

**MUNI  
ECON**

# **MONETARY POLICY**

**IV.**

# Overview

Money is old device, but the concept of monetary policy (MP) emerged **during interwar period** = emerged after **hyperinflation experiences** of the 1920s

During **50s and 60s** MP was **eclipsed by fiscal policy** and primarily concentrated on minimizing the cost of public borrowing

In the **70s** the role of MP was reassessed as a consequence of the made in the response of the **inflationary shocks** (+ independence)

By the late **90s** MP geared toward achieving **price stability**

**Financial crisis in 2008** highlighted the role of CB as guarantors of **financial stability**, CB engaged in unconventional MP actions

# Terms

- **Inflation** = an increase in the general price level in the economy
- **Deflation** = price level falls
- **Rising inflation** = the price level is increasing at an increasing rate
- **Disinflation** = falling inflation (the inflation rate is falling)
- **Core inflation** = change in the costs of goods and services but does not include those from the food and energy sector



# What's wrong with inflation?

INFLATION



1. **Redistributing** income from creditors and those on nominally fixed incomes to debtors  
= decline in nominally fixed incomes (like pensioners)  
= decline in real interest rates

real interest rate (%) = nominal interest rate (%) – the inflation rate (%) (Fisher equation)

2. Big price changes create **uncertainty** and make it more difficult for households and firms to make decisions based on prices.
3. **Menu costs** (the resources used in setting and changing prices)
4. **Shoe leather costs** (inflation increases the opportunity cost of holding cash; it is still needed to carry out transaction → “more trips to a bank“)

# What's wrong with deflation?



1. When prices are falling, households will **postpone consumption** (because they expect goods will be cheaper in the future)
2. **Redistributing** income from debtors to creditors and those on nominally

fixed incomes

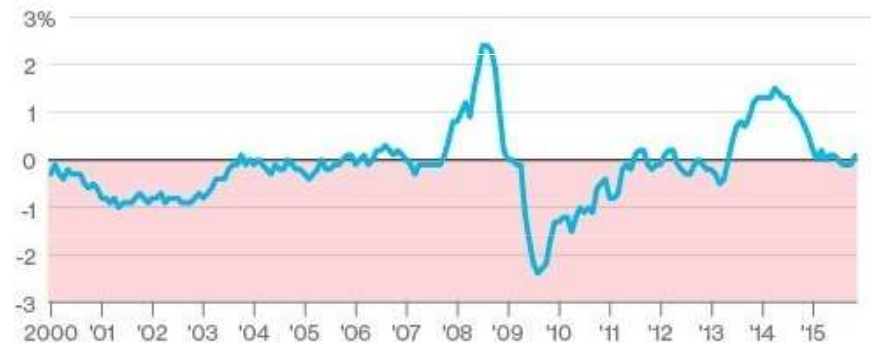
= Increase in nominally fixed incomes

(like pensioners)

= Increase in real interest rates

## Japan's Deflationary Slump

Change in Japan's consumer price index excluding fresh food and adjusted for sales tax increase



# Inflation x deflation

A little bit of inflation is a good thing, as long as it remains stable

Some amount of inflation gives the central bank more ability to boost the economy

Low inflation fosters investment

Low inflation helps with downward wage and price rigidities

# What do central banks do?

**Central bank** = an institution that manages the currency and monetary policy, and oversees their commercial banking system

## Tasks to:

- Issue banknotes
- Provide banks with liquidity
- Impose compulsory reserves on commercial banks
- Act as 'lender of last resort' to banks

# a + b) Liquidity provision + reserve requirements

= To maintain price stability and promote a safe and efficient payment system

## Liquidity is provided through:

- Open market operations (purchases of financial assets by the CB from commercial banks)
- Repurchase agreements or repos (short-term agreement between CB and commercial bank under which commercial bank sells a security to the CB and CB provides commercial bank with liquidity; CB holds the corresponding assets for a fixed period)

In so doing central banks set price of liquidity and control the quantity of base money.

CB can also influence the banks' lending behaviour through **reserve requirements** (the amount of funds that a bank holds in reserve to ensure that it is able to meet liabilities in case of sudden withdrawals).



## c) Lender of last resort

- Banks turn to their lender of last resort when they cannot get the funding they need for their daily business.
- This can happen in periods of financial crisis, when banks may have doubts about lending to each other and lots of people may suddenly want to withdraw their money from their bank account.
- CB helps protect people and businesses from the difficulties that can arise when banks are in trouble.

# Central bank credibility

- CB credibility is very important for effective MP.
- **How can CB enhance its credibility?**
  - By adequate **institutional** design (independence, transparency and accountability)
  - By **tying** its hands: exchange rate peg, monetary policy rules
  - By selecting **conservative central bankers**, i.e. more adverse to inflation than the average of society
  - By incentive **contracts**

# Communication

— **Communicating** relevant information about macroeconomic fundamentals, the condition of financial institutions and the financial sector more generally, and the conduct of policy **can reduce uncertainty.**

— Their communication differs quite a lot

— ECB Press conference (ECB)

— Disclosure of meetings minutes and individual votes

— Disclosure of expected interest rate path by Swedish Riskbank, Bank of Norway, Fed



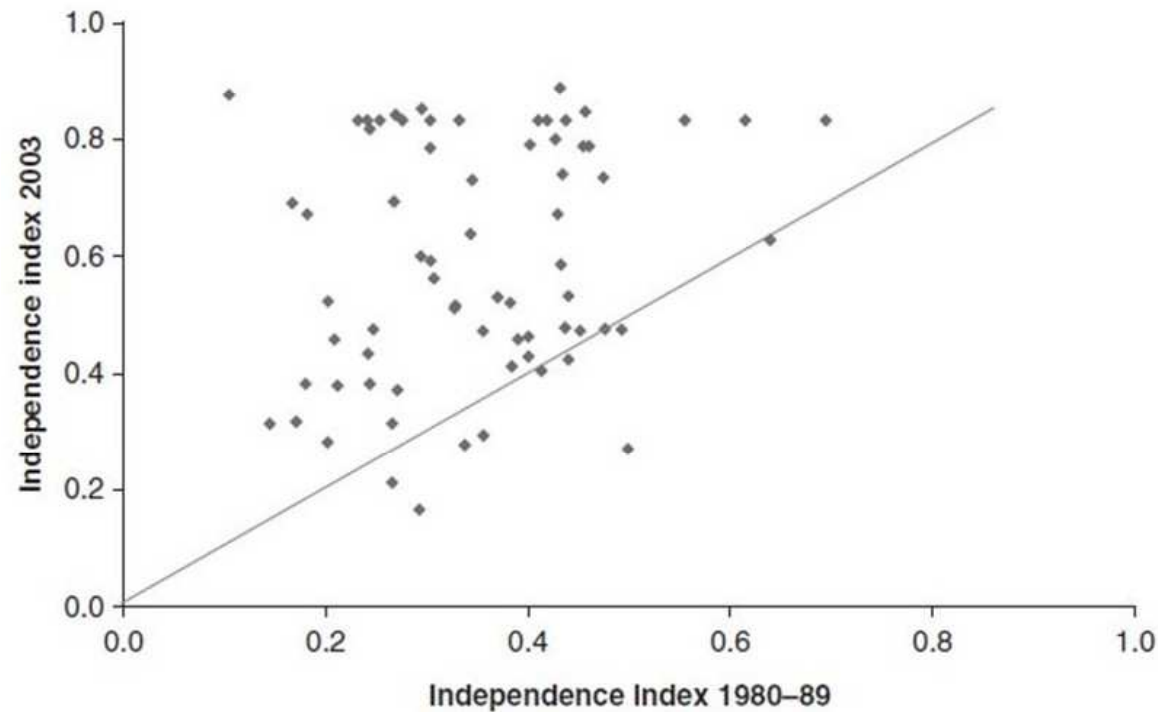
# Importance of CB independence

## — Why is CB independence so important?

- An independent central bank is **insulated** from the political pressures
- Fiscal policy tends to follow a **political business cycle**, if central banks were subject to political approval, monetary policy would also follow this volatile pattern
- Elected politicians do not have enough **knowledge** to conduct monetary policy
- If the CB was held to political interests, the government could accumulate large budget deficits then turn to the CB to **pay off its debts**

# CB independence

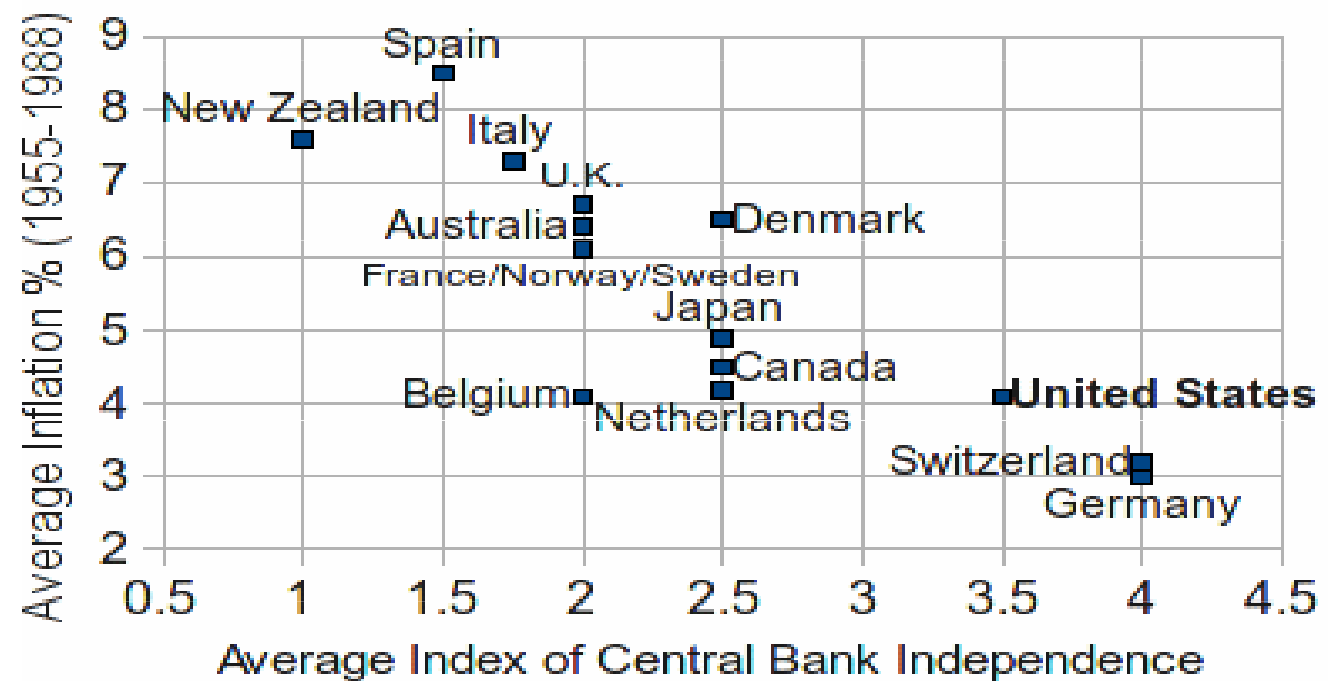
- Increasing number of countries granted full independence to their CB during 1990s and 2000s.



# CB independence and inflation

- This institutional move to independence resulted from the better ability of independent CB to cope with the inflationary pressures

**Central Bank Independence vs. Average Inflation**



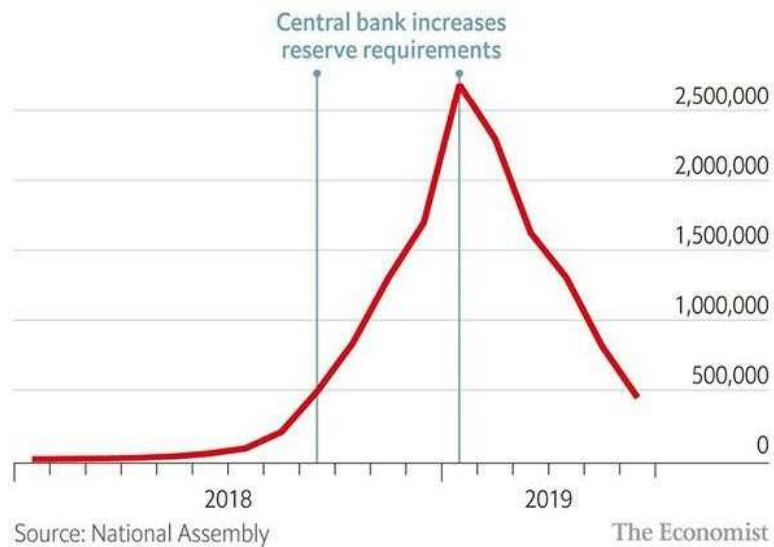
# Central bank independence

— Consider three measures of CB independence:

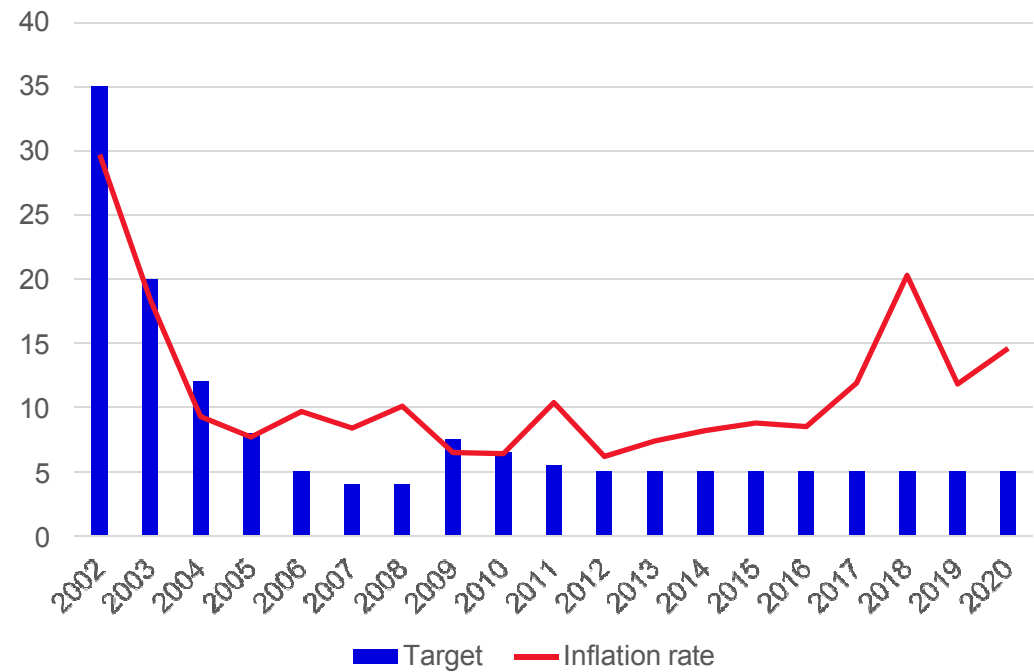
1. **Instrument independence:** a central bank is free to set any monetary policy instrument
2. **Goal independence:** a central bank is free to set its own goals for monetary policy
3. **Political independence:** a central bank is able to conduct monetary policy without legislative influence

# Central bank independence

Consumer prices, % increase on a year earlier



Venezuela



Turkey



# The objectives of monetary policy

The objectives of MP have varied significantly over time:

- In 70s CB had broad mandates involving difficult trade-offs between alternative targets
- After inflation period during 70s **price stability** emerged as **dominant goal**
- Some CBs pursue **other** objectives simultaneously
- After financial crisis 2007-09 discussion about gearing MP more towards **financial stability**

# 1. The objectives of MP: price stability (1/2)

- To maintain the real value of money
- Most central banks aim at keeping inflation

Inflation should be **neither too high**:

- Shoe leather costs, menu costs, redistribution effects, implicit taxation, risk of hyperinflation etc.
- Ex: Germany in the 1920s, Argentina in the 80s, Zimbabwe in the 2000s,...



# The objectives of MP: price stability (2/2)

- ... nor too low

- Risk of deflation and liquidity trap (interest rates are low, saving rates are high → MP is ineffective)

→ Most central banks have objectives between 1-3%

## 2. The objectives of MP: exchange rate stability

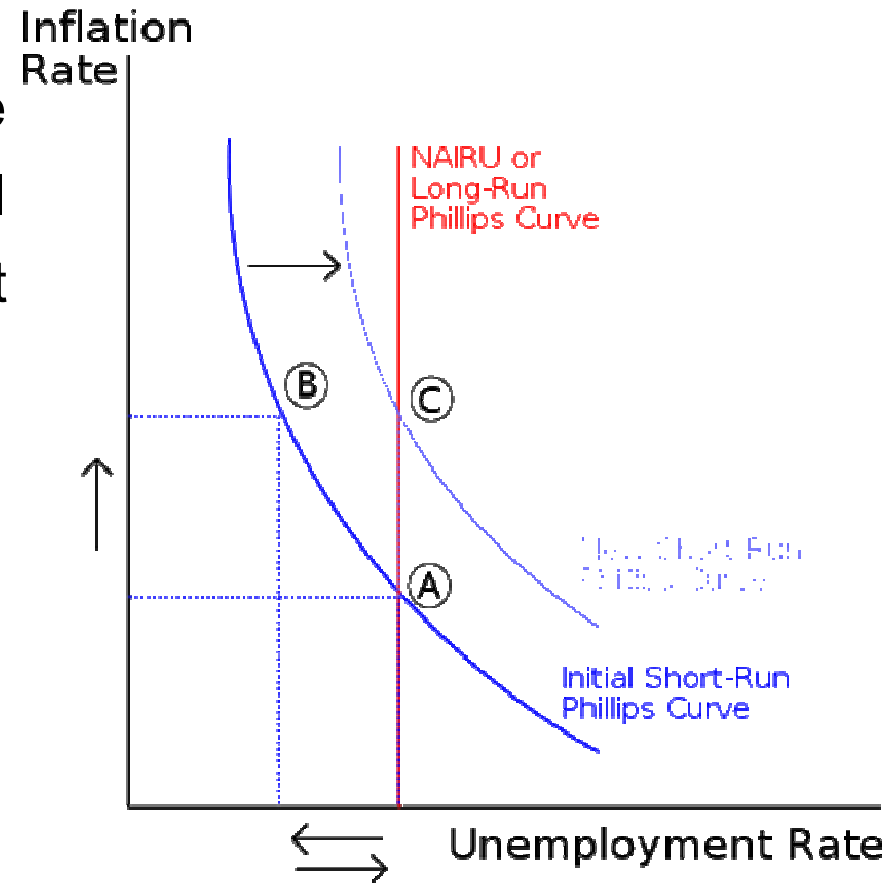
- Until 90s transition countries relied on a **fixed exchange rates** as a means of controlling inflation
- MP of many European countries focused on maintaining the external value of the currency vis-à-vis some larger country (Austria and Germany)
- The attraction of fixed exchange rates has faded away in recent years
- Apart from China, only smaller countries (Denmark, some Caribbean countries) continue peg their exchange rate

### 3. The objectives of MP: output stabilisation

- MP can be used to stabilise aggregate demand, i.e. support demand through an **expansionary MP** in recession and a **restrictive MP** when demand is ballooning.
- The rationale for counter-cyclical MP goes back to the Great Depression in 1930s.
- But desirability and **effectiveness** of counter-cyclical MP are **debated** because of **time lags** which can transform MP into a procyclical policy.

## 4. The objectives of MP: full employment

- Full employment was one of the leading objectives of the central bank (it was mostly **abandoned** at the end of the 20th century)
- Full employment is still a relatively important objective (most central banks would take action if employment starts keeping up)



## 5. The objectives of MP: financial stability

- Financial stability = a proper functioning of banks and financial markets
- Usually not a formal objective
- Lender of last-resort; CB regulates and controls commercial banks
- Responsibility of the CB as a lender of last-resort to banks is inevitable, but should be exerted with great caution because of:
  - Moral hazard problem
  - Possible incompatibility with price stability

# The mandates of four central banks: US Fed

## — Legal vehicle:

- Full Employment and Balanced Growth Act (“Humphrey Hawkins Act”) of 1978



## — Objectives:

- Maximum employment (without a fixed goal for employment)
- Stable prices, meaning low, stable inflation (2 % p. a.)
- (Financial stability)





# The mandates of four central banks: ECB

## — Legal vehicle:

- EU Treaty (since Maastricht Treaty of 1992) Article 127

## — Objective:

- To maintain price stability (2 % over the medium term)
- Without prejudice to the objective of price stability, the ECB shall support the general economic policies in the EU with a view to contributing to the achievement of the objectives of the EU
- Financial stability is not an explicit goal of ECB



# The mandates of four central banks: Bank of England

## — Legal vehicle:

- Bank of England Act, 1998

## — Objective:

- Price stability; definition of price stability belongs to government (2 %)
- Without prejudice to the objective of price stability, BoE shall support the economic policy of the government, including its objectives for growth and employment
- (Financial stability)



# The mandates of four central banks: Bank of Japan

## — Legal vehicle:

- Bank of Japan Law, 1997

## — Objectives:

- Price stability (inflation 2 % p.a.), thereby contributing to the sound development of the national economy
- (Financial stability)



# Mandates of CB: key differences

- US Fed has dual mandate of **full employment and price stability**, while ECB and BoJ have not
- ECB, Fed and BoJ decides on objectives, while BoE do not
- Crisis has prompted fresh discussion on the central bank role in financial stability
  - Example: creation in 2011 of European Systemic Risk Board chaired by ECB President

# Standard instruments of monetary policy

## 1. Open market operations (refinancing operations)

- Used for steering interest rates in the economy
- Executed in the form of repo operations (CB accepts liquidity from banks and in return transfers eligible securities to them as a collateral or CB provides with liquidity to commercial banks)

## 2. Automatic facilities

- Used for providing and depositing liquidity overnight
  - deposit facility: commercial banks may overnight deposits of surplus liquidity with the CB
  - marginal lending facility: commercial banks may overnight obtain liquidity from the CB

## 3. Minimum reserves

- Every commercial bank is required to hold minimum reserves on its account with the CB
- The role is declining

# CS: Instruments of European Central Bank (ECB)

- Minimum reserves (1 % of the demand deposits and of time deposits shorter than two years)
  - Two overnight standing facilities:
    - **Marginal lending facility** (high rate): 1.50 %
    - **Marginal deposit facility** (low rate): 0.75 %
  - Weekly refinancing operations (competitive bids through which ECB provides liquidity against collateral = **refinancing rate** (the main rate of Eurosystem): 1.25 %
  - Interbank rate (EURIBOR) fluctuates between floor and ceiling rate and in normal time close to refinancing rate.
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- These three rates are sometimes called leading interest rates

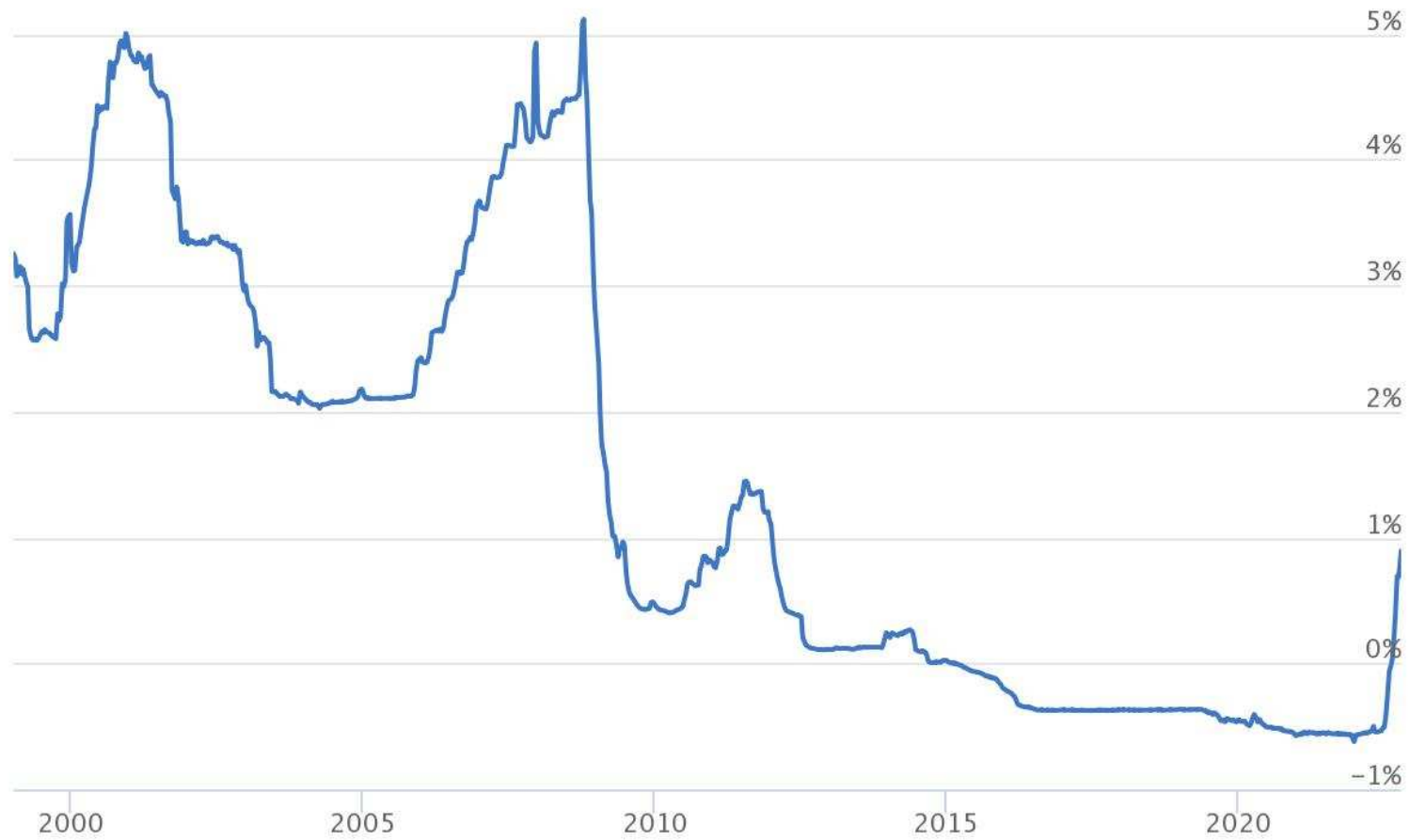
# Historical ECB rates

ECB key rate, 2000 - 2022



Source: ECB, TradingEconomics

# Historical Euribor rates





# Negative interest rates

- When the economy is in a slump, nominal interest rate of zero may not be low enough to get the economy going again
- Negative interest rate banks are more likely to charge lower interest rates on loans to customers → boost GDP growth and inflation
- It can raise financial instability (it can lead to housing or stock market bubble)

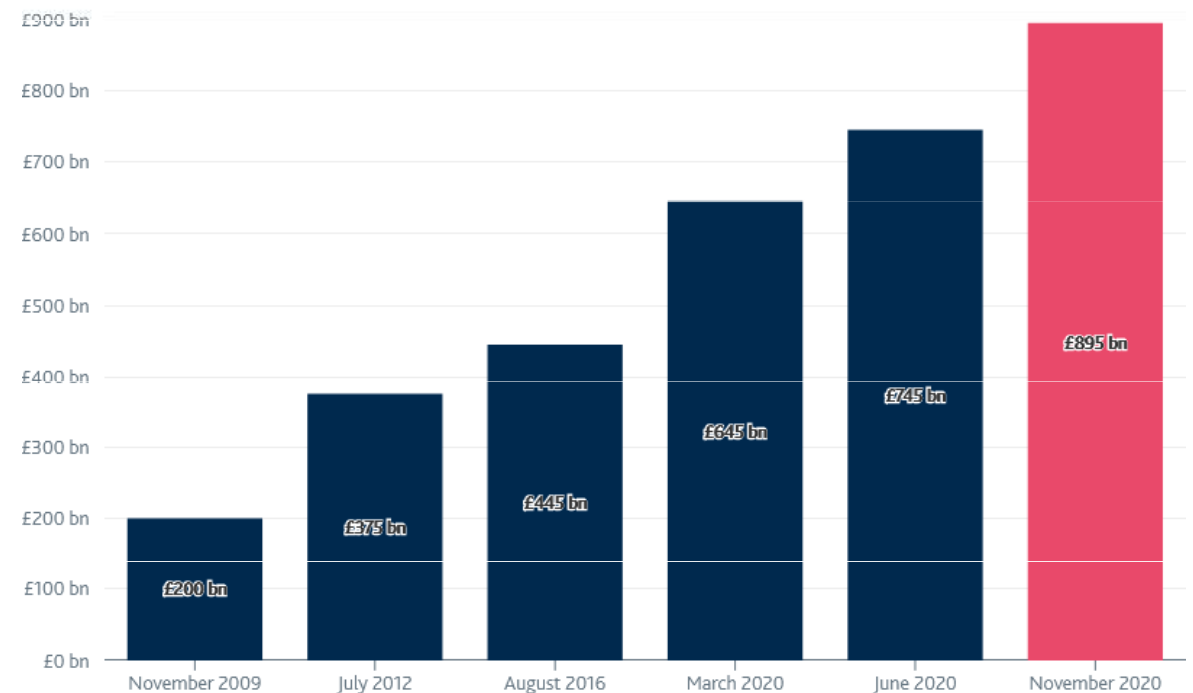
# Quantitative easing (QE)

- **Aim:** to increase aggregate demand by buying assets, even when the policy interest rate is zero
- CB buys bonds (both government and corporate) and other financial assets (it creates additional base money)
  - ➔ This decreases the yield and interest rate on bonds
  - ➔ QE lower the cost of borrowing through the economy, including for the government
  - ➔ This boost spending and AD

# CS: Quantitative easing (QE) in the UK

- 2009 – Financial crisis
- 2012 – Eurozone debt crisis
- 2016 – Brexit referendum result
- 2020 – Coronavirus pandemic

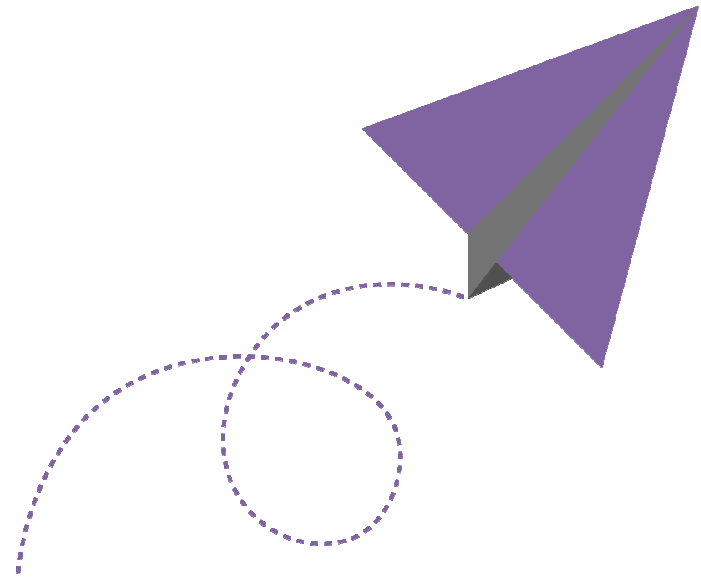
Bank of England purchases of bonds in £ billion



# Transmission channels of MP


= the way monetary policy decisions affect output and inflation

- 1) Interest rate
- 2) Asset-price
- 3) Credit
- 4) Foreign-exchange




# 1. The interest rate channel

- Traditional Keynesian channel:

- Monetary expansion in the presence of nominal rigidities leads to a fall in the interest rate, hence to a revival of investment and durable-goods consumption and via multiplier affect to rise of aggregate demand (AD)  inflation

- **Uncertainty:** CB can directly affect overnight nominal interest rate, while AD rather depends on expected real long-term interest rates.

## 2. The asset-price channel

- Lower interest rate raises asset prices held by households who in turn partially consume this extra wealth, which then stimulates AD  inflation
- The importance of this channel has increased as a consequence of the general rise in the wealth-to-income ratio.

### 3. The credit channel

— Lower interest rates stimulate commercial banks to release credit

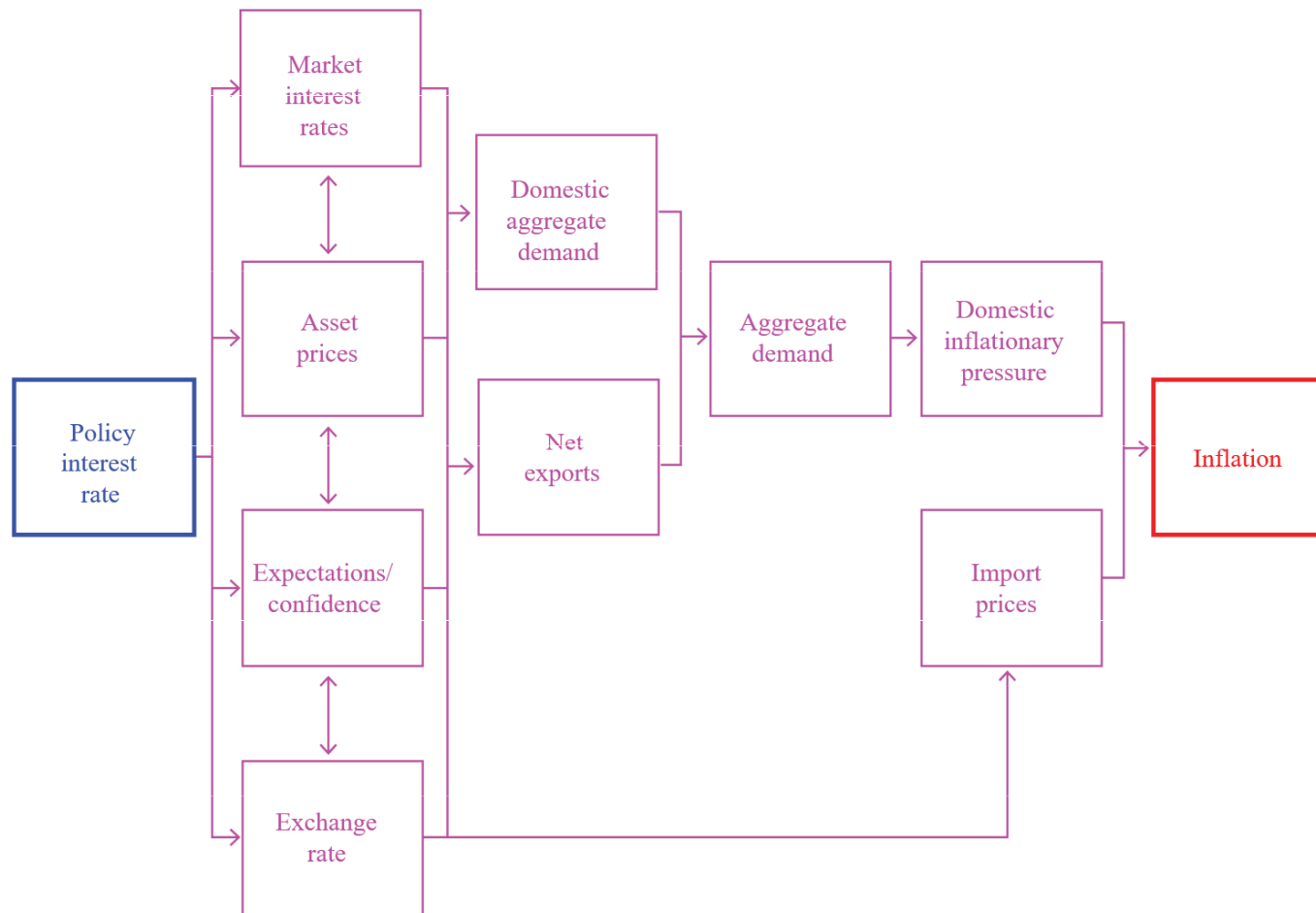
constraints and hence to stimulate credit supply → AD → inflation

## 4. The foreign-exchange channel

- With a lower interest rate, demand for that country's bonds declines = international investors are less attracted by the country's financial assets
  - with the demand for bonds lower, the demand for the currency to buy those bonds declines → the decline in demand for the currency will lead to depreciation
- Lower interest rates stimulate net exports through an exchange-rate depreciation (**Mundell-Fleming**)
- Important in small and open economies



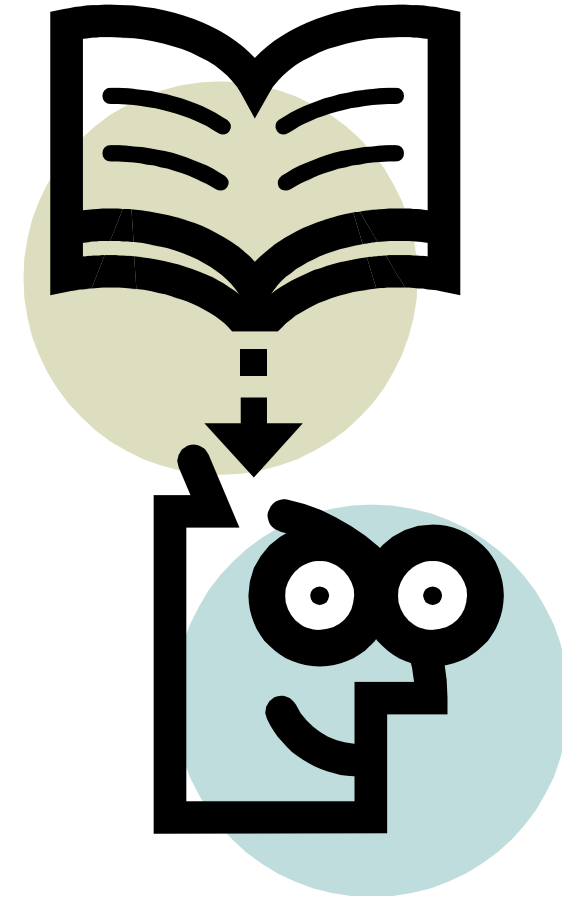
# Bank of England - transmission mechanism



# Reference textbook

— Benassy-Quéré, A. et al. *Economic Policy: Theory and practise.*

Oxford University Press, 2010. **Chap. 4.**



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