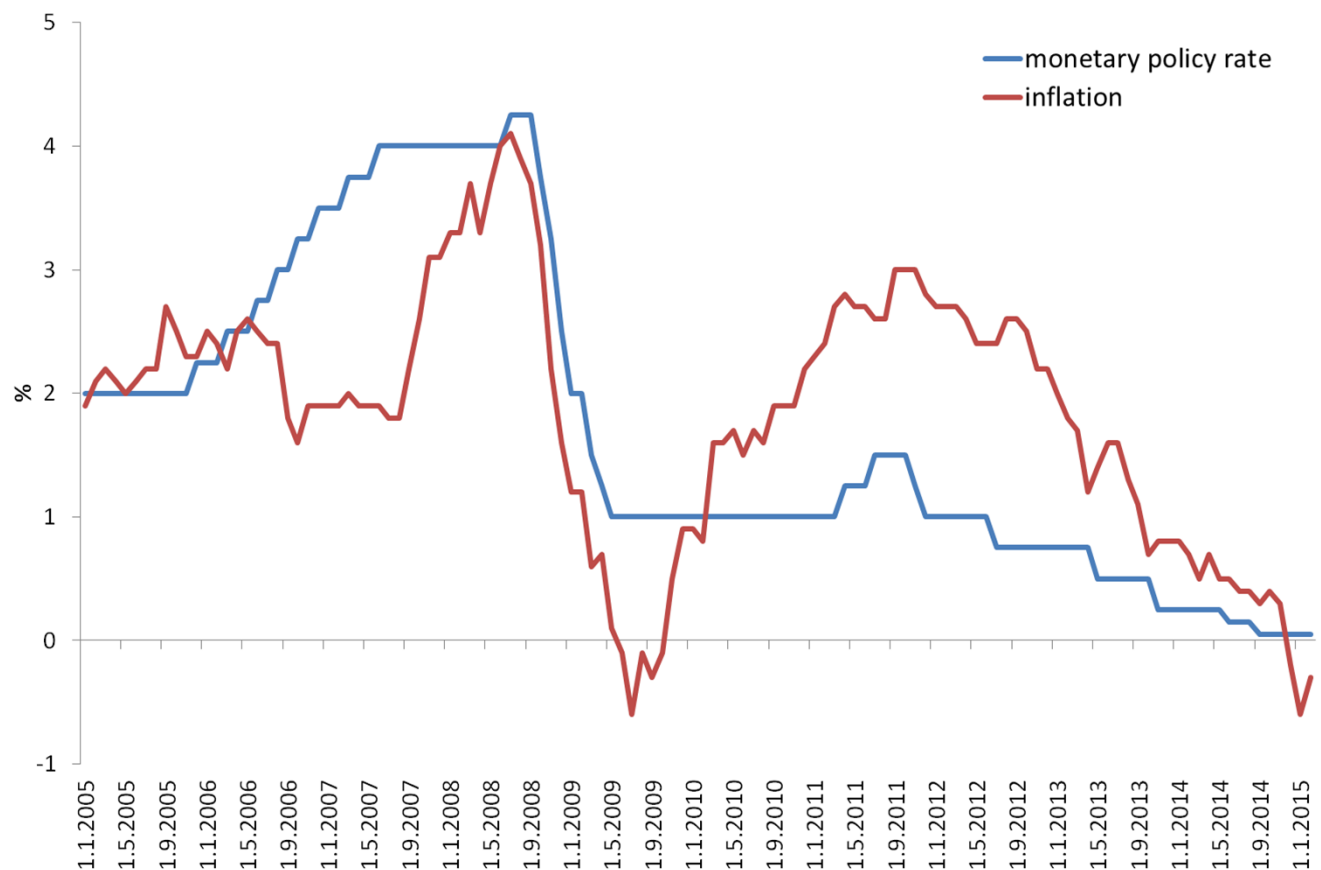
## GBP/EUR exchange rate



Source:  
Eurostat

The depreciation of the pound after the crisis erupted acted as a shock absorber for the real economy and as an inflationary factor in a generally disinflationary environment; GBP weakened by 25.5% YoY in Dec 08

## *Inflation and MP rates: euro area*



Source:  
ECB,  
Eurostat

The ECB cut rates to 1% after the crisis started and raised them briefly in 2011 due to inflationary risks; strong disinflation "forced" it to lower them to zero



## *ECB's unconventional instruments*

- Covered Bond Purchase Programmes: CBPP1 (2009–2010) and CBPP2 (2011–2012)
- Long-term Refinancing Operations (LTROs): 20/12/2011–Jan 2015; 28/2/2012–Feb 2012
- Liquidity injections and private asset purchases: Securities Market Programme (SMP): 10/5/2010–Sep 2012
- Outright Monetary Transactions (OMT): Aug 2012
- Targeted Longer-term Refinancing Operations (TLTROs): Jun 2014
- ABS Purchase Programme (ABSPP): Sep 2014
- CBPP3: Sep 2014
- Public Sector Purchase Programme (PSPP): 9/3/2015
- ABSPP + CBPP3 + PSPP = Expanded Asset Purchase Programme (APP): bond purchases of up to EUR 60bn/month at least until Sep 2016 or until inflation is rising sustainably to target

The ECB has introduced a wide range of unconventional measures; APP asset purchases will total around 12% of euro area GDP as of Sep 2016

## *Monetary policy in euro area*

- ECB cut rates after financial crisis erupted, but not as aggressively as Fed and BoE ⇒ left itself room to manoeuvre
- ECB has targeted inflation fairly consistently: raised interest rate in reaction to rising inflation risks (recovery, inflation growth due to VAT hike)
- At start of crisis unconventional policies focused on supporting functioning of financial market; in 2013–2014 they began focusing on supporting demand and combating disinflation/deflation
- Depreciation of euro against dollar was welcome side-effect:
  - ◆ Rising upward pressure on inflation via import price growth
  - ◆ Rising price competitiveness of exporters

Unconventional policies have eased monetary conditions in the euro area both directly (through falling interest rates and rising liquidity) and indirectly (via euro depreciation)

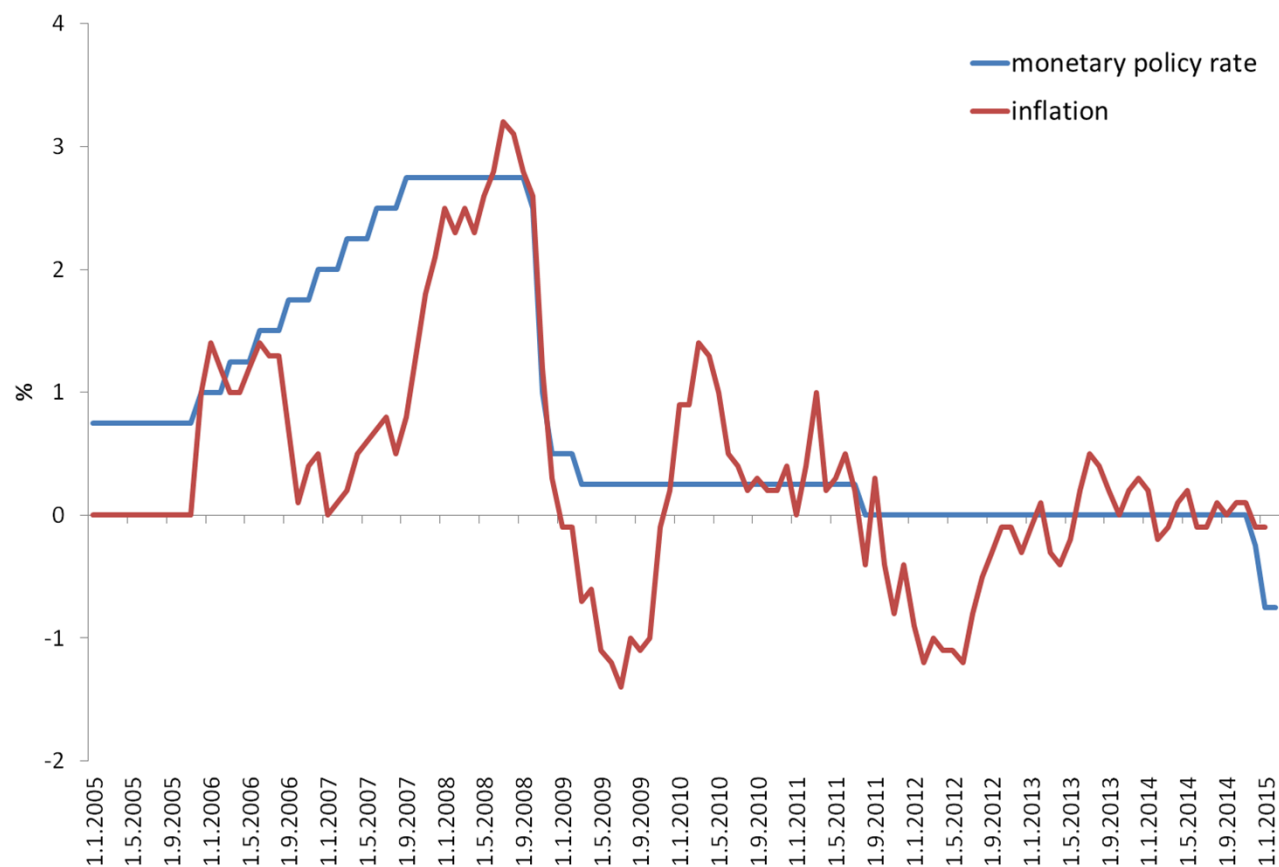
## USD/EUR exchange rate



Source:  
Eurostat

The euro weakened by 21.6% YoY against the dollar in Mar 2015 to its weakest level since Apr 2003

## *Inflation and MP rates: Switzerland*



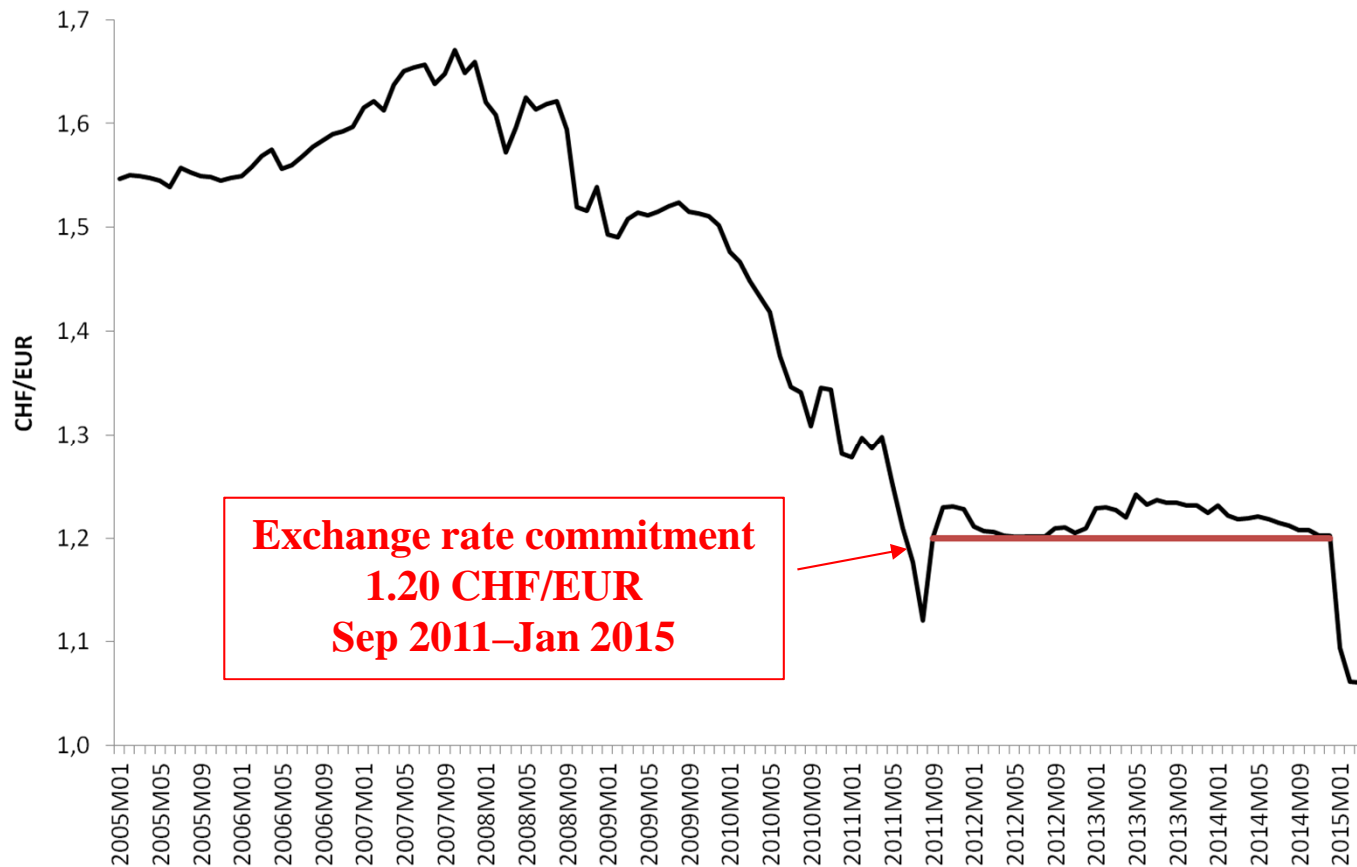
Source:  
Eurostat,  
SNB

The SNB lowered its rate to 0.25% in March 2009 and 0% in August 2011; inflation was negative in 2009 and 2012–2013

## *SNB's unconventional instruments*

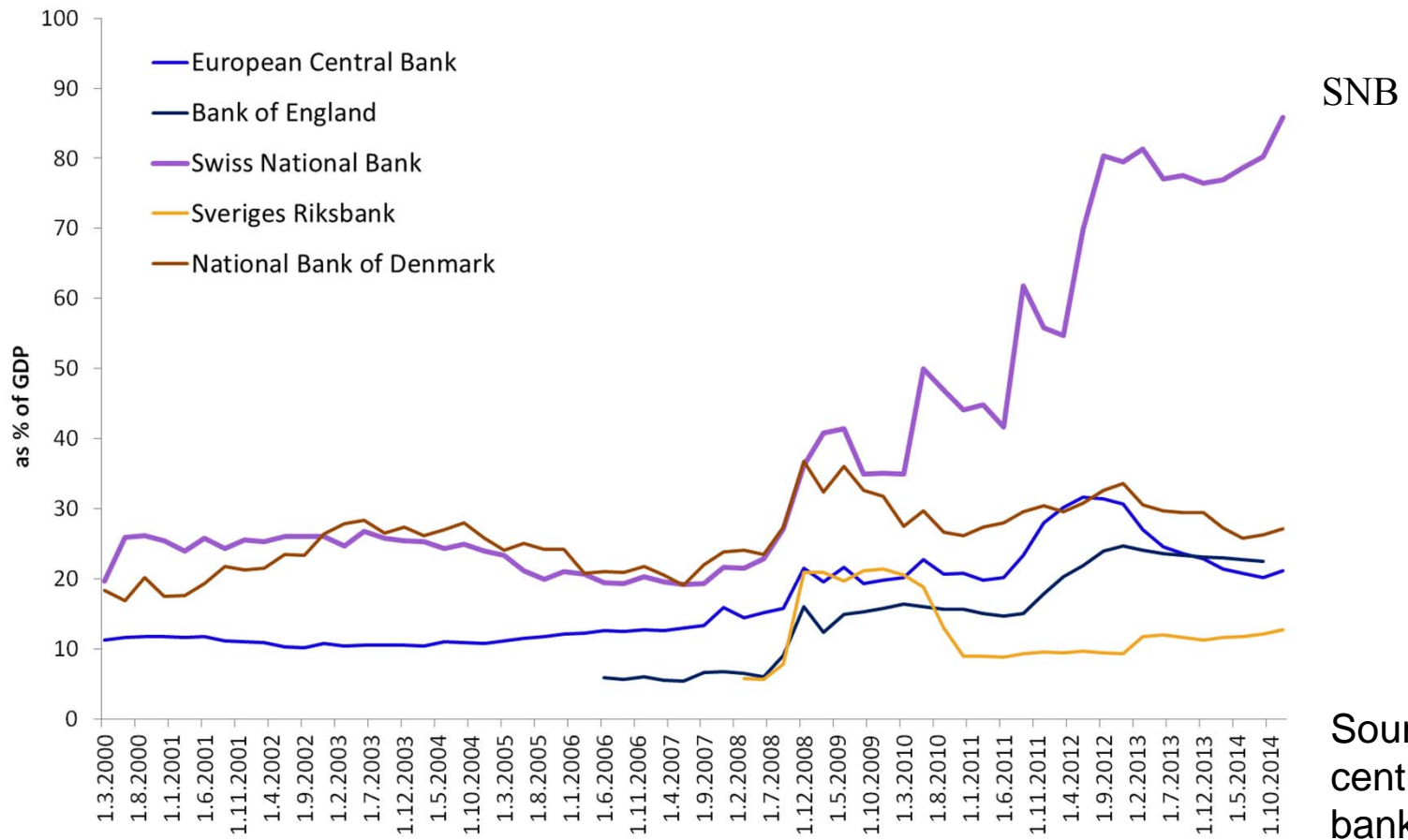
- Swiss franc functioned as safe haven in uncertain times
- Mar 2009 – unconventional measures launched: provision of liquidity to banks, intervention against strengthening of franc, private bond purchases
- 2010 – Greek debt crisis  $\Rightarrow$  franc appreciates by almost 40% in 2008–2011  $\Rightarrow$  import prices generate inflation pressures
- Sep 2011 – exchange rate ceiling introduced: 1.20 CHF/EUR + guidance that SNB would not tolerate stronger exchange rate
- Benefits: inflation stabilisation and real economic recovery
- Costs: huge growth in SNB reserves (balance sheet) + accounting loss (borne by Swiss cantons)
- Exit (15 Jan 2015):
  - ◆ franc strengthens by around 15%
  - ◆ MP rate band (3M Libor in CHF) reduced to -1.25% – -0.25%
  - ◆ interest rate on banks' balances with SNB cut to -0.75%
  - ◆ likely reason for exit: fears of excessive growth in SNB forex reserves after expected launch of QE by ECB

# CHF/EUR exchange rate



The franc fluctuated either at or on the weaker side of the exchange rate ceiling while it was in effect

# Forex reserves (as % of GDP)

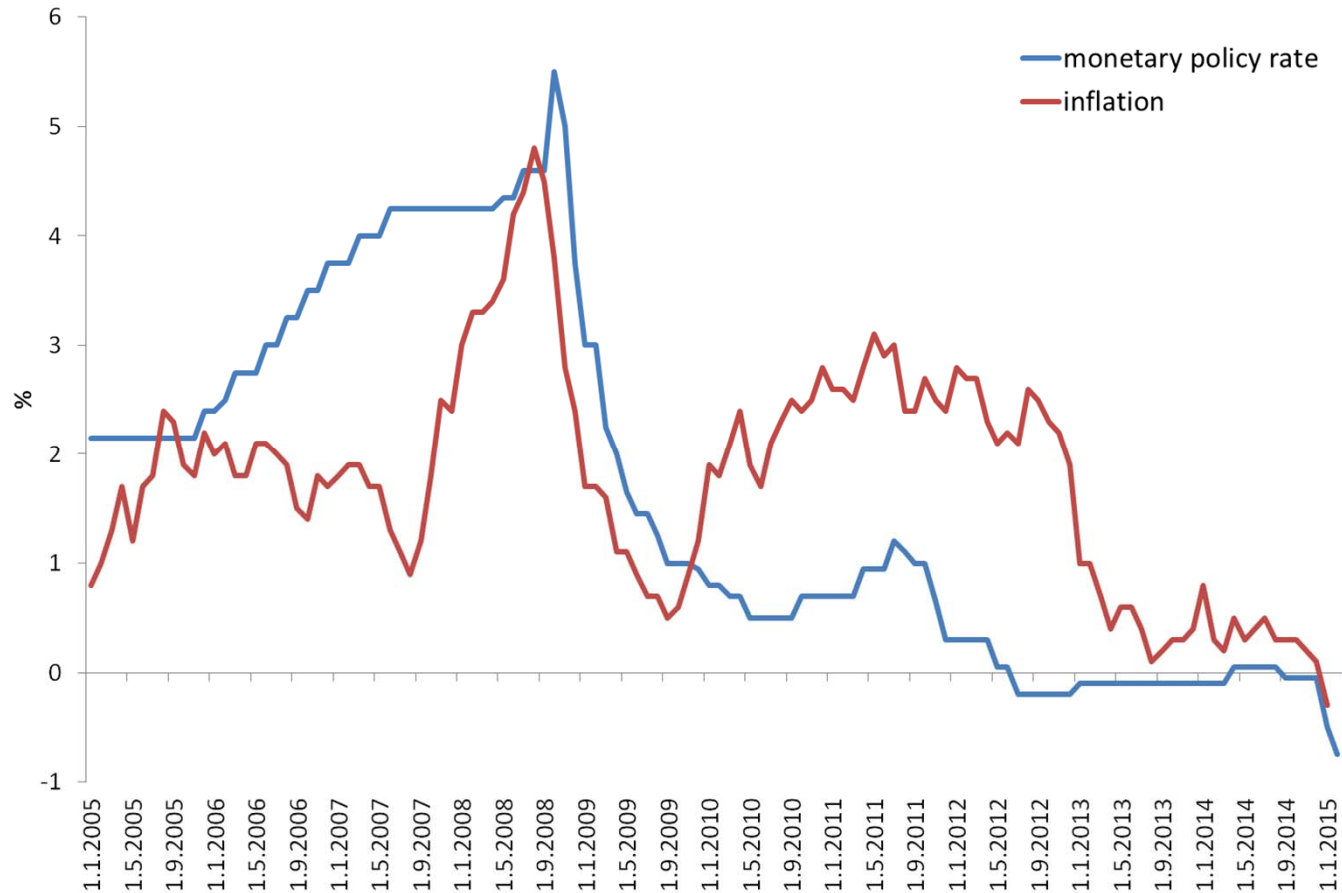


Source:  
central  
banks

The exchange rate commitment led to sharp growth in the SNB's forex reserves to around 90% of GDP



## Inflation and MP rates: Denmark



Source:  
Eurostat,  
DNB

The Danish central bank lowered rates below zero in 2012; in February 2005 it cut them to -0.75%



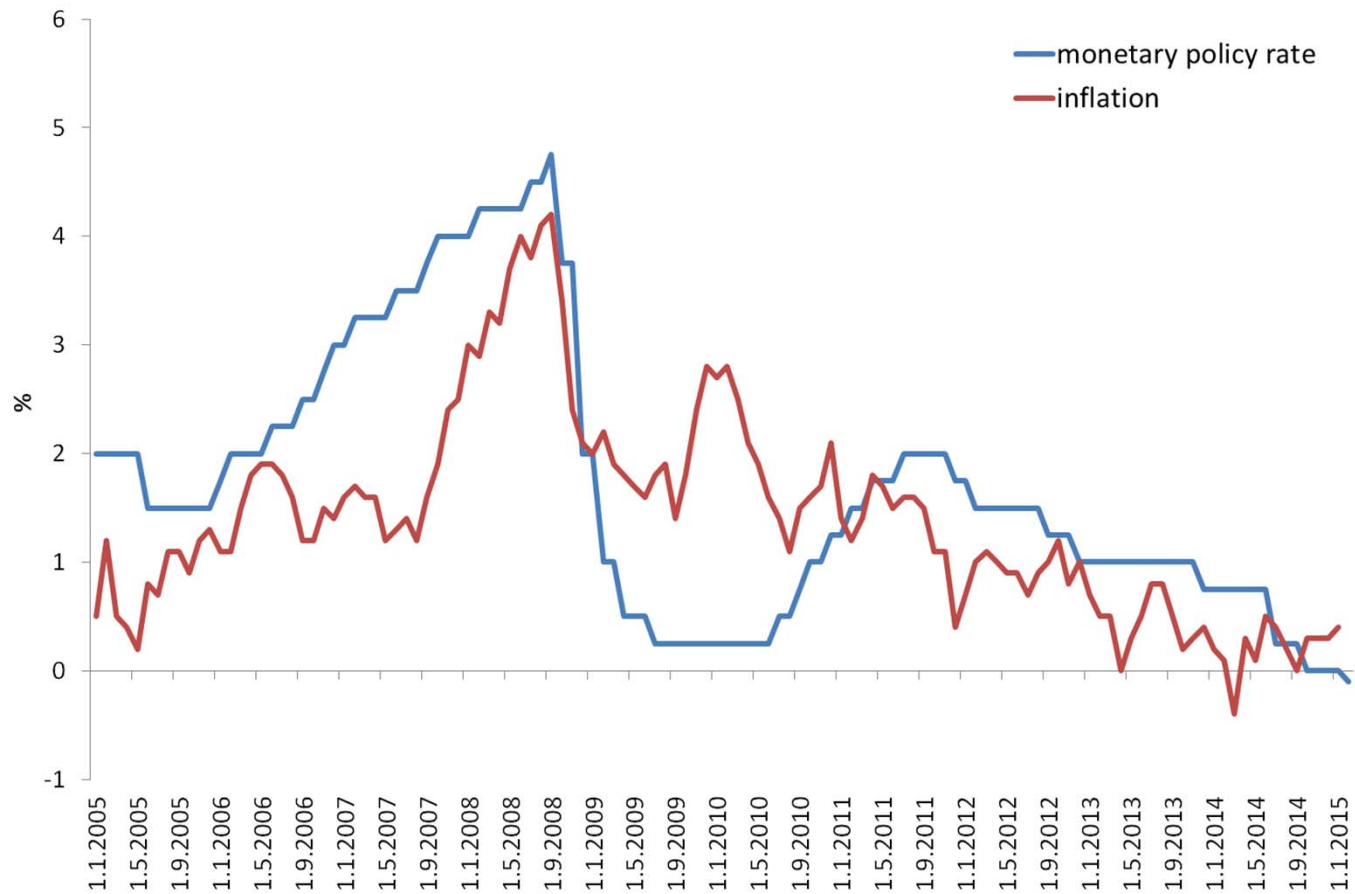
## *Danmarks Nationalbank monetary policy*

- Danish CB has long operated fixed rate against euro (Denmark is only EU country in ERM II with  $\pm 2.25\%$  fluctuation band)
- Change in interest rates is conducted in line with ECB, although interest rate changes are conducted with aim of stabilising currency if Danish krone faces strong pressures
- Forex purchases and sales used as support
- SNB exit on 15 Jan 2015 led to stronger appreciation pressures on krone, which DNB tried to face by cutting policy rate to  $-0.75\%$  and implied rate via derivatives to  $-2.5\%$
- Danish finance ministry (at DNB's recommendation) decided to suspend issuance of krone and foreign currency bonds (indefinitely)
- Any further reduction of rates could trigger flight to cash and run on banks

Disinflationary pressures and capital inflows after the SNB exit forced the DNB to cut interest rates to strongly negative levels



## *Inflation and MP rates: Sweden*



Source:  
Eurostat,  
Sveriges  
Riksbank

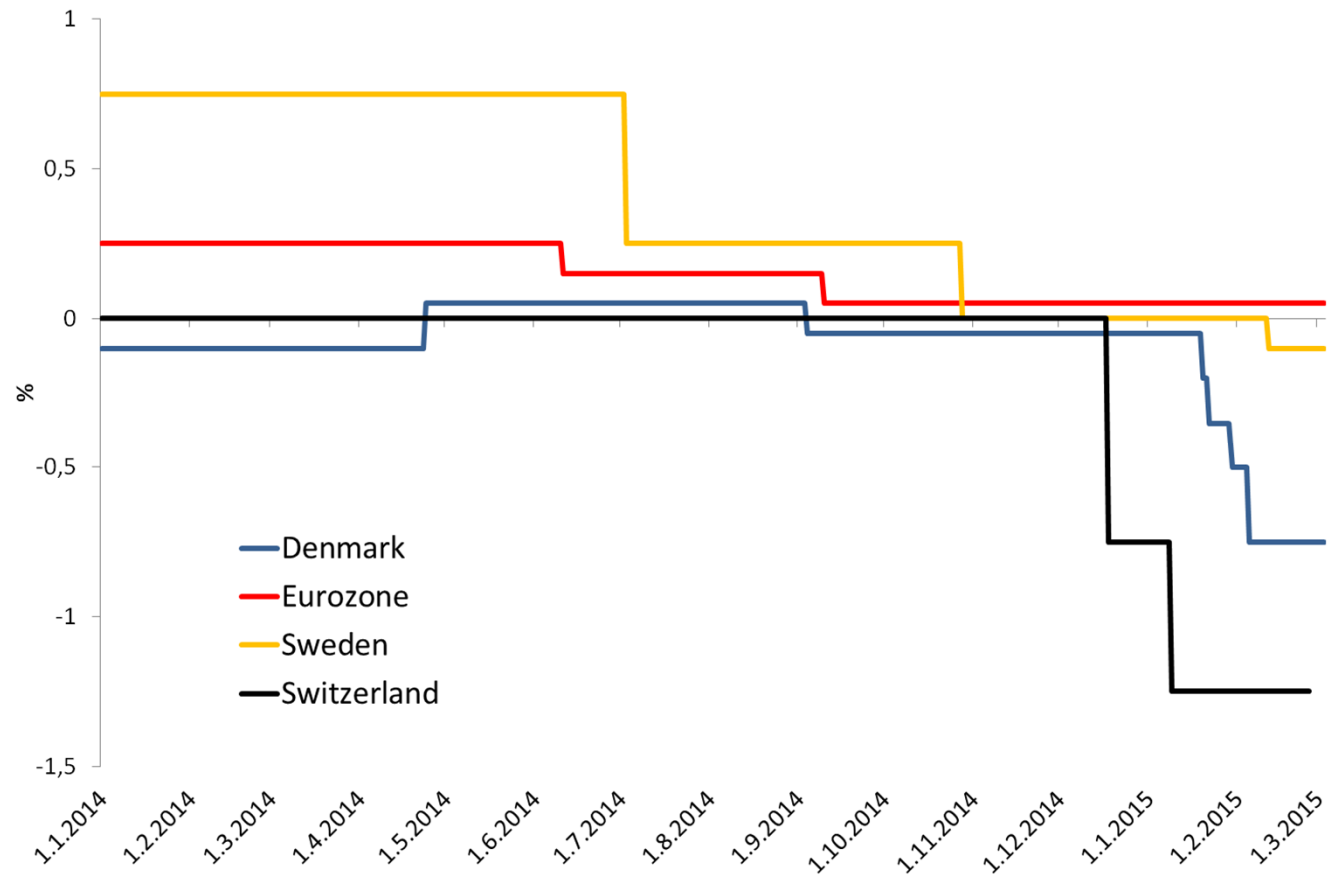
The Riksbank carried out a series of interest rate hikes in 2010–2011; systematic fall in inflation pressures  $\Rightarrow$  rates cut to -0.1% in February 2015

## *Riksbank monetary policy*

- Interest rate hikes in 2010–2011 fostered recession in Sweden and subsequent undershooting of inflation target
- Deposit rate was cut to -0.85% in Feb 2015
- In Feb, Riksbank also announced government bond purchases totalling SEK 10 bn (0.26% of GDP)
- Forward guidance: key interest rate will remain negative until targeted price index approaches central bank's 2% target (2016H1 according to Feb forecast)

The reduction in monetary policy rates in Sweden was smaller than in Denmark and Switzerland

## MP rates of four banks

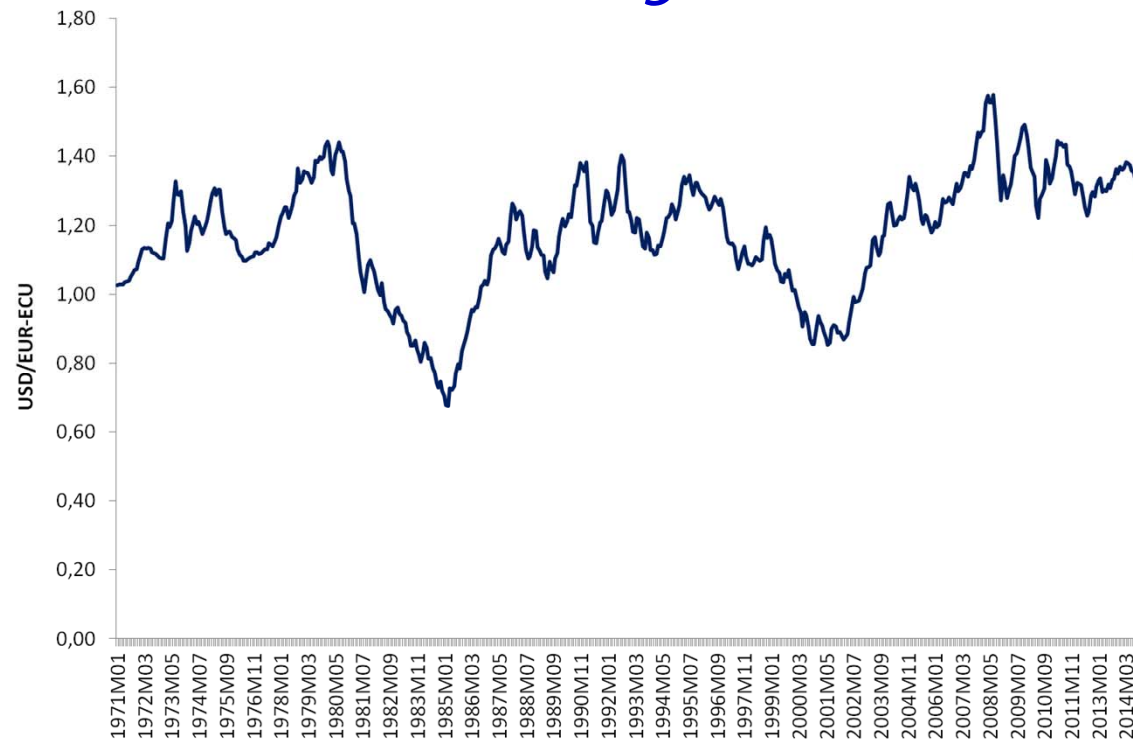


Source: ECB, Danmarks Nationalbank, Sveriges Riksbank, SNB

Negative rates are no longer as unthinkable as they might have seemed even recently

# *USD/ECU-EUR: Jan 1971–Mar 2015*

## *Beyond monetary policies – Exchange rate cycle?*



Source:  
Eurostat

The rate of EUR/ECU against USD in March 2015 was 9 cents weaker than the long-term average for 1971–2015

*CNB monetary policy before  
November 2013 and reasons for  
weakening koruna; impacts of  
weak koruna on Czech economy*

## *Monetary policy since autumn 2012*

- In autumn 2012 CNB announced that if it became necessary to ease monetary conditions further, it would do so by weakening exchange rate of koruna
- In November 2012 CNB:
  - ◆ lowered its key interest rates to “technical zero” ⇒ no further easing of monetary conditions was possible via interest rates
  - ◆ halted sale of yields on its forex reserves
- During 2013 CNB made verbal interventions to weaken koruna
  - ◆ verbal interventions had some effect (tenths of koruna)
  - ◆ for roughly one year they delivered unusually stable exchange rate in historical terms
  - ◆ but effectiveness of interventions gradually faded
- Forward guidance was introduced in March 2013: *“Interest rates will remain at current levels (i.e. at technical zero) over longer horizon until inflation pressures increase significantly”*

The CNB completely exhausted its main monetary policy instrument, i.e. interest rates



# *The Bank Board's decision of 7 November 2013*

- The constantly rising disinflation pressures during 2013 were indicating an ever-increasing decline in inflation well below the inflation target and a real risk of deflation
- The CNB weakened the koruna to around CZK 27/euro (roughly equivalent to cutting rates by 1 percentage point)
- Expressed (one-sided) exchange rate commitment:
  - to prevent excessive appreciation of koruna below CZK 27/euro
  - on weaker side of CZK 27 level to allow exchange rate to float according to supply and demand on foreign exchange market
- Weakening of the koruna was aimed at:
  - averting real threat of deflation
  - attaining inflation target earlier
  - helping economy to recover faster
  - exiting zero interest rate level earlier (and returning to use of main monetary policy instrument sooner)

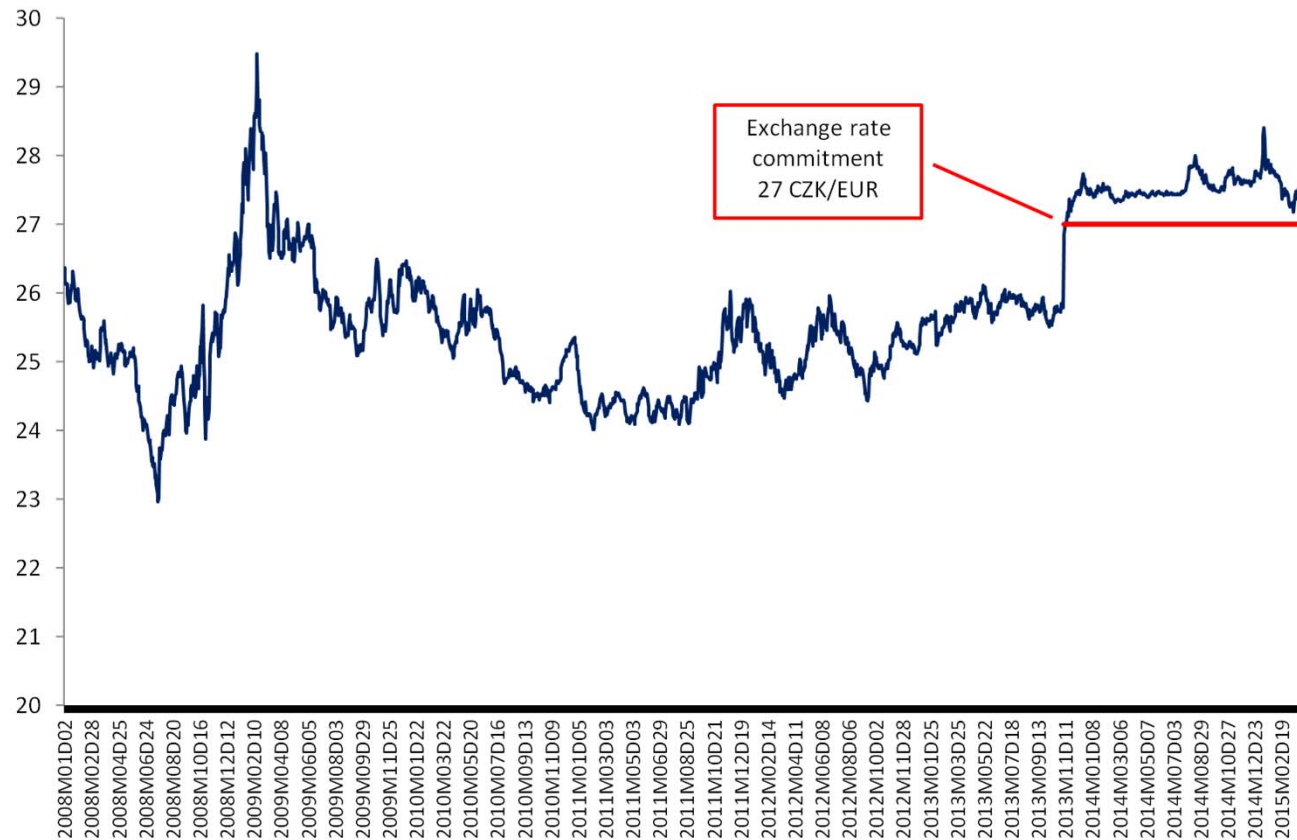


**The exchange rate became a new tool in IT regime**

*M. Singer – Unconventional CB Policies in Europe in Period of Disinflation*



# CZK/EUR exchange rate (2/1/2008–20/4/2015)



Source: Eurostat, CNB

The koruna has been on the weaker side of the exchange rate commitment since it was announced



# *CNB monetary policy after Nov 2013 and its impact on Czech economy*

- Key macroeconomic variables are doing much better than they were before November 2013
- The weakening of the koruna was one of the reasons for the economic turnaround (impact on growth in 2014: weakening of koruna 0.9 p.p., fiscal impulse 1.2 p.p., growth in Eurozone 0.6 p.p.)
- Had koruna not been weakened, GDP would have risen by 0.4% in 2014 and inflation would have been below -2% at end of 2014
- Exchange rate commitment implied unusually stable koruna
- Further strengthening of disinflation pressures during 2014, due initially to lower-than-expected external inflation and later to positive supply shock, led to several extensions of exchange rate commitment and to increase in probability of moving commitment
- CNB policy resembles SNB policy in use of exchange rate as direct instrument; difference: franc strengthened as result of being safe haven

**The weakening of the koruna prevented deflation  
and helped the economy to recover**

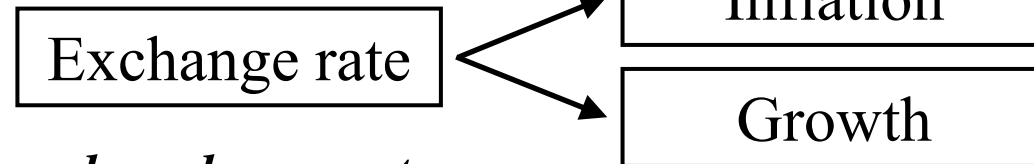
## *Unconventional policies – summary*

- Unconventional policies were aimed initially at maintaining functioning of crisis-hit financial system and in later years at supporting economic growth and price stability
- Unconventional policies were targeted primarily at lowering long end of yield curve
- No two CBs used unconventional policies in same way
- Hitting inflation targets was of secondary importance in UK and CH for a time, but played greater role in EMU, Sweden and Denmark
- Large economies (USA, UK) primarily used liquidity injections and forward guidance; exchange rate effects were regarded as favourable side-effect of QE (EMU, UK)
- Small economies, for which exchange rate is key variable, either used exchange rate commitment directly as MP instrument (CH, CZ) or used other instruments such as negative interest rates (CH, DK) to ensure that exchange rate disrupted price stability as little as possible

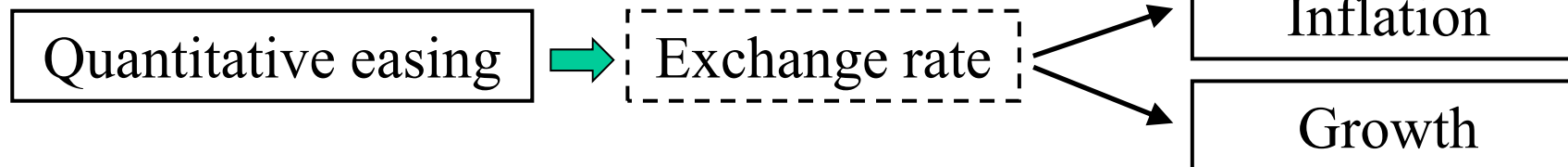
**Unconventional policies fulfilled their objectives with varying degrees of success**

# Unconventional policies and exchange rate: three patterns

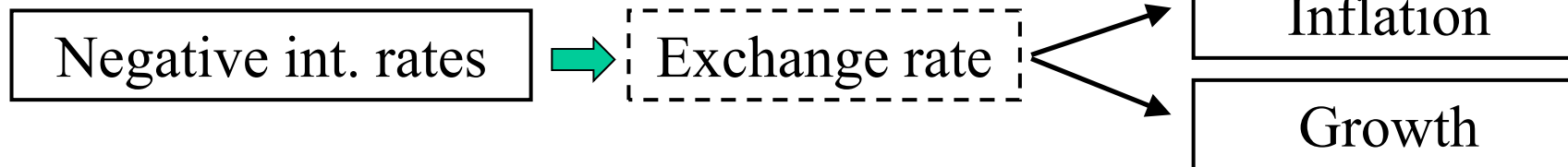
*I. Exch. rate commitment as direct tool: CH, CZ*



*II. Quant. easing works through exchange rate indirectly: UK, ECB*



*III. Negative int. rates work through exchange rate indirectly: CH after exit, DK, S*



Either the exchange rate was used directly as an unconventional policy tool, or its weakening was a side effect of QE or negative interest rates

*Thank you for listening*



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