



**PIIE** PETERSON INSTITUTE FOR  
INTERNATIONAL ECONOMICS

# Discussion of The Art and Science of Patience: Relative Prices and Inflation

Joseph E. Gagnon, Discussant

February 15, 2024

1750 Massachusetts Avenue, NW | Washington, DC 20036 | [www.piie.com](http://www.piie.com)

# Main Conclusions

- The recent surge in inflation had a large supply component.
  - Europe, in particular, was hard hit by the rise in energy prices because it is a net energy importer and was dependent on cheap Russian gas.
  - Some overshoot of inflation targets was needed to help relative prices adjust.
- Central banks needed to raise interest rates.
  - Loose fiscal policy supported demand, especially in the United States.
  - Higher expectations of inflation in the short run reduced real rates of interest.
  - Central banks needed to be seen defending their long-run inflation targets.

## Main Conclusions (cont'd.)

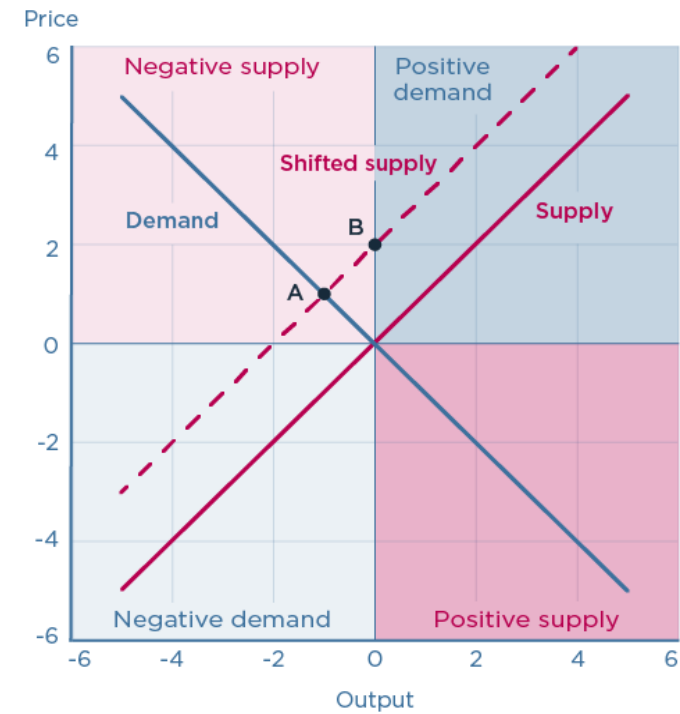
- Central banks succeeded in retaining credibility.
  - Measures of long-term inflation expectations have been remarkably well anchored.
- Central banks can afford to be patient.
  - No need to keep raising policy rates until inflation returns to target.
  - As of mid-2023, real interest rates well exceeded most estimates of neutral.
  - Fed's last hike was late July 2023.
  - ECB's last hike was late September 2023.

# Alternative Evidence of the Role of Supply Shocks

Figure 1

## Deviations from forecasts can be shown as demand and supply shocks

Demand and supply in the overall economy, shaded quadrants denote shocks



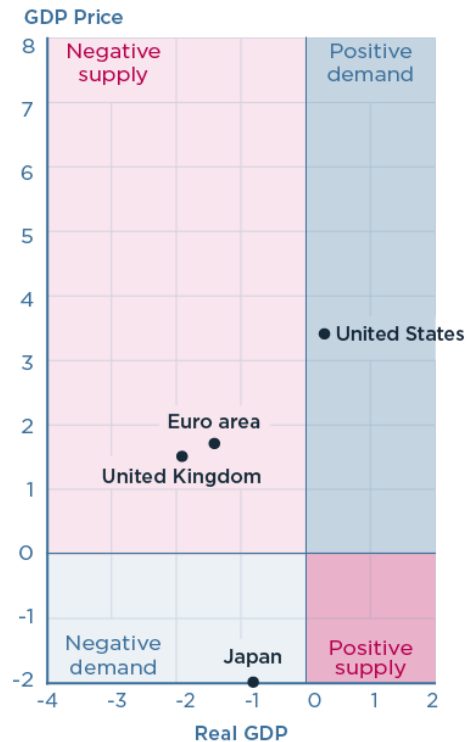
Source: Author's illustration.

# Alternative Evidence of the Role of Supply Shocks

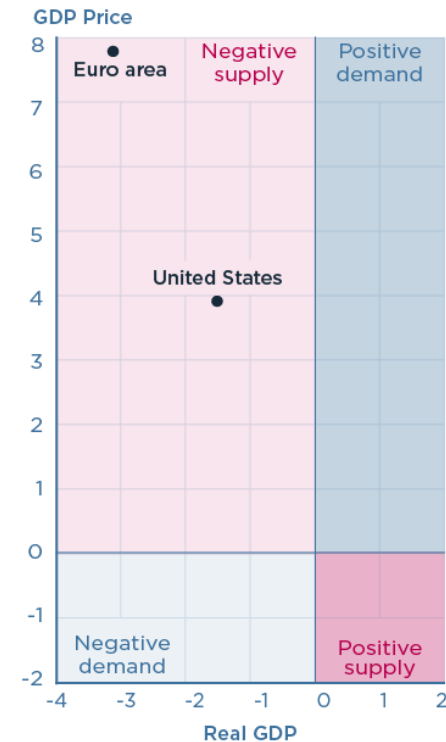
Figure 2

## Shocks differ across major economies in 2020-21 and 2022-23

a. Percent deviations of 2021 Q4 outcomes from 2019 Q4 forecasts



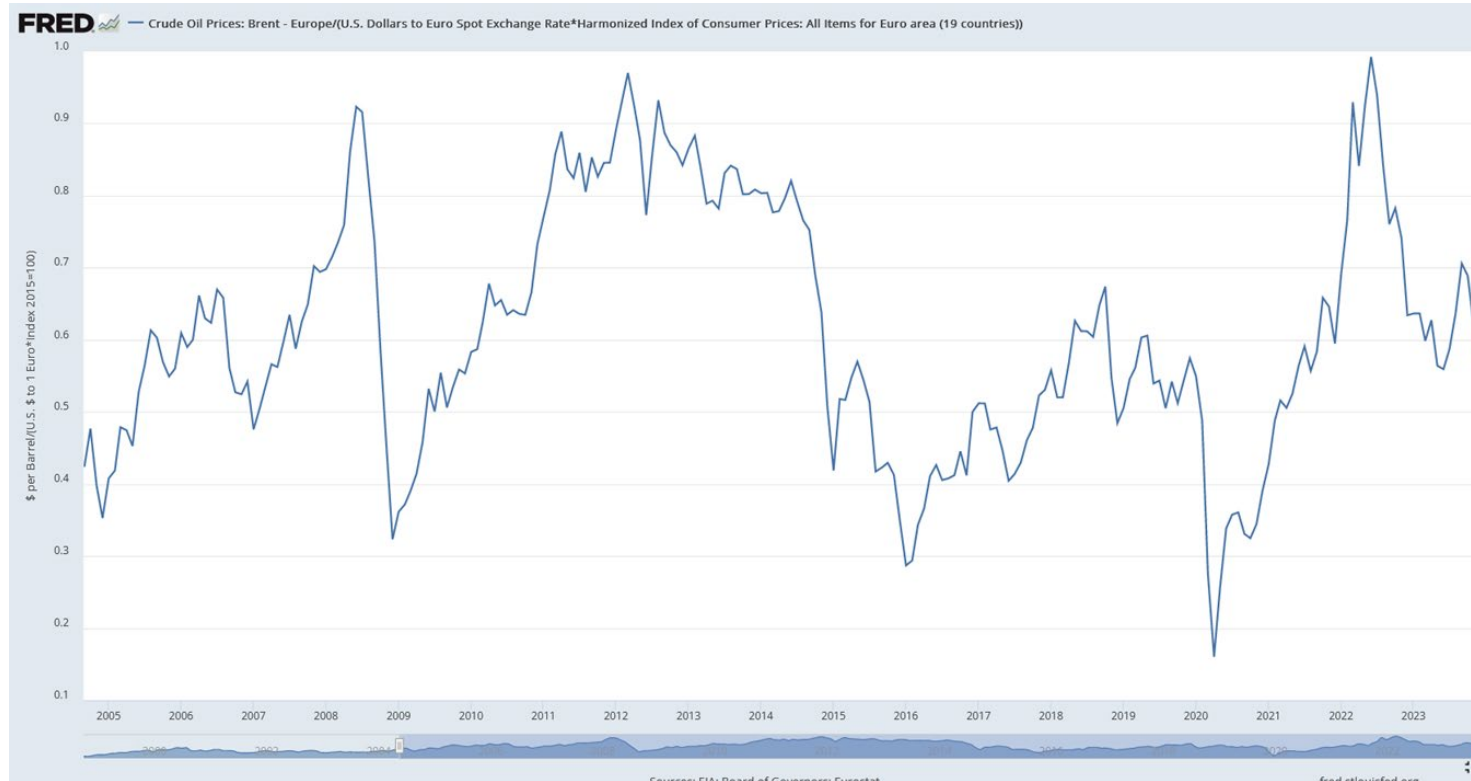
b. Percent deviations of 2023 Q4 outcomes from 2021 Q4 forecasts



**Notes:** Panel a expected levels are based on projected growth rates from 2019 Q4. Panel b expected levels are based on projected growth rates from 2021 Q4.

**Source:** OECD Economic Outlook November 2019 and November 2021, US Bureau of Economic Analysis, Eurostat, Japan Cabinet Office, UK Office of National Statistics, and author's calculations.

# Supply Shock Is More than Commodity Prices



Brent oil price relative to euro area consumer price level is back at pre-pandemic level.

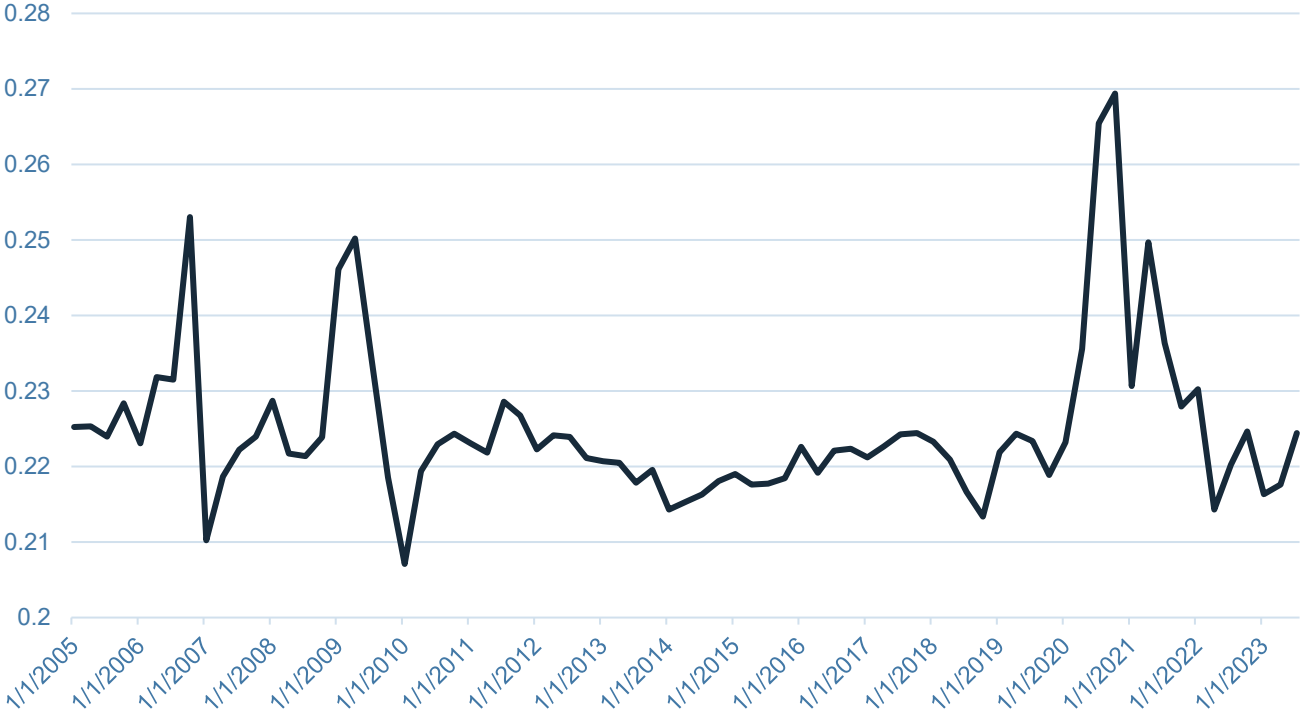
Source: FRED, Federal Reserve Bank of St Louis.

# Downward Price Rigidity and Sectoral Demand Shift

- Wages and services prices are harder to cut, easier to rise.
  - Phillips (supply) curves are nonlinear.
  - Excess demand boosts inflation more than excess supply reduces it.
- A shift of demand across sectors is inflationary, even when total demand is constant.
  - COVID-19 induced a large shift away from services to durable goods consumption, especially in the United States.
  - Services inflation was little changed, but durables inflation soared.

# Downward Price Rigidity and Sectoral Demand Shift

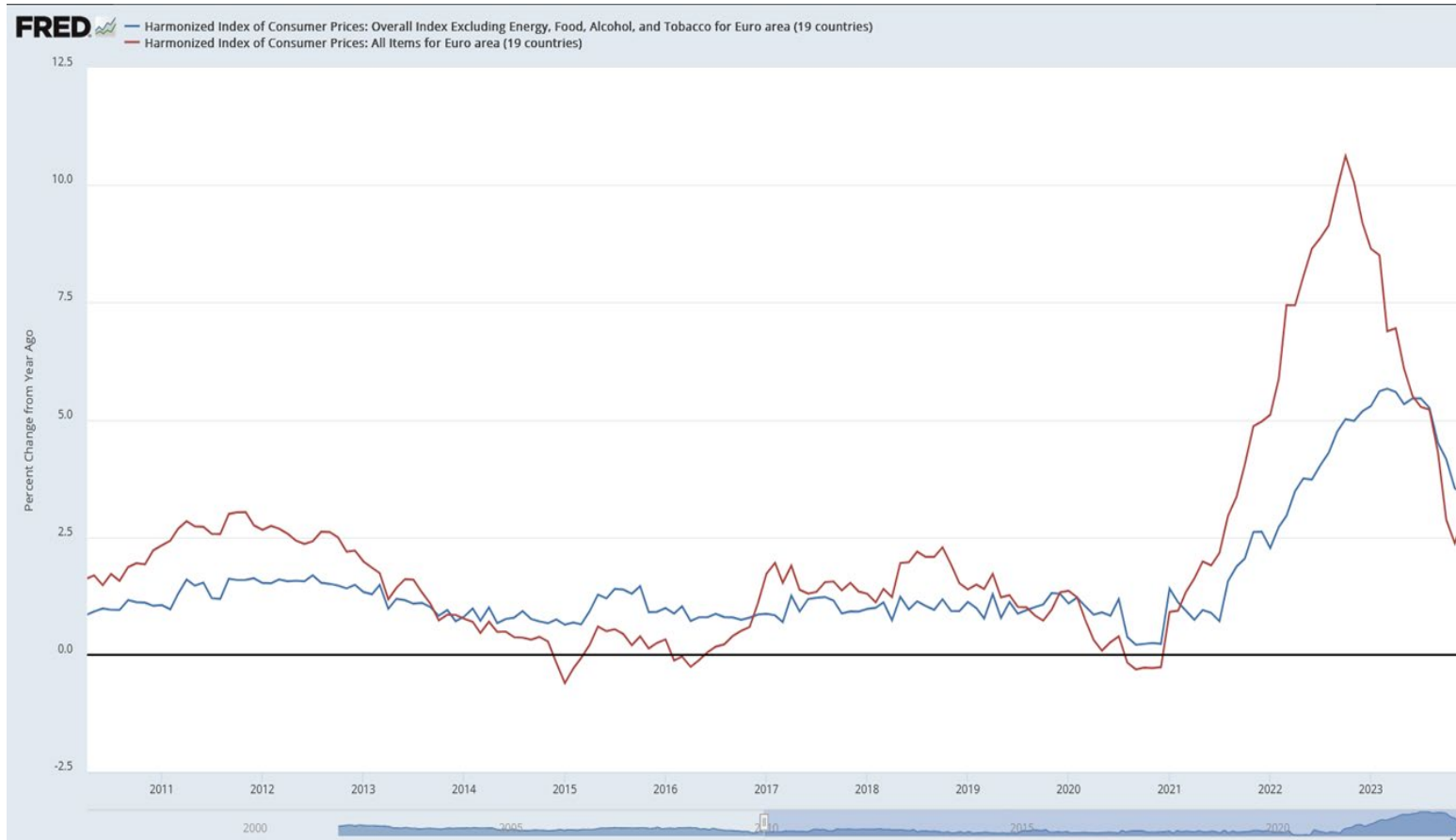
Ratio of Durables to Services Consumption in Germany



Source: Organization for Economic Cooperation and Development (OECD) Quarterly National Accounts via Macrobond and author's calculations.



# Rapid Return to Inflation Target in Euro Area



Euro area headline (red) and core (blue) inflation dropped sharply in 2023. Figure shows 12-month changes. The 6-month changes were close to 1 percent in December 2023, not seasonally adjusted.

Source: FRED, Federal Reserve Bank of St Louis.

# Time to Cut Rates in Euro Area?

- Headline and core inflation appear to have been well below target in the last 7 months.
- Unemployment is below its pre-pandemic low, but perhaps not below  $U^*$ .
  - Natural rate of unemployment was overestimated before 2020.
  - Latest declines are in countries with highest levels.
- Wage growth is still high but declining.
  - Profit margins have some room to offset real wage increases.