NOVA SCHOOL OF BUSINESS & ECONOMICS

SEMINAR IN EUROPEAN ECONOMICS

RECENT EU CHALLENGES: AN OVERVIEW

PRACTICAL CLASSES 2

2024-2025 S2

Group assignment

The assignment invites teams (3 to 5 students) to measure the amount of investment needed in the different countries and sectors to double gross value added (GVA) per worker in the EU

Group assignment

The recent Draghi (2024) report has relaunched the debate about competitiveness in the EU.

The economic performance of the EU has been disappointing when compared with that of the US or China.

Amongst other ideas, the report highlights the need for higher investment.

Group assignment

The assignment invites teams to measure the amount of investment needed in the different countries and sectors to double gross value added (GVA) per worker in the EU.

In addition, teams should discuss the problems underlying the materialization of high investment in EU member countries, the most productive types of investment, and propose ways forward.

Group assignment

The investment level feeds the capital stock available in the Cobb-Douglas production function, which, together with employment, total factor productivity and the fixed parameters of the function, generates GVA.

$$Y = AK^{\alpha} L^{1-\alpha}$$

$$K_{t+1} = (1-\delta)K_t + I_t$$

Consider the depreciation rate at 10%, as common in the literature.

Find the investment level Ceteris Paribus. Regarding population, assume that population growth is constant, not that population is constant. Labor supply is proportional to population.

The simulation should be performed for each individual country separately and a further breakdown along sectors is an option.

Group assignment

A non-exhaustive list of tasks includes:

- Carefully read the literature on EU competitiveness and investment
- Collect information necessary for the growth accounting exercise.*
- Prepare the stylized growth accounting model in excel, using the standard Cobb-Douglas production function.
- Compute the necessary level of investment to double GVA per worker, for each country and (optionally) for each sector.
- Analyze and critically comment on your results.
- Discuss the feasibility of the implementation of your findings and propose solutions.

Group assignment

Collect information necessary for the growth accounting exercise.

- https://economy-finance.ec.europa.eu/economic-research-and-databases/economicdatabases/ameco-database_en

- https://economy-finance.ec.europa.eu/economic-research-and-databases/economicdatabases/eu-klems-capital-labour-energy-materials-and-service_en

Group assignment

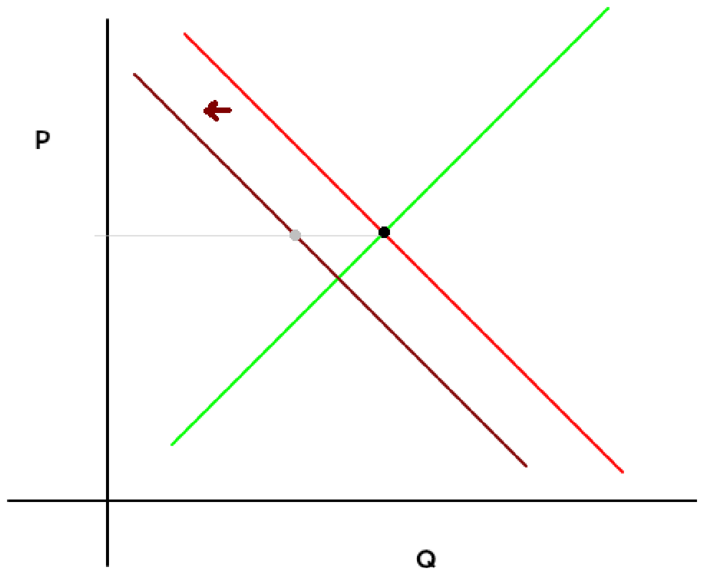
Questions?

RECENT CHALLENGES

- COVID-19 Crisis
- Inflation and energy transition
- Geopolitical tensions: War in Ukraine and US-China Trade Tensions

Macroeconomic dilemas

- Due to nominal rigidities, sometimes aggregate demand does not meet aggregate supply.

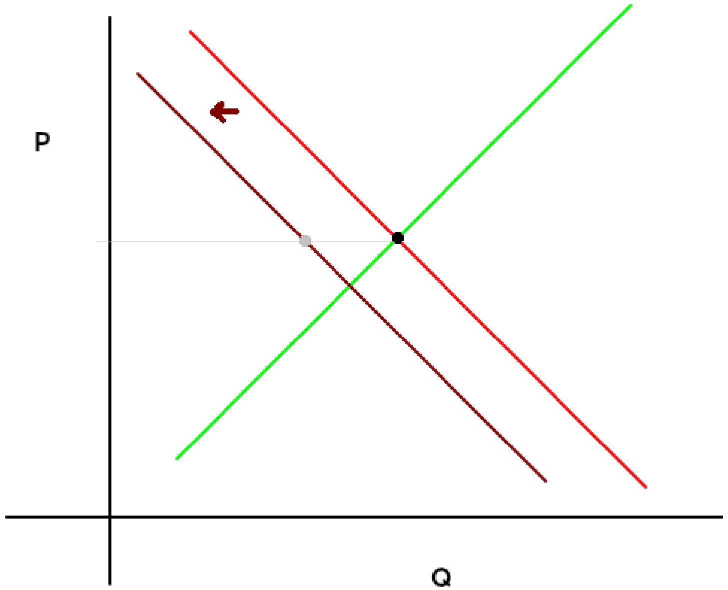


- Crises due to lack of supply → inflation

- Crises due to lack of demand → unemployment

Macroeconomic policies

- Due to nominal rigidities, sometimes aggregate demand does not meet aggregate supply.

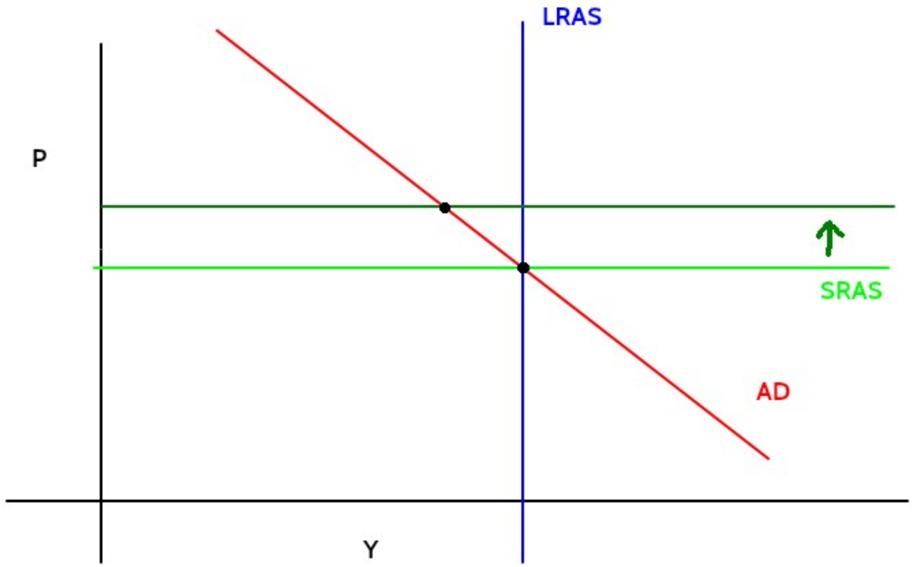


- Crises due to lack of supply → inflation → tighten fiscal/monetary policy

- Crises due to lack of demand → unemployment → ease fiscal/monetary policy

Macroeconomic challenges

- Sometimes both supply and demand are hurt



- Stagflation as a consequence of the increase in the price of imported input factors (1973 oil crisis)

- Markets for goods and services have very different dynamics (COVID 19 crisis)

The COVID 19 dilema

- Services: less demand
  - consumers were not going to restaurants, movies, parties, bars
  - tourism sector mostly shut off
  - other services also hurt

- Goods: less supply
  - lock-downs: less production
  - supply chains: disrupted

- Goods: more demand
  - consumers save on services: more income spent on goods
  - work from home: increased demand for electronic goods

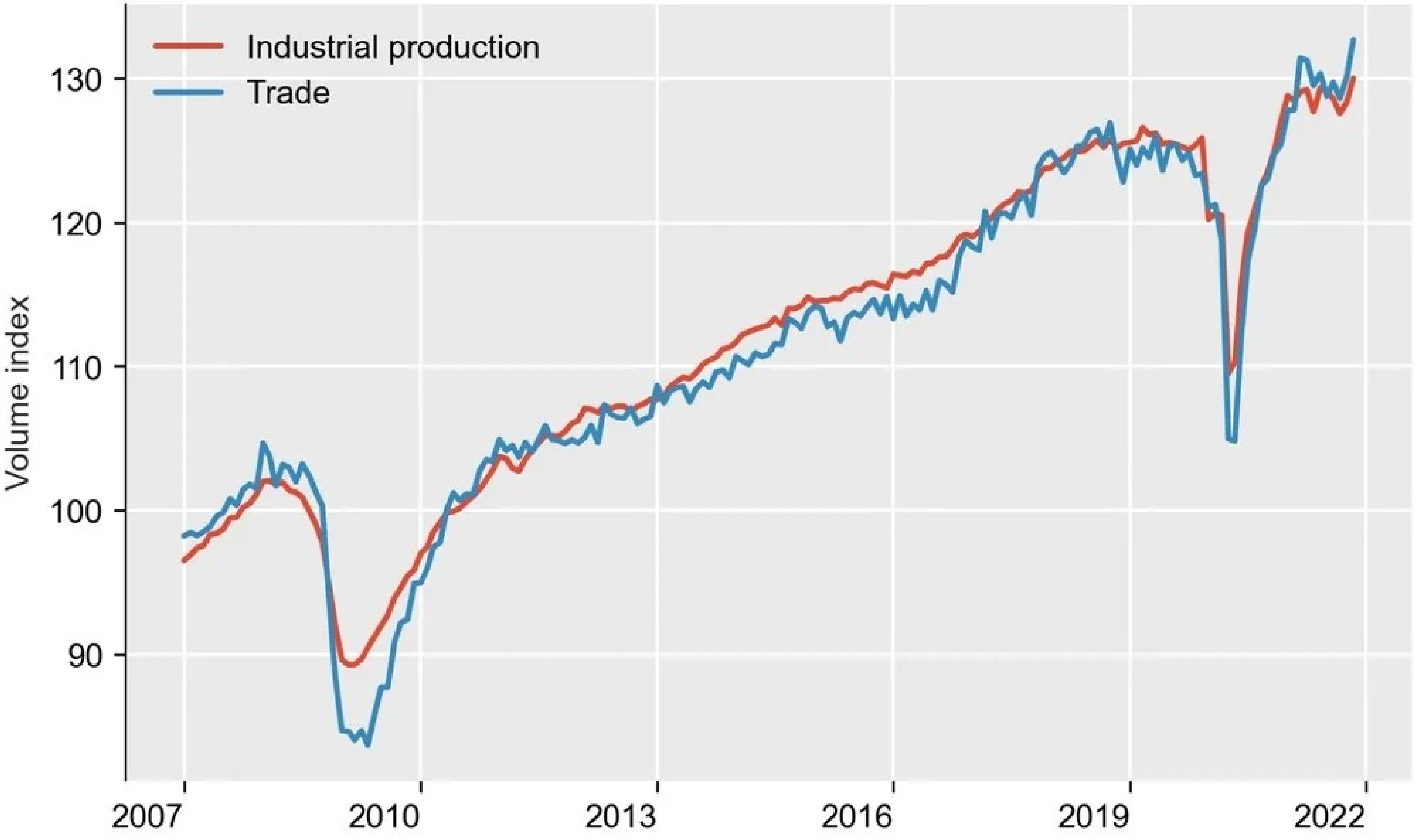
The COVID 19 dilema

- Before the COVID 19 crisis: low inflation landscape.
  - Danger of deflation
  - High unemployment
  - Some fears that it was a permanent feature of the European economy (secular stagnation driven by demographic and economic factors)

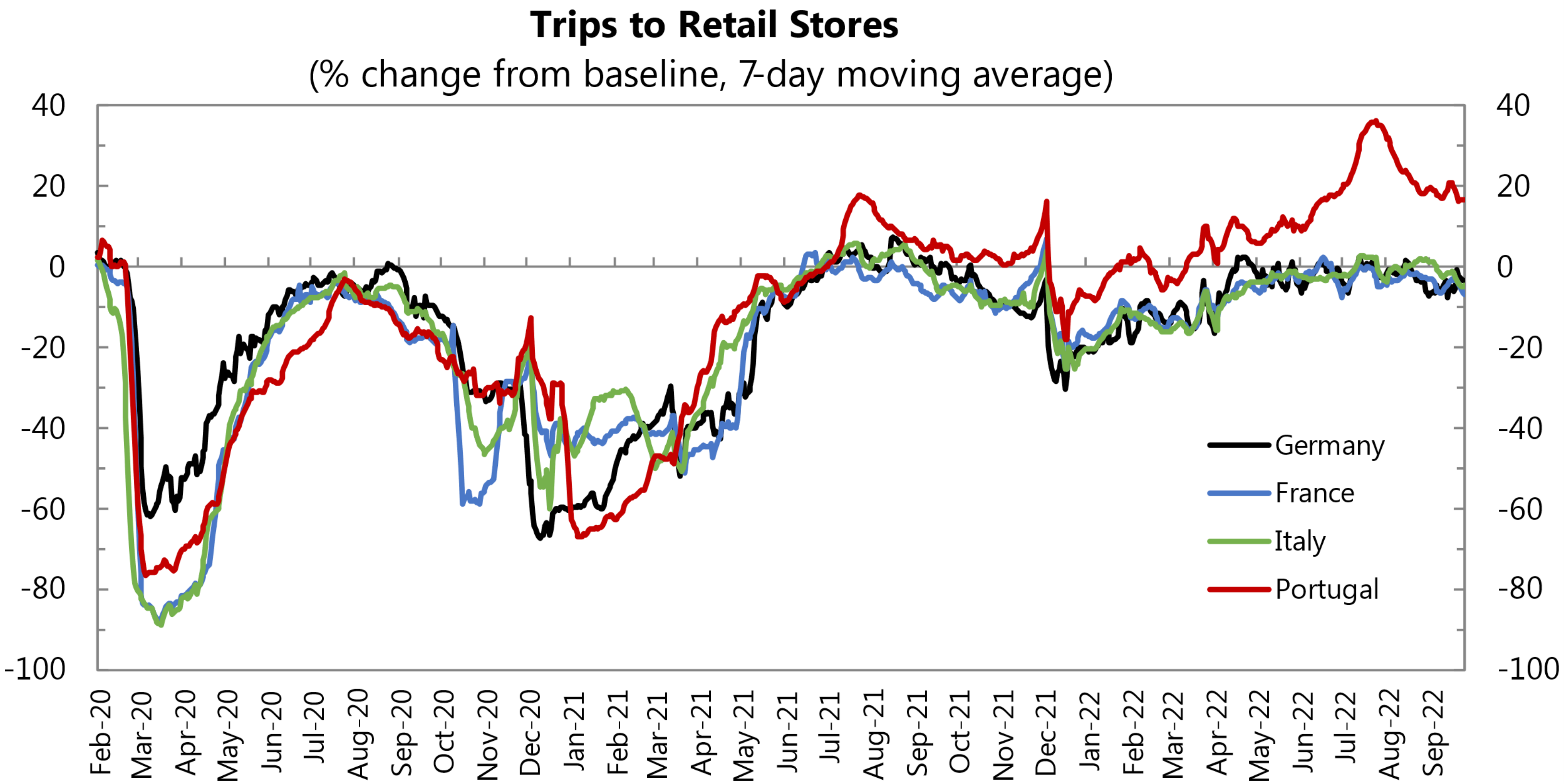
- During the COVID 19 crisis: to avoid bankruptcies in the services sector: ease monetary and fiscal policies at the risk of fostering inflation → **low interest rates, quantitative easing, recovery and resilience plan**

- Central Banks believed that, because the pandemic crisis was temporary, inflation would be transitory

Collapse of the world trade during the pandemic

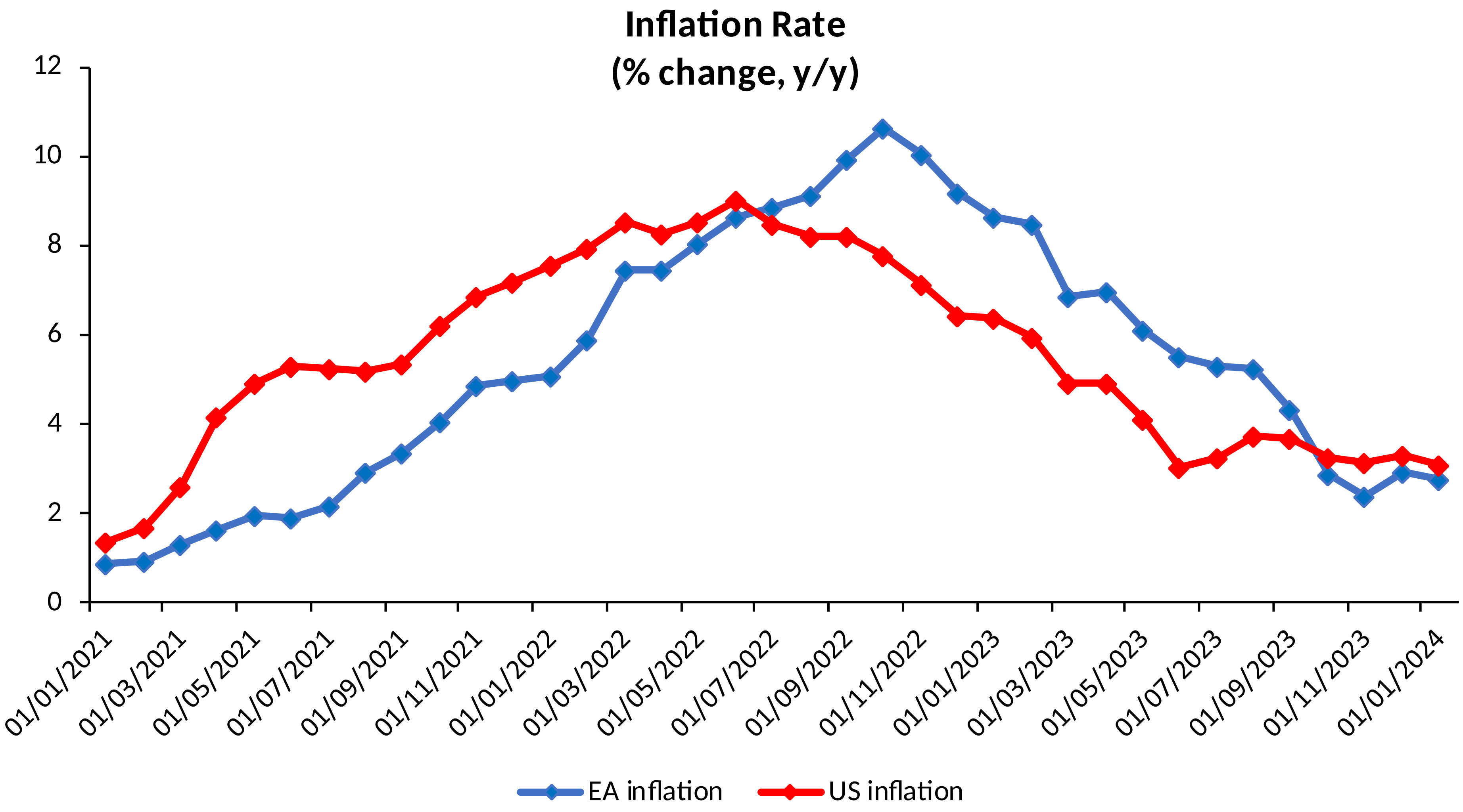


Collapse of the economic activity during the pandemic



Source: Google COVID-19 Community Mobility Reports

Recent Inflation Developments

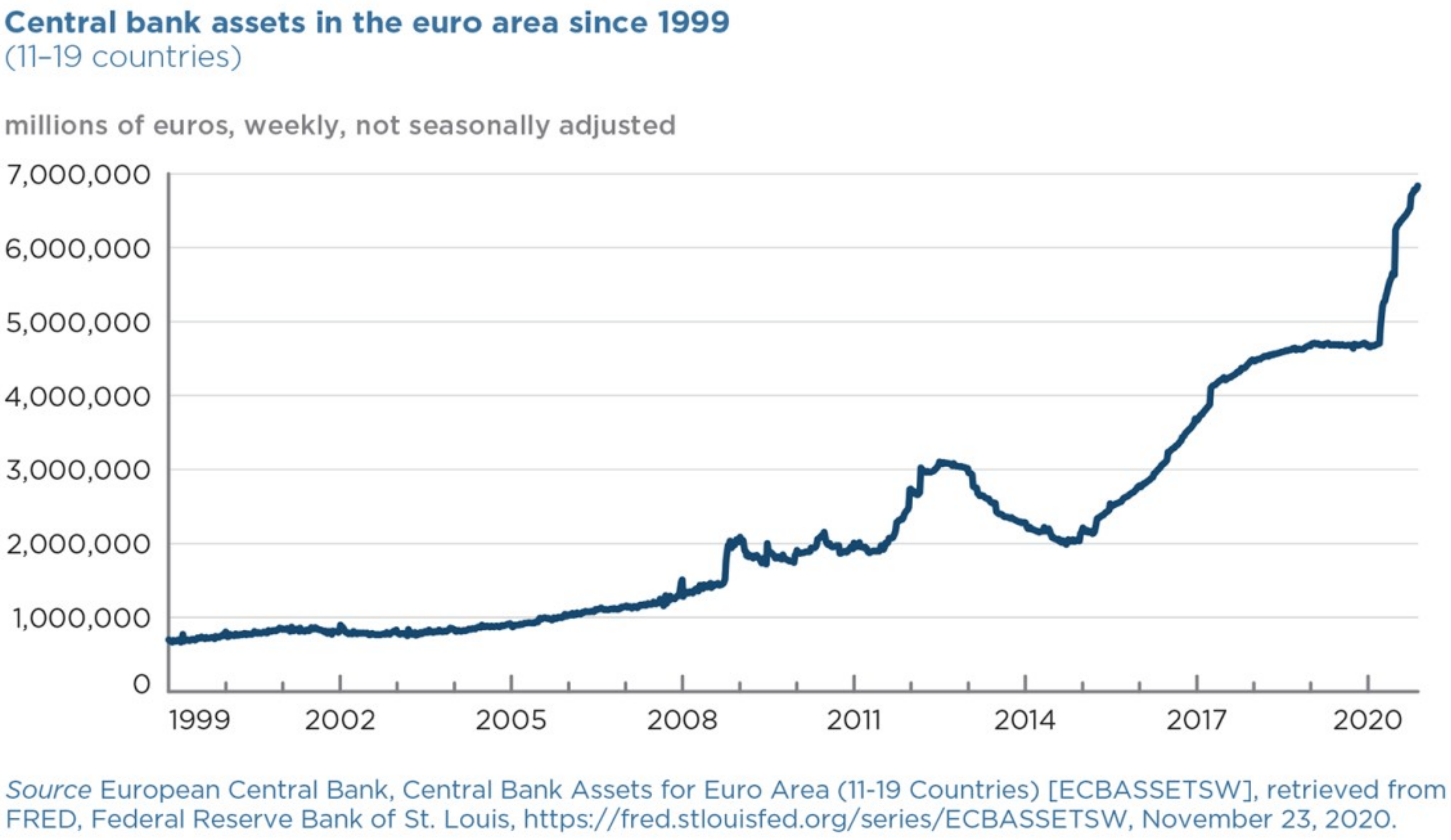


Reasons behind High Inflation

Low interest rate and low inflation rate - US

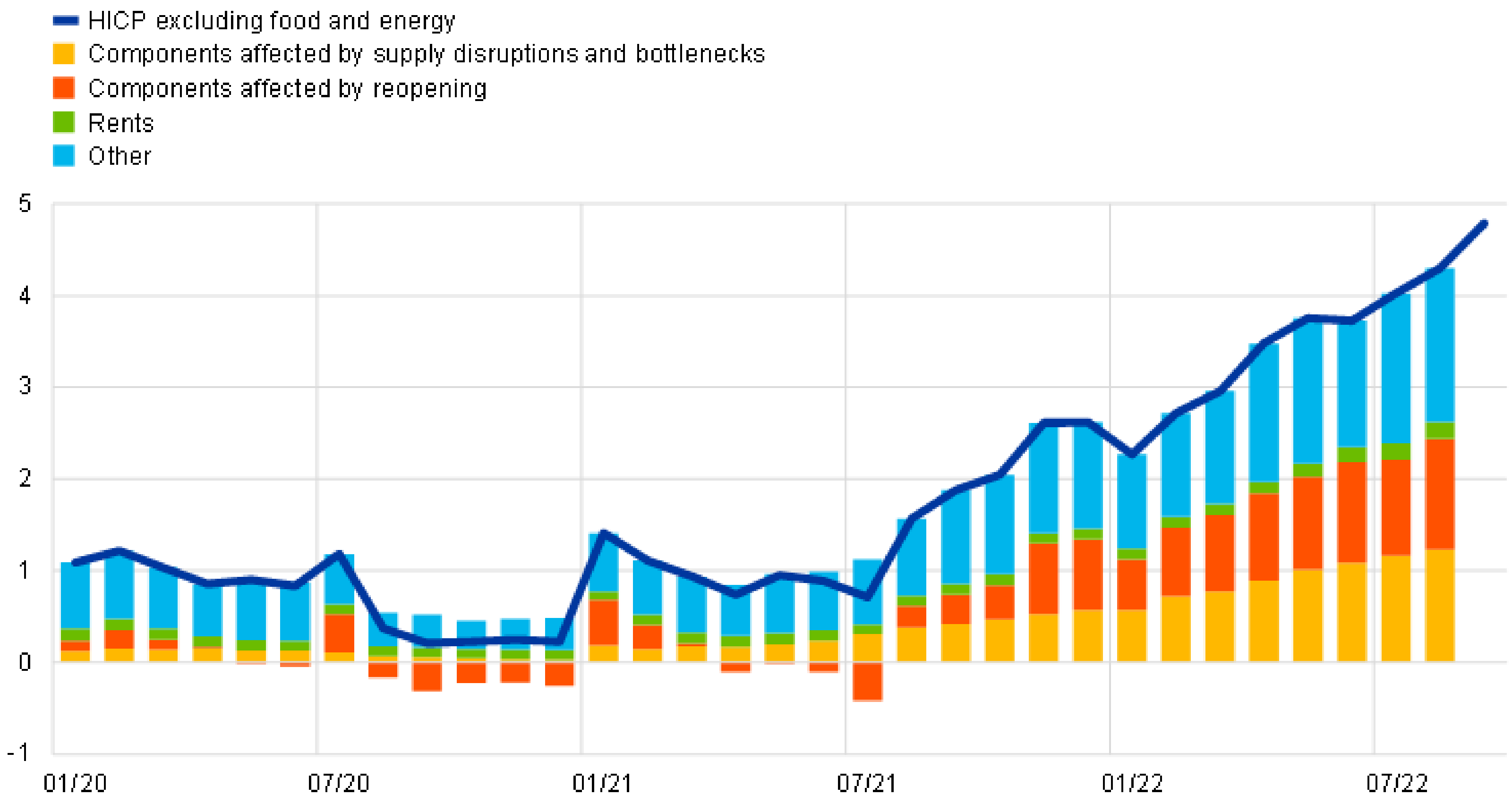
Reasons behind High Inflation

Increase in Money Supply



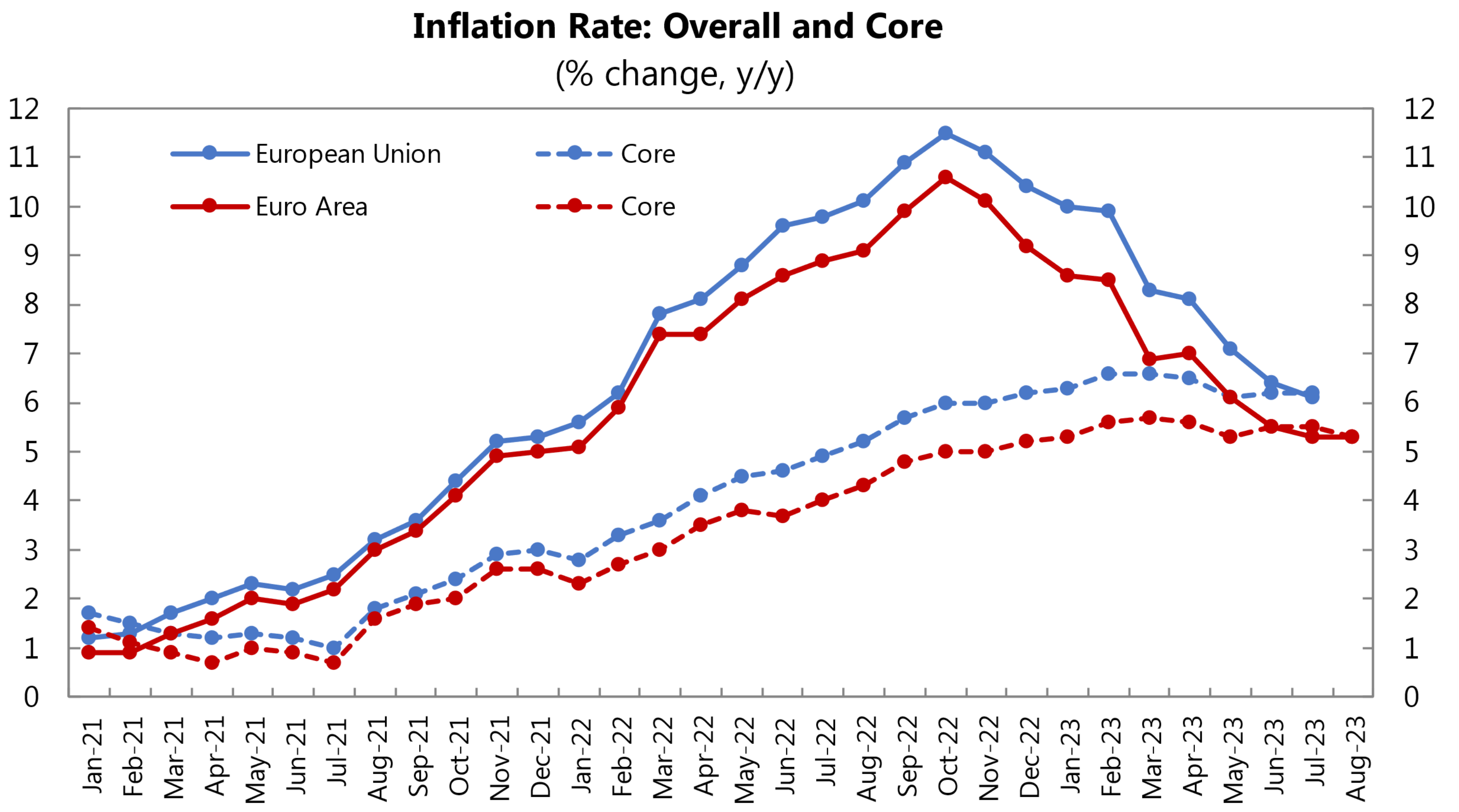
Reasons behind High Inflation

Contribution of the different pandemic effects



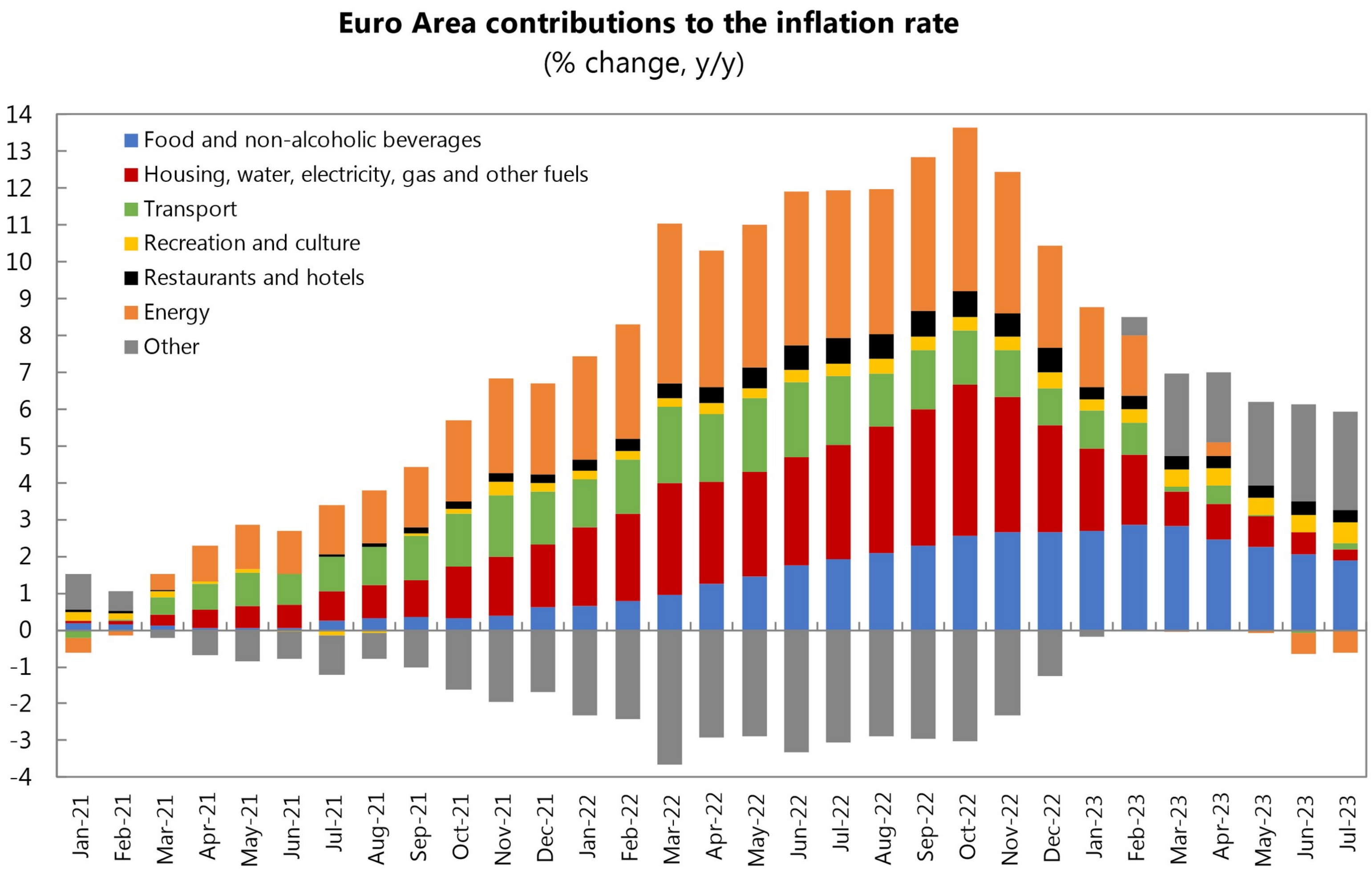
Reasons behind High Inflation

Inflation vs Core Inflation



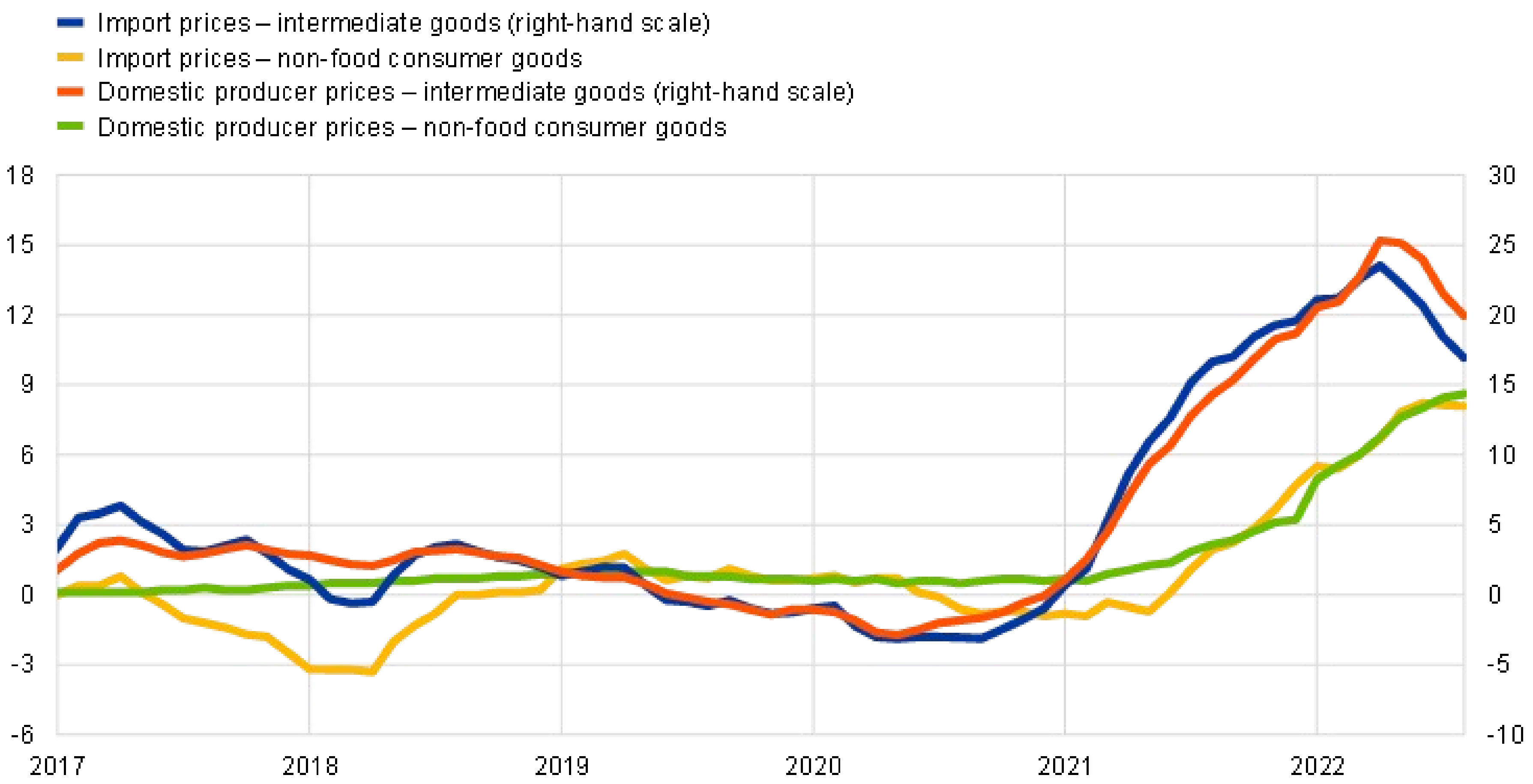
Reasons behind High Inflation

Contributions to the Inflation Rate



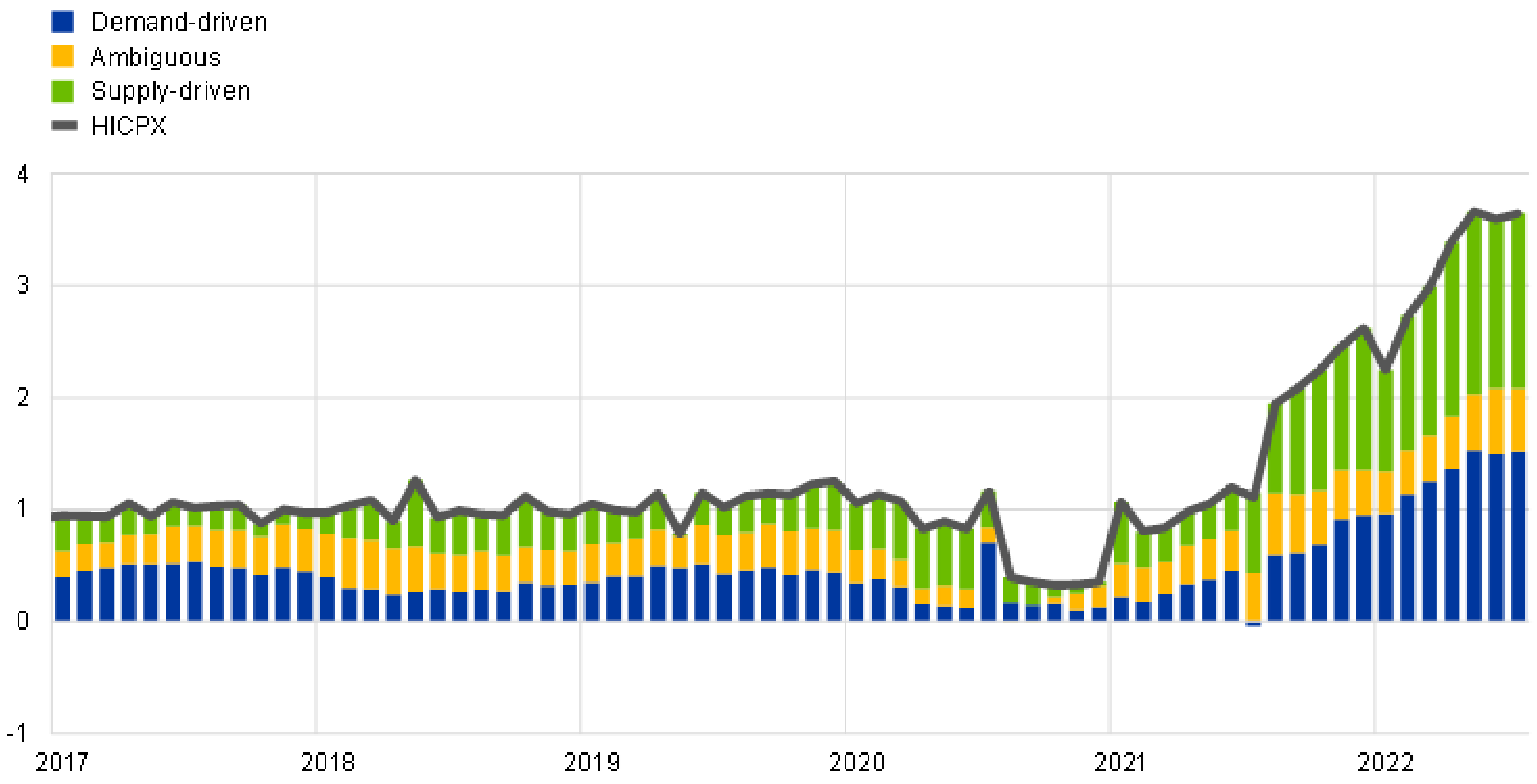
Reasons behind High Inflation

Increase in the price of imported goods



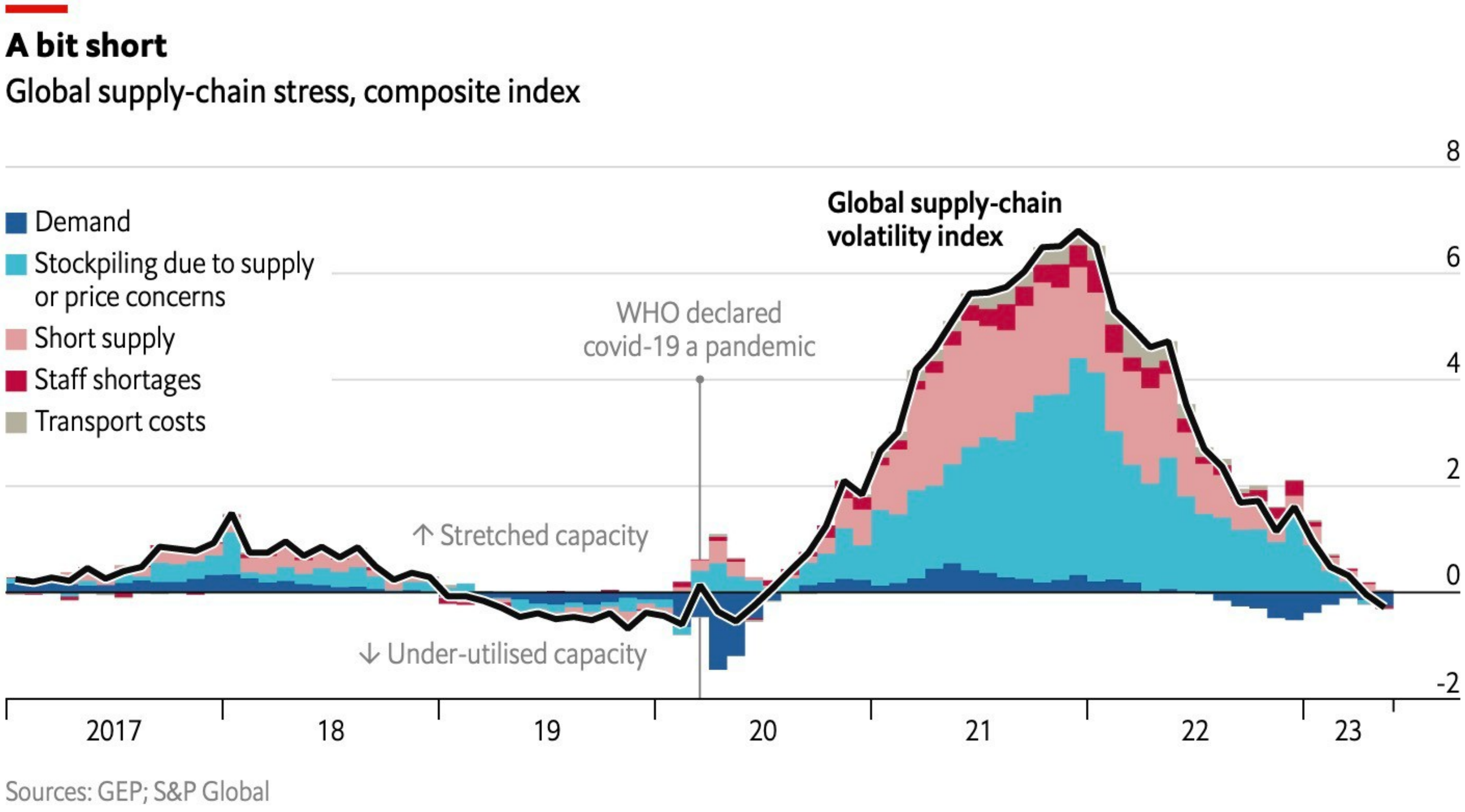
Reasons behind High Inflation

Demand of Supply Driven



Reasons behind High Inflation

Supply Chains Stress Index



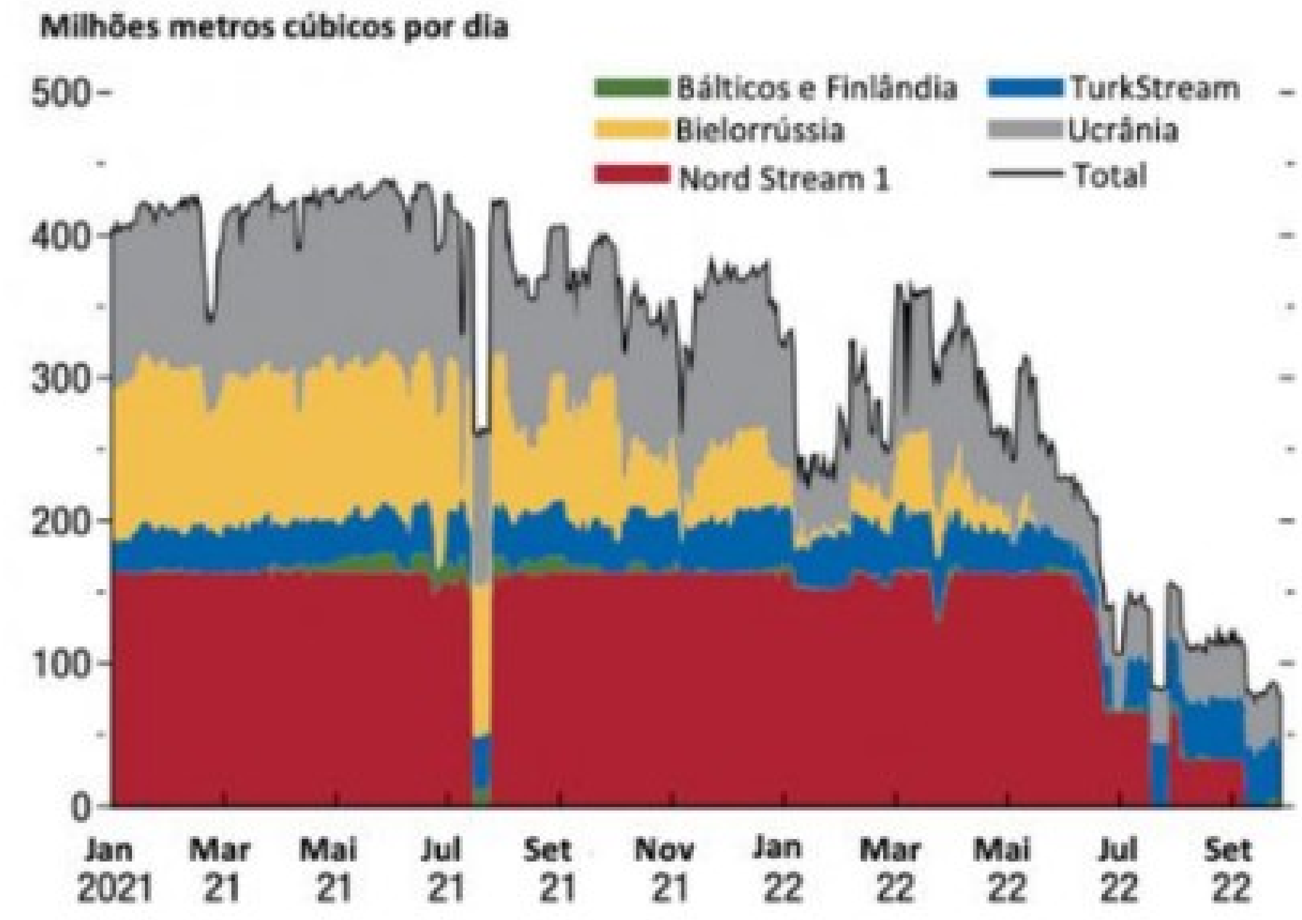
Geopolitical Tensions

War in Ukraine: Context

- Major escalation of a conflict which goes back to 2014 (Russia annexes Crimea)
- Violation of international treaties and international law
- Thought to be short in the beginning but it is still lasting
- NATO and Western allies have been supporting Ukraine

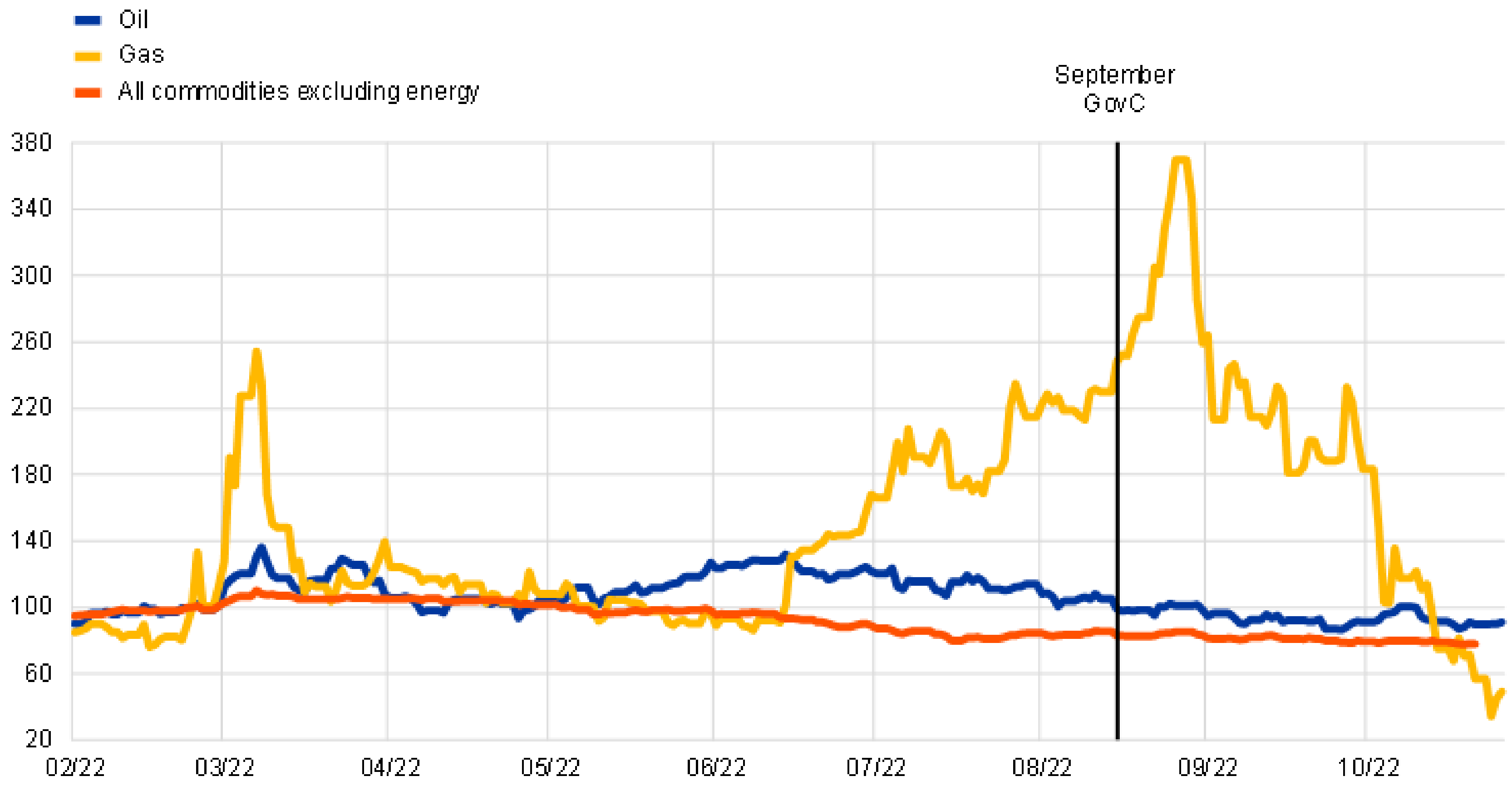
Geopolitical Tensions

War in Ukraine: High dependence on Russian gas



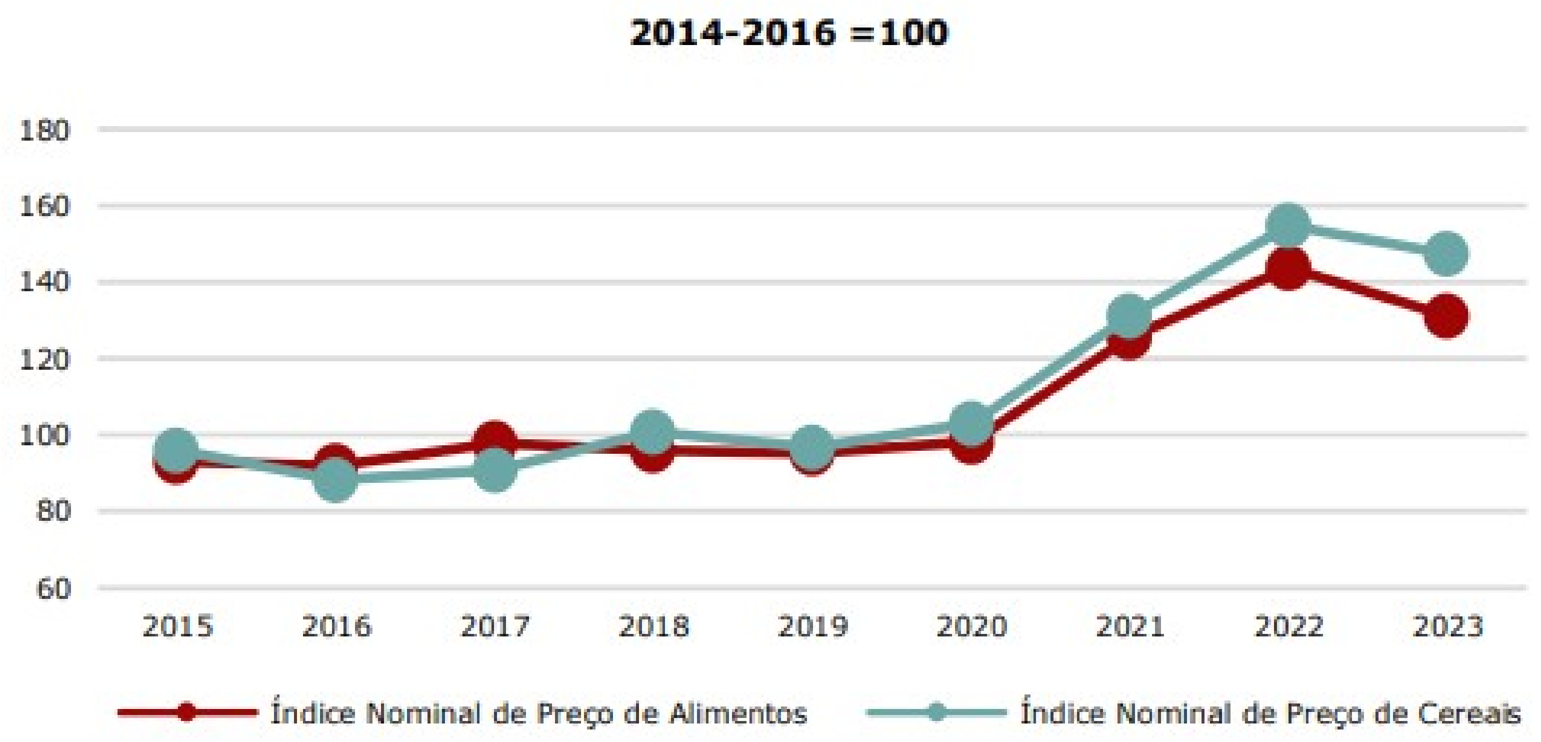
Geopolitical Tensions

War in Ukraine: Increase in the price of commodities



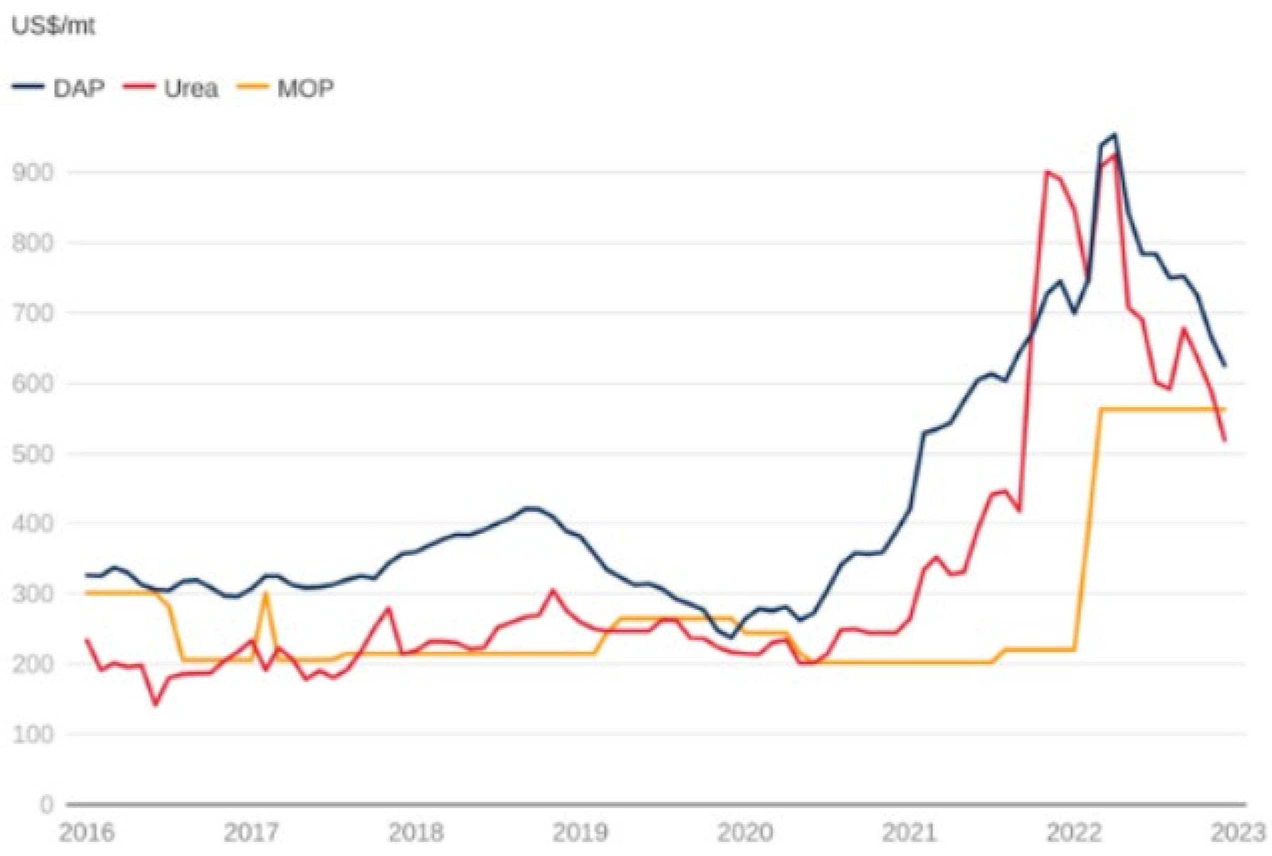
Geopolitical Tensions

War in Ukraine: Increase in food prices



Geopolitical Tensions

War in Ukraine: Increase in the price of fertilizers



The COVID 19 dilema

- After the invasion inflation reached new records.
  At this time Central Banks no longer believed inflation would be transitory

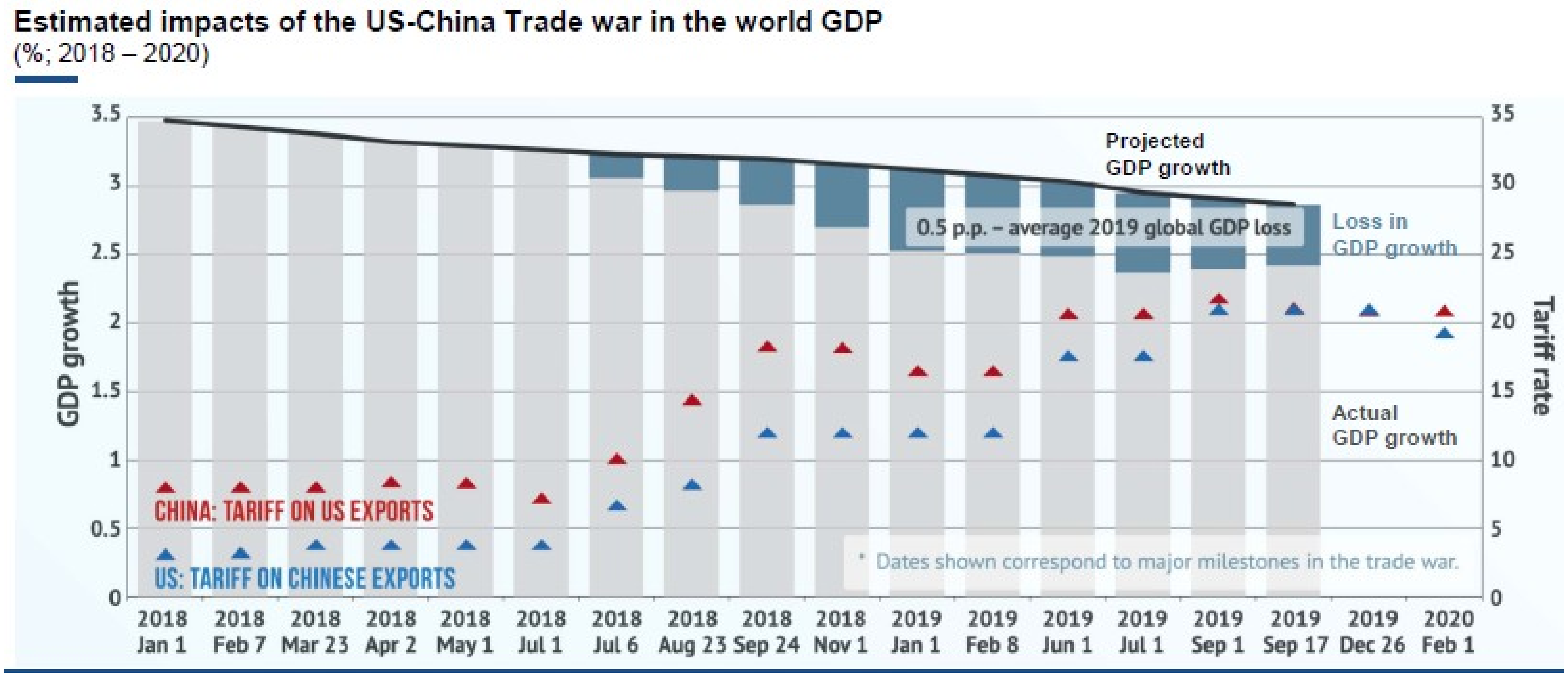
- Furthermore, they were afraid of the de-anchoring of expectations

- Therefore: aggressive tightening of monetary policy:
  - QE (Quantitative Easing) → QT (Quantitative Tightening)
  - interest rates: ~0% → 4.5%

→ lower investment, lower growth, lower employment

Geopolitical Tensions

US-China Trade Tensions: start with Trump Administration



Geopolitical Tensions

US-China Trade Tensions: continued under Biden Administration

"In the West politicians are doing out enormous subsidies to manufacturers, especially chip makers and those behind green technologies, such as batteries. They say there are fighting climate change, enhancing national security and correcting for four decades of globalization during which workers suffered and growth slowed. Governments hope that subsidies can secure a foothold in supply chains as worried Westerners move production out of China."

The Economist, July 13th 2023

Geopolitical Tensions

US-China Trade Tensions: continued under Biden Administration

"A year ago, President Joe Biden launched a new era of US industrial policy, signing into law the Inflation Reduction Act and the Chips and Science Act. The two laws offered more than $400bn in tax credits, loans and subsidies, all designed to spark development of a domestic cleantech and semiconductor supply chain."

Financial Times, August 16th 2023

Clean tech and semiconductor investments total $224bn since passage of IRA and Chips Act

Geopolitical Tensions

US-China Trade Tensions: outcomes

“An industrial arms race is under way.”

“A decade ago about 9,000 protectionist measures were in place. Today there are around 35,000.”

“Governments that subsidize and protect manufacturing are more likely to harm their economies than help them.”

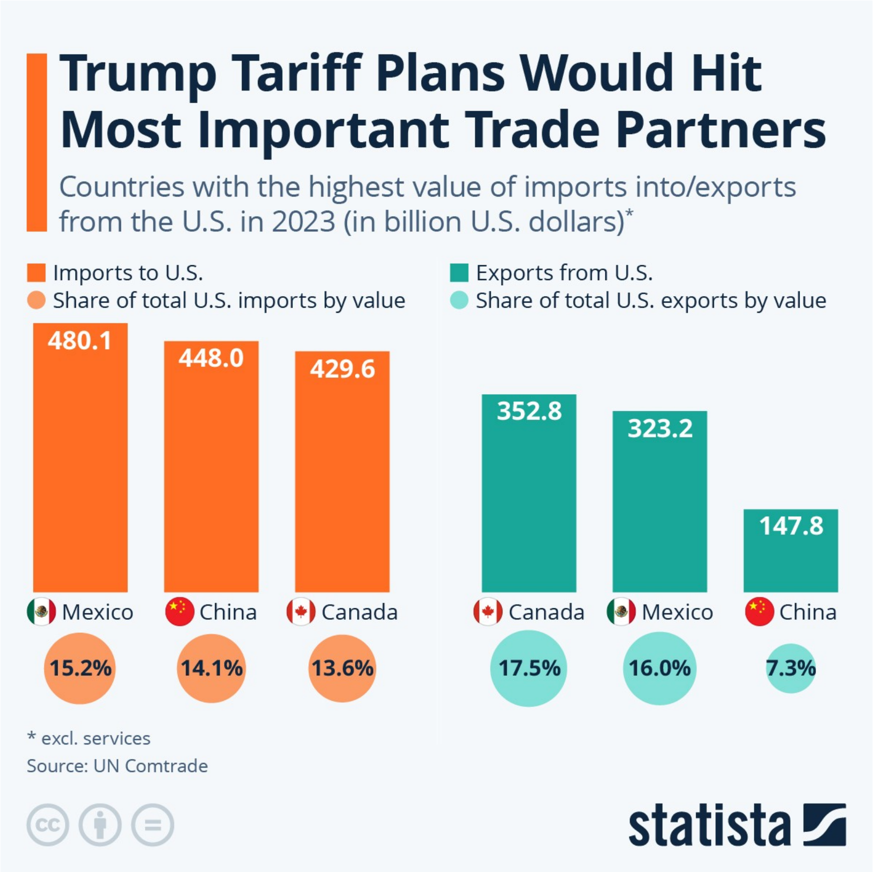
The Economist, July 13th 2023

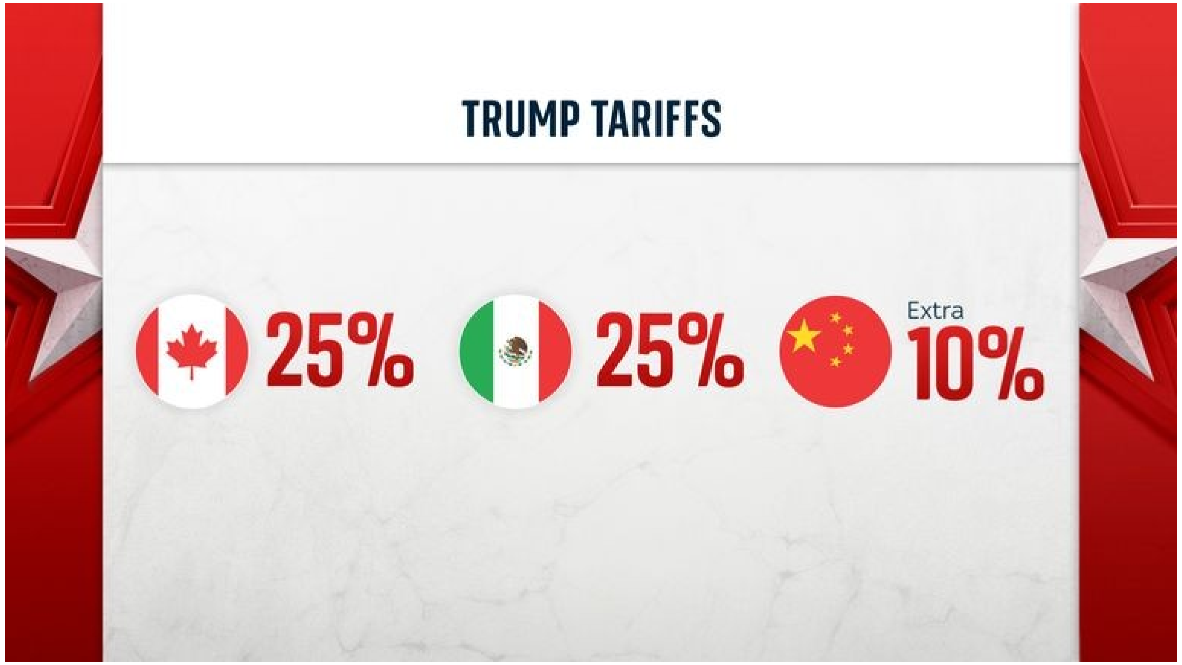
Geopolitical Tensions

US-China Trade Tensions: more jobs but at what cost?

Geopolitical Tensions

US-China Trade Tensions: back to Trump





Covid-19 – Questions from previous exams/midterms

October 2022

1. Was there a differentiated impact along components of domestic demand, prices and sectors of activity? Please explain.

On the demand side, there is clearly a differentiated impact across different sectors of the economy. Some sectors which are particularly dependent on personal contact and freedom of movement, such as hospitality and tourism, were particularly hit by the pandemic. Other sectors, namely those related to IT and communications, saw a positive impact due to the higher demand for these products and services.

Additionally, sectors that were more dependent on the global value chains of production and distribution were more affected by the different lockdowns around the world. Thus, on the supply side, the impact of the pandemic was quite asymmetric across sectors. The contraction of consumption and investment, as well as the temporary contraction of world trade, was compensated by a large increase in government expenditures.

Supply chain disturbances were the main contributor to an early increase in the price levels.

Inflation – Questions from previous exams/midterms

December 2022

After several years below target, the inflation rate in the euro area surged in 2022, reaching levels close to those observed in the 80s.

a) What drove the low inflation in the last decade in the euro area and the sharp increase in inflation in 2022?

In the last decade inflation stood stubbornly low for a series of reasons. Firstly, aggregate demand growth was slow due to deleveraging processes and contained public expenditure after the sovereign debt crisis. Secondly, the strong competition in international markets associated with an increasing globalization kept prices low. Thirdly, technological progress prompted the containment of process of several goods (e.g., electronics and telecommunications). Fourth, inflation expectations were very low.

The sharp increase in prices observed in 2022 was due to supply disruptions in several goods and, mostly a burst in energy prices (mostly gas), because of the conflict in Ukraine. The conflict also affected the prices of cereals and other food items. Moreover, the accumulated savings during the pandemics made it possible to sustain consumption growth, which contributes to inflation.

Inflation – Questions from previous exams/midterms

c) What would be the consequences of a persistently high inflation rate in the euro area and across its member countries?

Persistent high inflation erodes real wages and thus it lowers the purchasing power of households. The follow up increase in interest rates puts strain on investment decisions by firms and on debt service by households, firms, and governments. This is particularly relevant for highly indebted agents and may contaminate the banking sector. If inflation differentials become significant across euro area economies, this will be another problem. High inflation also increases uncertainty and transaction costs, which is negative for long-term economic growth.