



# Discussant response to “Inflation and misallocation in New Keynesian models”

by Cavallo, Lippi, and Miyahara

European Central Bank, June 27, 2023  
Sintra, Portugal

**Sharon Kozicki**

Deputy Governor of the Bank of Canada



## **Observation # 1:**

“Price-management” activities are part of doing business.

Price-management always incurs costs and costs are higher when inflation is higher.

## Costs businesses face when they set prices

(Zbaracki et al., 2004)

- Physical, or menu costs
- Managerial costs such as information gathering, decision-making and communication
- Customer costs, such as communicating and negotiating prices

# The most important factors in pricing decisions

(Bruine de Bruin et al., 2023)

- Strength of demand
- Maintaining steady profit margins
- Wages and labour costs
- Competitors' prices
- Non-labour costs
- Overall rate of inflation
- Problems with supply chains
- Borrowing rates and the cost of capital



## **Observation # 2:**

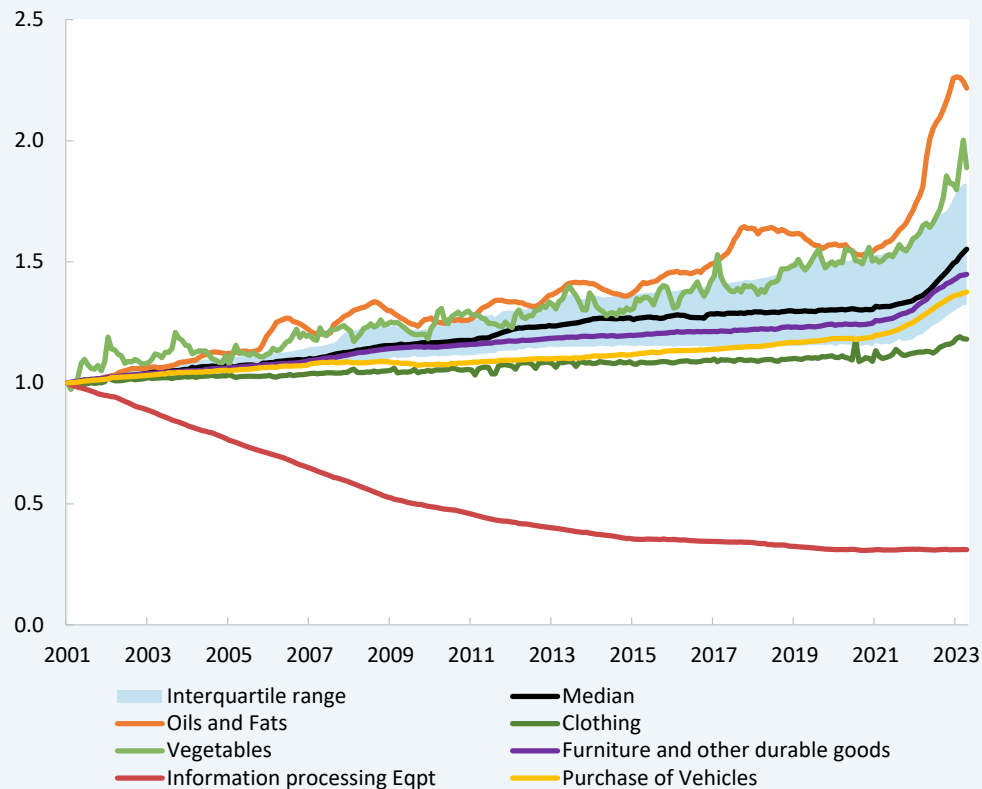
Households always have to spend time or money to plan, budget, and shop.

These costs are higher when inflation is higher.

# Prices of individual goods and services follow different trends and some prices are volatile

Euro area goods inflation by sub-component

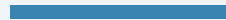
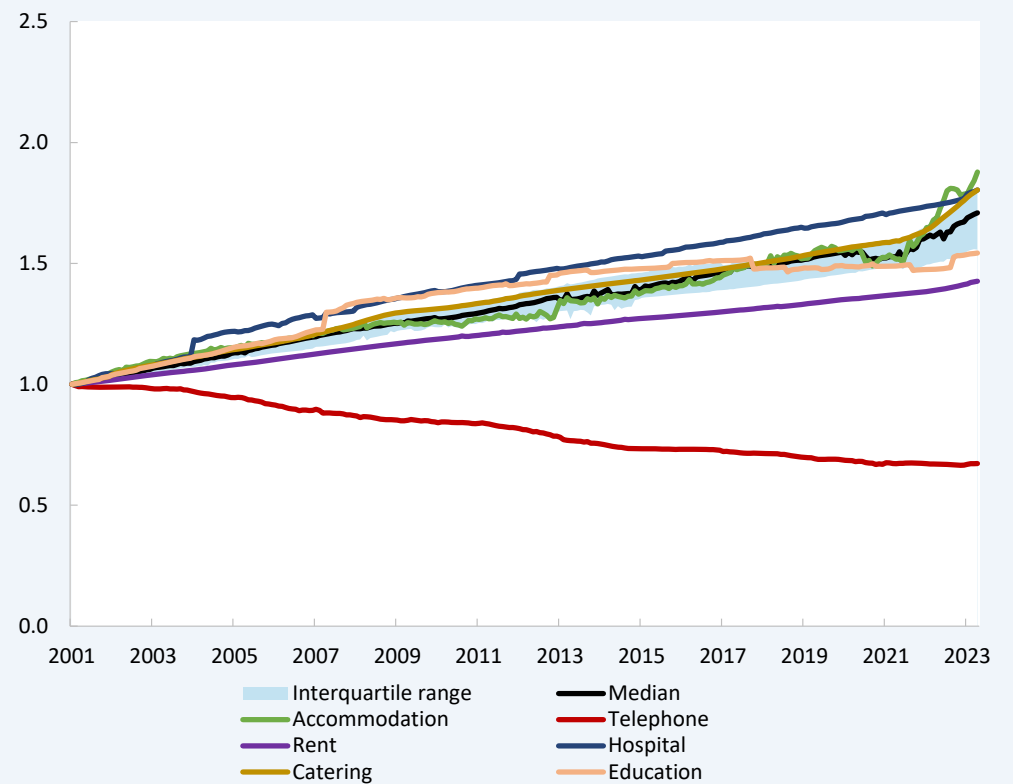
Monthly, SA, Index, 2001m1=1



Source: EuroStat

Euro area services inflation by sub-component

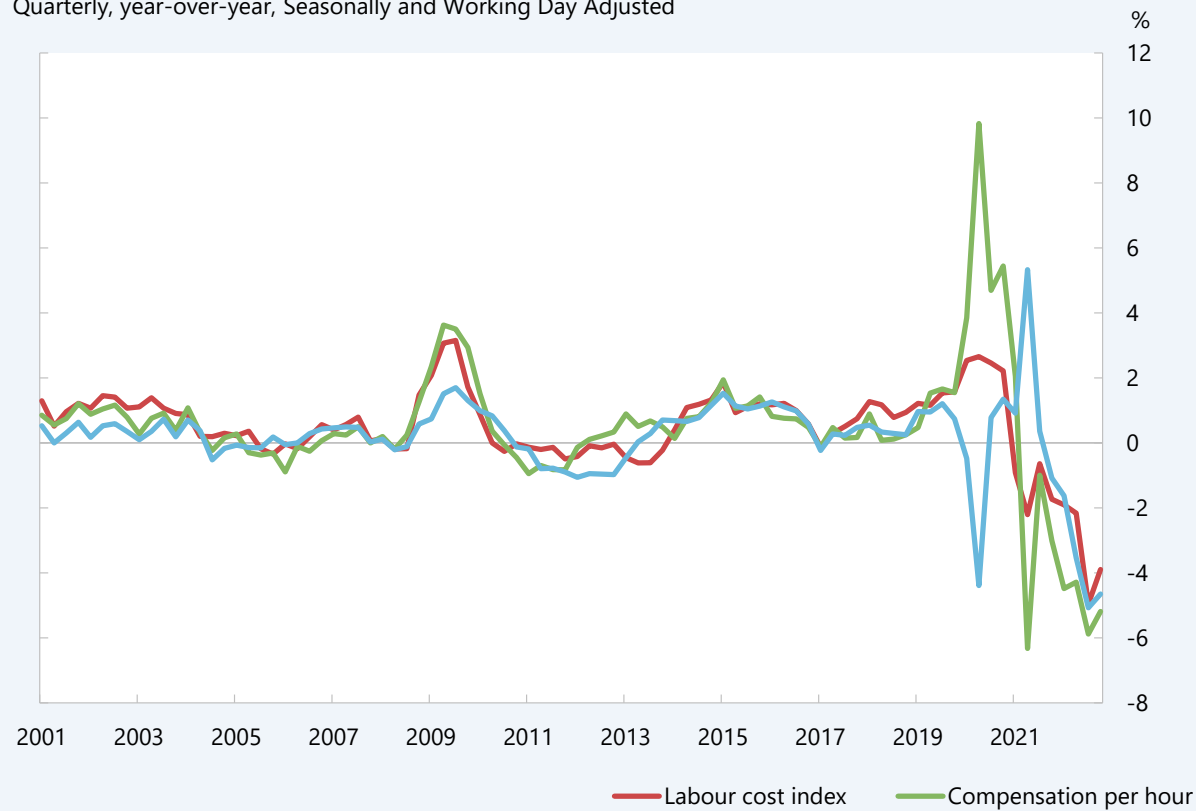
Monthly, SA, Index, 2001m1=1



# Real wages have been declining year-over-year since 2021

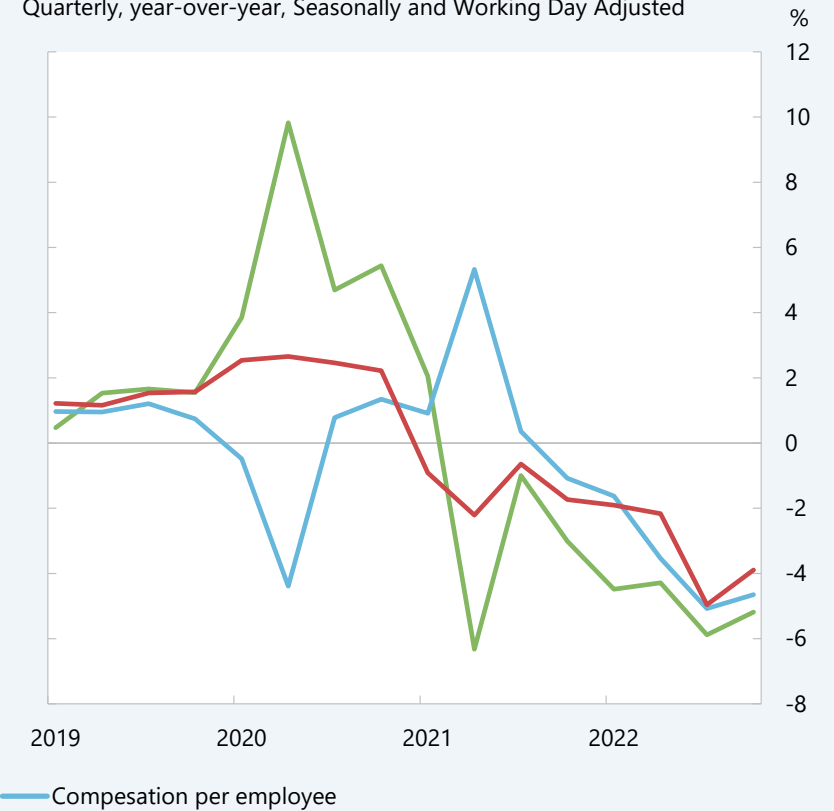
## Real indices

Quarterly, year-over-year, Seasonally and Working Day Adjusted



## Real indices

Quarterly, year-over-year, Seasonally and Working Day Adjusted



Source: EuroStat and ECB, Last obs.: 2022Q4

# Consumers in Germany reported changing their shopping behaviour due to inflation

## Actions taken due to inflation among online shoppers in Germany

	By net household income						By household size				
	< 15,000 €	15,000 € - 20,000 €	20,000 € - 30,000 €	30,000 € - 40,000 €	40,000 € - 50,000 €	50,000 € - 75,000 €	1 person	2 persons	3 persons	4 persons	5 persons and more
Buying cheaper products	77%	72%	67%	64%	61%	59%	74%	68%	58%	62%	69%
Using more vouchers/coupons	45%	46%	45%	49%	52%	50%	46%	49%	49%	48%	47%
Using BNPL services more often	19%	17%	15%	15%	12%	16%	13%	15%	15%	15%	19%
Cancelled shopping subscriptions	16%	16%	16%	18%	17%	23%	13%	13%	26%	23%	22%
Sending products back earlier than before	12%	12%	15%	15%	17%	17%	12%	11%	23%	19%	17%
Other	6%	2%	2%	3%	4%	1%	4%	3%	2%	3%	5%

Note: Which actions have you taken facing the rising costs due to inflation? Multi-pick, Base: n =3,185 online shoppers in Germany (Split sample)

Source: ecommerce DB and Statista

Date of the survey: May 30, 2023





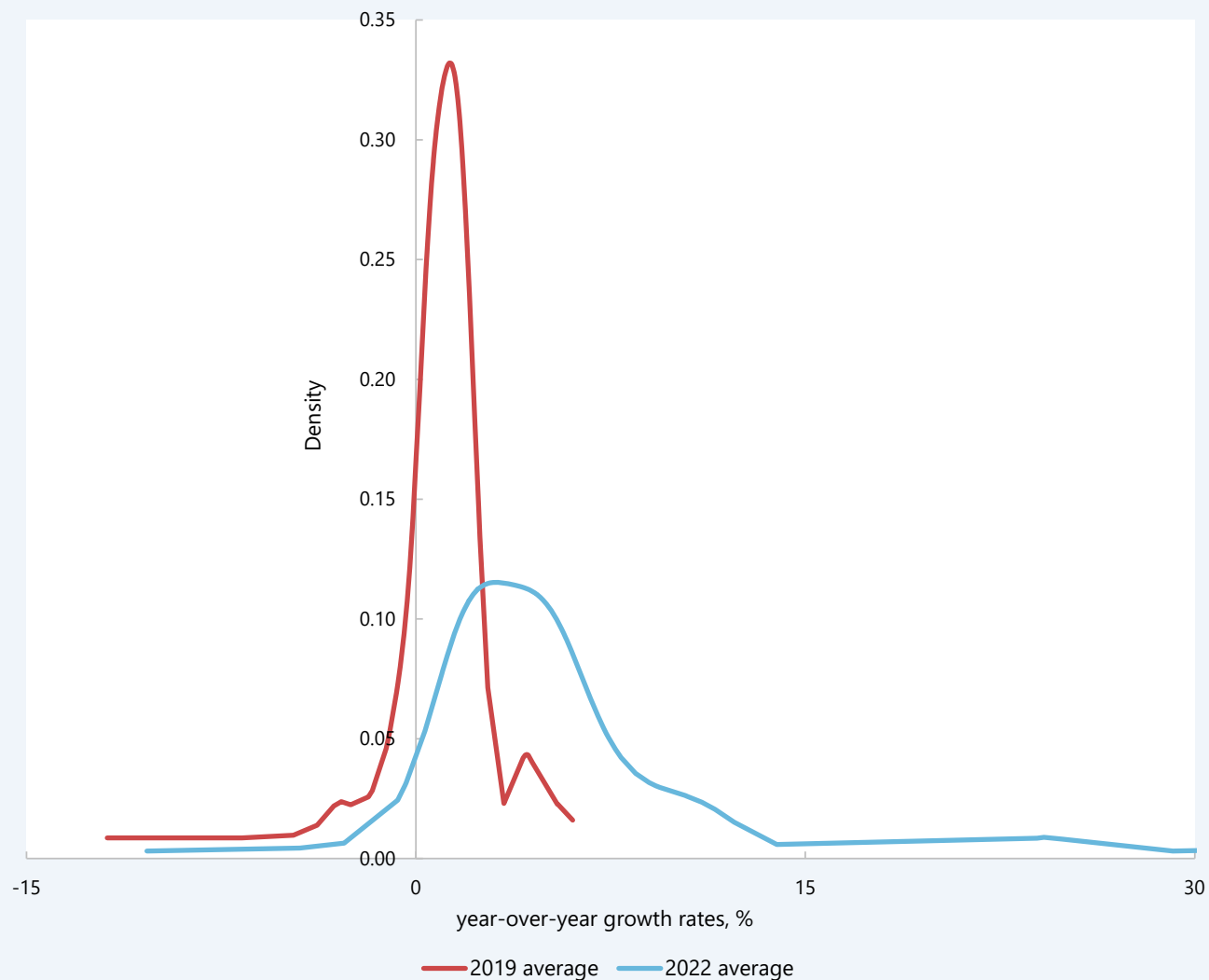
## **Observation # 3:**

Financial system participants always have to manage risks.

With greater uncertainty when inflation is higher, costs of managing risks are also higher.

## The distribution of inflation rates by HICP component shifted higher and dispersion increased (2019 to 2022)

Kernel distribution of year-over-year euro area HICP inflation rates



## Summarizing, higher inflation tends to:

- Raise price-management costs for businesses... and reduce productivity.
- Raise planning, budgeting, and shopping costs for consumers... and reduce consumer welfare.
- Increase uncertainty and raise costs of managing risks, including inflation risk premiums.

A low-angle, upward-looking photograph of several modern skyscrapers with glass facades. The buildings are arranged in a way that they appear to converge towards the top of the frame. The sky is a clear, bright blue with scattered white clouds. A semi-transparent dark grey horizontal band is overlaid across the middle of the image, containing the text "Thank you" in a white, sans-serif font.

Thank you