



European Macroeconomics

Paul Krugman on Deficits and Keynes

Lecture 7

The New York Times

OPINION

Krugman Wonks Out: What We Talk About When We Talk About Money

May 21, 2021

And the Fed has indeed bought a lot of government debt. But is the Fed really financing the budget deficit?

Not really. At a fundamental level, households are financing the deficit: the funds being borrowed by the government are coming out of the huge savings undertaken by families saving much of their income in an environment where much of their usual consumption hasn't felt safe.

However, household financing of the deficit isn't direct. Instead, it has taken the form of a sort of financial daisy chain. Families are stashing their savings in banks. Banks, in turn, have been accumulating reserves — that is, lending to the Fed, which these days pays interest on bank reserves. And the Fed has been buying government bonds.

Source: <https://www.nytimes.com/2021/05/21/opinion/money-federal-reserve-deficit.html>

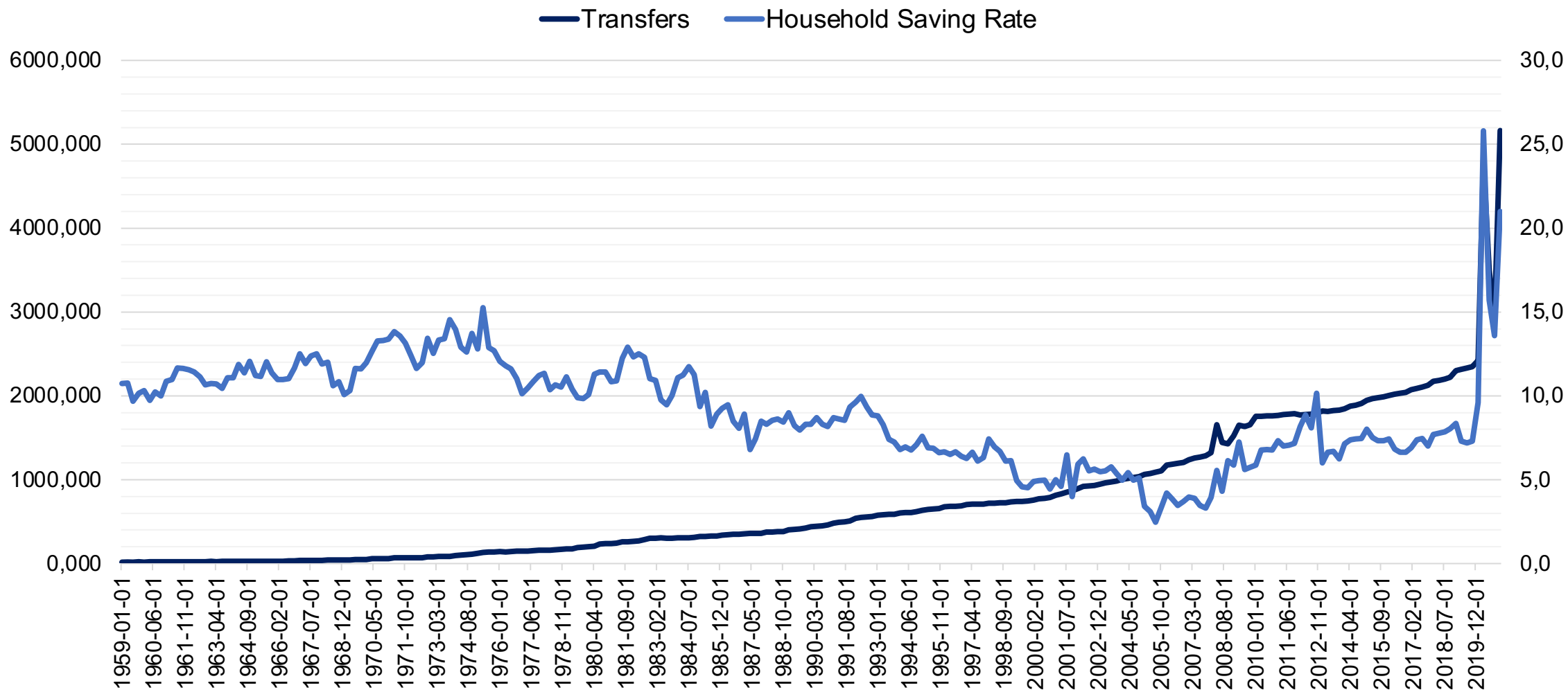
„The Fed is basically acting as a financial intermediary“

In any case, there are two points about this process. First, it says that low interest rates aren't the result of artificial manipulation: there really are a lot of savings with nowhere to go, which are being made available cheaply to the government. Second, because the daisy chain of lending runs through bank deposits, it shows up in the measured money supply. But it isn't really a monetary expansion in the sense many people imagine. The Fed isn't the Venezuelan government printing bolívares to pay its soldiers; it's basically acting as a financial intermediary for investors who want to park their money somewhere safe.

And while there are plenty of reasons to worry about what's going on in the U.S. economy, Fed purchases of bonds and rising M2 aren't on the list. Chill out.

Source: <https://www.nytimes.com/2021/05/21/opinion/money-federal-reserve-deficit.html>

High US government transfers generate high saving rate of private households



Source: FRED

Krugman on „The economic consequences of cancelling Keynes“ (NYT 1 June 2021)

Many economists privately continued to find Keynesian ideas persuasive. But it soon became common knowledge that major journals would not publish anything overtly Keynesian. During my own early career, I and others simply took it as a fact of life that if you wanted to get tenure, you would have to build your publication record in subfields that steered clear of the core issue of depressions and how they happen; you could sometimes smuggle some Keynesian material into your papers, but only if it came wrapped in a model that seemed to be mainly about something else.

So Keynes had in effect been canceled.

But the years of Keynesian cancellation had a heavy cost. Many economists entered the crisis [ignorant of basic concepts](#) that had been worked out many decades earlier, because you couldn't publish those concepts in the journals or teach them in many (not all) graduate programs. This intellectual impoverishment, I'd argue, weakened and distorted the policy response: We had a much worse, much more prolonged slump than we might have had if the ideas needed to fight the slump hadn't been suppressed.



V. The monetary policy of the ECB



The „classical“ philosophy of the ECB: The financial sphere is a veil

The Monetary Policy of the ECSB (2011, p. 58)

“Since **monetary policy can ultimately only influence the price level in the economy**, price stability is the best contribution that a central bank can make to economic welfare and to the long-term growth prospects of the economy.

Assigning monetary policy an objective for real income or employment would have been sub-optimal, since **monetary policy has no scope for exerting any lasting influence on real variables in the short to medium term**.

(...) it is **the task of other economic policy-makers**, notably those responsible for **fiscal and structural policies, to smooth real economic activity in the short term** and to directly enhance the growth potential of the economy.”

1. The mandate of the ECB

V(1). The mandate of the European Central Bank

1. **Price stability as the objective of the ECB**
2. **The ECB's definition of price stability // Why is price stability so important?**
3. **Is there a trade-off between price stability and the goal of high employment?**
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The one-dimensional mandate of the ECB: price stability

Article 127 of the Treaty on the Functioning of the European Union (TFEU):

- "The primary objective of the European System of Central Banks (hereinafter referred to as the ESCB) shall be to **maintain price stability**.
- Without prejudice to the objective of price stability, the ESCB shall support the **general economic policies** in the Union with a view to contributing to the achievement of the **objectives of the Union** as laid down in Article 3 of the Treaty on European Union."

Source: <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:12012E/TXT:de:PDF>



Image source: ECB

The Objectives in Article 3, paragraph 3 of the EU Treaty

"The Union shall establish an internal market. It shall work for the sustainable development of Europe based on

- **balanced economic growth** and
- **price stability**,
- a highly competitive social market economy, aiming at **full employment** and social progress, and
- a high level of protection and improvement of the **quality of the environment**.

It promotes scientific and technical progress."



The mandate of the Federal Reserve: price stability, high employment, moderate long-term interest rates

Defined in Section 2A of the Federal Reserve Act:

"The Board of Governors of the Federal Reserve System and the Federal Open Market Committee shall maintain long-run growth of the monetary and credit aggregates commensurate with the economy's long-run potential to increase production, so as to promote effectively **the goals of maximum employment, stable prices, and moderate long-term interest rates.**"

Source: <https://www.federalreserve.gov/aboutthefed/section2a.htm>



Image source: Federal Reserve

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The ECB's definition of price stability:

- **Price index:** Harmonised index of consumer prices (HICP) collected in a uniform way in all Member States
- Target for the **euro area as a whole**, i.e. developments in individual countries are not relevant for the ECB
- Time horizon: "**medium term**"
- Target: Inflation rate "**of below but close to 2%**".
- Symmetry: "The key point is that the Governing Council is **symmetric** in the definition of the objective of price stability over the medium term". (Mario Draghi at a press conference on 10 March 2016, source: <https://www.ecb.europa.eu/press/pressconf/2016/html/is160310.en.html>)



Why "below but close to 2%" and not an inflation target of 0%?

- More **room for manoeuvre in the event of negative shocks**:
 - With **2% target inflation** and a neutral real interest rate of 2%, the nominal interest rate in equilibrium would be **4%**.
 - With **0% target inflation**, the nominal interest rate in equilibrium would be only **2%**.
 - In case of a negative shock, due to the **zero lower bound (ZLB)** for nominal interest rates, central banks can cut interest rates by 4 percentage points with a 2 % target, and only by 2 percentage points with 0 % target.
- In a **monetary union** with autonomous member states, some countries would have to accept **deflation with an** average inflation target of 0%.
 - But this also speaks against a **higher target** (for example 4 %), because then a some number of countries would have to accept quite high inflation.

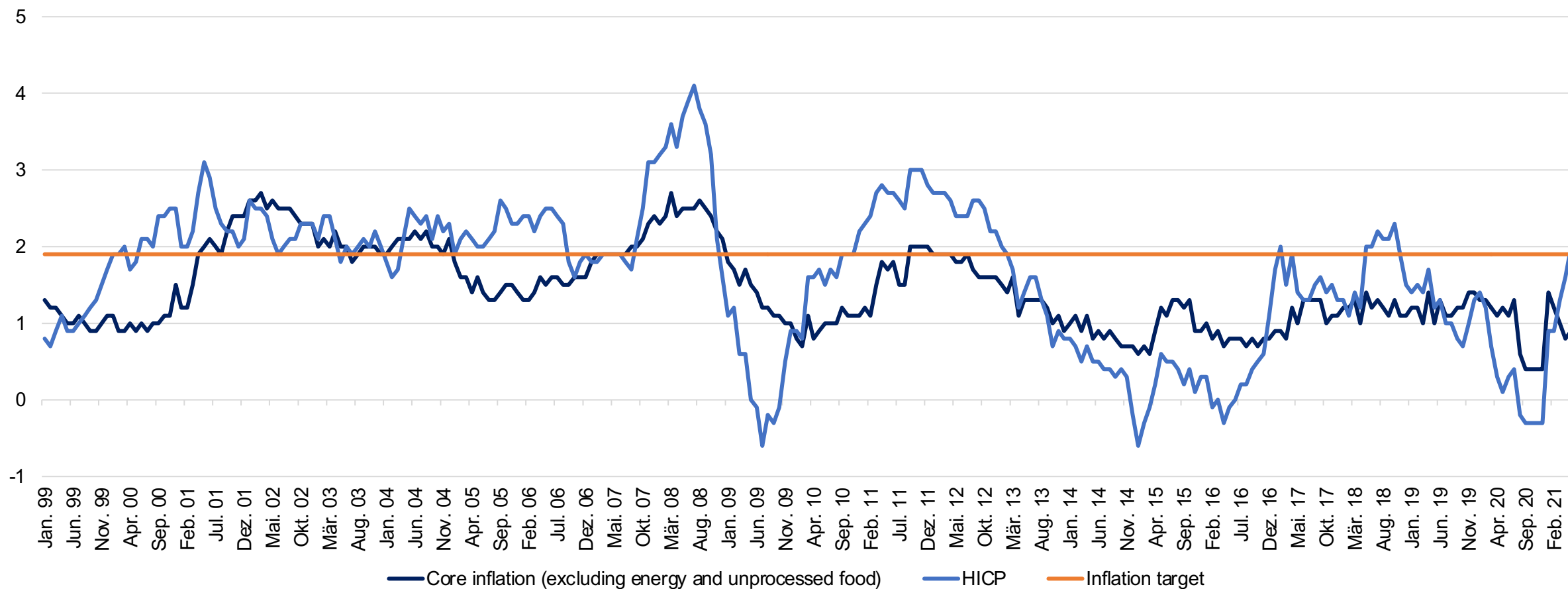
Target inflation rates of central banks in advanced economies are mostly 2%

AUSTRALIA	Reserve Bank of Australia	2.00% - 3.00%	NEW ZEALAND	Reserve Bank of New Zealand	2.00% +/-1.0%
BRAZIL	Central Bank of Brazil	4.25% +/-1.5%	NORWAY	Norges Bank	2.00%
CANADA	Bank of Canada	2.0% +/-1.0%	PAKISTAN	State Bank of Pakistan	6.00%
CHILE	Central Bank of Chile	3.00% +/-1.0%	POLAND	National Bank of Poland	2.5% +/-1.0%
CHINA	People's Bank of China	around 3.00%	SOUTH KOREA	Bank of Korea	2.00%
CZECH REPUBLIC	Czech National Bank	2.00% +/-1.0%	SWEDEN	The Riksbank	2.00%
HUNGARY	Central Bank of Hungary	3.0% +/-1.0%	SWITZERLAND	Swiss National Bank	<2.00%
ISRAEL	Bank of Israel	1.00% - 3.00%	UNITED KINGDOM	Bank of England	2.00%
JAPAN	Bank of Japan	2.00%			

Source: <http://www.centralbanknews.info/p/inflation-targets.html>

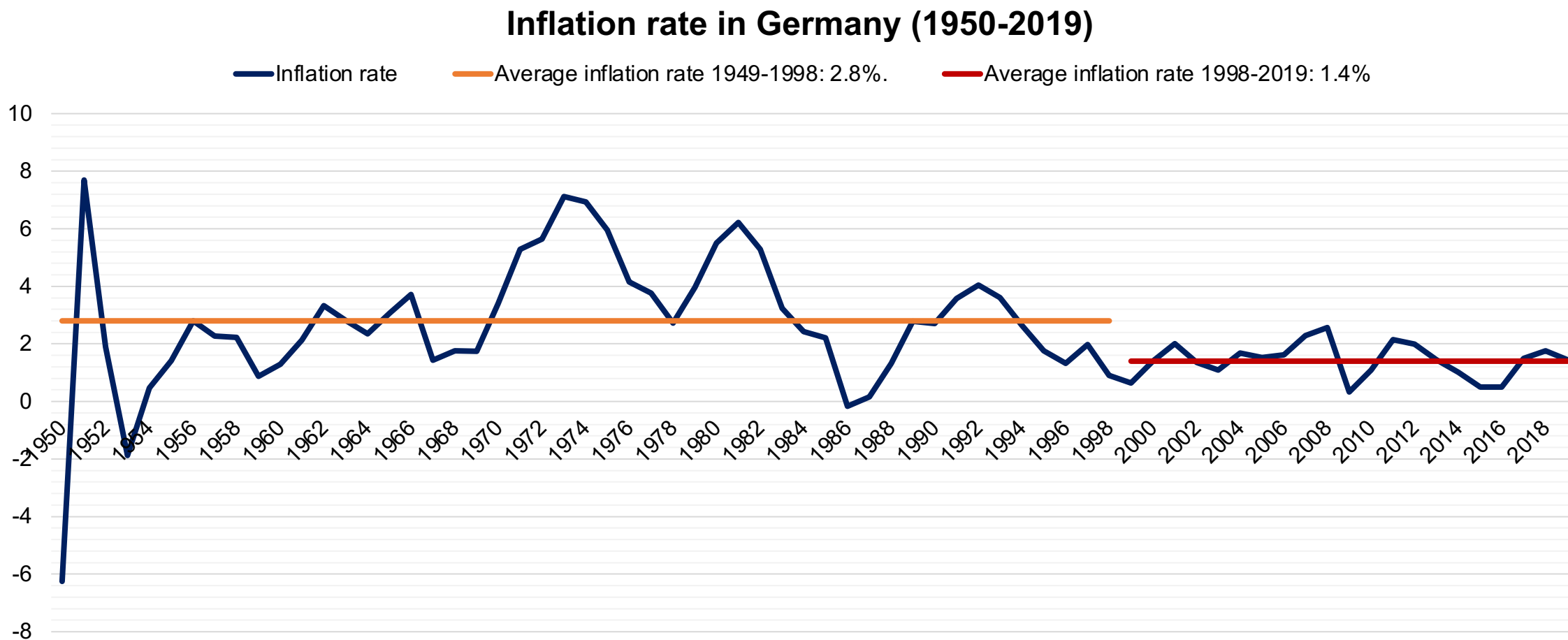
The ECB has been able to achieve its inflation target relatively well

Inflation in the euro area



Source: ECB, SDW

In Germany, inflation in the euro phase (1999-2019) was only half as high as in the D-Mark phase (1949-1998)



Source: Bundesbank

Why does price stability matter?

Money plays a central role in the market economy

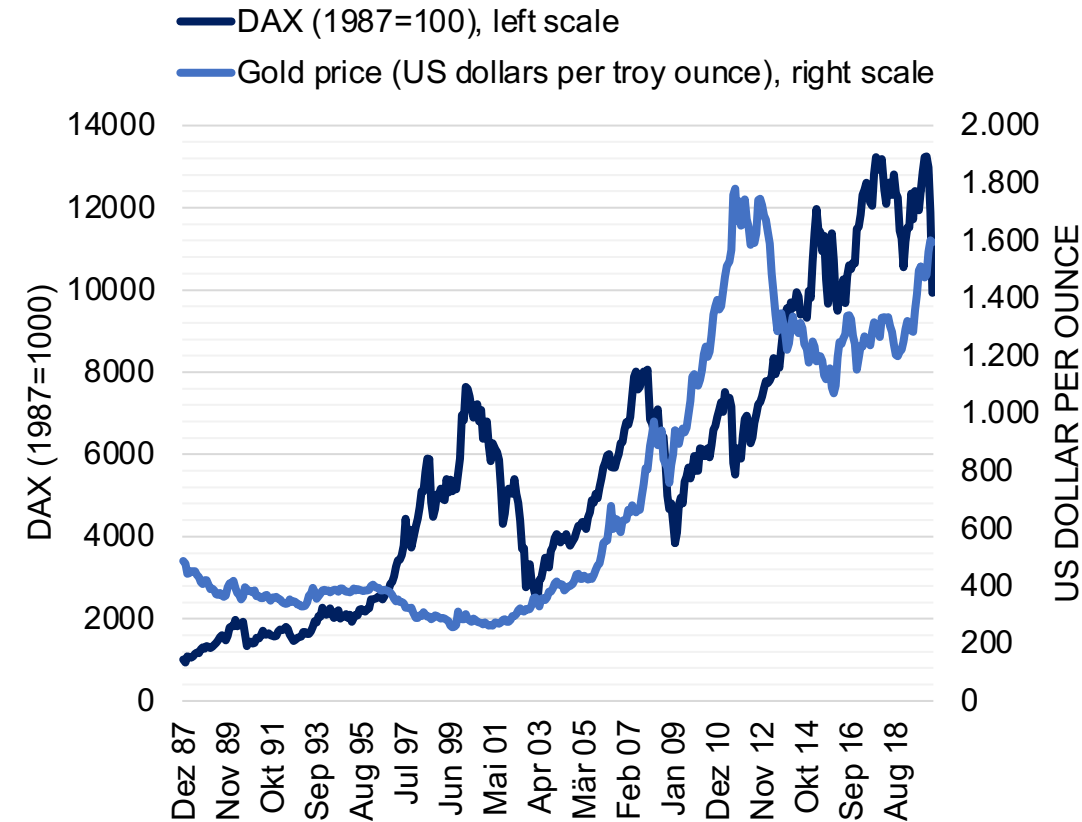
- The market economy is based on the **division of labour** and the exchange of goods via markets. Prices are signalling and coordination mechanism of this system. This requires low inflation rates.
- The **functions of money**
 - As a **unit of account**, it enables the comparison of prices of goods and services ("numéraire")
 - As a **means of payment**, it facilitates exchange at markets.
 - As a **store of value**, it allows for easy intertemporal storage of assets.



Money as a store of value

- Many investors have a preference for safe and liquid investments ("safe assets"). Shares, gold or real estate show strong fluctuations in value. Real estate is a less liquid asset and represents a cluster risk.
- Bank deposits (money in the sense of M1 or M2) are a very liquid and, with low inflation, quite stable store of value
- High inflation leads to a "flight into real assets" (gold, real estate), which is often associated with misallocations

DAX and gold price



Source: Bundesbank

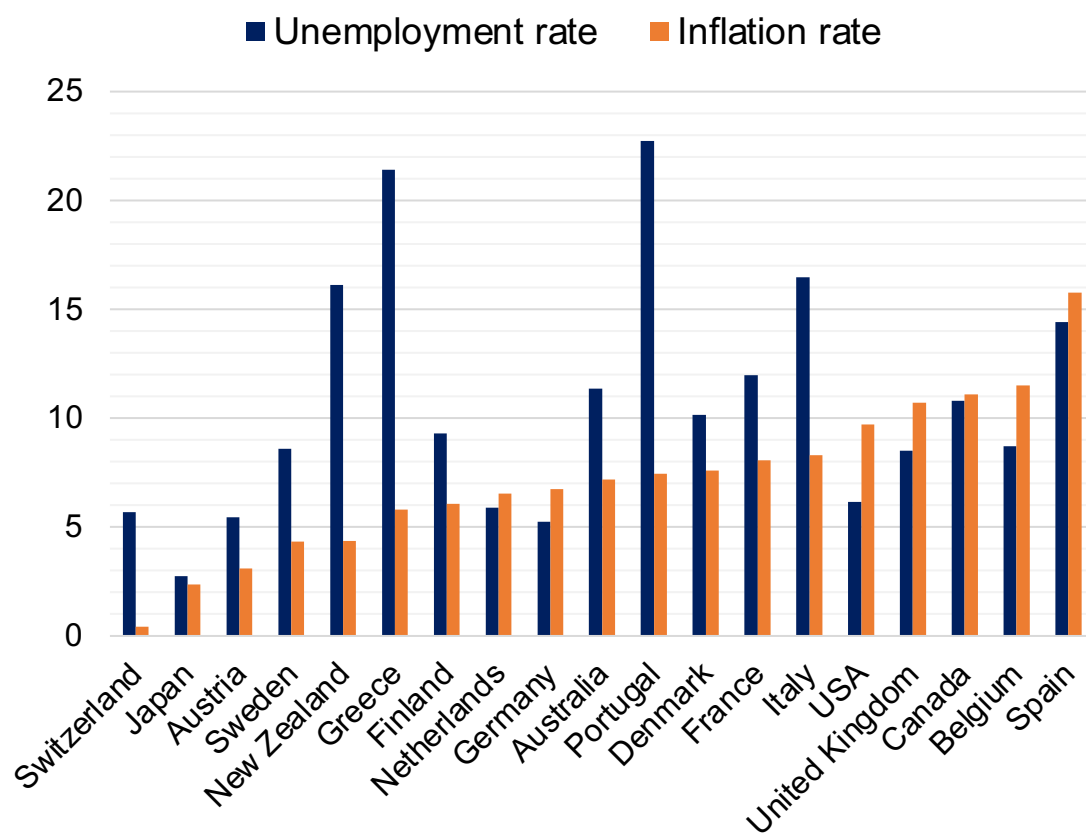
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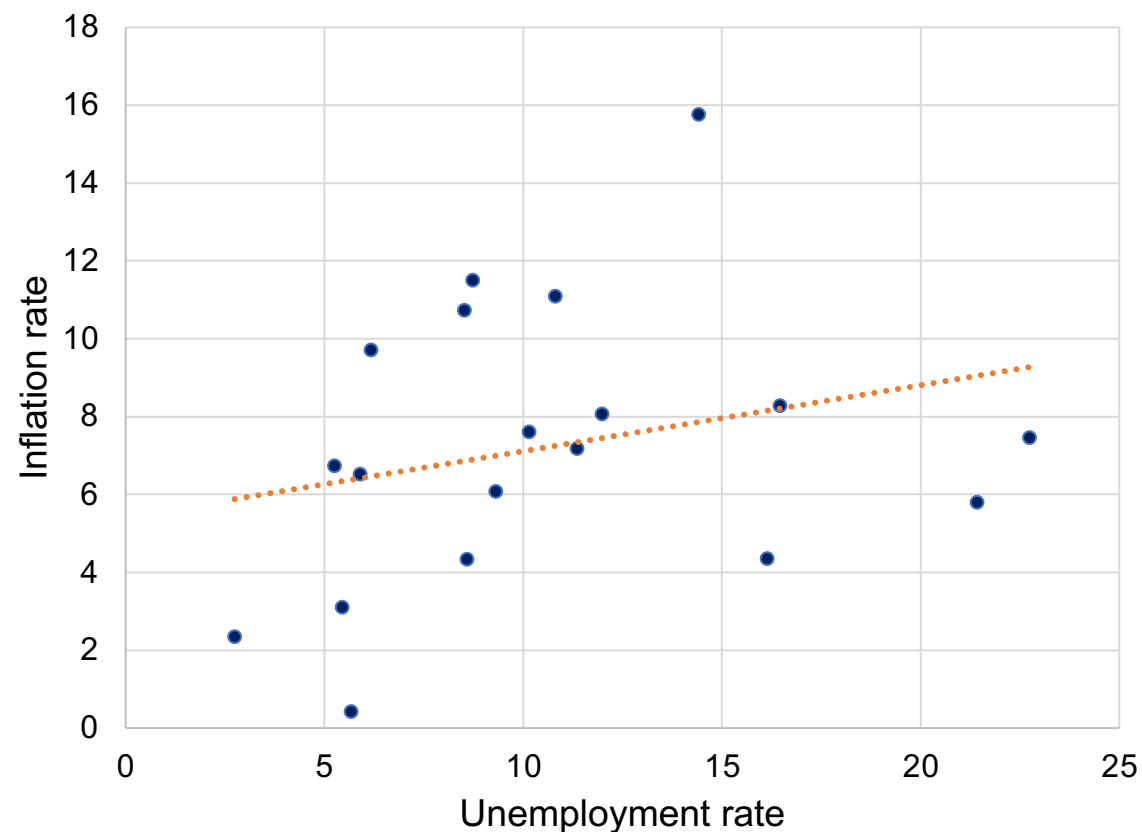
The experience of the 1980s: stagflation

Countries with high inflation tend to have higher unemployment

Inflation and Unemployment in 1982



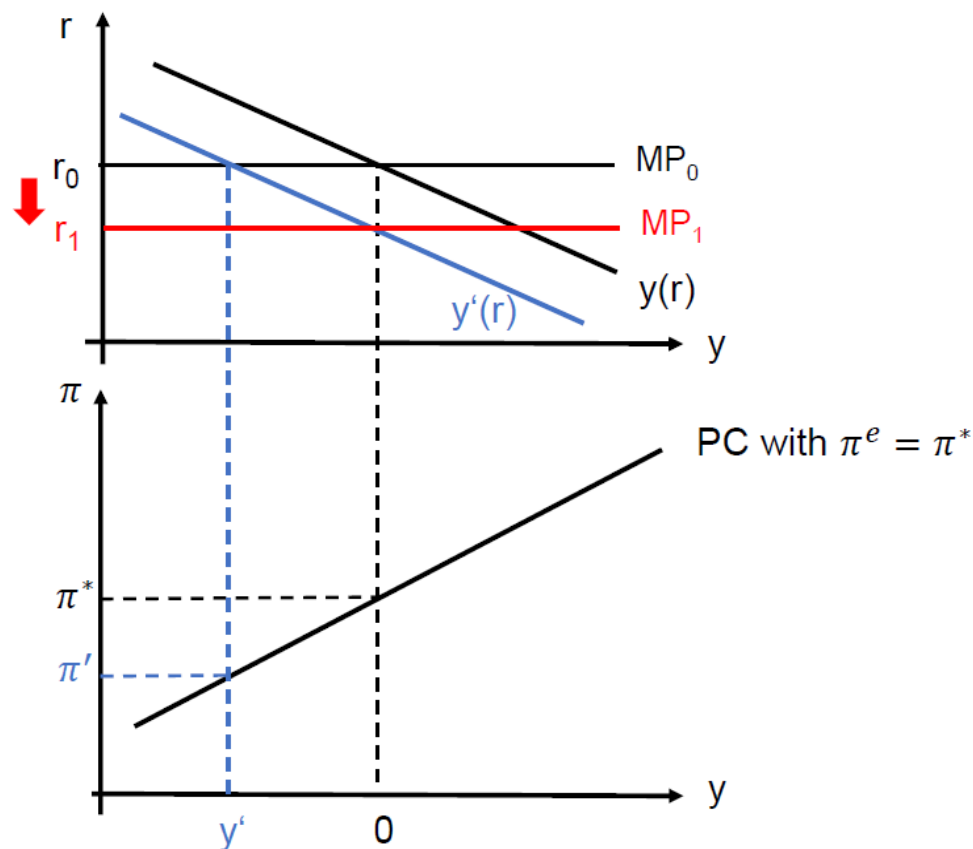
Inflation and Unemployment in 1982



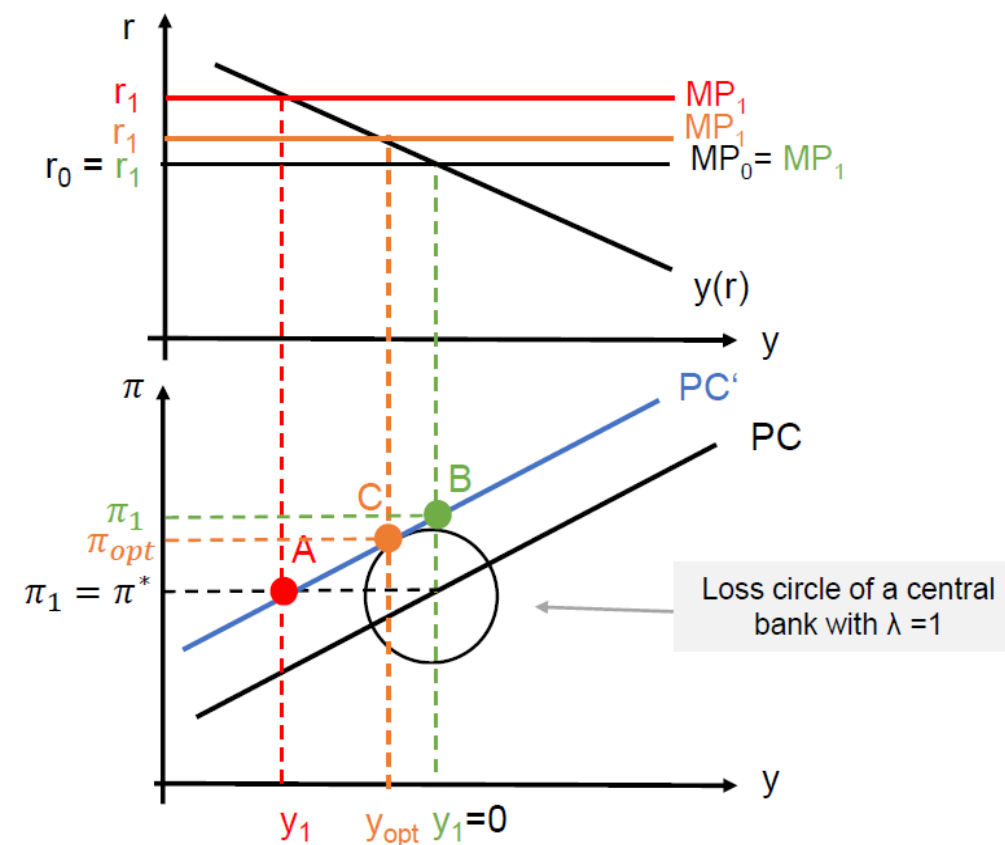
Source: IMF, WEO Database, April 2020

The short-term perspective: Demand and supply shock in the IS/MP/PC-model

Demand shock: No trade-off between inflation and output stabilisation



Supply shock: Trade off between inflation and output stabilization



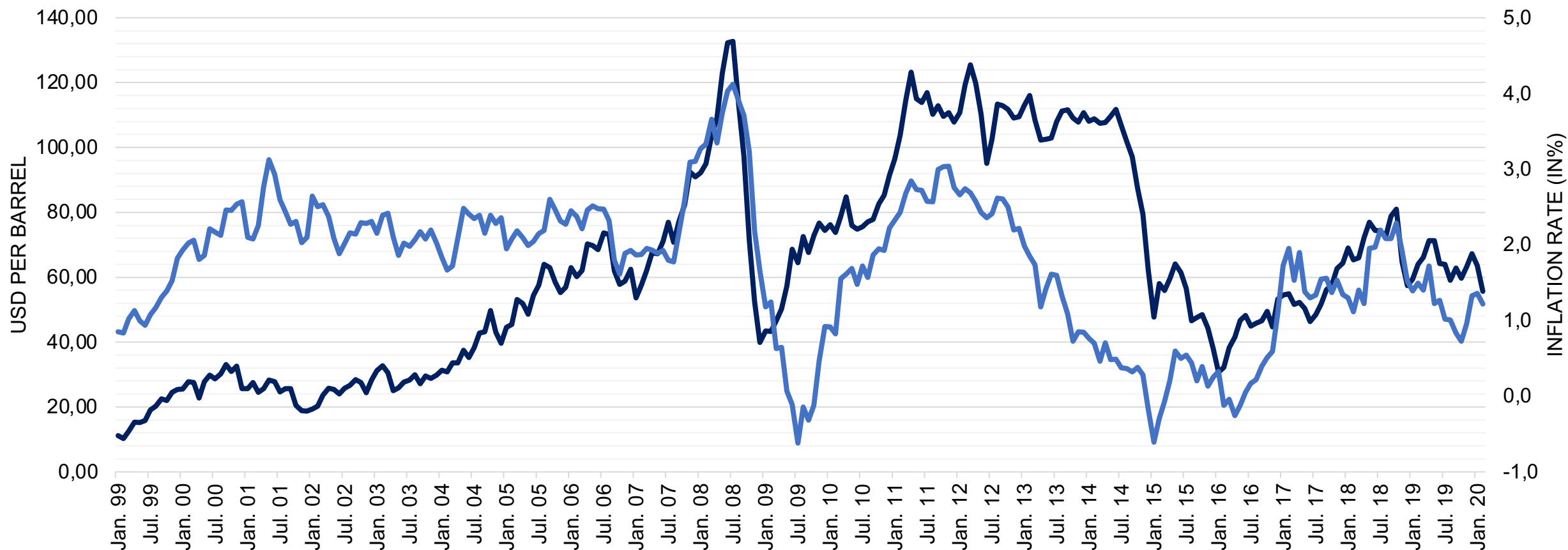
Trade-off between price stability and output (=employment stabilisation) is determined by the nature of the shock

- In the case of **demand shocks**, e.g. COVID pandemic: By preventing deflation, the central bank simultaneously stabilises national income and prevents unemployment. Thus, there is no trade-off
- In the case of **supply shocks**, e.g. higher energy prices: The central bank faces a trade-off
 - If it stabilises the **inflation rate**, it generates additional **losses in national income**
 - If it stabilises **national income**, the inflation rate moves further away from its target value

The trade-off in the event of supply shocks can be mitigated by the medium-term orientation of the ECB

Oil price and inflation in the euro area

— Brent oil price per barrel in USD (left scale) — Harmonised Index of Consumer Prices euro area (right scale)

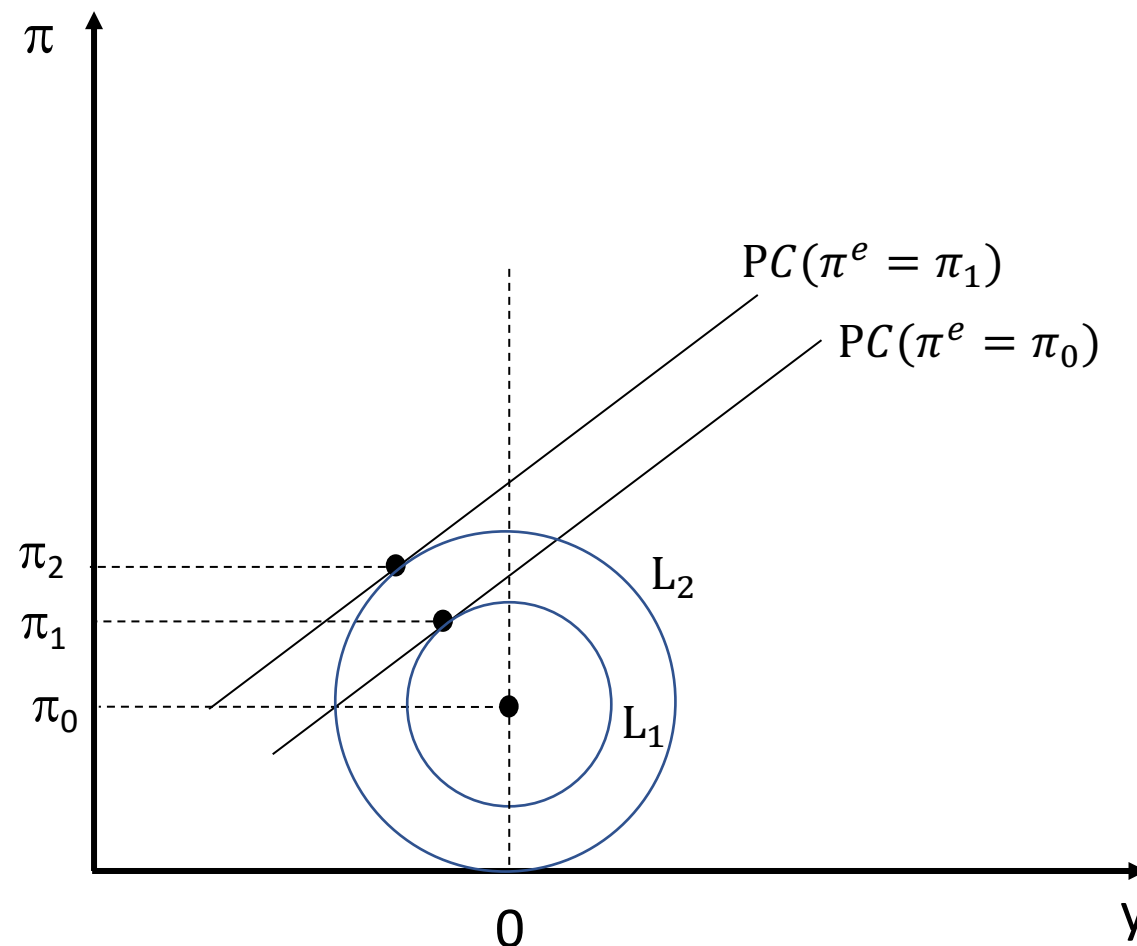


Source: ECB, SDW

Supply shocks become a problem when they lead to „second-round-effects“

Second-round effects:

→ Inflation rate expectations are no longer determined by the central bank but by higher inflation rate targets



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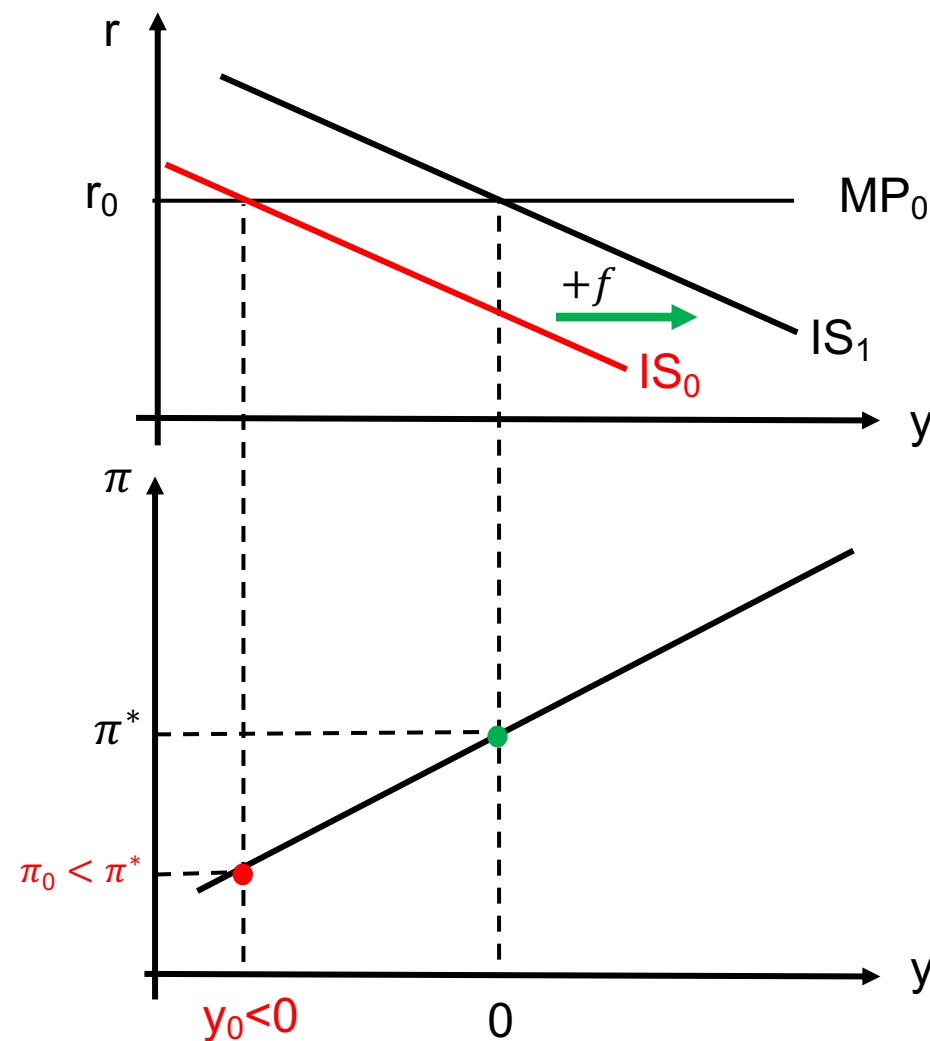
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In the Keynesian model monetary and fiscal policy and monetary policy have effects on output and inflation

- In the IS/MP/PC model, fiscal policy can be represented as an additional term in the IS curve (f). It reflects government expenditures as a determinant of aggregate income.

$$y = a - br + f + \varepsilon_1$$

- With its expenditures, the government can shift the IS-curve which has an impact on the inflation rate



Responsibility of governments for price stability

Abba Lerner: Functional Finance and the Federal Debt (1943)

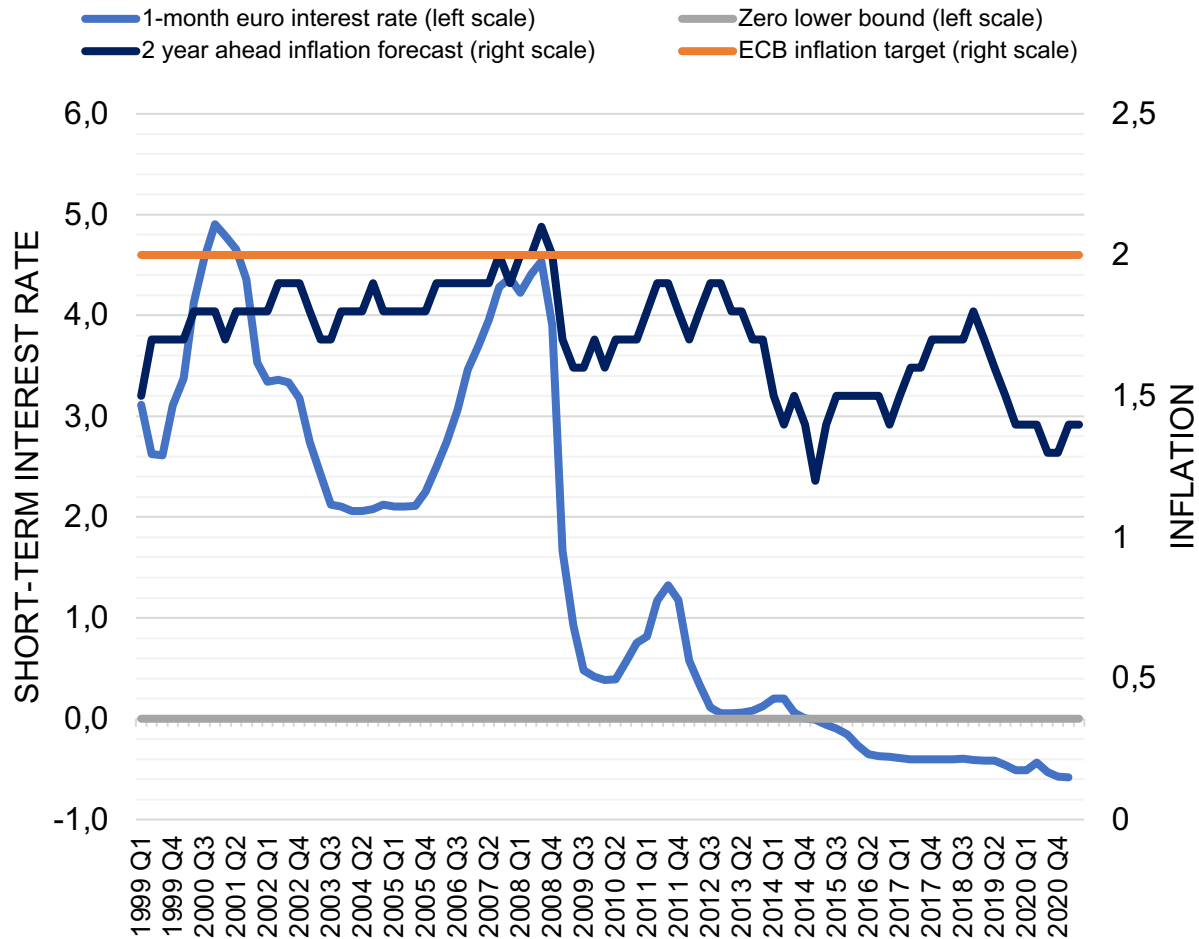
“The first financial responsibility of the government (since nobody else can undertake that responsibility) is to keep the **total rate of spending** in the country on goods and services neither greater nor less than that rate which at the current prices would buy **all the goods that it is possible to produce**. If total spending is allowed to go above this there will be **inflation**, and if it is allowed to go below this there will be **unemployment**.”

Article 1 of the Act to Promote Economic Stability and Growth in Germany (1967):

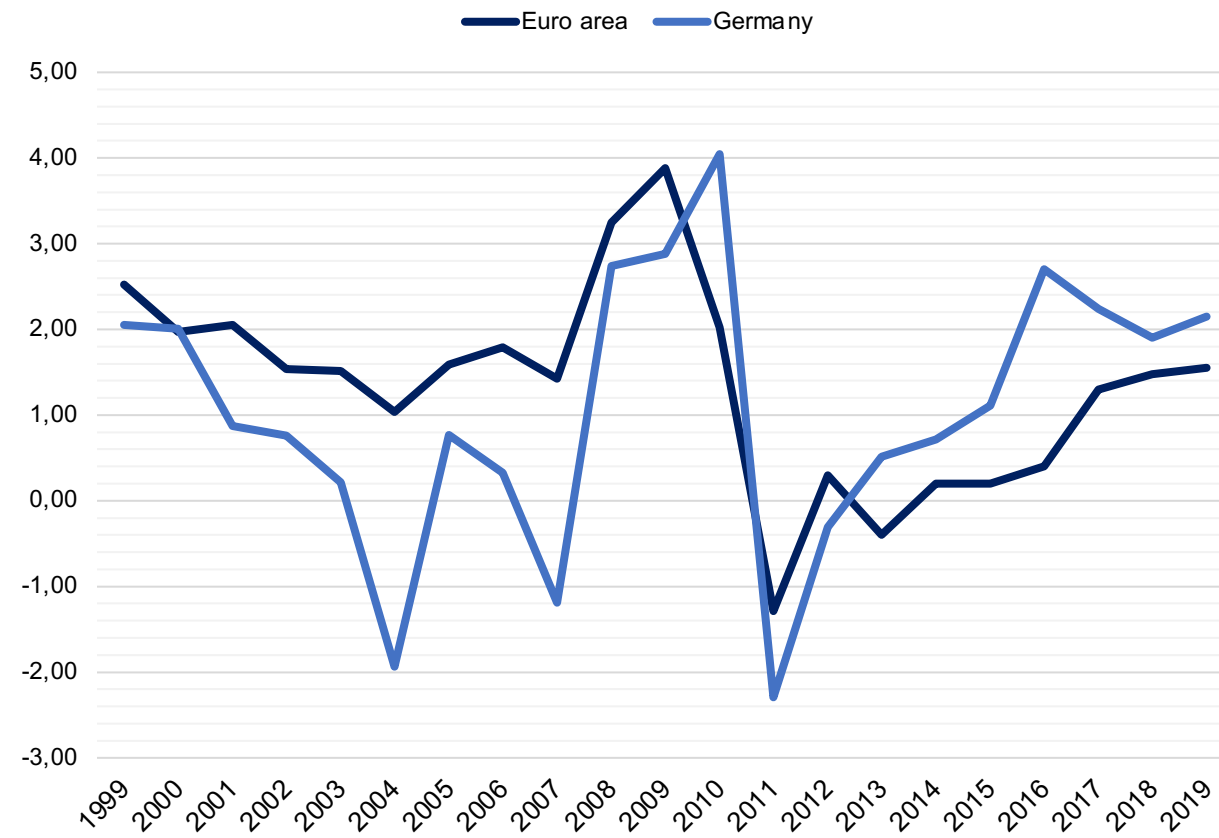
“In their economic and fiscal policy measures, the Federation and the states shall observe the requirements of **overall economic equilibrium**. These measures shall be taken in such a way that, within the framework of the market economy, they simultaneously contribute to **price stability**, to a **high level of employment** and external equilibrium, accompanied by steady and adequate economic growth”

The role for fiscal policy in a deflationary environment

Euro area: interest rates and inflation

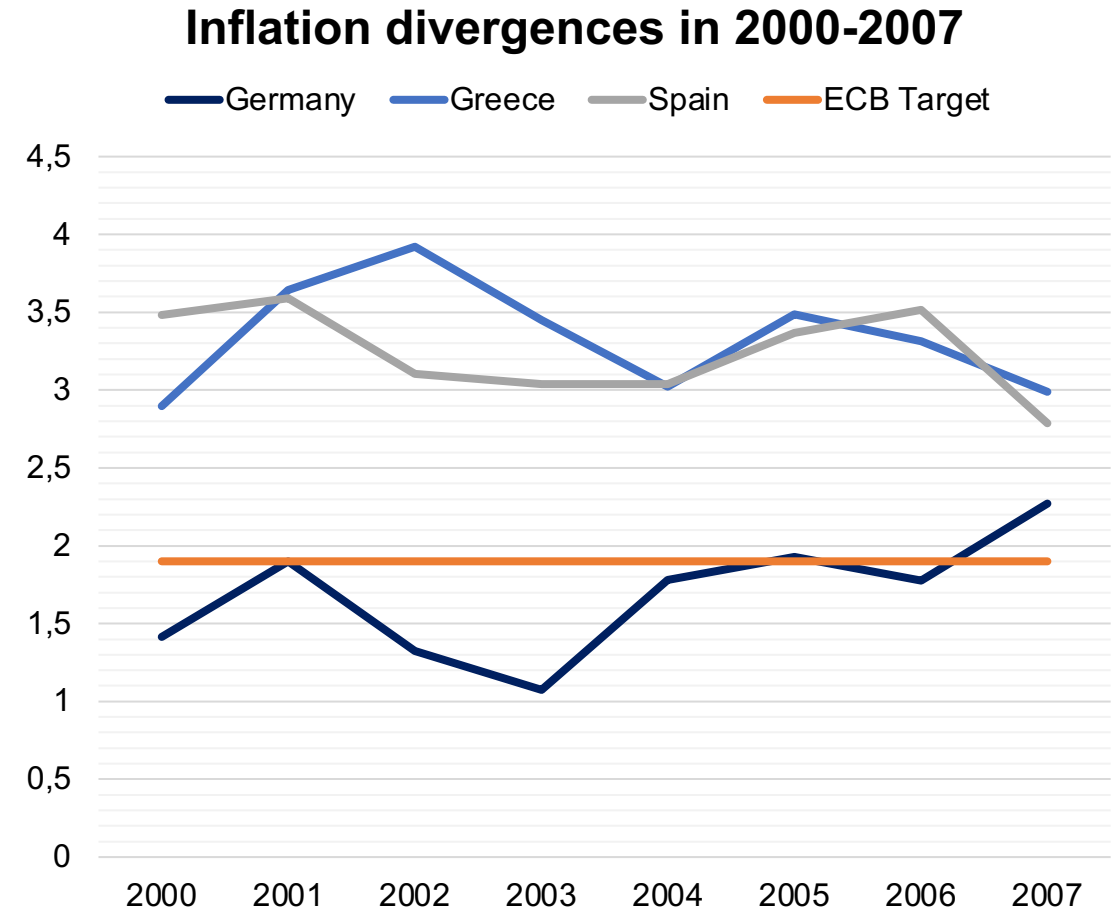


Euro area: real government expenditures (Percent change from one year ago)



The role for monetary policy in a monetary union

- If a country is confronted with a **idiosyncratic demand shock**, the ECB can only partially compensate the shock
- The ECB reaction has negative effects for the other member states
- Therefore, national fiscal policy is the required instrument for stabilizing the inflation rate and unemployment at the national level



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In the phase up to 2008, the ECB was one-sidedly fixated on price stability and overlooked risks in the financial system

Statement by the then ECB President Trichet on 12 July 2007
(i.e. about 2 weeks before the start of the financial crisis):

“Given the vigorous monetary and credit growth in an environment of already ample liquidity, a cross-check of the outcome of the economic analysis with that of the monetary analysis supports the assessment that upside risks to price stability prevail over the medium to longer term.”

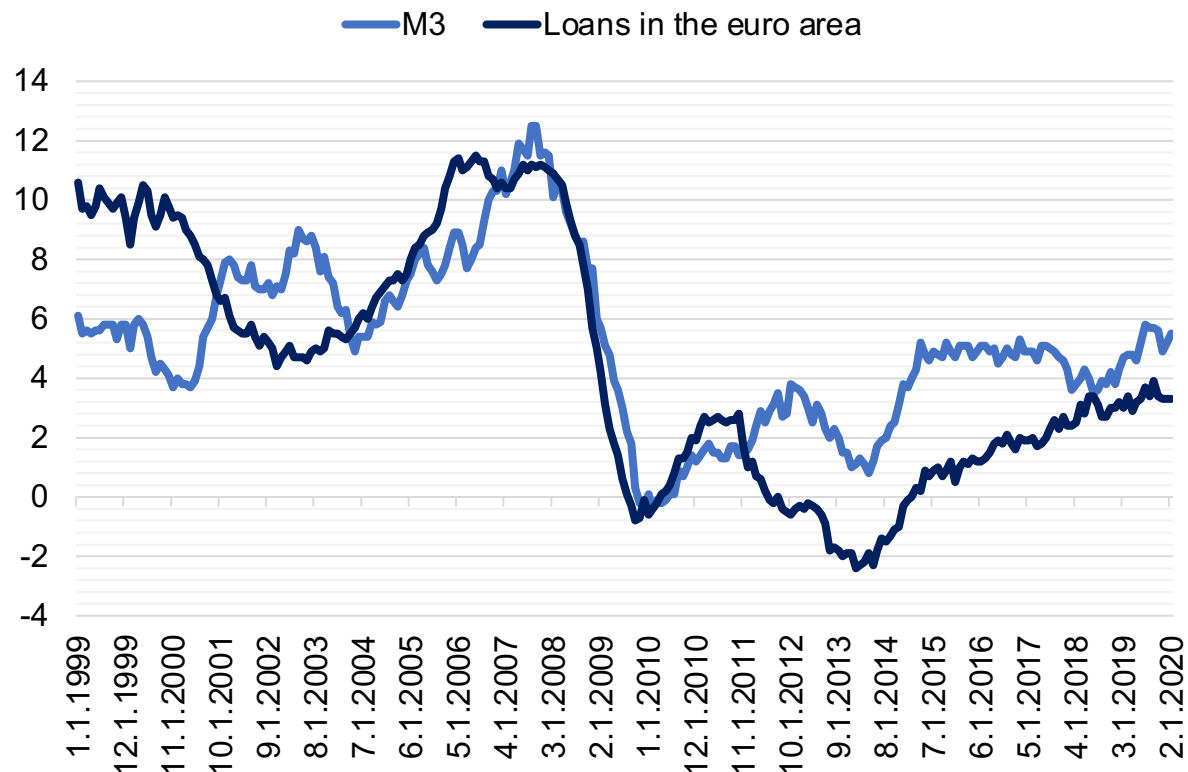
Source: [Introductory statement with Q&A by Jean-Claude Trichet, 5 July 2007](#)



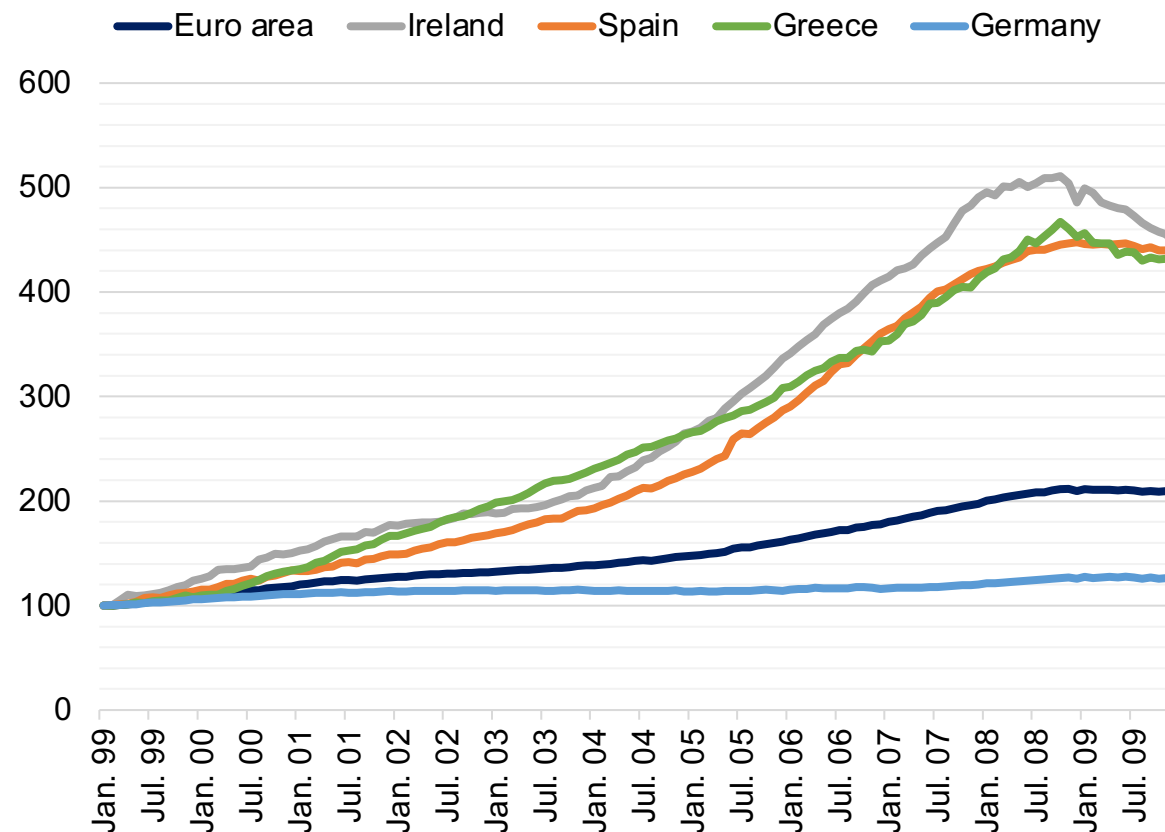
Source: https://commons.wikimedia.org/wiki/File:Jean-Claude_Trichet1.jpg

Credit and money supply developments in the euro area

Growth rate of the money supply M3 and bank loans at euro area (vis-à-vis previous year)



Bank loans to the private sector in selected countries (Jan. 1999=100)



Source: ECB, SDW

Trade-off

- If the ECB had raised interest rates in the years up to 2007 in order to curb credit growth, the economy would have slowed down and inflation would have been too weak
- The trade-off can be reduced by **macroprudential policy**. These are measures that specifically slow down credit expansion, e.g.
 - Upper limits for the mortgaging of real estate (**Loan to value ratios**)
 - Upper limits for the burden of interest and redemption payments in relation to a borrower's income (**Loan to income ratios**)
 - Additional capital requirements for bank lending (**Leverage ratio**)

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New ECB President announces new ECB strategy

"Indeed it (the new strategy; PB) will also address the major changes that have taken place over the course of the last 16 years, and by that I include the massive technological change that our societies are facing. It will include **the immense challenge that climate change is addressing** to each and every one of us, wherever located, and whatever our mission and duties."

- Press conference 12 December 2019



Source: [https://commons.wikimedia.org/wiki/File:Christine_Lagarde_\(cropped\).jpg](https://commons.wikimedia.org/wiki/File:Christine_Lagarde_(cropped).jpg)

The ECB contribution to climate policies

"The Union shall establish an internal market. It shall work for the sustainable development of Europe based on balanced economic growth and price stability, a highly competitive social market economy, aiming at full employment and social progress, **and a high level of protection and improvement of the quality of the environment.** It promotes scientific and technical progress."



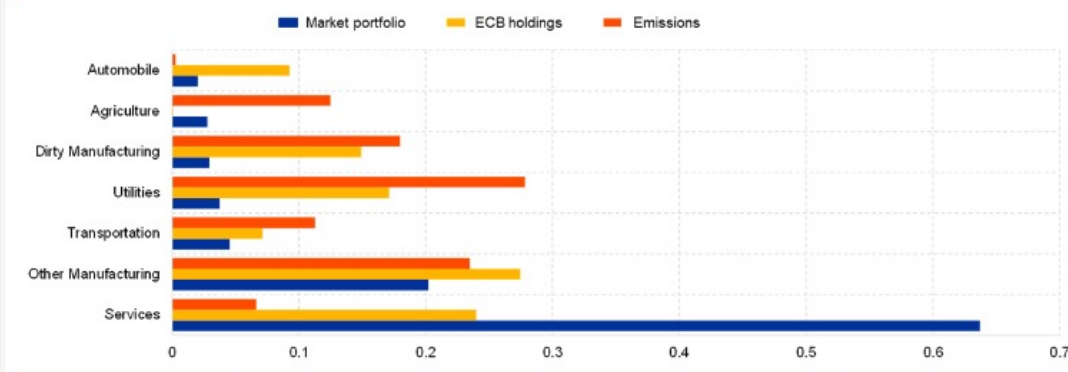
Source: Treaty on European Union - Article 3

Article 3, paragraph 3 of the EU Treaty: Environment as an important objective

- The main responsibility for climate policies lies with the national governments and the European Union
 - Carbon taxes
 - Support for renewable energies
 - Debt financing via capital markets
- In the case of financing constraints on capital markets, the ECB could purchase such bonds
- The specific contribution of the ECB: preferential treatment of green bonds in its corporate bond purchases
- Isabel Schnabel: „One possible avenue for action is to incorporate sustainability criteria into the implementation of our private sector asset purchases. In light of the observed emission bias in our corporate bond portfolio, we need to carefully re-assess the current notion of market neutrality.”

Chart 3

Market portfolio vs. ECB holdings vs. sectoral emission intensity



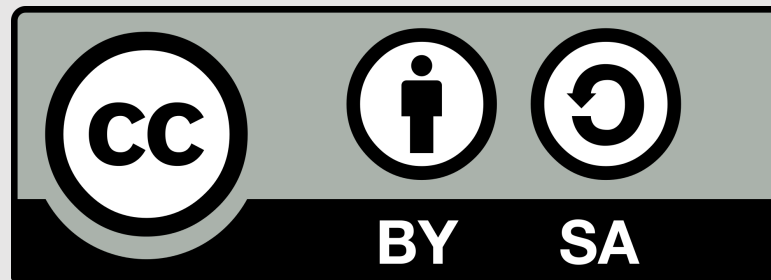
Source: Papoutsis, Piazzesi, Schneider (2021).

Data sources: ECB (SHS & CSDB), Eurostat, Orbis.

Notes: Market shares measured as capital income by sector. Emission intensity measured by Scope 1 air emissions by sector. "Dirty Manufacturing" = oil & coke, chemicals, basic metals, nonmetallic minerals. Other Manufacturing = food, beverages, tobacco, textiles, leather, wood, paper, pharmaceuticals, electronics, electrical equipment, machinery, furniture, construction, and other manufacturing.

Source:

https://www.ecb.europa.eu/press/key/date/2021/html/ecb.sp210303_1~f3df48854e.en.html



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