



EUROPEAN CENTRAL BANK

EUROSYSTEM

Finding the right mix: monetary-fiscal interaction at times of high inflation

24 November 2022

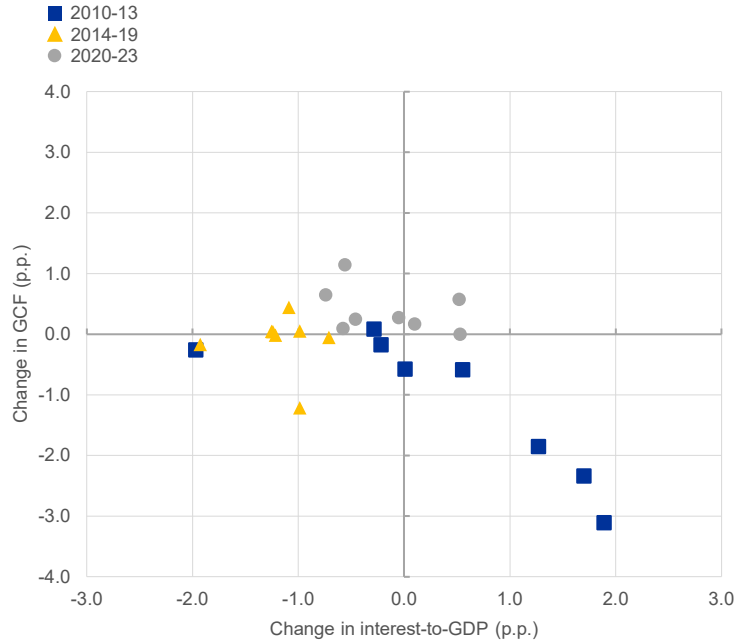
Isabel Schnabel, Member of the ECB's Executive Board
Keynote speech at Bank of England Watchers' Conference



Low interest rates failed to spur public investment before the pandemic

Interest expenditure and gross fixed capital formation in the public sector

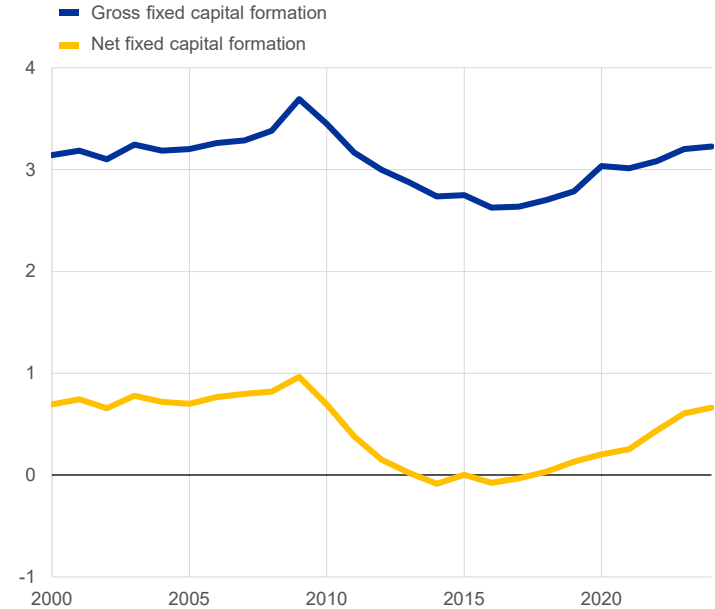
(percentage of GDP)



Sources: European Commission Autumn 2022 Forecast and ECB calculations.
Notes: Time intervals refer to the change in the percent of GDP ratio from the first to the last year of the interval in interest payments and gross fixed capital formation in the public sector for high debt countries (BE, GR, ES, FR, IT, CY and PT).

Public investment in the euro area

(percentage of GDP)

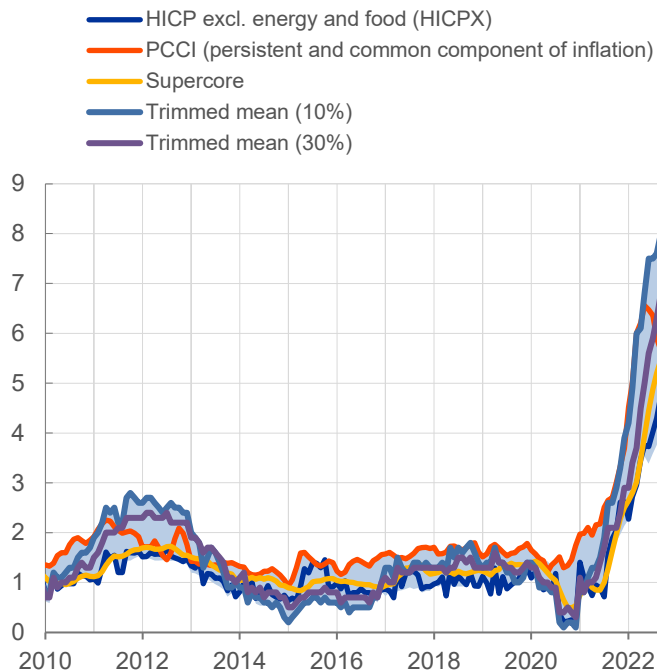


Sources: European Commission Autumn 2022 Forecast and ECB calculations.

Underlying inflation pressures have risen sharply and become more broad-based

Measures of underlying inflation

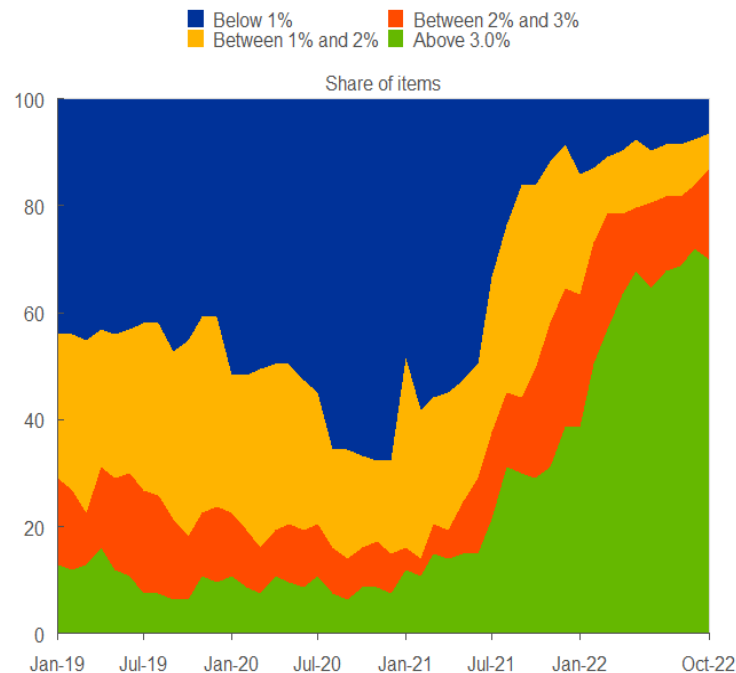
(annual percentage changes)



Sources: ECB and ECB staff calculations.
 Notes: HICPX, Supercore and Trimmed means are non-seasonally adjusted, while PCCI is based on seasonally adjusted price series.
 Latest observation: October 2022.

Share of HICP components according to pace of change

(percentage point contributions)



Sources: ECB and ECB staff calculations.
 Latest observation: October 2022.

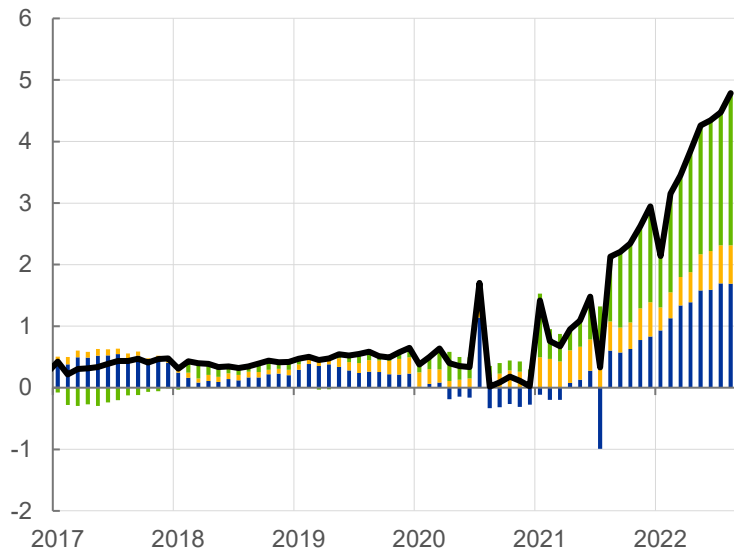
Demand and supply have contributed broadly evenly to the rise in underlying inflation

Shock decomposition of euro area inflation

(annual % change, pp contributions)

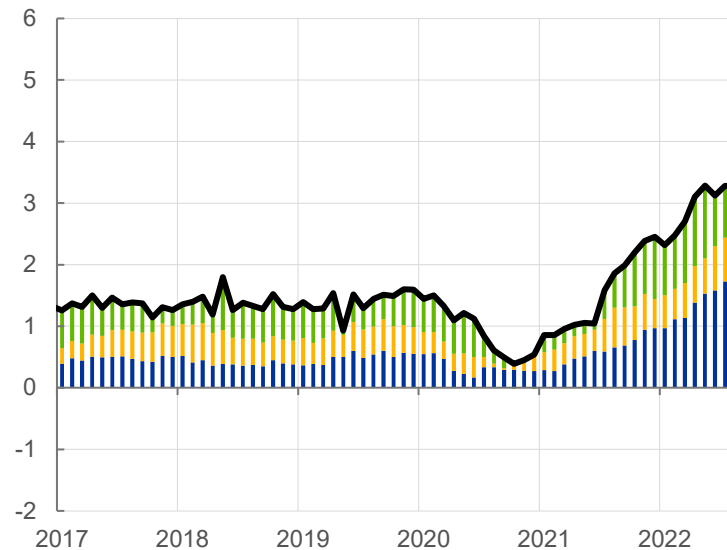
Non-energy industrial goods inflation

■ Demand-driven ■ Ambiguous
■ Supply-driven — NEIG



Services inflation

■ Demand-driven ■ Ambiguous
■ Supply-driven — Services



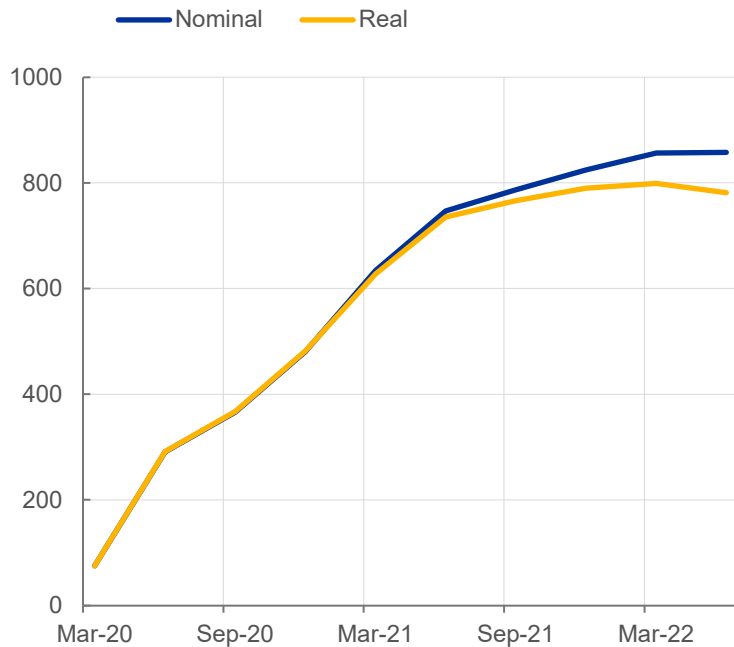
Sources: Eurostat and ECB staff calculations.

Notes: Gonçalves, E. and Koester, G. (2022): "How much do supply and demand drive inflation – decomposing HICPX inflation item by item"- ECB Economic Bulletin Box issue 7 2022 (forthcoming). Seasonally adjusted series. While price data are available for October 2022, the latest observation is for August 2022 as the turnover series used as a proxy for activity are published with some delay. Latest observation: August 2022.

Excess savings support demand, while industry backlog remains large

Accumulated excess savings

(since 2019Q4; EUR bn)



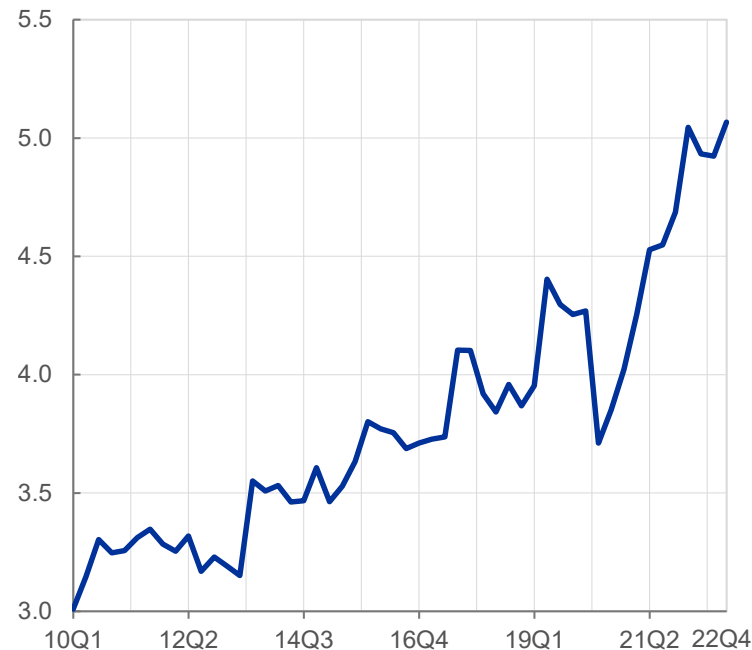
Source: Eurostat, ECB and ECB calculations.

Notes: The calculations follow Aladangady, A., Cho, D., Feiveson, L. and Pinto, E., "Excess Savings during the COVID-19 Pandemic," FEDS Notes, October 21, 2022. The real stock of excess savings is the nominal stock deflated by the HICP.

Latest observation: 2022Q2.

Industry backlog

(number of months)



Source: European Commission Business Survey.

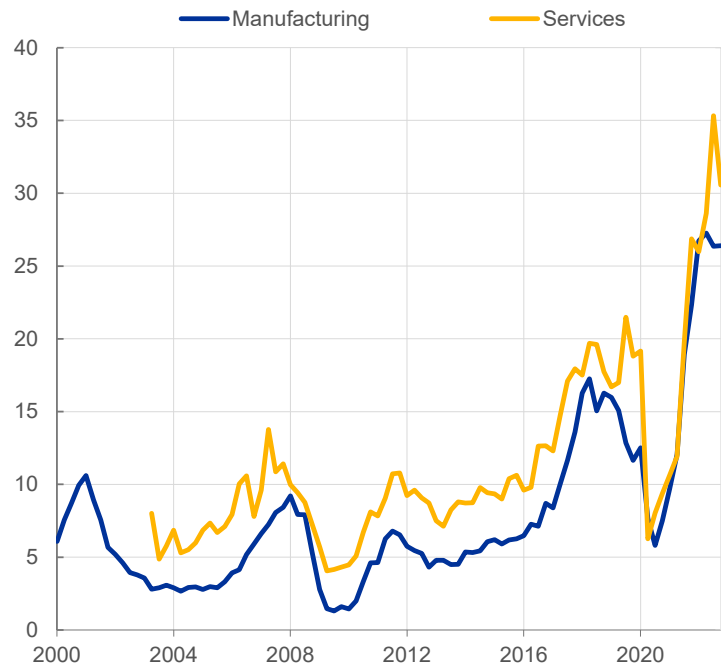
Notes: Industry backlog refers to the number of months of production assured by current order book levels.

Latest observation: 2022Q4.

Labour scarcity constrains production amid heterogeneity across sectors

Limits to production – shortage of labour

(percentage balances)



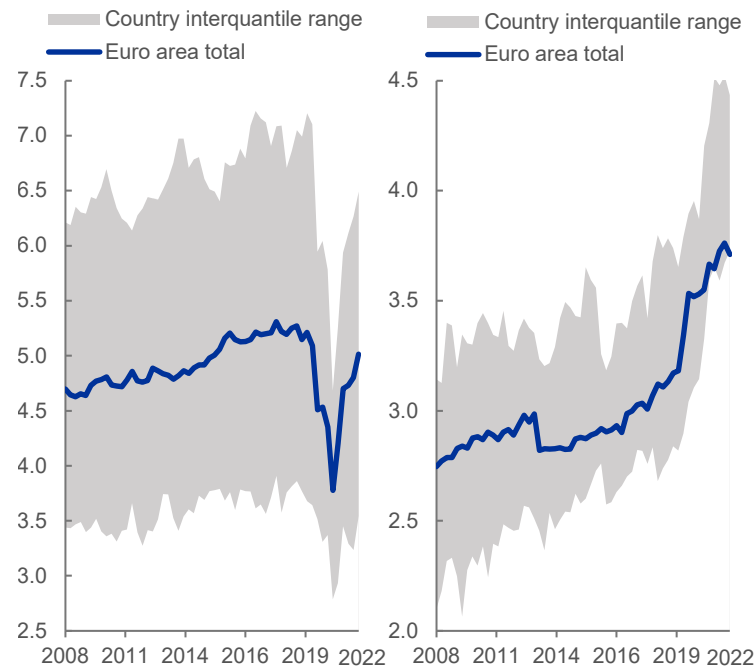
Source: European Commission.

Notes: Survey in industry and the services sector: percentage of firms who indicate labour shortages as limits on production and business.

Latest observation: 2022 Q4 (October 2022).

Employment share of accommodation and food services activities (LHS) and information and communication (RHS)

(percentages, seasonally adjusted)



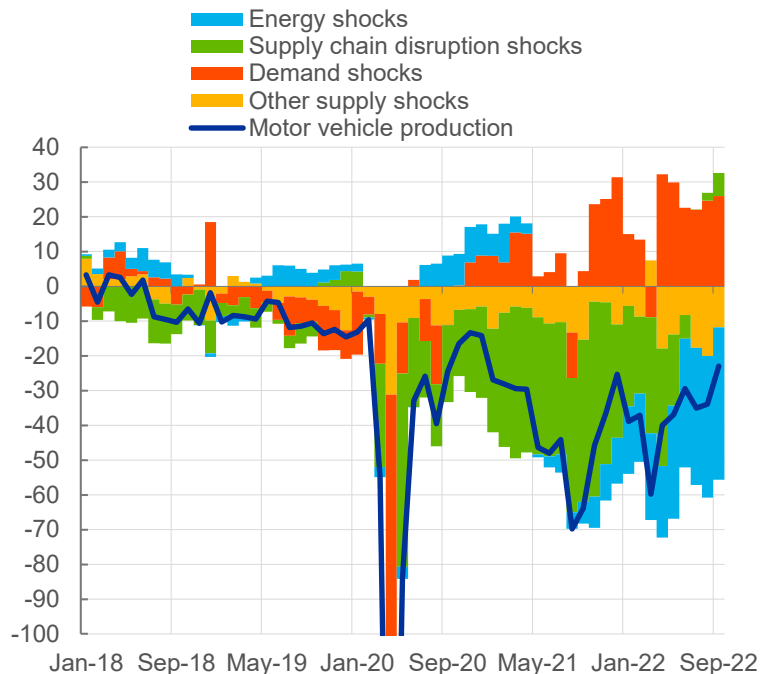
Source: Eurostat.

Note: The chart shows the share of employment in the two sectors in blue, and the interquartile range for the euro area countries in grey.

Latest observations: 2022 Q2.

Motor vehicle production – contribution of shocks

(percentage deviation from trend, percentage points)

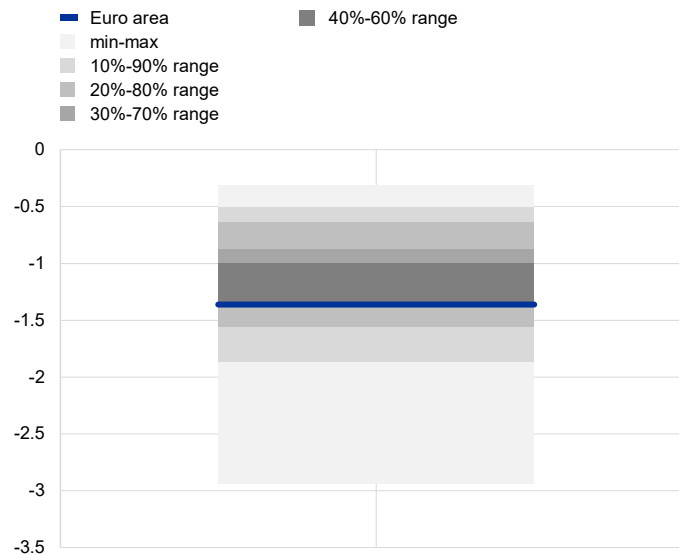


Sources: Eurostat, Markit and ECB staff calculations.

Notes: The Bayesian SVAR includes Motor vehicle production, car prices, HICP energy and PMI suppliers' delivery times. Shocks are identified using sign and narrative restriction methods. Technical details on the method can be found in De Santis, R. A. and Van der Veken, W. (2022), "Deflationary Financial Shocks and Inflationary Uncertainty Shocks: An SVAR Investigation", Working Paper Series, No 2727, ECB. Last observation: Sep. 2022.

Impact of the recent increase in energy prices on the level of potential output across euro area countries

(percentage deviations)



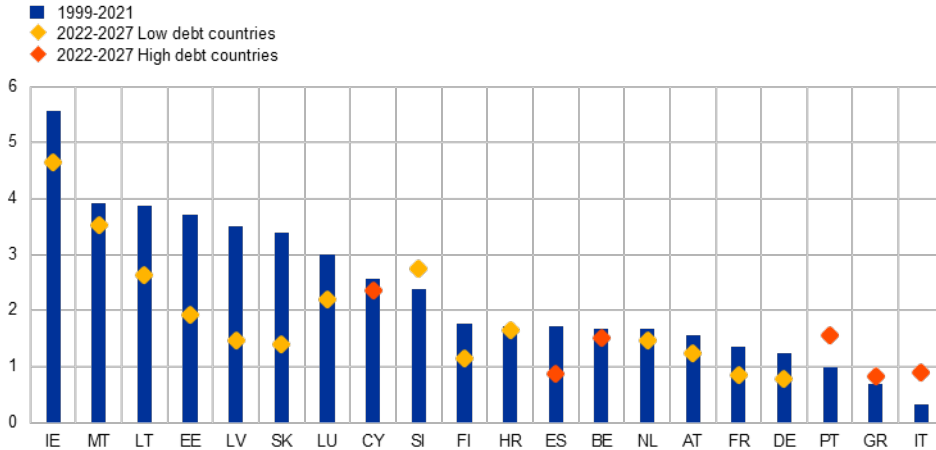
Source: ECB calculations based on the Basic Model Elasticities.

Notes: The scenario is based on the September 2022 ECB staff macroeconomic projections, in deviation from a counterfactual where the price of the synthetic energy price is fixed at the average for the period from the fourth quarter of 2017 to the first quarter of 2019. The synthetic energy price is a combination of oil and gas spot and futures prices, where their respective growth rates are weighted (80% oil, 20% gas). Around the euro area average, shaded areas denote the deciles of the impact of the current energy price shock on the level of potential output after four years, by country, for the nineteen euro area countries.

Potential growth outlook below historical average except for some high-debt countries

Potential output

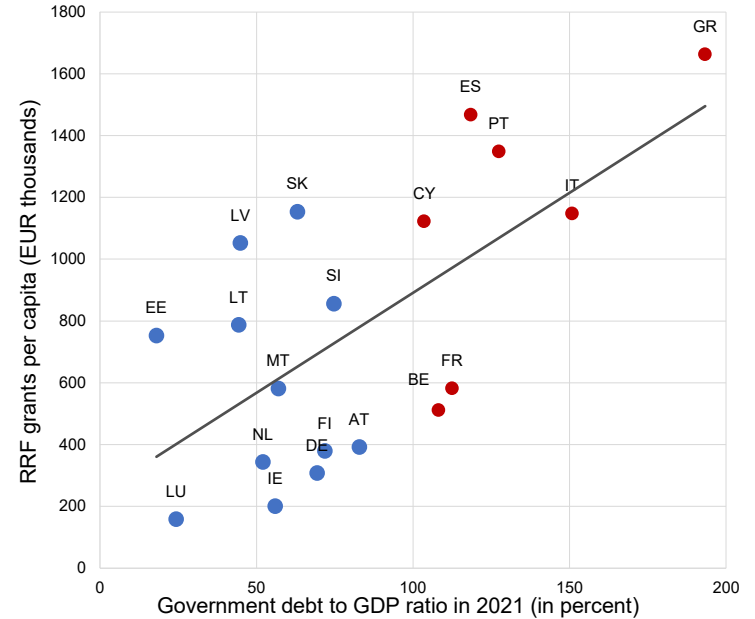
(average annual percentage change)



Source: European Commission, EPC Working Group on Output Gaps

Note: The definition of high debt countries is debt to GDP ratio of over 90% of GDP in 2019.

Recovery and Resilience Facility (RRF) grants per capita vs. public debt-to-GDP ratio

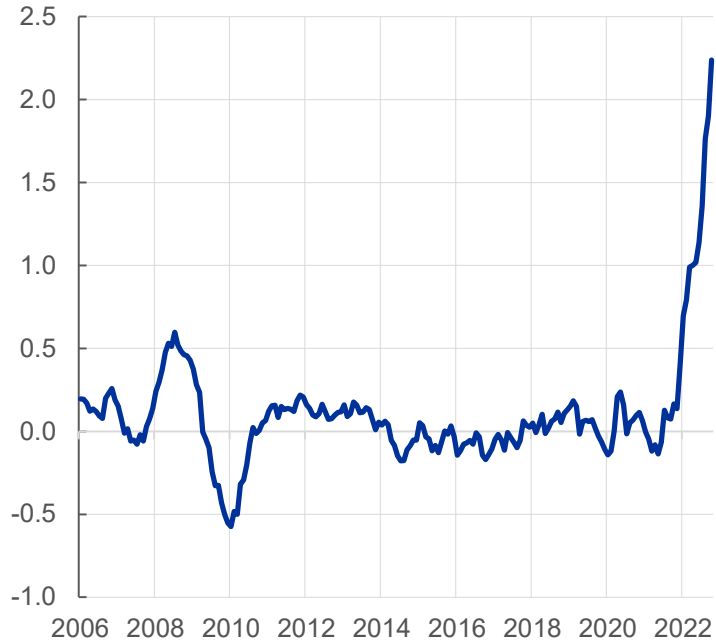


Sources: Eurostat, ESCB and ECB calculations.

Low-income households face higher inflation due to different consumption basket

Inflation gap between the lowest and highest income quintiles

(percentage points; excluding housing costs)

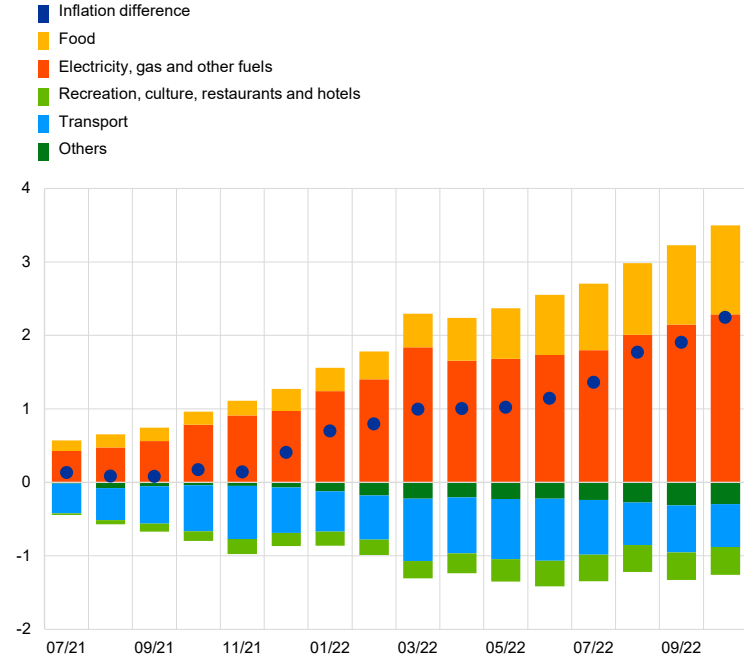


Source: Eurostat, Household Budget Survey, Istat and ECB calculations.

Notes: Quintile-specific inflation rates are calculated based on quintile-specific consumption baskets and are calculated excluding spending on "Rents and Owner-occupied housing costs". Weights based on the household budget survey are updated annually in line with updates of official HICP weights. See Charalampakis et al. (2022): "The impact of the recent rise in inflation on low-income households" ECB Economic Bulletin Box issue 7 2022
Latest observation: October 2022

Decomposition of inflation difference between the lowest and highest income quintiles

(percentage points)



Sources: Eurostat Household Budget Survey, ISTAT and ECB calculations.

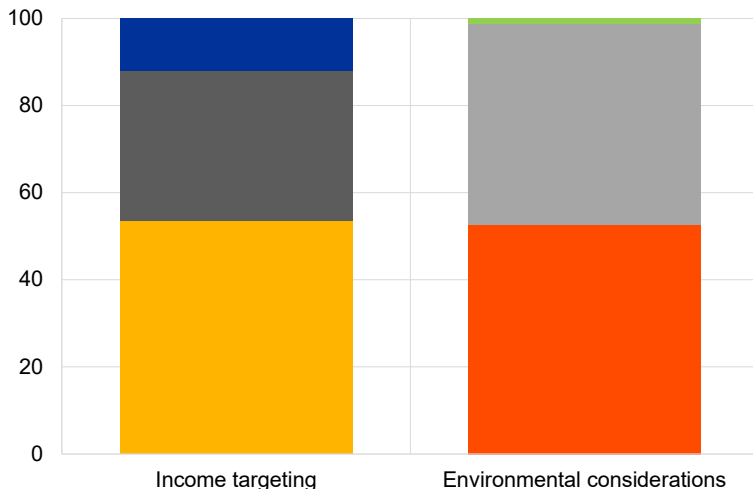
Notes: The contributions of individual components are calculated as the component-level inflation rate multiplied by the difference in the weights of the component in the quintile-specific consumption baskets. Quintile-specific inflation rates are calculated excluding spending on "rents and owner-occupied housing costs". Weights based on the HBS are updated annually in line with updates to the official HICP weights.

Fiscal support measures were mostly untargeted amid low public investment

Euro area measures to curb high energy prices in 2022

(percentage share of total based on the 2022 budgetary impact)

- Non-targeted support for households
- Supporting short-run fossil fuel consumption
- Transfers to firms and other non-targeted measures
- Environmentally neutral and/or not classifiable
- Targeted support for low-income households
- Contributing directly to the green transition

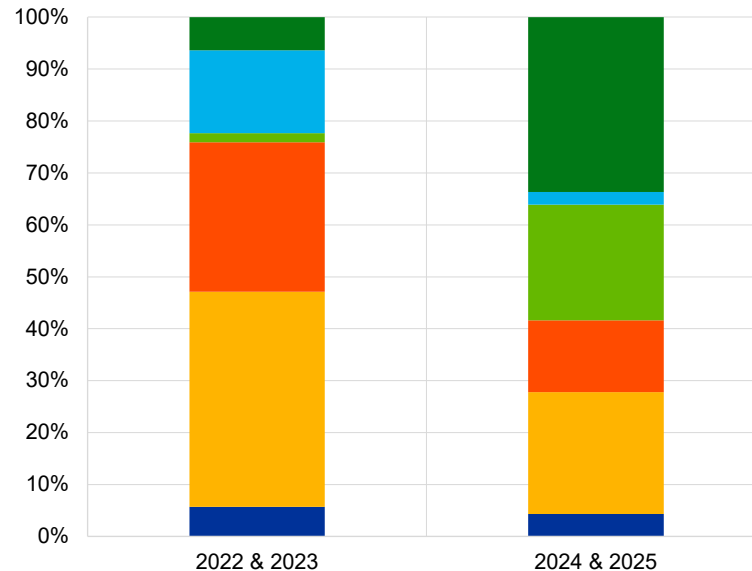


Source: ECB Economic Bulletin Issue 5, 2022: Euro area fiscal policy response to the war in Ukraine and its macroeconomic impact. (https://www.ecb.europa.eu/pub/economic-bulletin/focus/2022/html/ecb.ebbox202205_07~6db6f2c297.en.html)

Euro area fiscal measures by type of instrument

(percentage of total war-related fiscal support)

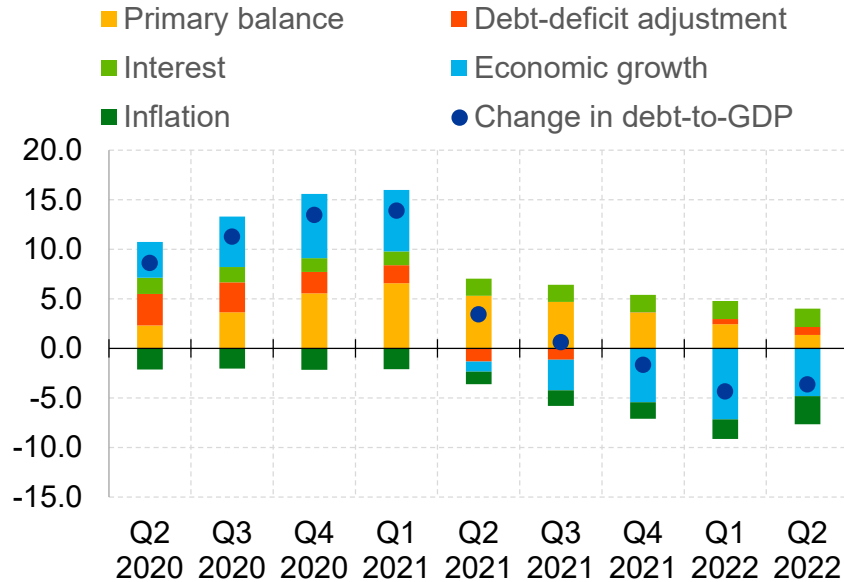
- Government consumption
- Subsidies
- Other transfers
- Government investment
- Indirect taxes
- Direct taxes and social contributions



Source: ECB calculations.

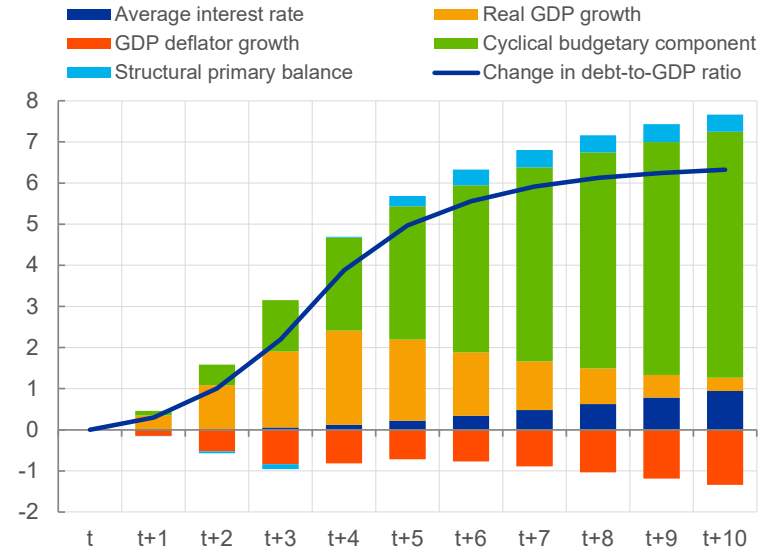
Notes: The bars show the average shares in the total Ukraine war-related fiscal support.

Change in general government debt-to-GDP ratio and contributing factors for the euro area (percentage points of GDP)



Sources: Eurostat and ECB calculations.

Simulation of cost-push inflation shock on euro area debt-to-GDP ratio (deviations from steady state in %)

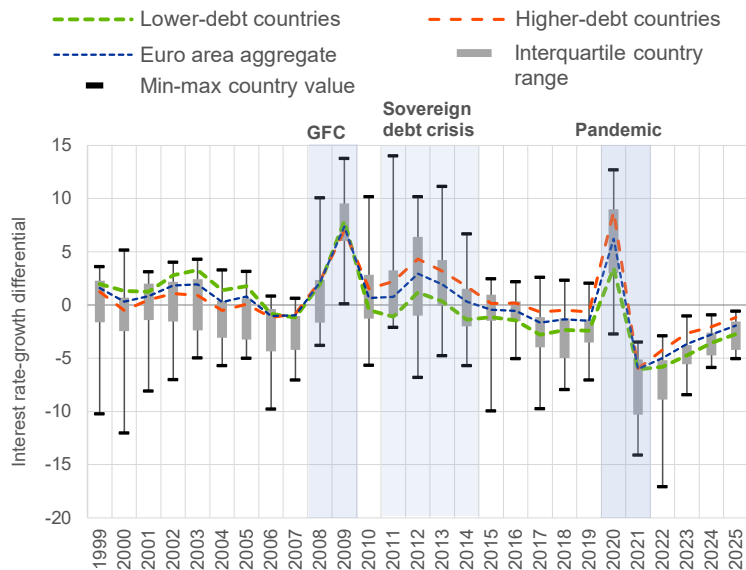


Sources: ECB calculations.

Note: The shock is calibrated to lead, in the absence of any monetary policy reaction, to a 1 percentage point increase in HICP inflation over three years. It is designed as a series of unexpected cost-push shocks originating in the rest of the world on their export of goods. This shock is analysed using the Euro Area and Global Economy (EAGLE) model, a multi-country dynamic stochastic general equilibrium model calibrated for the euro area's four biggest countries, the rest of the euro area and the rest of the world. To limit the substitutability between goods imported from the rest of the world and euro area tradable goods, the elasticity has been lowered to take into account the high dependency of euro area countries on commodities imports.

Historical and forecast distribution of *i-g* across euro area countries

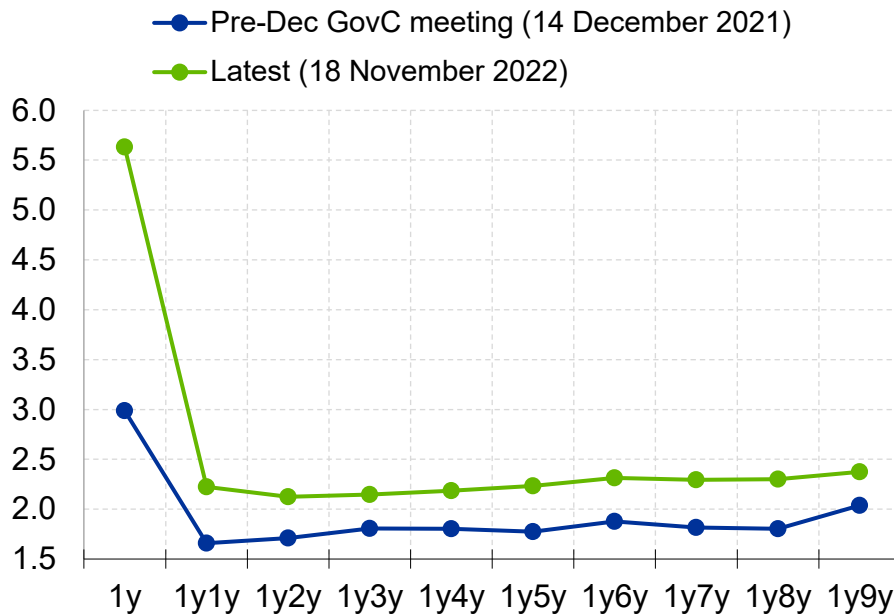
(percentage points)



Sources: ECB and ECB calculations

Term structure of inflation-linked swaps

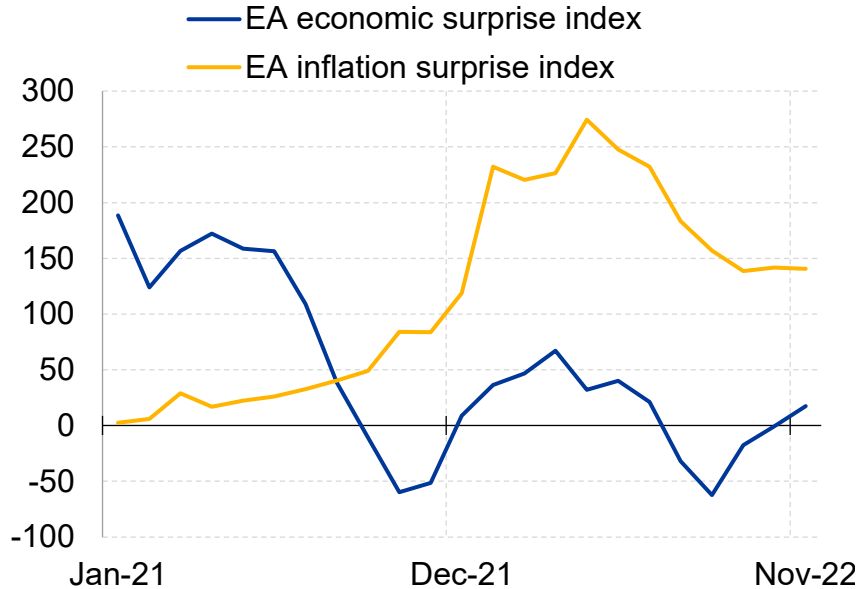
(percentage per annum)



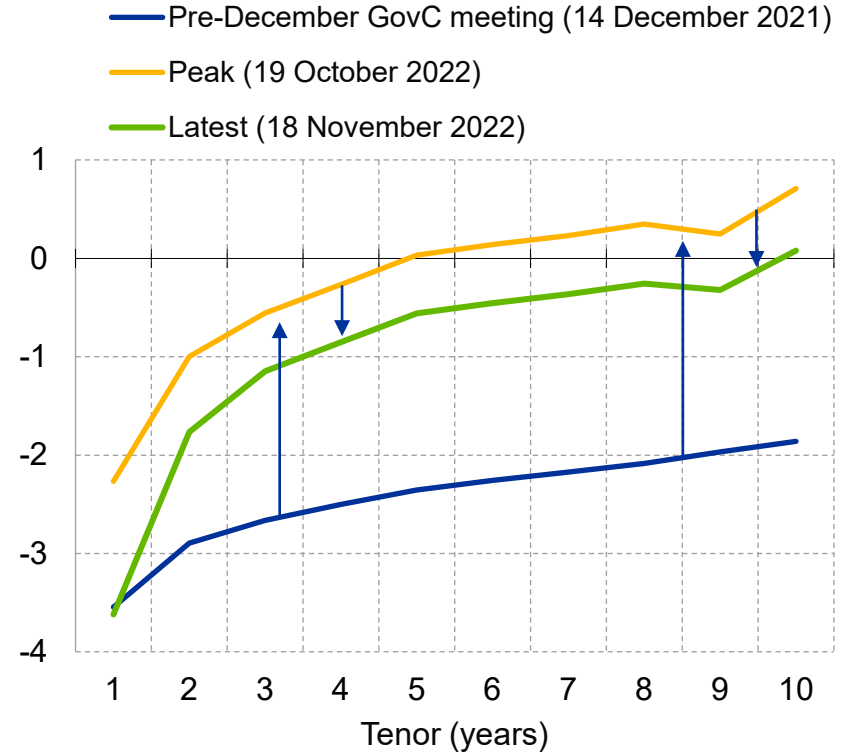
Sources: Bloomberg.
Latest observation: 18/11/2022.

Inflation continues to surprise on the upside, while financing conditions have tightened

Citigroup Inflation and Economic Surprise Indices (Indices)



Euro area real GDP-weighted yield curve (percent)



Sources: Bloomberg.

Note: The Citi Inflation (Economic) Surprise Index measures price (economic) surprises relative to market expectations. A positive reading means that inflation (economic) news have been higher (stronger) than expected.

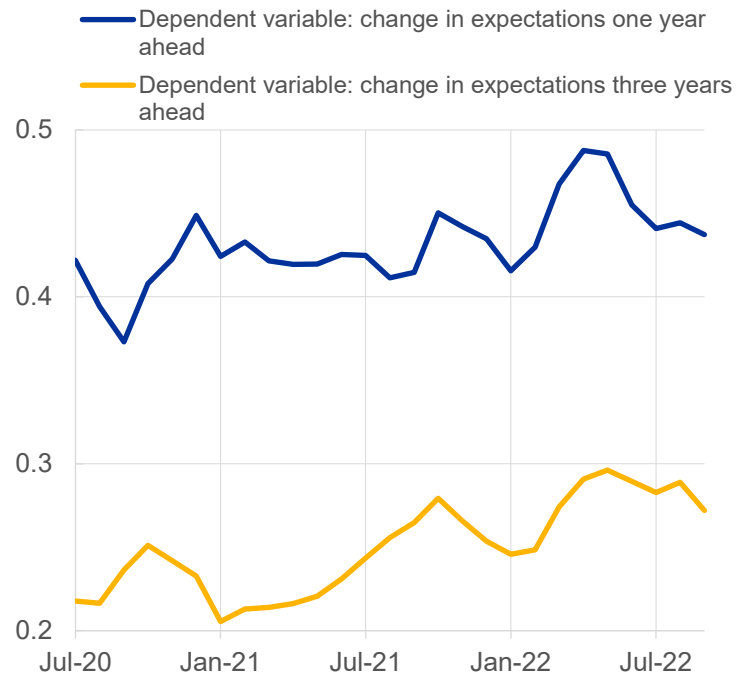
Latest observation: 18/11/2022.

Sources: SDW and ECB calculations.

Latest observation: 18 November 2022.

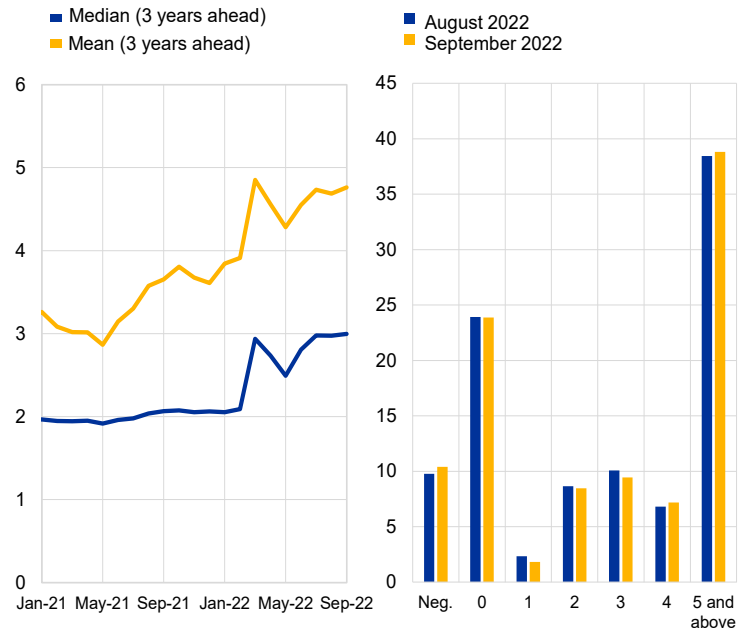
High inflation may feed into higher inflation expectations

Effect of revisions in inflation perceptions on short- and medium-term inflation expectations (coefficient)



Sources: ECB Consumer Expectations Survey (CES). Notes: Coefficients on the revisions to inflation perceptions from regressions of revisions to consumer inflation expectations 1y ahead (blue line) and 3y ahead (orange line). Respondent-level regressions are conducted on a rolling window of three CES waves, with country-fixed effects. The coefficients are statistically significant at a level of 1%. Latest observations: September 2022

Consumer Expectations Survey: Inflation expectations 3 years ahead (LHS: annual percentage changes; RHS: x-axis: annual percentage changes; y-axis: percentages of respondents)



Sources: ECB Consumer Expectations Survey and ECB staff calculations. Notes: "Median" refers to the median across individual respondents. The data are winsorised at the 2nd and 98th percentile. Mean values are 4.69% and 4.76% for August and September respectively. Median values are 2.98% and 3.00% for August and September respectively. Latest observations: September 2022.

Thank you very much for your attention!