



EUROPEAN CENTRAL BANK
EUROSYSTEM

Herausforderungen der Geldpolitik in Zeiten hoher Inflation

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Mitglied des Direktoriums der EZB



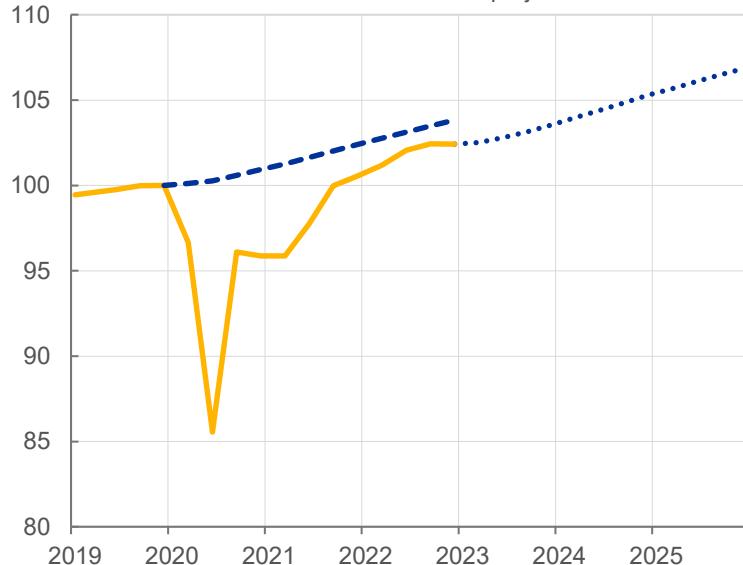
Wirtschaftspolitik aus erster Hand
Zentrum für Europäische Wirtschaftsforschung
Mannheim, 19. April 2023

Wirtschaftswachstum und Inflation im Eurauraum seit Beginn der Pandemie

Reales Bruttoinlandsprodukt

(Index: Q4 2019 = 100)

- March 23 ECB staff projections
- Realised GDP
- - - March 2020 ECB staff projections



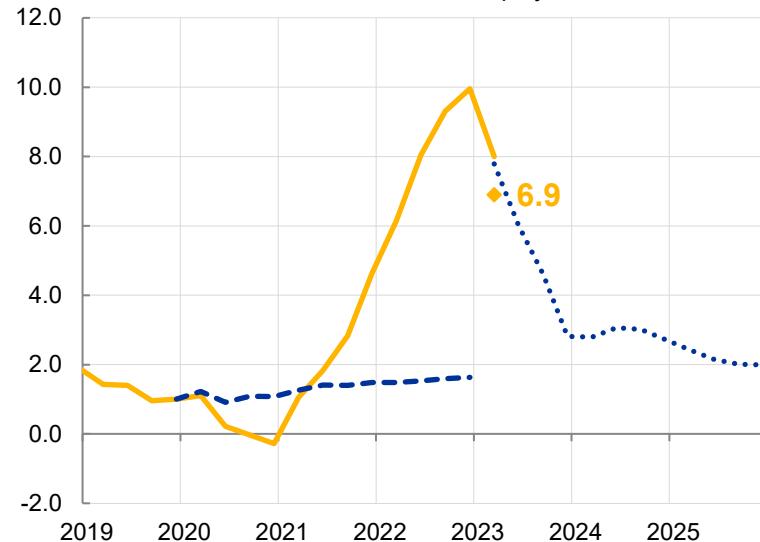
Sources: Eurostat, ECB and Eurosystem.

Latest observation: Q4 2022.

Inflationsrate

(Jahreswachstumsrate HVPI, in %, vierteljährliche Daten)

- March 2023 ECB staff projections
- Realised HICP
- ◆ March 2023 (final release)
- - - March 2020 ECB staff projections



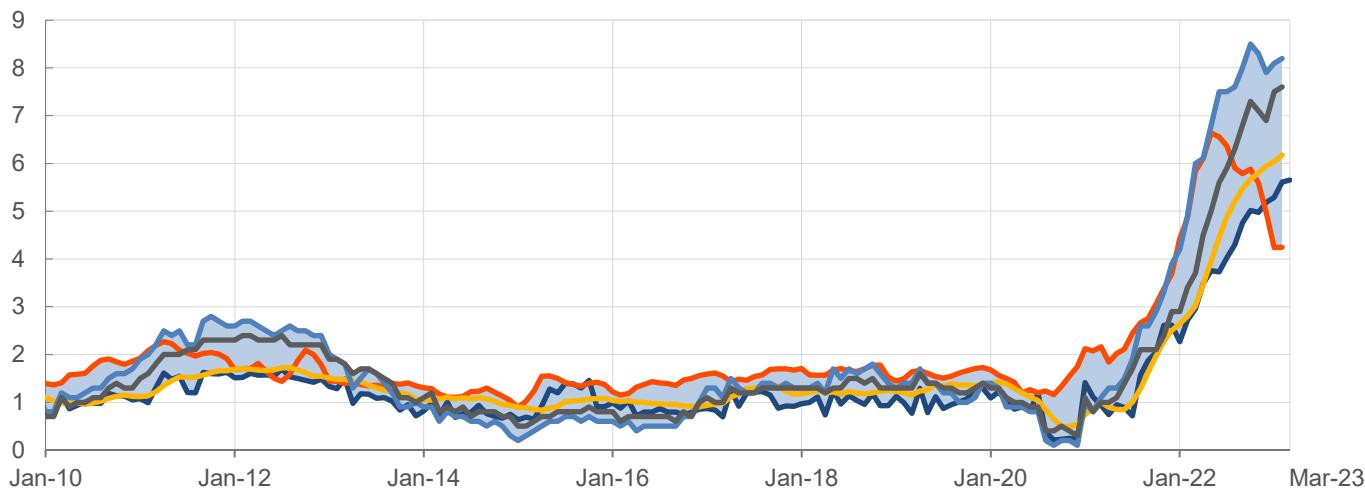
Sources: Eurostat, ECB and Eurosystem.

Latest observation: Q1 2023 for quarterly data, March 2023 for monthly data (diamond).

Zugrundeliegende Inflation

(jährliche prozentuale Veränderung)

- HICP excluding energy and food (HICPX)
- PCCI (persistent and common component of inflation)
- Supercore
- Trimmed mean (10%)
- Trimmed mean (30%)



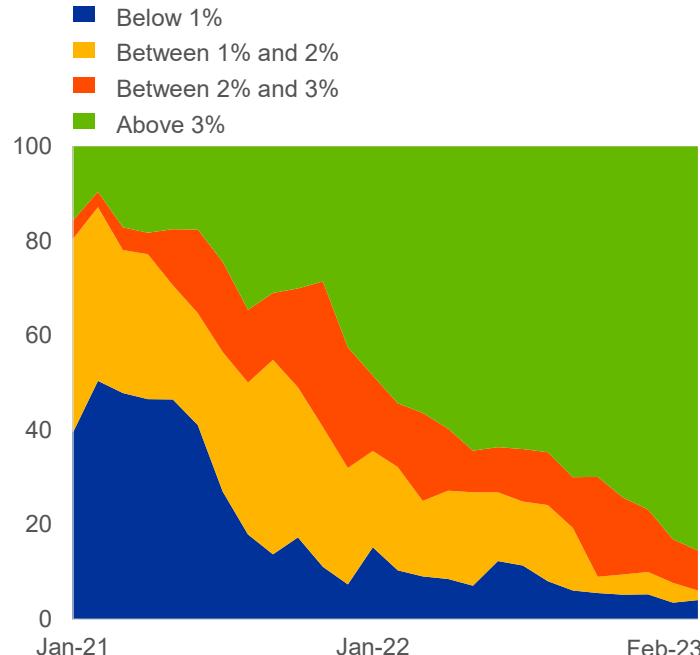
Sources: ECB and ECB calculations.

Notes: HICPX, Supercore and Trimmed means are non-seasonally adjusted, while PCCI is based on seasonally adjusted price series.

Latest observation: March 2023 (flash) for HICPX and February 2022 for the rest.

Verbreiterung des Inflationsdrucks auf den Großteil der HVPI-Komponenten

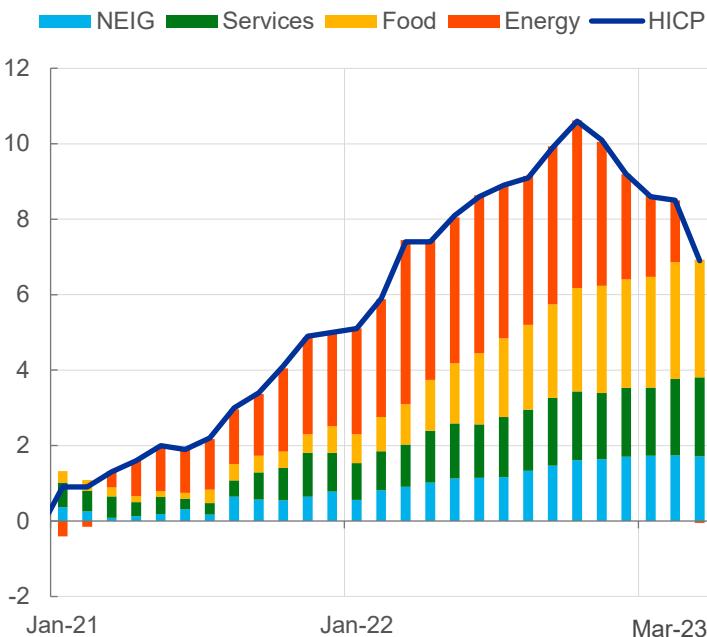
Anteil der HVPI-Komponenten nach Preissteigerungsrate (Prozent)



Sources: ECB and ECB calculations.
Latest observation: February 2023.

Beitrag zur Gesamtinflation

(jährliche prozentuale Änderung; Beitrag in Prozentpunkten)

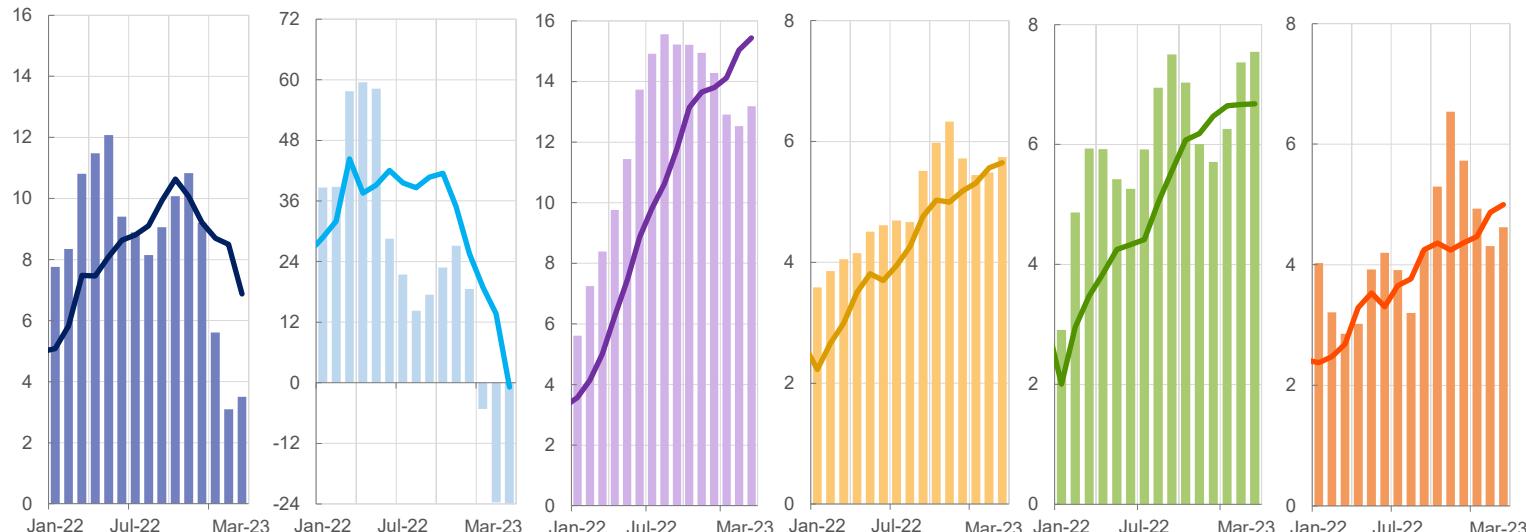


Sources: Eurostat and ECB calculations.
Latest observation: March 2023 (flash).

Momentum der Inflation bleibt bei allen Komponenten außer Energie hoch

Inflationsmomentum des HVPI und seiner Komponenten

(jährliche prozentuale Änderung; annualisierte 3m-auf-3m prozentuale Änderung)



Sources: Eurostat and ECB calculations.

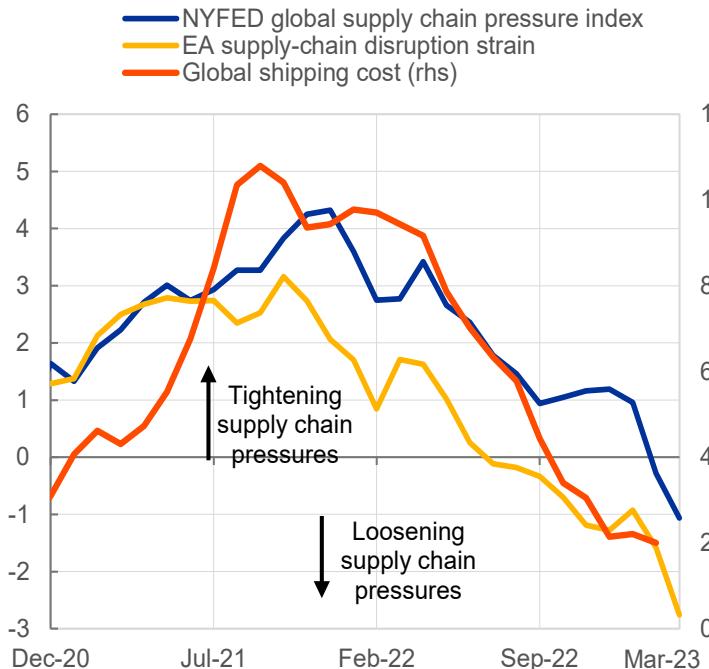
Note: Seasonally-adjusted data.

Latest observation: March 2023 (flash).

Angebotsseitige Störungen von Lieferketten und Energiepreise gehen weiter zurück

Lieferkettenstörungen

(links: Standardabweichung; rechts: USD pro TEU)



Sources: Haver Analytics, Refinitiv and ECB calculations.

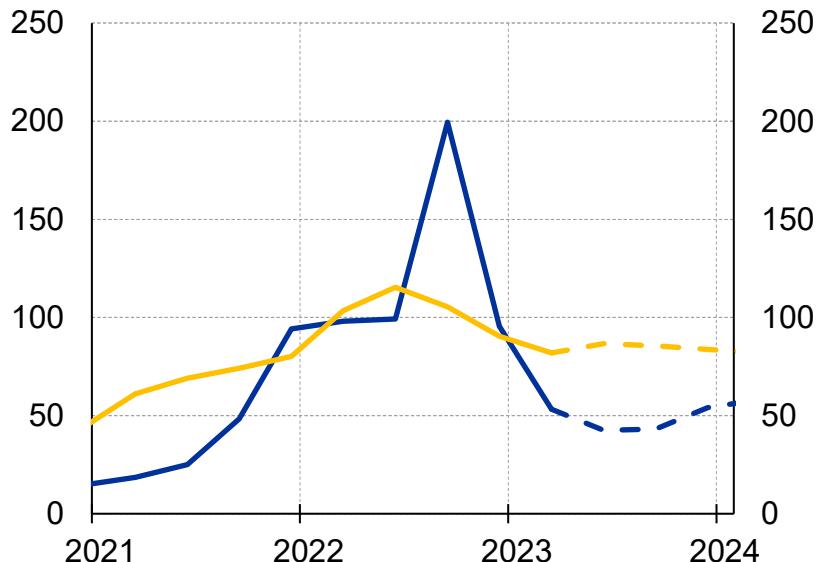
Notes: Global shipping cost is Freightos Baltic aggregate across major trade routes. TEU stands for twenty-foot equivalent unit shipping container.

Latest observation: February 2023 for global shipping costs, March 2023 for the rest.

Gas- und Ölpreise mit Termingeschäften

(Gas: EUR/MWh, Öl: USD/Barrel)

— Euro area gas (TTF) - - Gas futures
— Brent oil - - Oil futures

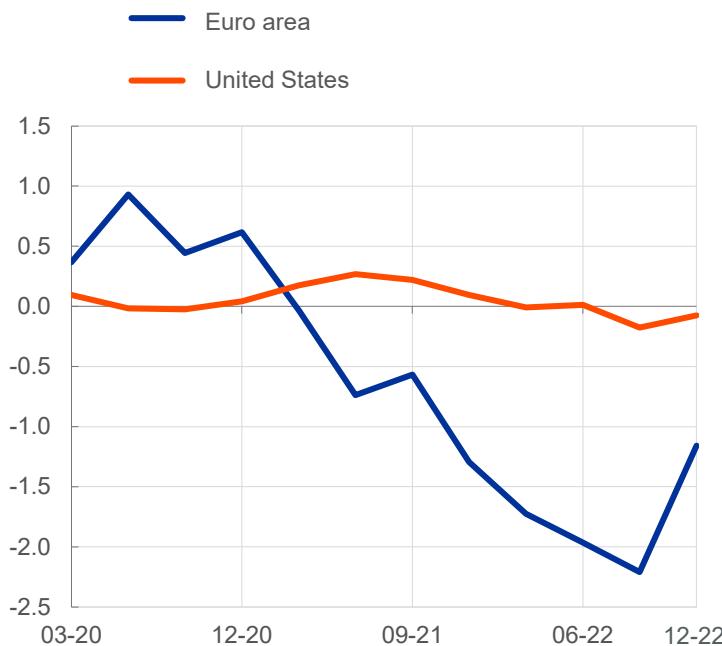


Sources: Refinitiv, Bloomberg and ECB calculations.

Latest observation: 14 April 2023.

Einkommenseffekte des Terms-of-trade-Schocks

(Effekt auf jährliches BIP-Wachstum in Prozentpunkten)



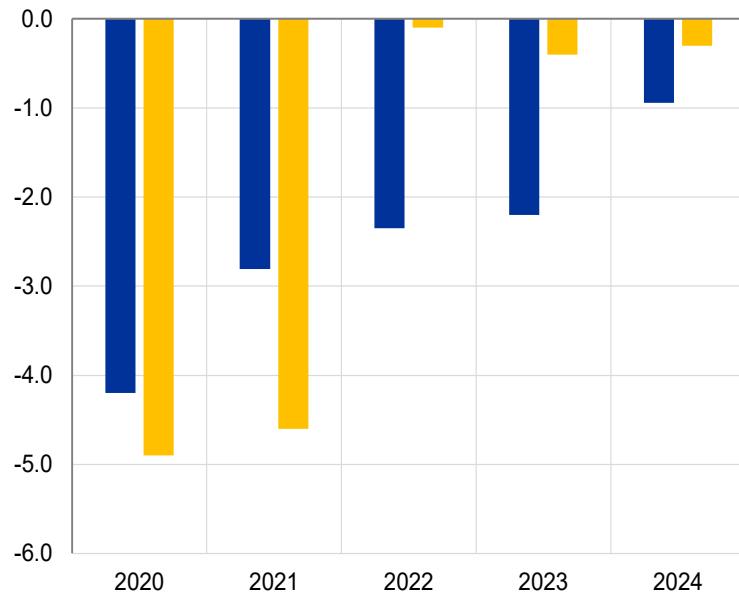
Source: Haver analytics, Eurostat and ECB calculations.

Notes: The income effect of terms of trade is calculated import and export price changes by their respective past values (one-year lag) expressed as percentage of GDP. The latest observation is 2022 Q4.

Fiskalischer Impuls während Pandemie und Energiekrise

(Prozent des Potenzialoutputs)

- Euro area: change in CAPB* vs 2019
- United States: change in CAPB vs 2019



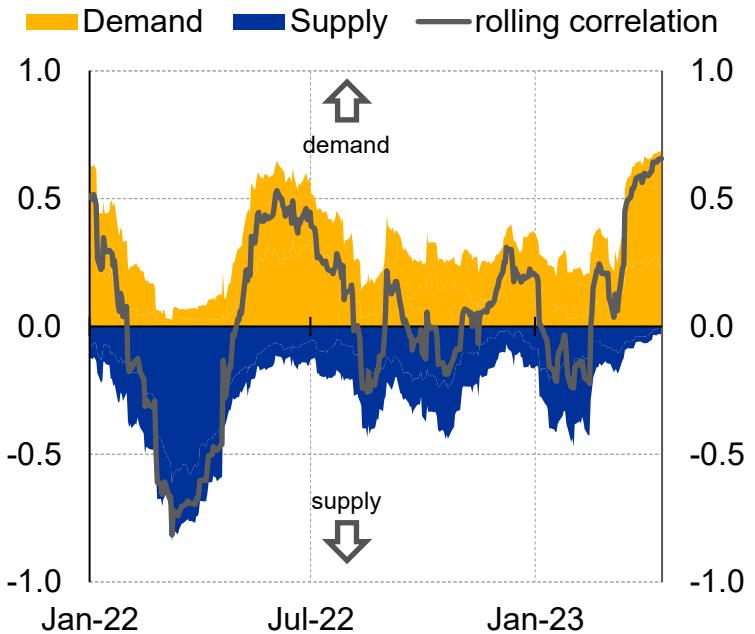
Source: March 2023 ECB staff Macroeconomic projections and IMF Fiscal Monitor, April 2023.

Notes: Negative (positive) numbers denote fiscal loosening (tightening) vs 2019.

*CAPB stands for the cyclically adjusted primary balance. For the EA, this is adjusted for NGEU grants on the revenue side, in line with the definition for the EA fiscal stance. The measure shown in chart is a proxy for the discretionary fiscal policy response since the pre-pandemic period (2019). It includes also other factors (such as revenue windfalls/shortfalls). The measures for the EA and US are not fully comparable due to the timing and other methodological differences between the two sources.

Rotation hin zu nachfrageseitigen Faktoren bei besser als erwarteter Gesamtwirtschaft

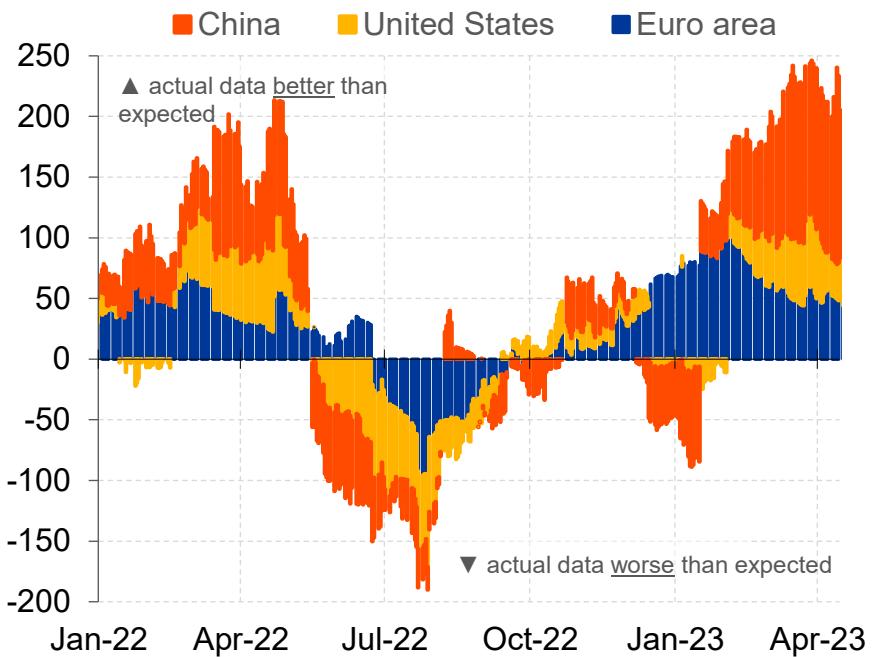
Rolle von Nachfrage- und Angebotsfaktoren (Korrelationskoeffizient)



Sources: Refinitiv and ECB calculations.

Notes: 30-trading days rolling correlation of daily percentage point changes in 1Y1Y ILS rates and daily returns on Euro Stoxx. Demand (supply) refers to that part of the correlation coming from trading days on which ILS rates and stock returns moved in the same (opposite) direction. In each subsample, the split between favourable and adverse is based on the share of days in the rolling window of favourable (equities up) or adverse (equities down) market dynamics. Latest observation: 14 April 2023.

Citi Economic Surprise Index

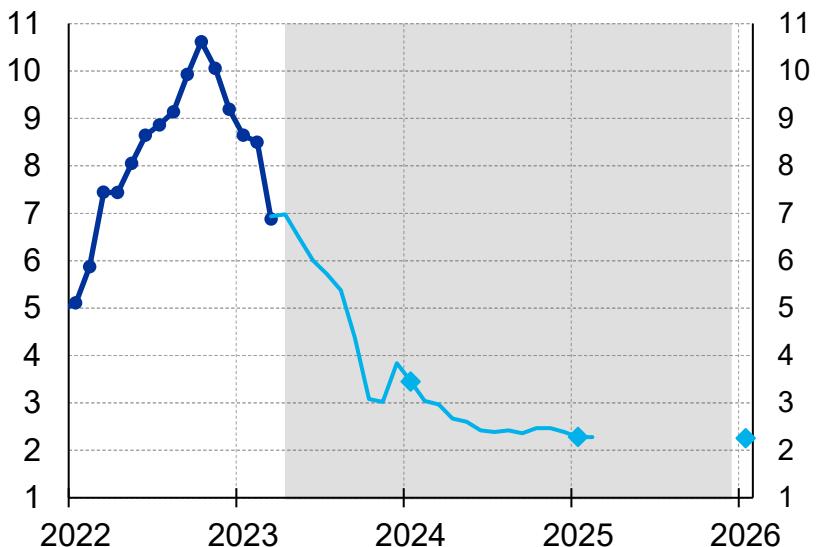


Sources: Bloomberg, Citi.
Latest observation: 14 April 2023.

Märkte erwarten raschen Rückgang der Inflation, aber langfristige Erwartungen bleiben erhöht

Marktbasierte Inflationserwartungen im Eurauraum (Prozent)

—●— y-o-y HICP inflation
—■— Inflation compensation rates (latest)



Sources: Bloomberg, Refinitiv and ECB calculations.

Notes: The coloured diamonds refer to forward ILS rates that extend the equally coloured line of inflation fixings. The grey area refers to a projection horizon ending in December 2025. Latest observation: 17 April 2023.

Langfristige marktbasierte Inflationserwartungen im Eurauraum und den USA (Prozent)

—●— 5y5y inflation-linked swap rate
—■— US BEIR 5Y5Y



Source: Bloomberg, Refinitiv and ECB calculations.

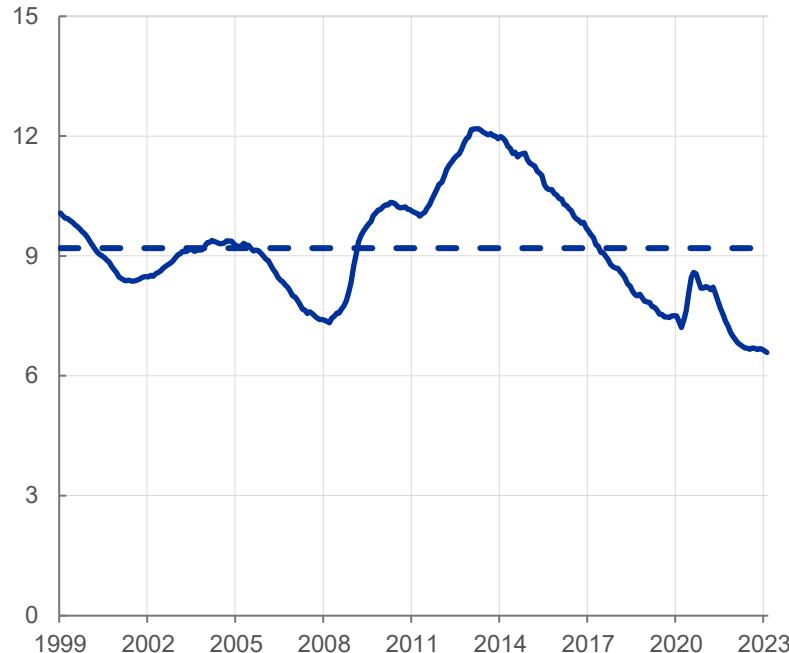
Notes: One caveat applying to BEIRs is that the market for inflation-linked bonds is less liquid than that for standard bonds. This implies that BEIRs also reflect liquidity premia. Latest observation: 17 April 2023.

Starker Arbeitsmarkt bei deutlichem Anziehen des Lohnwachstums

Arbeitslosenquote

(Prozent)

— Euro area



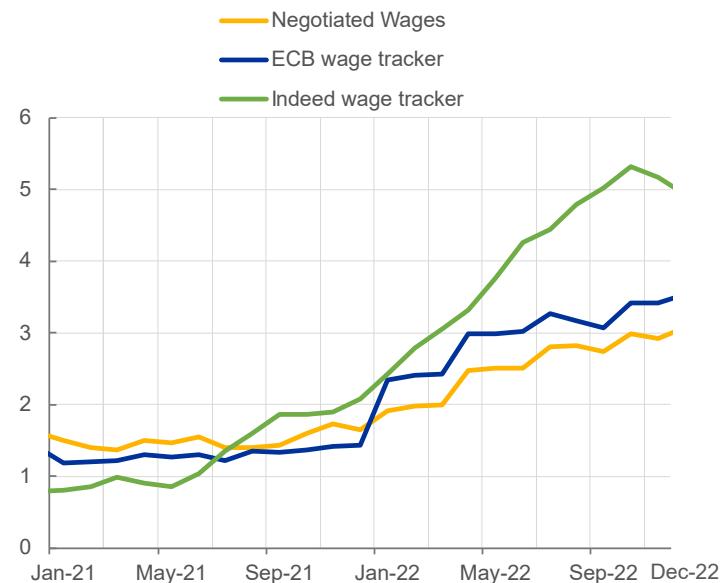
Sources: Eurostat Labour Force Survey and ECB staff calculations.

Notes: The dashed line refers to the sample average over 1999M1-2023M2.

Latest observation: February 2023.

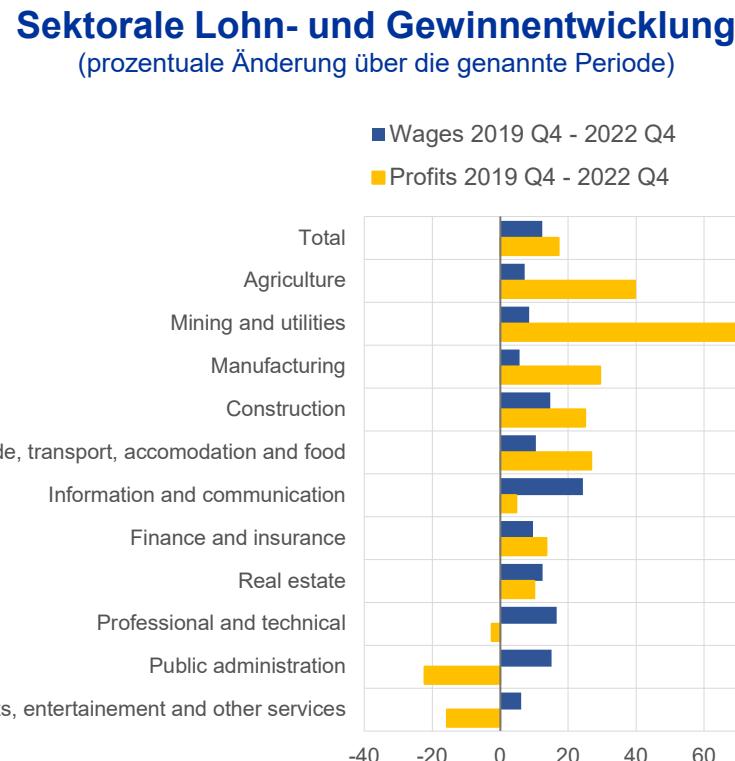
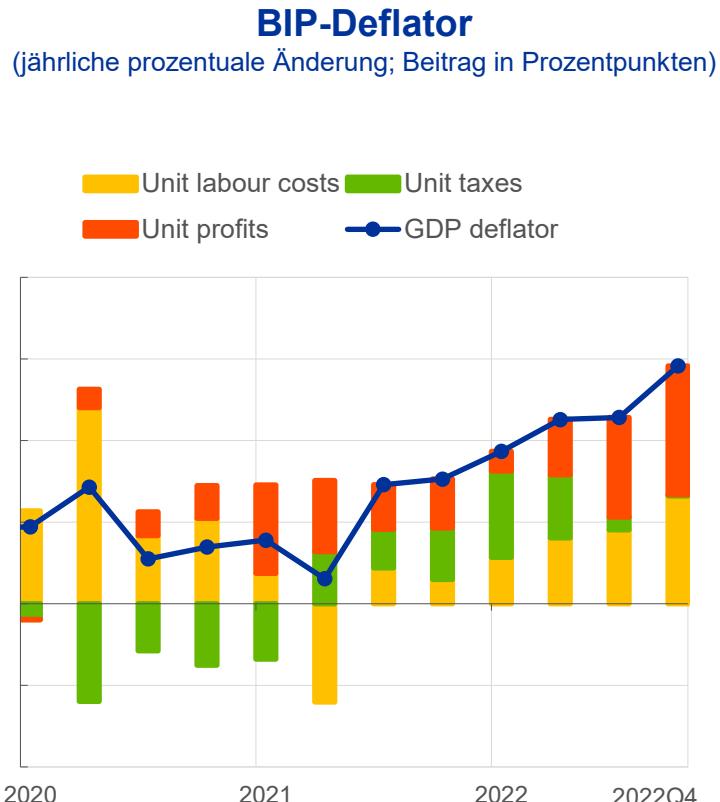
Nominales Lohnwachstum

(jährliche prozentuale Veränderung)



Sources: Adrjan, Pawel & Reamonn Lydon (2022), [Wage Growth in Europe: Evidence From Job Ads](#) – Central Bank of Ireland - Economic letter - Vol 2022, No. 7 (November), ECB and Eurostat. Notes: the ECB wage tracker is calculated based on micro data on wage agreements provided by Bundesbank, Banco de España, the Dutch employer association (AWVN), Oesterreichische Nationalbank, Bank of Greece, Banca d'Italia and Banque de France. For FR see also: Gautier, E. (2023): [Negotiated wage increases: what is the picture for 2022?](#). EA aggregate based on ES, IT, GR, AT, DE, NL and FR. Latest observations: 2022 Q4 (based on Oct and Nov data) for negotiated wages and March 2023 for ECB wage tracker and Indeed data.

Wachsende Gewinne haben wesentlichen Anteil am Anstieg der heimischen Inflation



Sources: Eurostat and ECB calculations. Notes: For each sector, wages refer to compensation of employees and labour income of the self-employed, and profits refer to gross operating surplus, computed as nominal gross value added minus wages. The total labour income of the self-employed is computed assuming that the per-capita labour income of the self-employed is the same as that of employees and it is then distributed to each sector according to the sector-specific share of total compensation of employees.

Schwankende Zinserwartungen aufgrund persistenter Inflation und Finanzinstabilität

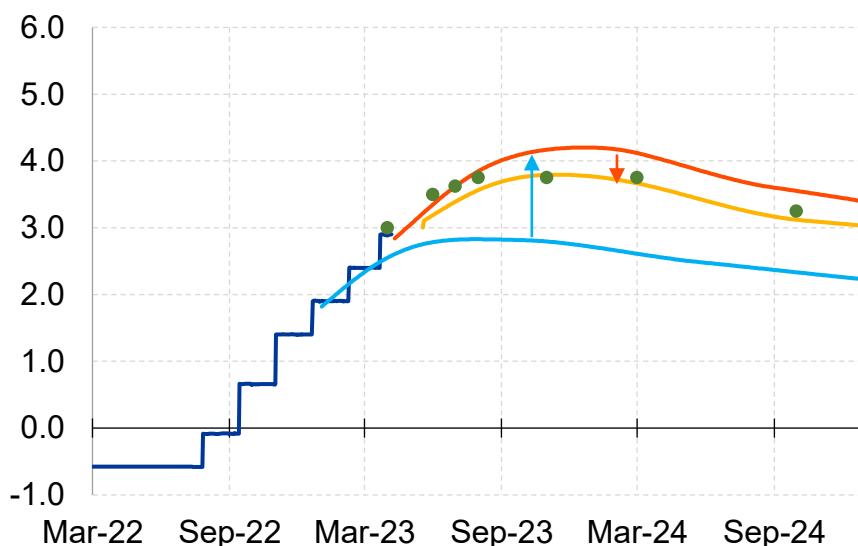
Marktbasierte Zinserwartungen im Eurauraum

(in %)

— Realised
— 1 Dec 2022
● Mar SMA

— Latest (18 Apr)

— Pre-SVB collapse (8 Mar)



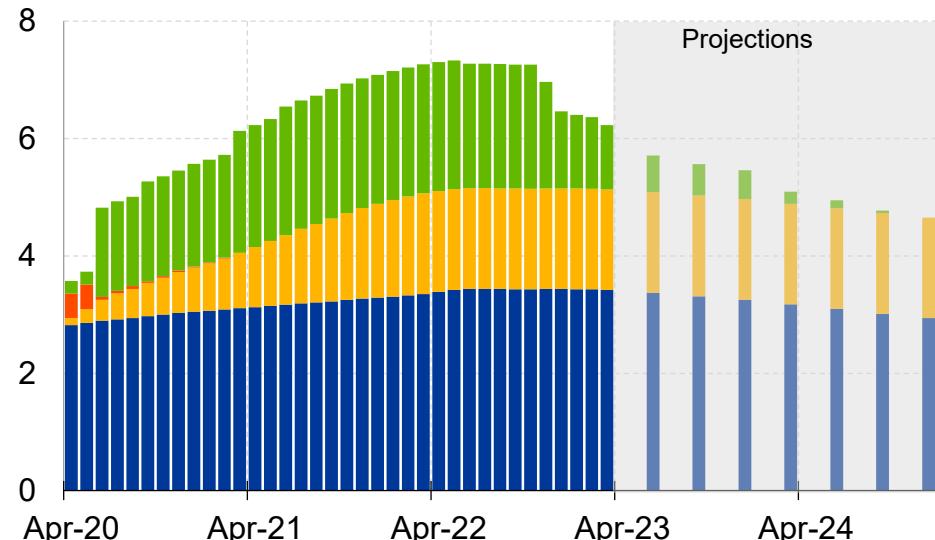
Sources: Bloomberg, ECB calculations.

Notes: Chart refers to realized and forward ESTR levels. SMA refers to the expected level of deposit facility rate (DFR). Latest observation 18 April 2023.

Anleiheportfolios und gezielte längerfristige Refinanzierungsoperationen (TLTROs)

(EUR Billionen)

■ APP ■ PEPP ■ TLTRO II ■ TLTRO III



Source: ECB, Survey of Monetary Analysts (SMA).

Notes: Blue and yellow bars show Eurosystem aggregated holdings under the asset purchase programme (APP) and pandemic emergency purchase programme (PEPP) in book amortized values. SMA responses for the projections.

Latest observation: March 2023.

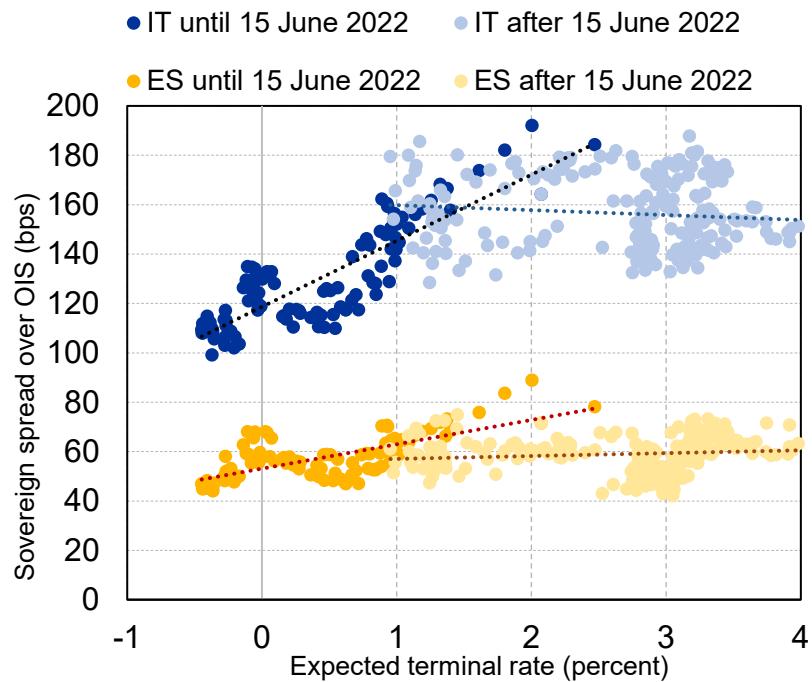
10-jähriger realer OIS-Zins im Eurauraum (Prozent)



Sources: Bloomberg.

Latest observation: 17 April 2023.

Sensitivität von Staatsanleiherenditen gegenüber geldpolitischen Erwartungen

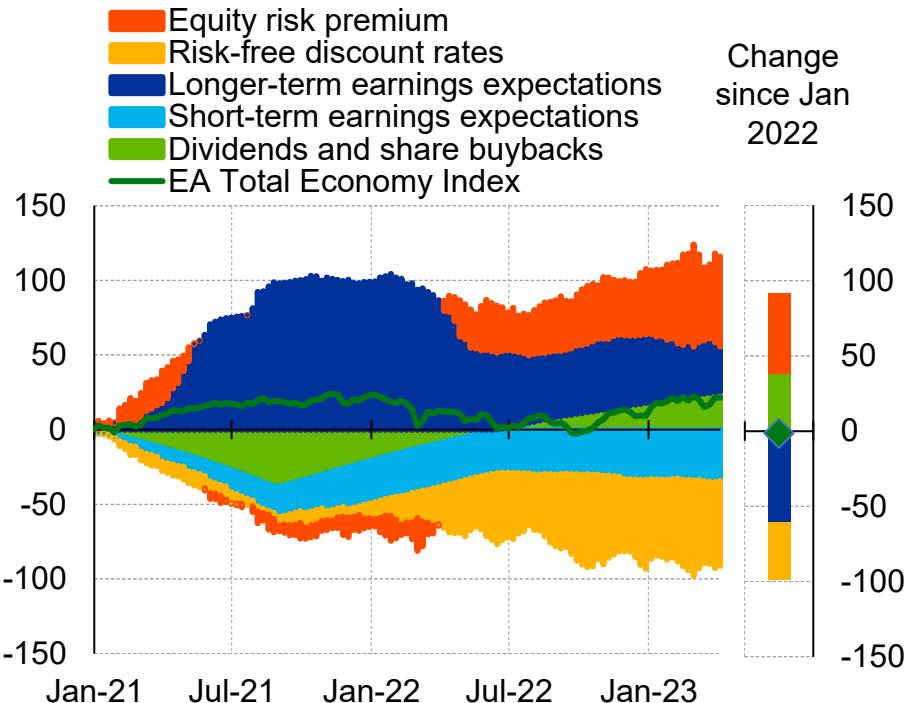


Sources: Bloomberg and ECB calculations. * This chart shows the relationship between the spread of selected sovereign 10-year benchmarks over the 10-year EA OIS rate (y-axis) versus the outright level of the ESTR OIS forward covering the 8th ECB maintenance period from today (%). The chart differentiates between the period from the start of 2022 until 15 June 2022 (ECB announcement on activation of PEPP flexibility and work on an anti-fragmentation instrument) and the period thereafter. Latest observation: 14 April 2023.

Aktienmärkte bleiben robust trotz höherer Zinsen aufgrund komprimierter Risikoprämien

Treiber der Aktienpreise

(links: kumulierte Änderung seit Januar 2021,
rechts: Prozent)



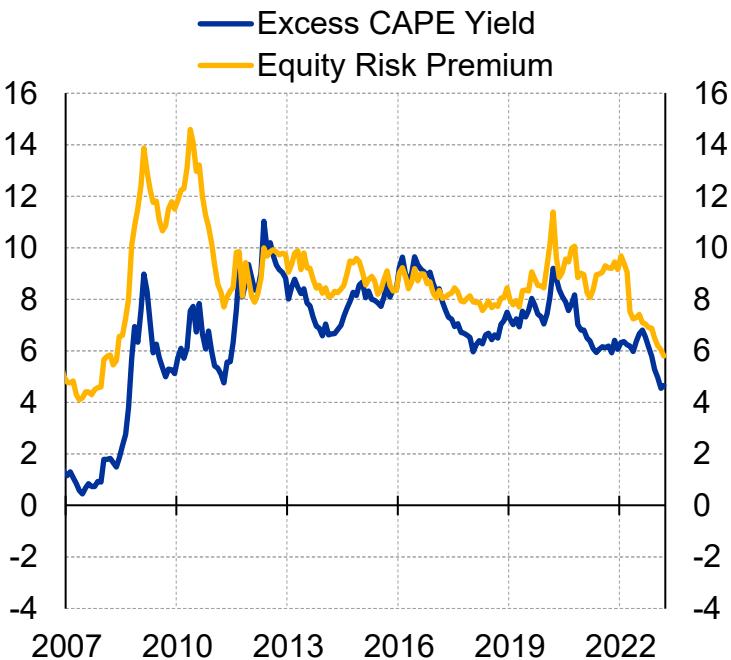
Sources: Refinitiv, IBES, Consensus Economics, Bloomberg, and ECB calculations.

Notes: The decomposition is based on a dividend discount model. The model includes share-buybacks, discounts future cash-flows with interest rates of appropriate maturity and includes five expected dividend growth horizons. See ECB Economic Bulletin, issue 4/2018 for more details.

Latest observation: 7 April 2023 (weekly data).

Risikoprämien am Aktienmarkt

(Prozent)

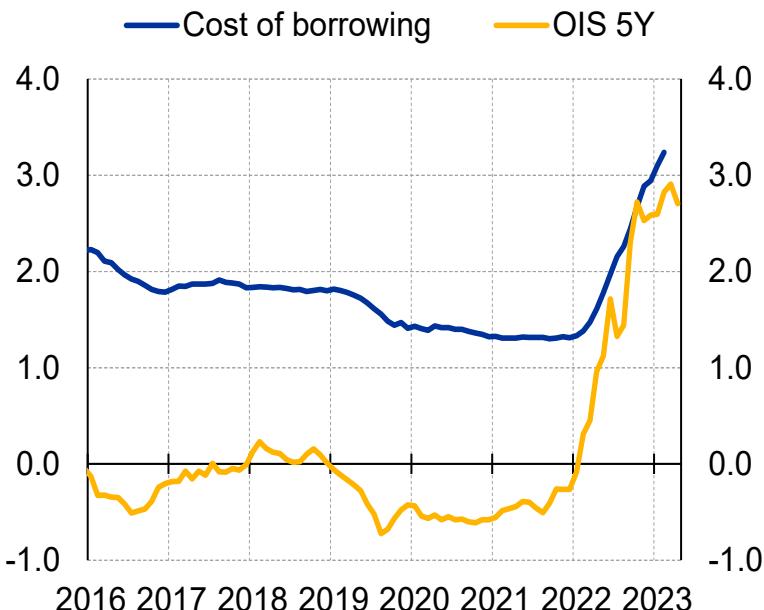


Sources: Refinitiv, IBES, Consensus Economics, Bloomberg and ECB calculations.

Note: The excess CAPE yield is the inverse CAPE minus the risk-free rate. The equity risk premium is derived from a dividend discount model. See ECB Economic Bulletin, issue 4/2018 for more details. Latest observation: March 2023 (monthly data).

Steigende Baufinanzierungskosten führen zu niedrigeren Häuserpreisen

Risikoloser Zins und Baufinanzierungskosten für Haushalte (% pro Jahr)

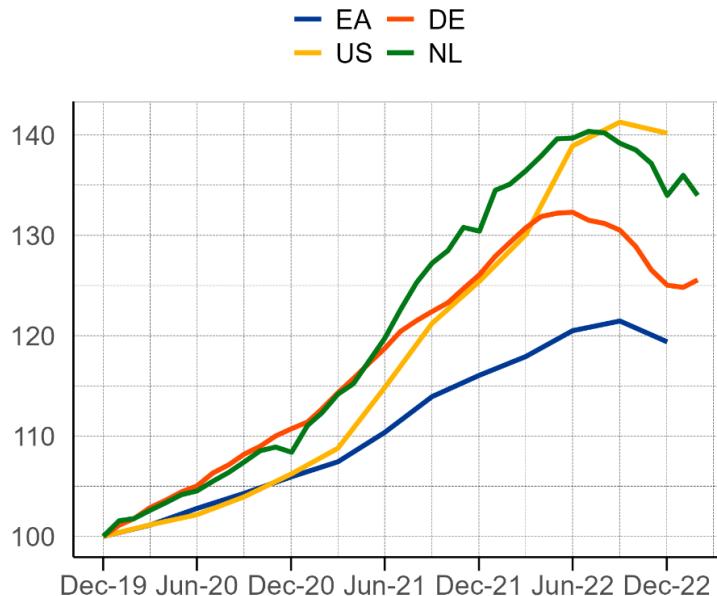


Sources: ECB and ECB calculations.

Notes: The cost of borrowing indicator is calculated as a weighted average of MFI interest rates on short-term and long-term loans to households for house purchase, where the new business volumes used are smoothed with a moving average of the previous 24 months' observations.

Latest observation: February 2023 for the cost of borrowing, 11 April 2023 for the OIS 5Y.

Häuserpreise (Monatliche Preisindizes – Dezember 2019 = 100)



Sources: Eurospace, Statistics Netherlands, Eurostat, SDW (U.S. Federal Housing Finance Agency).

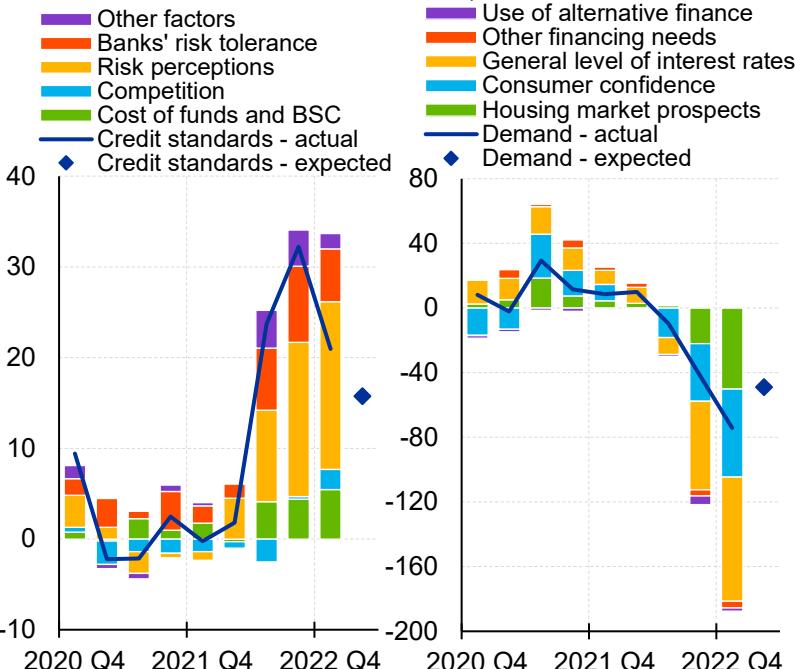
Notes: RRE stands for Residential Real Estate. Last EA observation from Eurostat is for Q4 2022, so several countries with more timely data available are added.

Latest observation: February 2023 for DE, NL, Q4 2022 for US, EA

Höhere Zinsen dämpfen das Kreditwachstum bei Haushalten und Firmen

Kreditstandards und Kreditnachfrage von Haushalten für Hauskäufe

(Prozentualer Nettoanteil der Banken, die ein Anziehen oder eine Lockerung vermelden)

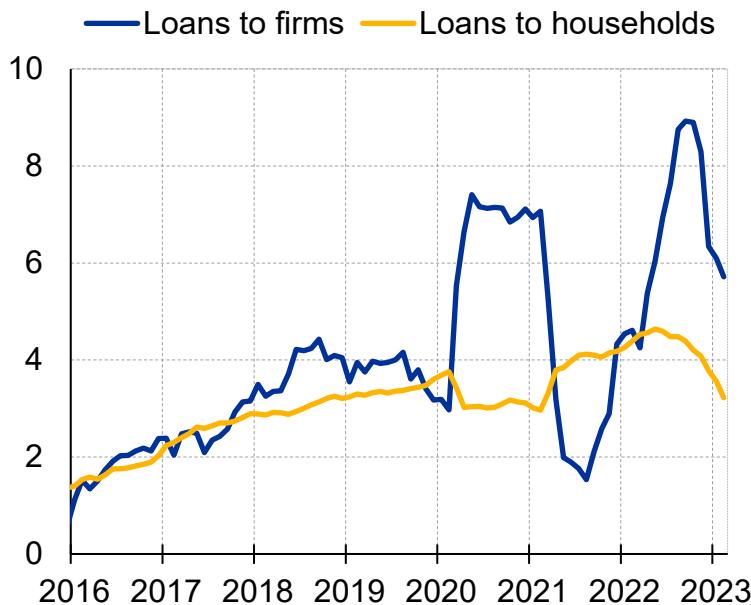


Source: ECB (Bank Lending Survey).

Notes: Net percentages refer to the difference between the percentage of banks reporting a tightening (an increase) and the percentage of banks reporting an easing (a decrease). "Other factors" refer to the further factors which were mentioned by the banks as having contributed to changes in credit standards. "BSC" for "balance sheet constraints". The separate factors are also reported in net terms but do not sum to the net tightening of credit standards (net increase in loan demand).

Latest observation: 2022 Q4 (January 2023 Bank Lending Survey).

Bankkredite nach SchuldnerTyp (jährliche prozentuale Änderung)



Sources: ECB (Balance Sheet Statistics) and ECB calculations.

Notes: Loans are adjusted for loan sales and securitization as well as positions arising from notional cash pooling services provided by MFIs.

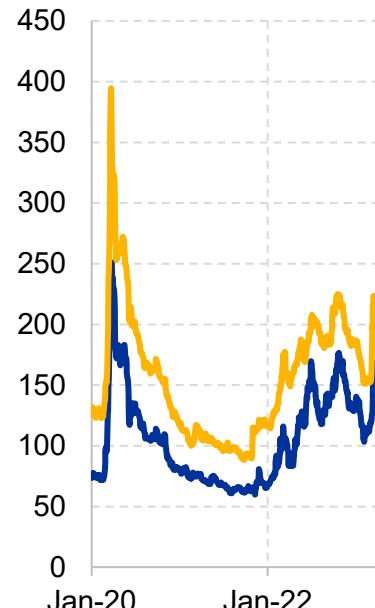
Latest observation: February 2023.

Turbulenzen dämpfen Marktpreise im Finanzsektor, geringere Effekte im Euroraum

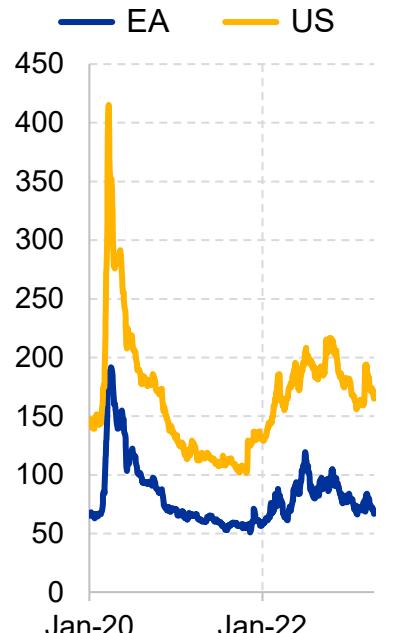
Aktienpreise
(Index, Januar 2022 = 100)



**Renditedifferenzen
erstklassiger Anleihen
(IG) im Finanzsektor**
(Basispunkte)



**Renditedifferenzen
erstklassiger Anleihen
(IG) im Nicht-Finanzsektor**
(Basispunkte)



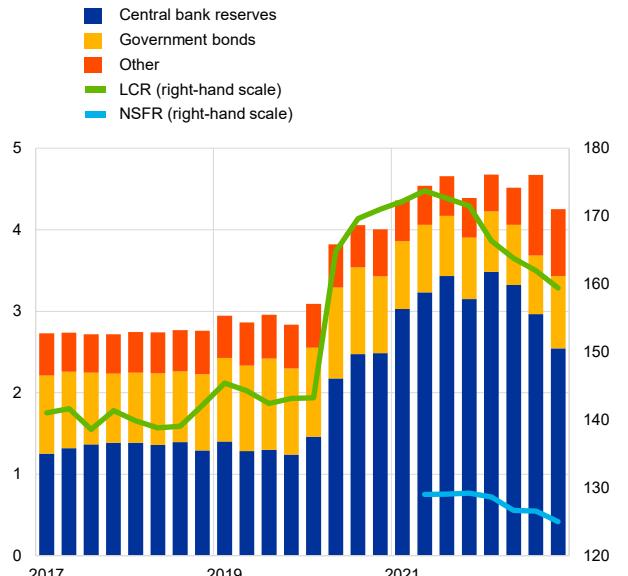
Sources: Bloomberg, ECB calculations. Notes: NFC series are based on standard S&P500 and Eurostoxx incides, stripped of banks and financial sectors. Daily data. Last observation: 18 April 2023.

Sources: iBoxx, ECB calculation.
Latest observation: 18 April 2023.

Bankensektor im Euroraum weist robuste Liquiditäts- und Eigenkapitalquoten auf

Liquiditätsquoten der Banken

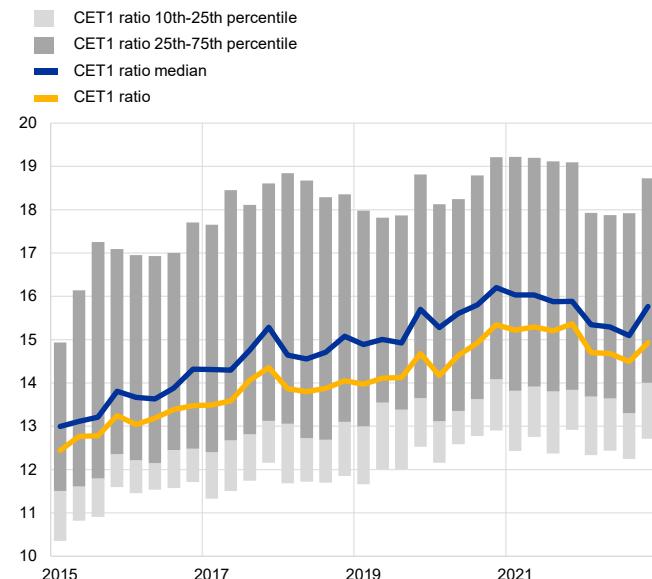
(links: € Billionen, rechts: Prozent, Q3 2016 – Q4 2022)



Source: ECB Supervisory Banking Statistics.
Note: Based on a sample of 84 Significant Institutions.

Eigenkapitalquoten der Banken

(Prozent der gesamten risikogewichteten Aktiva, Q1 2015- Q4 2022)



Source: ECB Supervisory Banking Statistics.
Note: Based on a sample of 84 Significant Institutions.

Zinsanstieg stützt kurzfristig Profitabilität der Banken, aber nicht ihr ökonomisches Kapital

Zerlegung der Änderung der Eigenkapitalrendite (Prozent der risikogewichteten Aktiva, Q4 2021- Q4 2022)

Positive contribution
Negative contribution

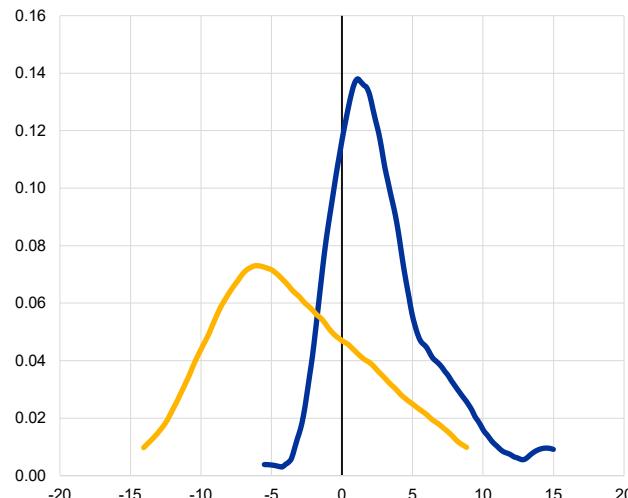


Source: Bloomberg and ECB calculations.

Note: Based on a sample of 29 listed euro area Significant Institutions.

Effekt einer parallelen Aufwärtsverschiebung der Zinsstrukturkurve um 200 Basispunkte (X-Achse: Prozent des CET1 Kapitals, Y-Achse: Dichte, Q4 2022)

Change in NII as a share of CET1 capital
Change in bank net worth as a share of CET1 capital



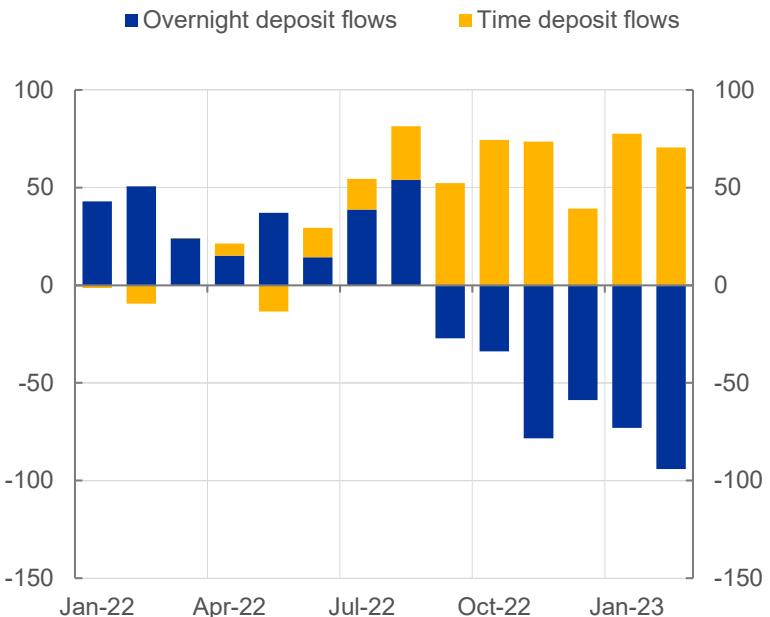
Source: ECB Supervisory Banking Statistics.

Note: Based on Q4 2022 data. The kernel density shows the distribution of a sample of 100 euro area Significant Institutions. Data is based on supervised banks' self-reported sensitivity estimates to a 200 basis point parallel shift of the yield curve. Changes in NII are based on a 12-month horizon, the change in bank-net worth goes beyond the 12-month horizon, accounting also for the longer-term impact (e.g. due to gradually rising funding costs).

Umschichtung von Sicht- in Termineinlagen, während Einlagenzins nur langsam anzieht

Sicht- und Termineinlagen des nicht-finanziellen Privatsektors

(monatliche Ströme, EUR Milliarden)

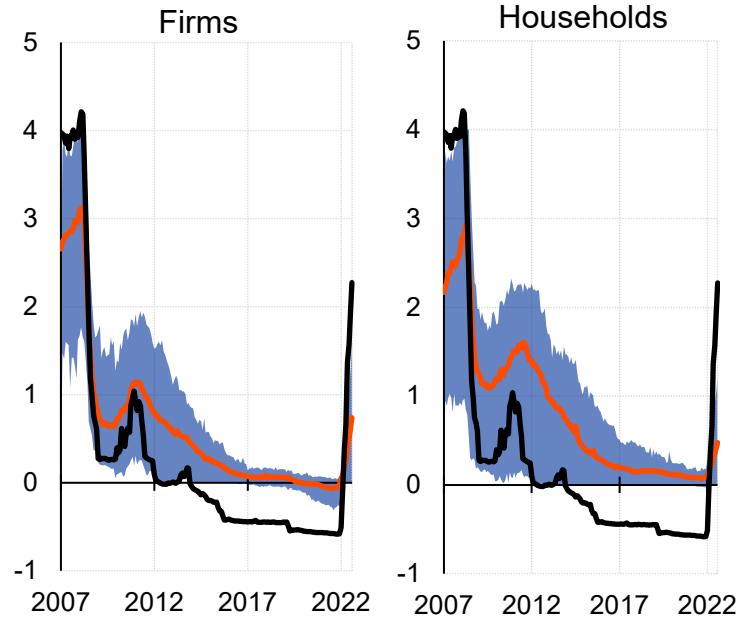


Source: ECB. Notes: Time deposits are those with a maturity up to two years.

Latest observation: February 2023.

Einlagenzins vs. €STR (Prozent pro annum)

From 10th to 90th percentile Average deposit rate €STR



Sources: ECB (iBSI, iMIR).

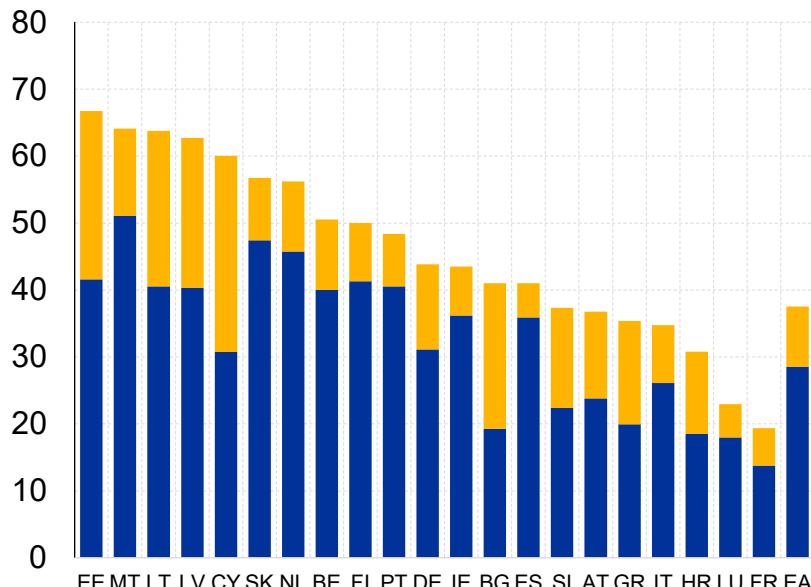
Notes: Distribution of composite deposit rates on firms' (lhs) and households' (rhs) newly issued deposits weighted by outstanding amounts (cumulated over six months). The average deposit rate is taken from the aggregate MIR data.

Latest observation: February 2023.

Anteil der Wohn- (RRE) und Gewerbeimmobilienkredite (CRE) am gesamten Kreditvolumen

(% der gesamten Kredite und Vorschüsse, Q3 2022)

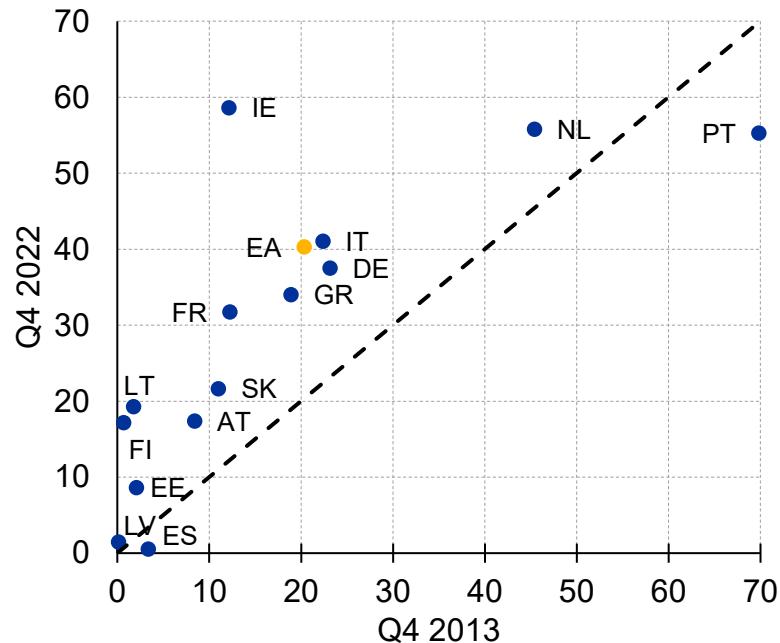
RRE loans
CRE loans



Source: Supervisory data and ECB calculations. RRE (Residential Real Estate) loans are loans to households collateralised by residential immovable property and CRE (Commercial Real Estate) loans are loans to NFC (Non-Financial Corporation) collateralised by commercial immovable property as a share of total loans and advances.
Latest observation: Q3 2022.

Anteil der Immobilien-Investmentfonds (REIFs) am Markt für Gewerbeimmobilien (CRE)

(Q4 2013 – Q4 2022; CRE-Aktiva von REIFs in Prozent des gesamten Gewerbeimmobilienmarktes)



Sources: ECB IVF (Investment Funds Balance Sheet Statistics), RCA, C&W, MSCI & ECB calculations.
Notes: 'CRE assets' include non-financial assets, debt securities, shares and other equity. LU excluded for readability.
Latest observation for Q1 2023: 14/02/2023



Vielen Dank für Ihre Aufmerksamkeit!