

Unconventional Fiscal Policy at Times of High Inflation

by
Dao, Dizioli, Jakson, Gourinchas and Leigh

Discussion
by
Giancarlo Corsetti
(EUI and CEPR)
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Outline

- The working of unconventional fiscal policy (UFP)
- The paper: results and key policy implications
- The exercise in context
 - How do inflation shocks propagate?
 - (Labor) market tightness

Unconventional fiscal measures

- **mute the effects of energy shocks on incomes and costs**
 - **distribution**
 - **“competitiveness”, directly/indirectly (pressure on wages)**
 - **demand (financed in deficit)**

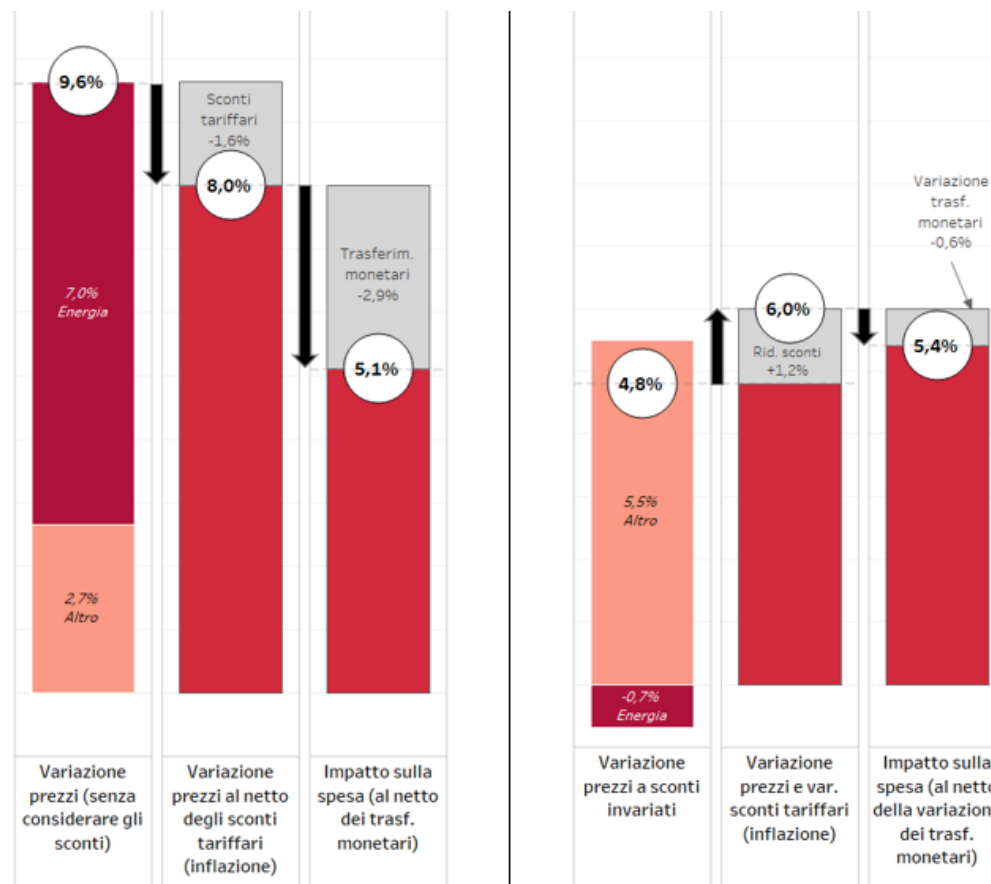
- **“smoothing” potentially destabilizing shocks**
 - **adjustment now vs higher adjustment in the future with some probability if shocks persist (see Corsetti Mackowiak 2023)**

An instance of UPF

Change in nominal spending on (given) consumption basket by Italian Households

2022
without UFP
+ 9,6%
of which
7,0% energy

with UFP
+ 5,1%



2023
Without UFP
+ 4,8%
(- 0,7% energy)

with UFP
+ 5,4%

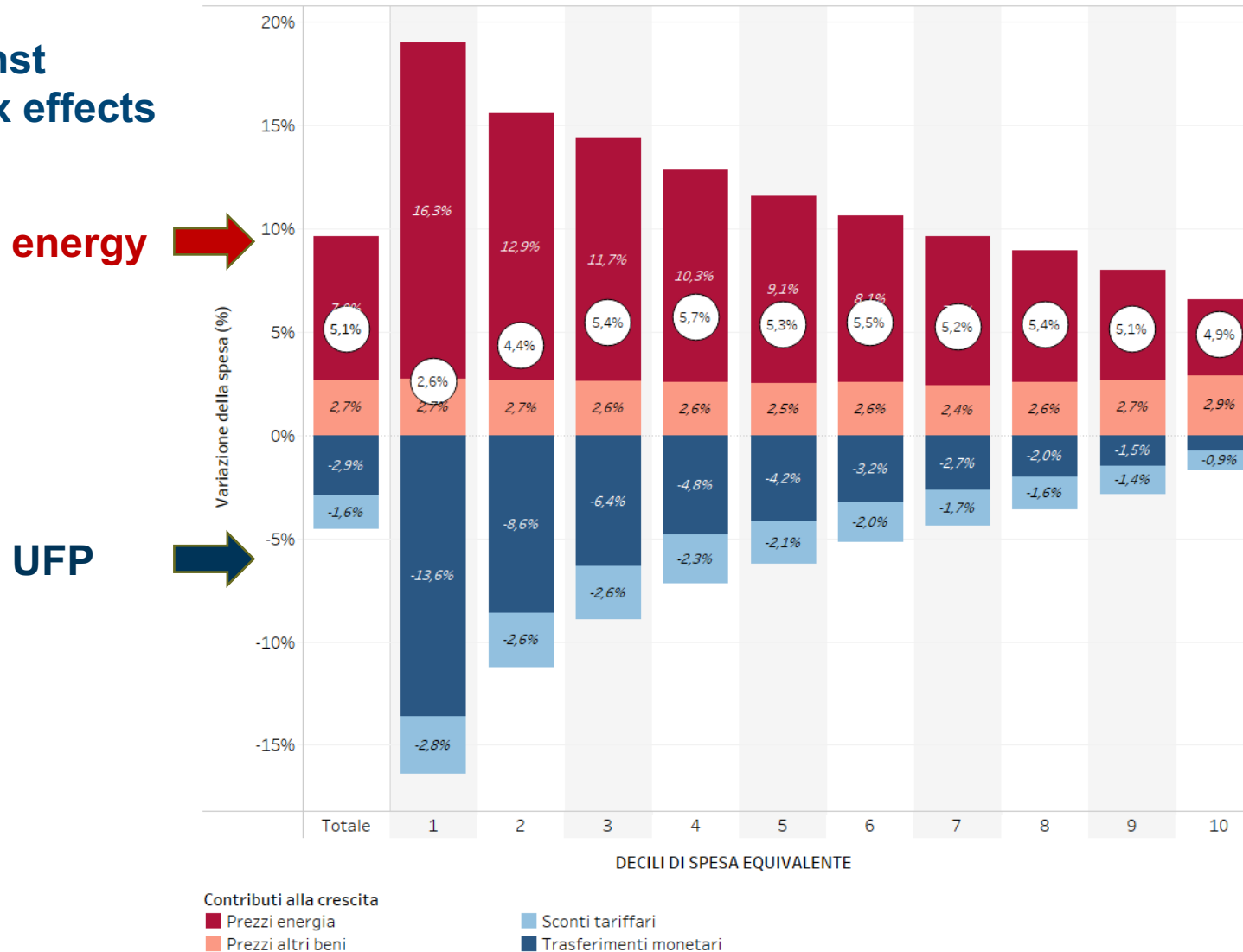
Source: Ufficio
Parlamentare di Bilancio'
Micro-simulation model



Change in nominal spending on given consumption basket by spending deciles 2022

Example cont.ed

Leaning against regressive-tax effects of inflation



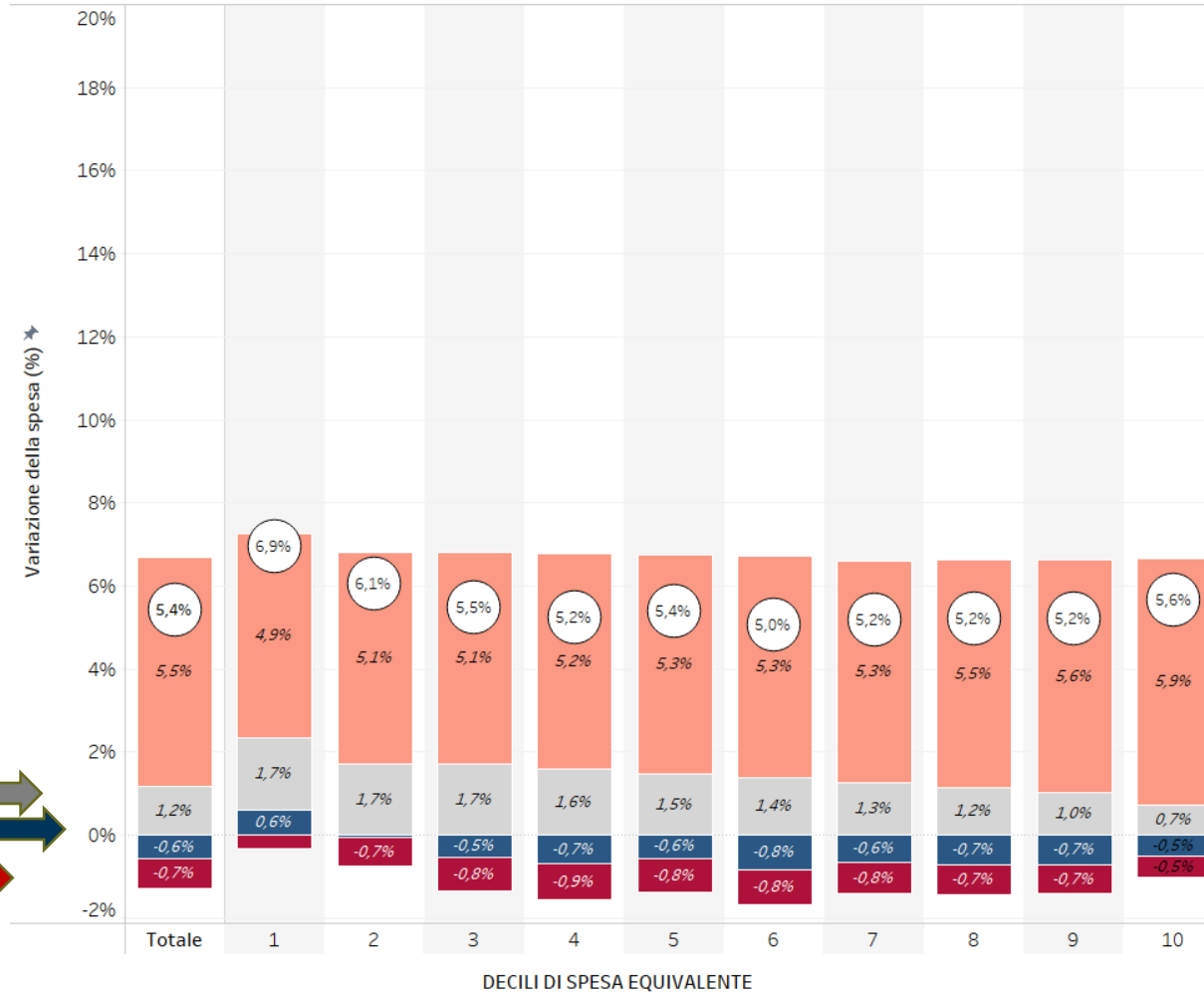
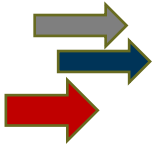
Source: Ufficio Parlamentare di Bilancio' Micro-simulation model



Change in nominal spending on given consumption basket by spending deciles 2023

Example cont.ed

Undoing of UFP energy



Source: Ufficio Parlamentare di Bilancio' Micro-simulation model



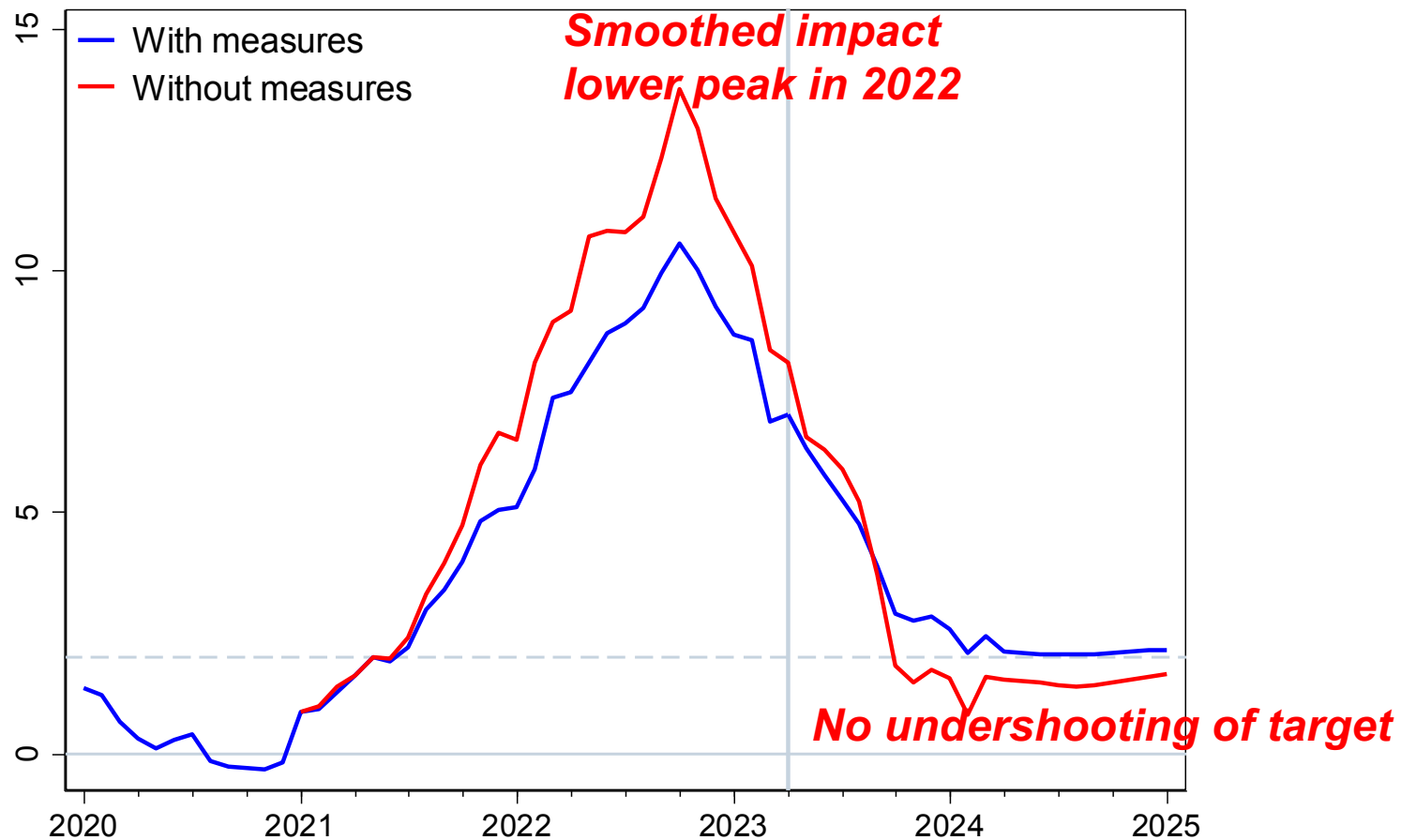
The DDJGL paper

- **Assessment of all UFP measures in relation to output and inflation**
 - **Jury still out: risks, costs, debt-to-GDP ratio, incentives, efficiency in delivery**
- **Overall: successful in smoothing inflation shocks in 2022-23**

Key result at a glance

Scenario: Headline Inflation with and without Energy Measures

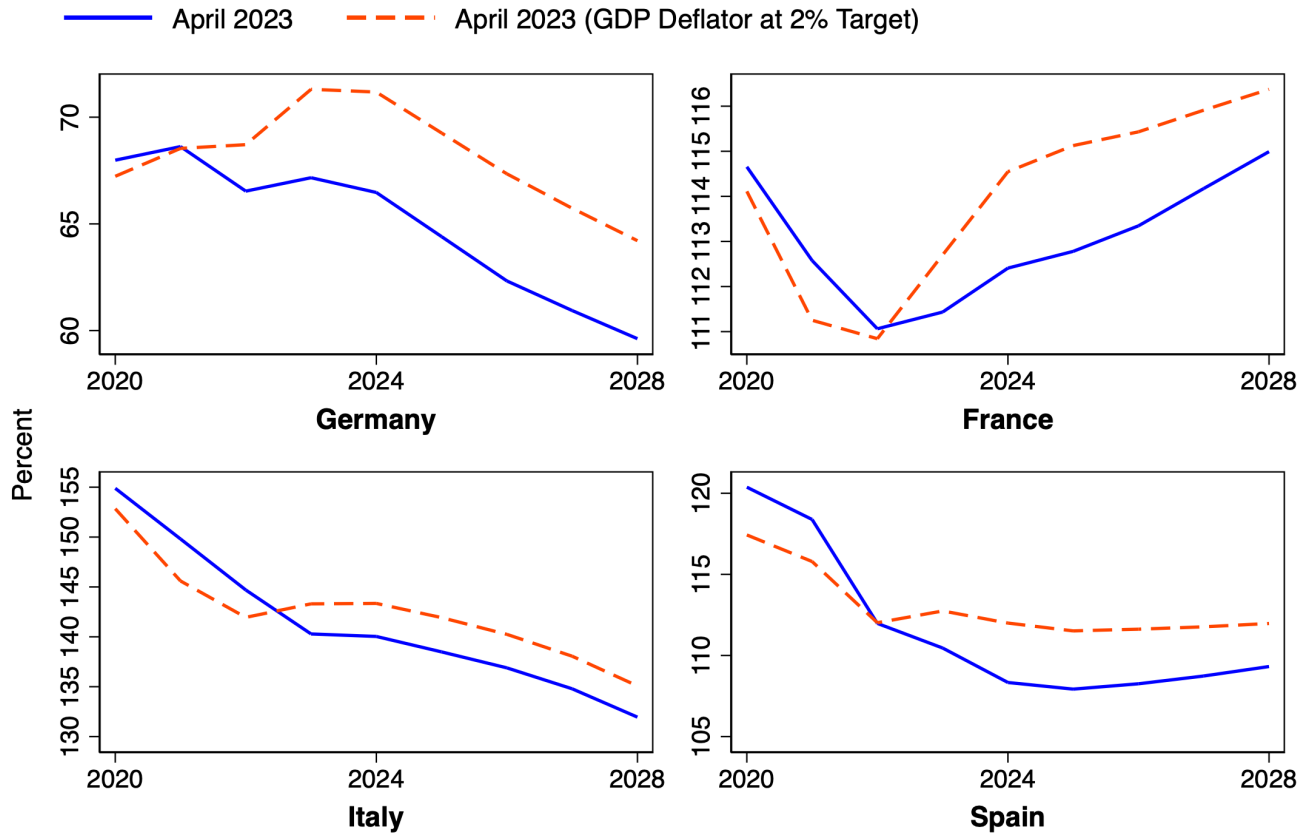
(Percent; 12-month rate)



Small effect on the price level overall

Small implication for the contribution of the GDP deflator inflation to the dynamic of the Debt-to-GDP ratio

IMF WEO: Debt-to-GDP



- **But UFP raised the Debt-to-GDP ratio via deficits**

Euro Area Phillips Curve Estimates

Dependent variable: Median CPI Inflation Gap

	(1) 1999-2019	(2) 1999-2023	(3) 1999-2019	(4) 1999-2023
U gap	-0.316*** (0.031)	-0.300*** (0.062)	-0.490*** (0.101)	-0.520*** (0.159)
U gap-squared			0.088** (0.039)	0.090 (0.068)
H	0.391*** (0.078)	0.928*** (0.177)	0.427*** (0.065)	0.587*** (0.097)
H-squared			-0.049 (0.056)	0.172*** (0.029)
Observations	252	292	252	292
Rbar-squared	0.559	0.641	0.580	0.725

Notes: Dependent variable is inflation gap, defined as core inflation minus expected inflation, with core measured by monthly annualized weighted median HICP inflation and expected inflation by ECB Survey of Professional Forecasters (SPF) five-year-ahead forecast of headline inflation. "U gap" denotes difference between unemployment rate and IMF staff estimates of natural rate (12-month average). "H" denotes headline-inflation shock, defined as deviation of headline inflation from core (12-month average). Newey-West standard errors with 12 lags in parentheses. ***, **, and * denote statistical significance at the 1, 5, and 10 percent level, respectively.

Core inflation net of infl. expectations regressed on

- **Unemployment gap** (linear and squared)
- **Headline inflation shocks** ("'" "'")
 - 12 month avg.

Compared to 1999—2023, 1999-2019 has

- **U-gap** steeper but linear only (squared term is positive in early sample)
- **H inflation shock** stronger and non-linear hence dominant in all exercises

The US model in the paper (version with no cubic term)

	(1)	(2)
VARIABLES	1985-2019	1985-2023
V/U	4.342*** (1.446)	1.078 (0.930)
V/U-squared	-2.006** (0.999)	0.809* (0.447)
H	0.132** (0.066)	0.201*** (0.051)
H-squared	0.065 (0.047)	0.103*** (0.032)
Constant	-1.855*** (0.473)	-1.082*** (0.392)
Observations	420	460
Rbar-squared	0.244	0.570
Standard errors in parentheses		
*** p<0.01, ** p<0.05, * p<0.1		

Core inflation net of infl. expectations regressed on

- **Vacancy ratio V/U** (linear and squared)
 - Instead of the U-gap
- **Headline inflation shocks** (“” “”)

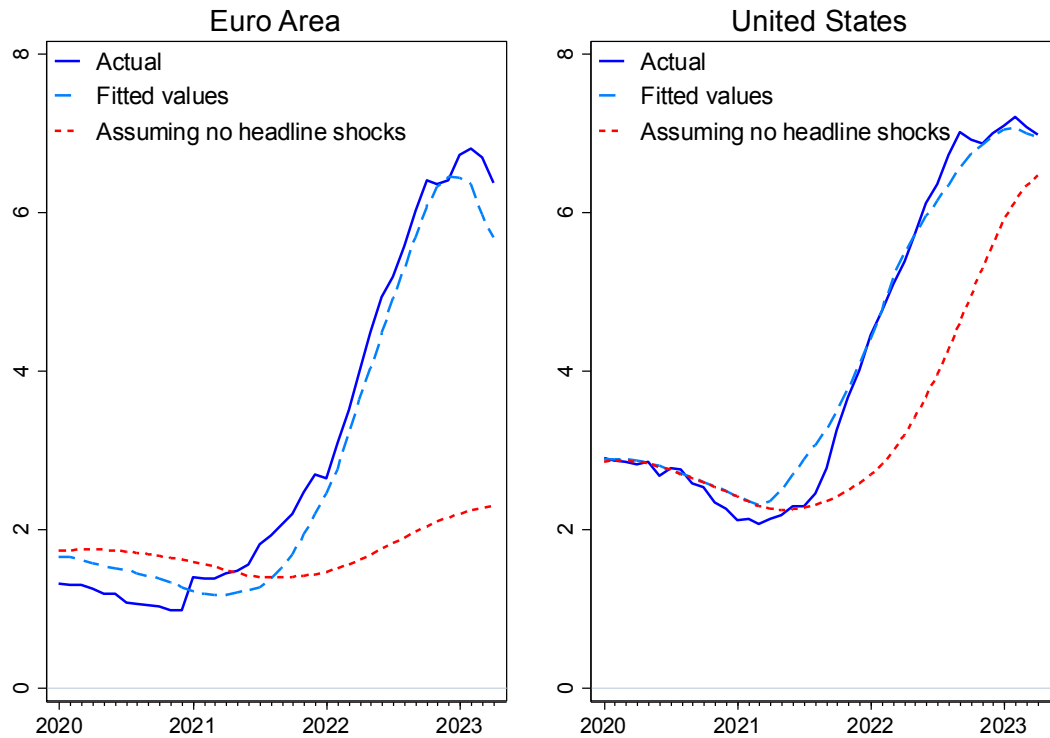
Compared to 1999—2023, 1999-2019 has

- **Both V/U and H-inflation** non-linear and strong (squared term of V/U negative in early sample)

Key policy implication for the EA

Predictions for Core Inflation During 2020-2023

(12-month rate; percent)



Notes: Left panel reports fitted values for euro area based on Phillips curve estimated for full sample (Table 1 column 4). Core inflation denotes 12-month weighted median inflation. Left panel reports fitted values for specification for euro area reported in Table 1 (column 4). Right panel reports fitted values for specification for the United States of Ball, Leigh and Mishra (2022) updated to include 2023 data (as reported in Annex Table 1 column 2). Fitted values for inflation gap estimates converted into 12-month rates and summed with longer-term expectations for comparability with the level of core inflation.

Relative to the US:

- **EA Core inflation mostly driven by (cumulated lagged) headline inflation shocks**
- **EA PC steep but linear in U-gap**

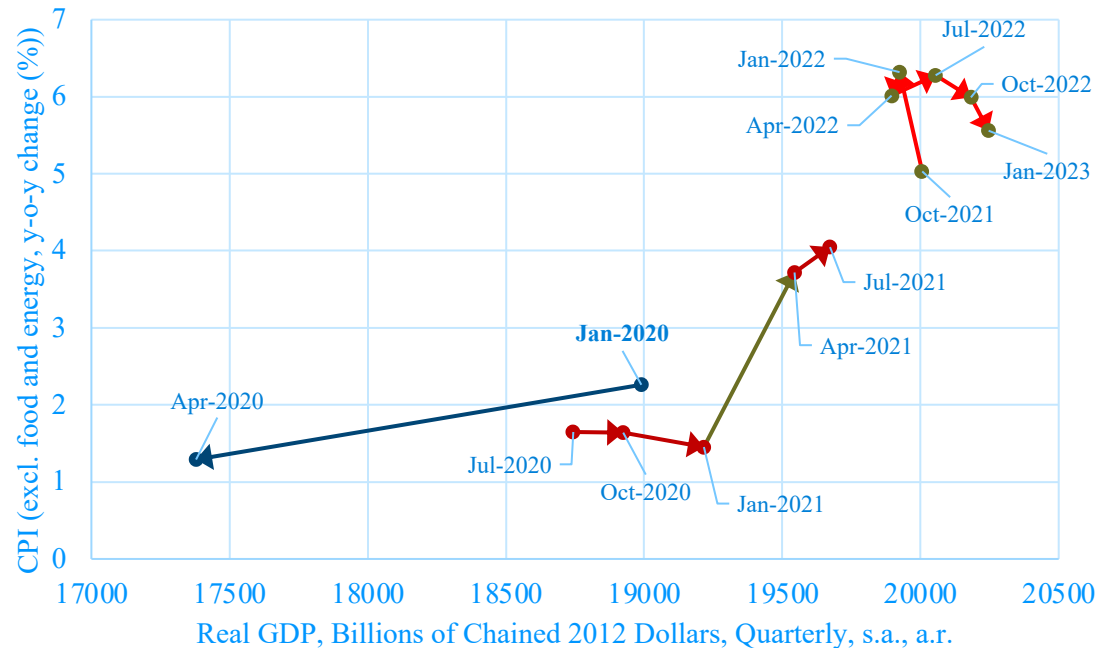
- **The propagation of headline inflation shock takes time**
- **Leaning against H-inf is costly (High Sacrifice ratio)**

The context

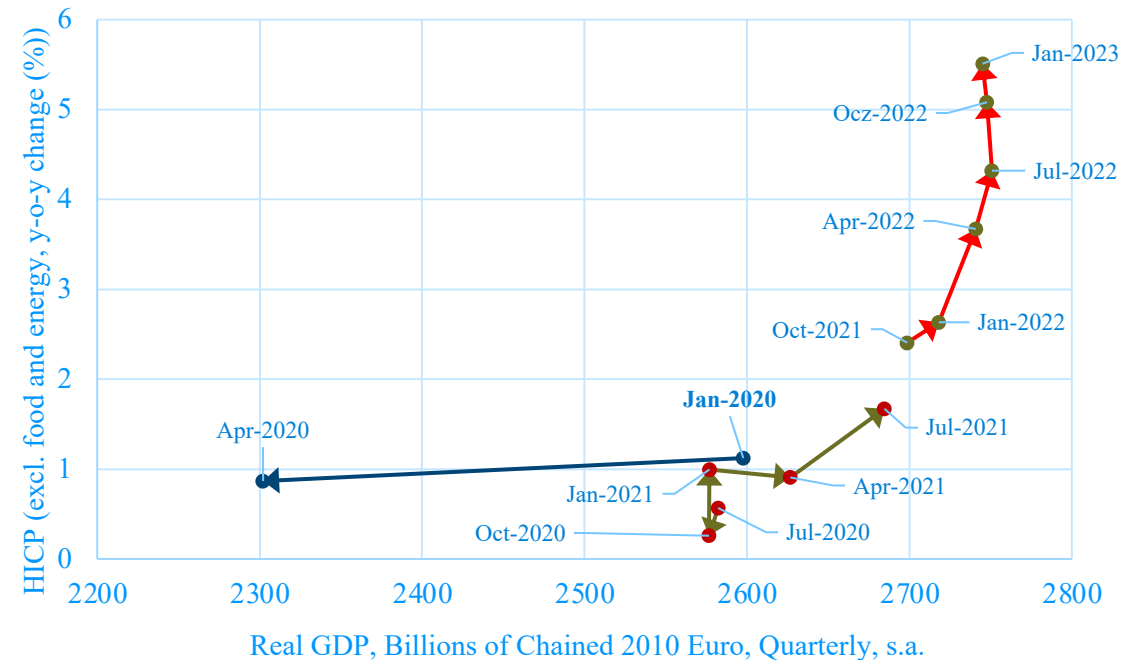
A narrative of the inflation crisis in three phases

(Barcelona Report 2023)

United States



Euro Area

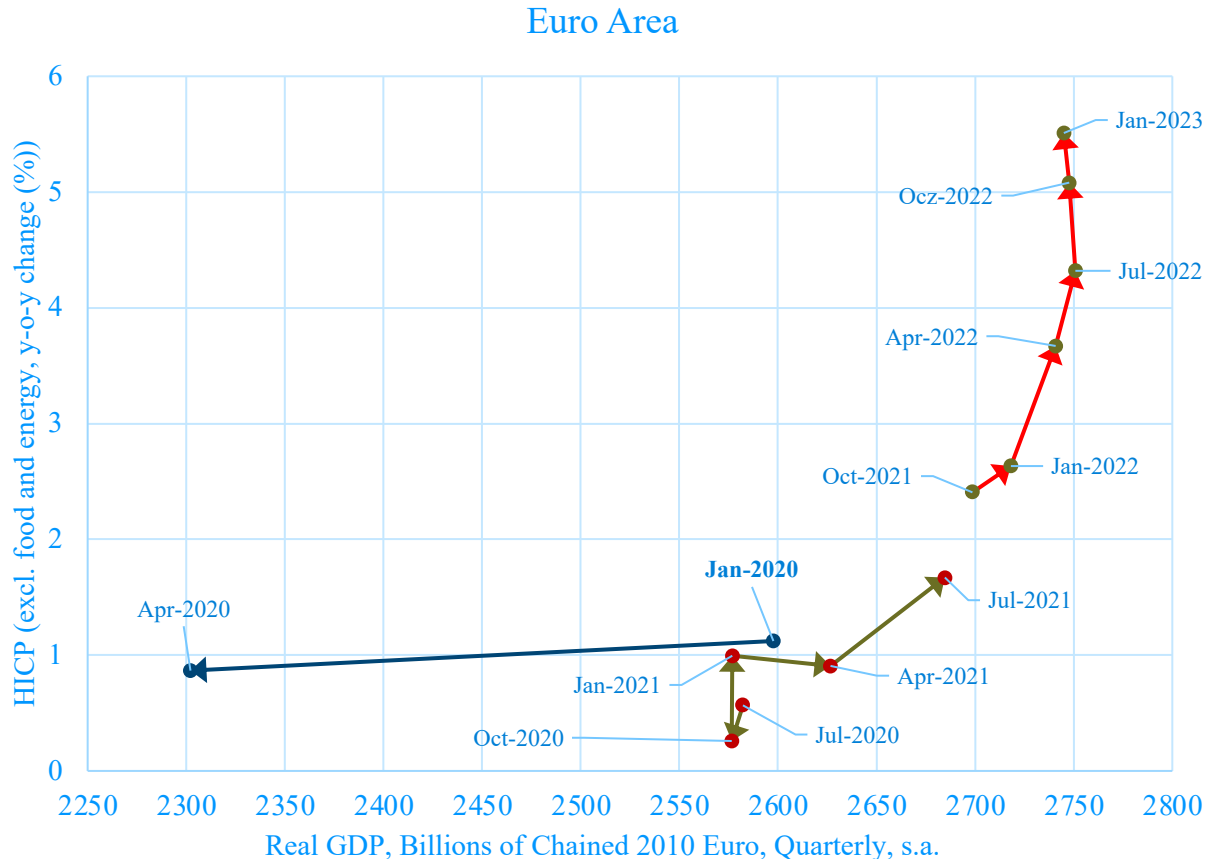


Core inflation plotted against output

Ceci n'est pas une Philips Curve



Euro area

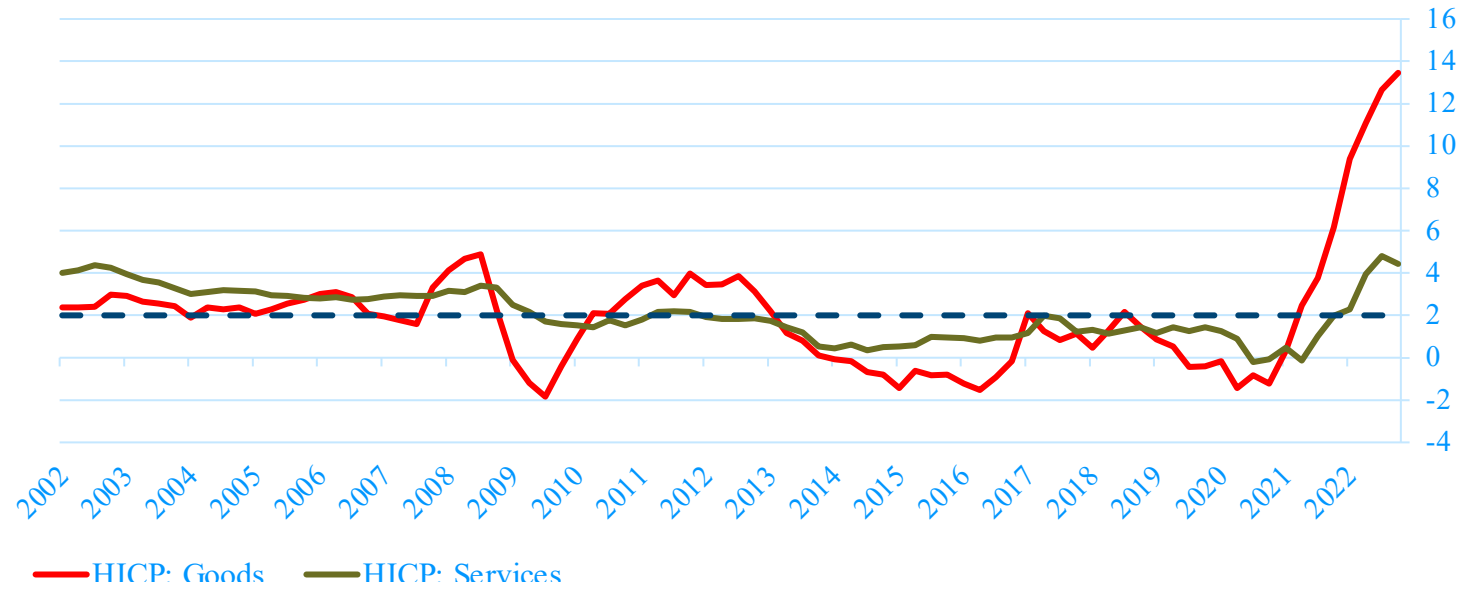


Phillips curve interpretation requires taking a stand on:

- **Slack (potential output)**
 - Indicators stopped moving together with COVID
 - **Large sectoral + granular misalignment in slack and price dynamics**
- **Expectations**
- **Energy shocks and other “shifters”**

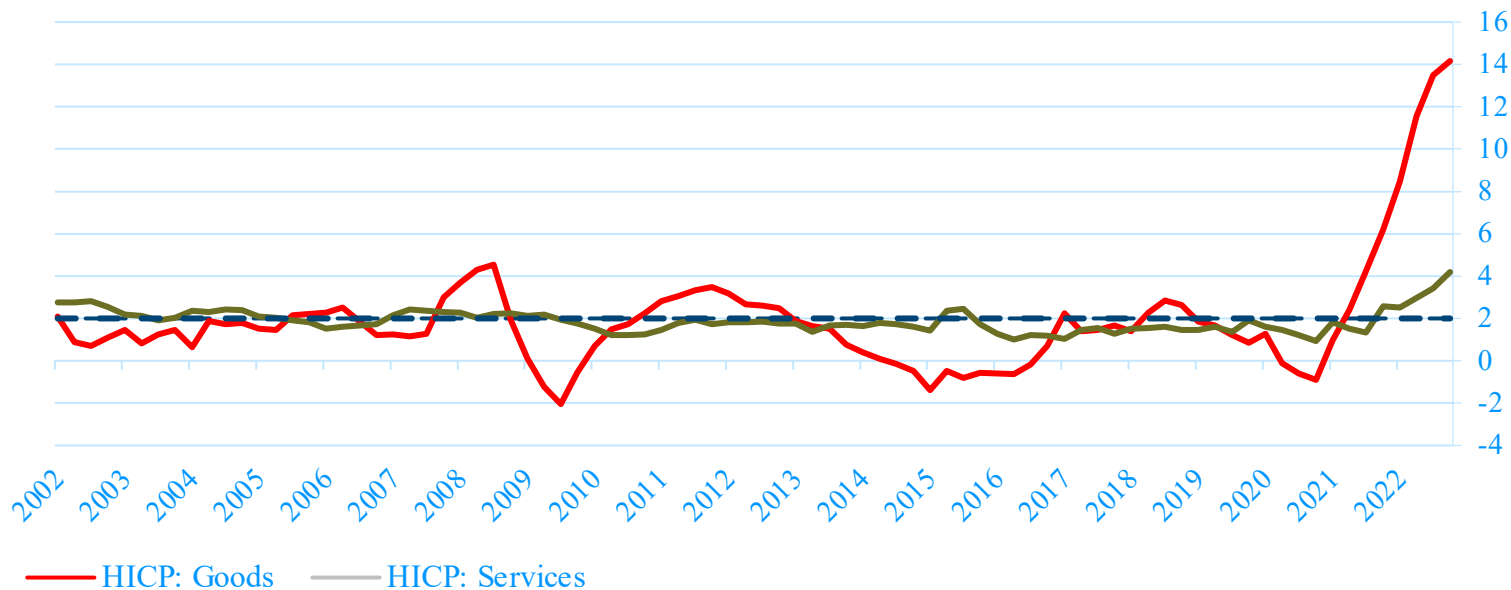
Goods vs services inflation in the EA

Periphery



Energy shocks combine with large sectoral + granular misalignment in slack and price dynamics.

Core



How do “headline-inflation” shocks propagate?

Model with sticky prices of manufacturing and services.

(Guerrieri-Marcussen-Reichlin-Tenreyro’s Geneva Report 2023) :

$$\begin{aligned}
 P_m &= \text{wages} + \text{markup}(m) + \text{energy} \\
 P_s &= P_m + \text{wages} + \text{markup}(s) + \phi \text{ energy} \\
 \text{wages} &= P_s + P_m
 \end{aligned}$$

- Costs in M-sector rise with energy directly, indirectly with wages
- Costs in S-sector rise more gradually with P_m and wages (impact of energy ϕ is small)

How do headline-inflation shocks propagate?

Model with sticky prices of manufacturing and services.

(Guerrieri-Marcussen-Reichlin-Tenreyro's Geneva Report 2023) :

$$P_m = \text{wages} + \text{markup}(m) + \text{energy}$$

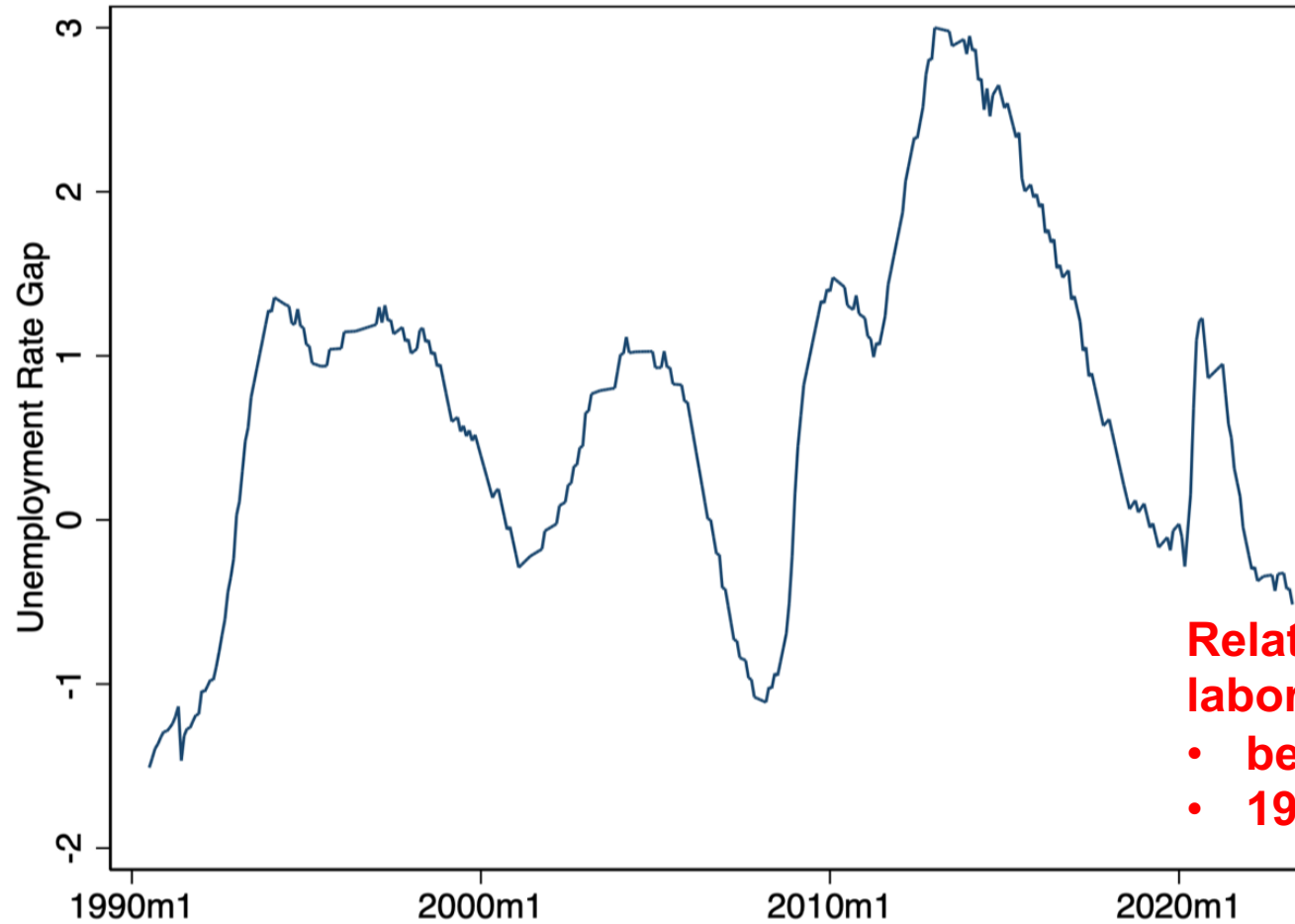
$$P_s = P_m + \text{wages} + \text{markup}(s) + \phi \text{ energy}$$

$$\text{wages} = P_s + P_m$$



- **Elisa Rubbo 2023:** analysis of sectoral/industry bottleneck vs. demand
- **Lorenzoni Werning 2023; Benigno Eggertson 2023...**
- **Barcelona Report 2023:** discussion of dynamics/risks of propagation

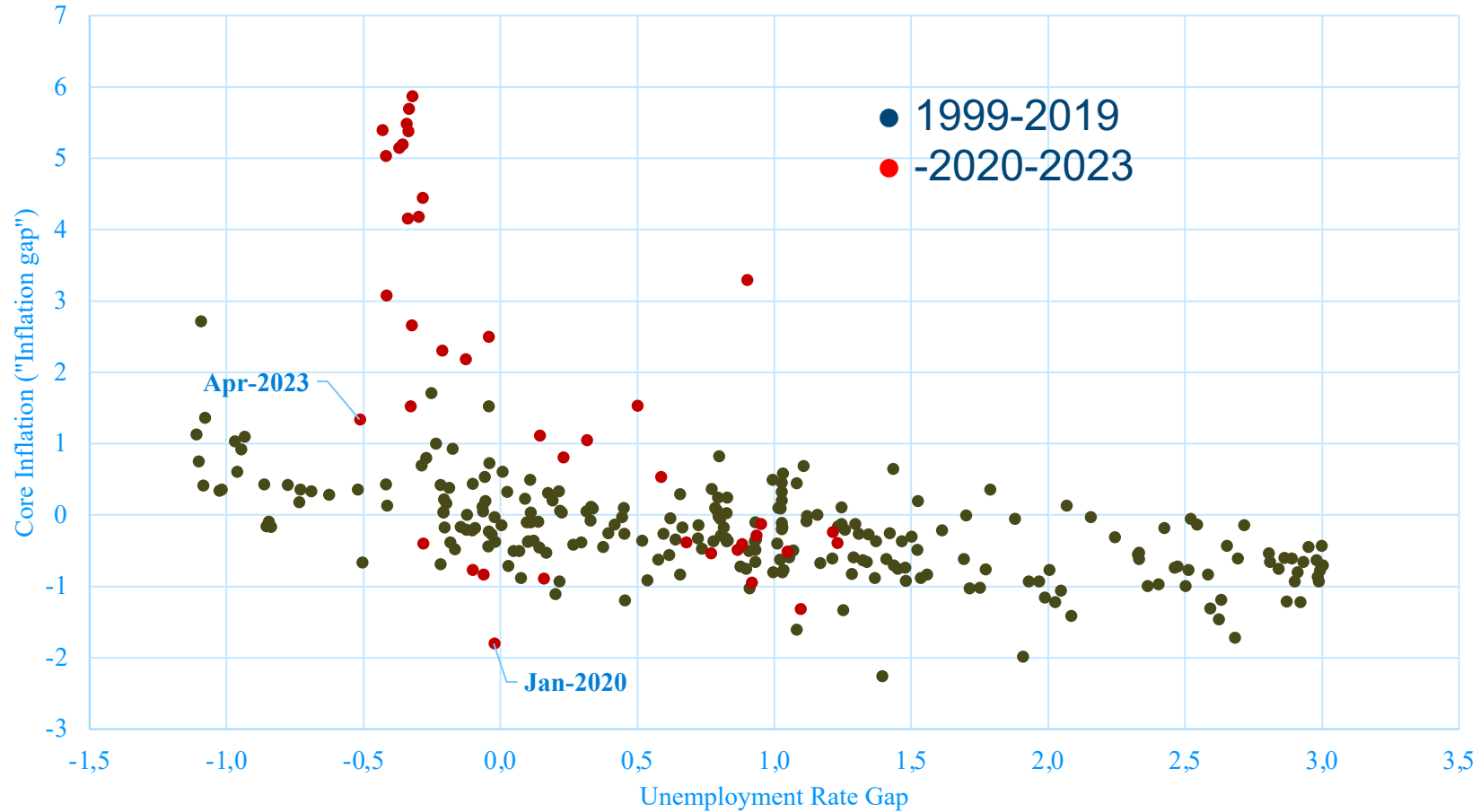
How tight is labor market? The U-gap in the paper



**Relative to today,
labor market tighter**

- before GFC
- 1990s

Core inflation (net of expectations) against U-gap

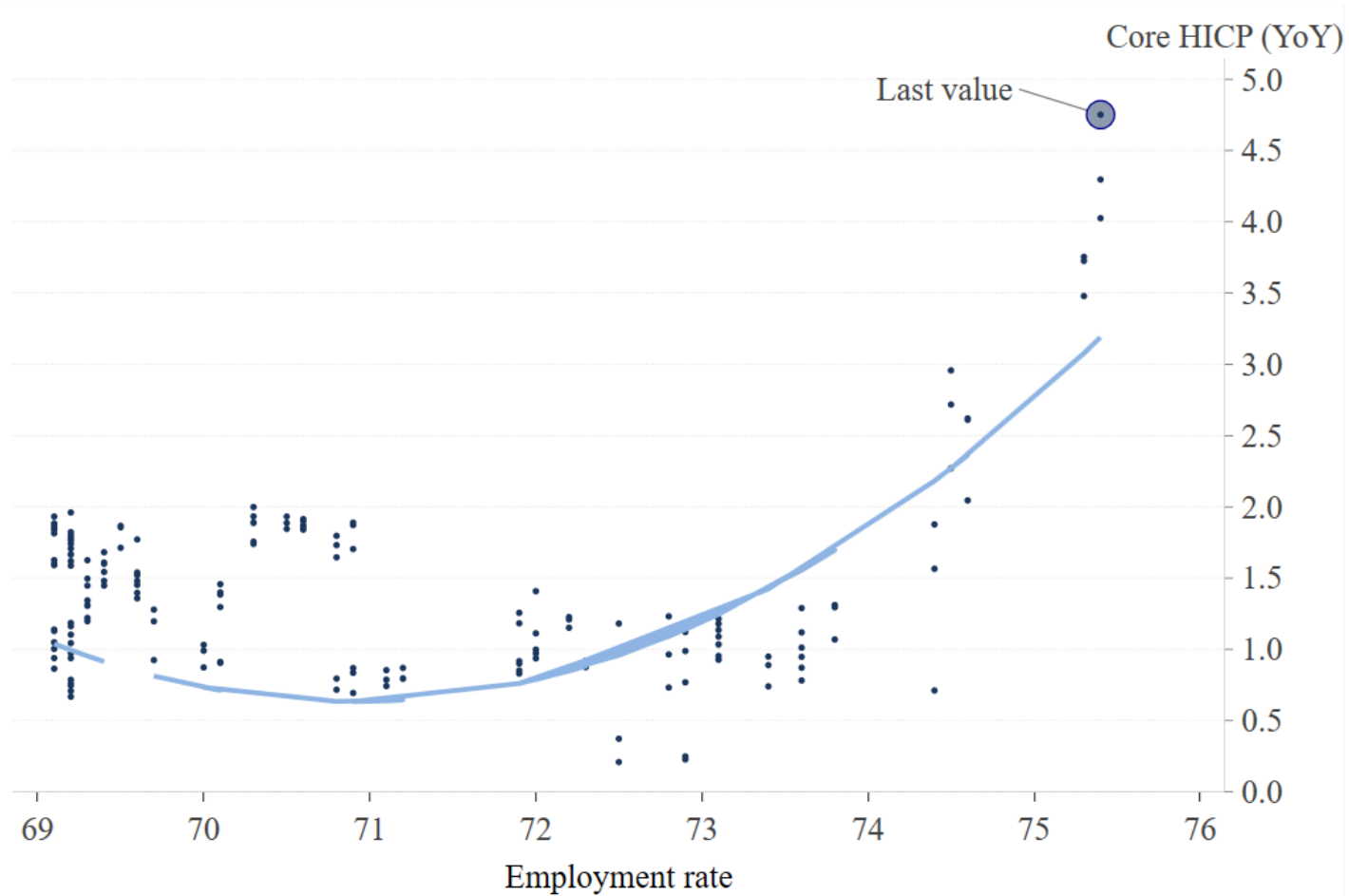


Other measures of tightness

Employment (level) in the euro area



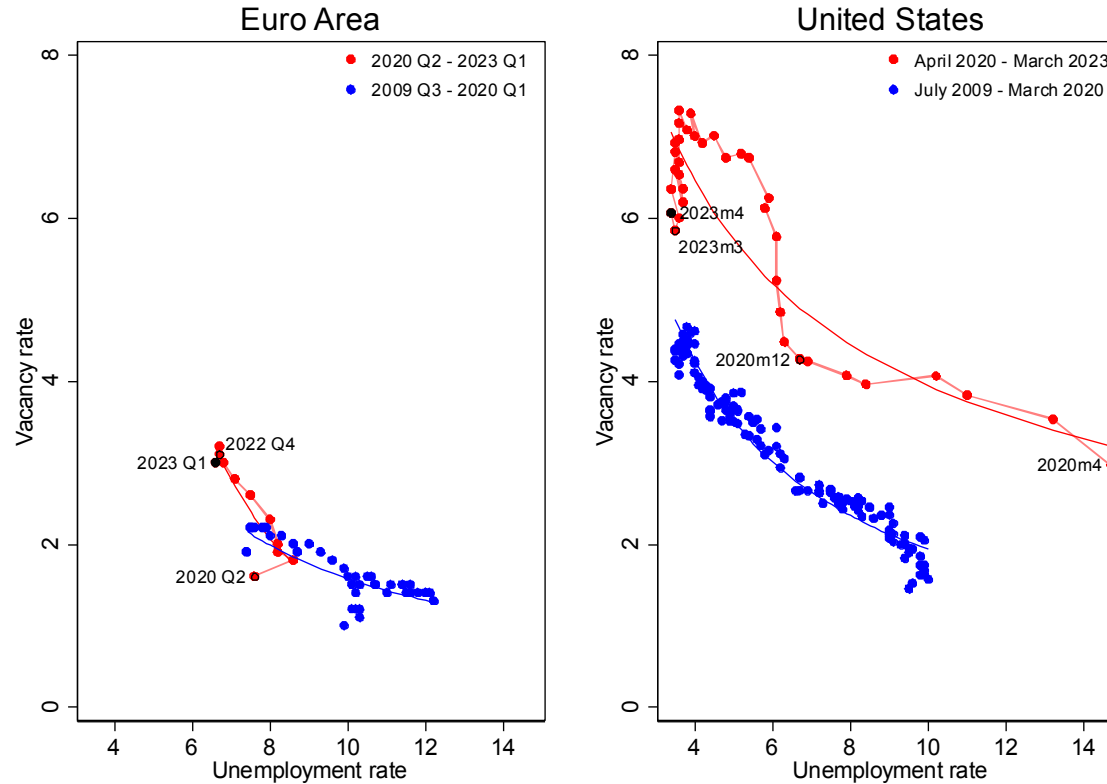
Phillips Curve with employment rate (not in 'gap')



Vacancy Ratio: V/U

Beveridge Curves

(Percent of filled and unfilled vacancies; percent of labor force)



“Vacancies everywhere, except in the statistics?”

Sources: Eurostat, US Bureau of Labor Statistics, and authors' calculations.
 Notes: Figure reports log-linear curves fitted to each period. For United States, July 2009 – March 2020 covers the pre-COVID expansion and the first month of COVID era, based on NBER business cycle dates. For euro area, periods displayed correspondingly.



A tight spot for policymaking

- **US**
 - **Private consumption C back on/above trend**
 - **Tight market => “Non-linear” Phillips-Curve**
- **EA**
 - **Energy shock: income deterioration with delayed propagation on inflation**
 - **Private consumption still below trend**
 - **Market tightness? Combined private and public consumption C+G (& export dynamics)**
 - **Non linear?**
 - **Ongoing effects of tightening?**

Concluding remarks

- **Insightful and well-crafted paper for a timely assessment of UFP**
 - **Sensible retrospective analysis of impact (effects of UFP still ongoing)**
- **Taking the analysis forward more involved**

- **BTW: fiscal policy analyzed only in relation to short-run policy mix.**

Concluding remarks

- Looking forward, macroeconomic, financial and price stability predicated on pursuing a **sensible joint fiscal and monetary strategy**.
 - Larger role for fiscal policy in rebalancing demand
 - Debt sustainability of EA member state plausible but narrow path (see Barcelona Report 2023)
 - High risk of belief-driven crises and polarization raises the social value of monetary backstop of government debt
 - Monetary policy independence and credibility are prerequisite for effective interactions with fiscal policy

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The DDJGL paper

- **Quantitative**

	Inflation p.p.	Output p.p.	Fiscal cost % GDP	Inflation if budget-neutral
2022	-0.9	1.1	1.3	-1
2023	-0.5	0.9	2.0	-0.8
2024	1.5			

- **Linear Phillips Curve and multiplier, credible targets**
- **Empirical**
 - **Non-linearities and feedback from current inflation to expectations**

Phillips Curve with employment rate prime age

