Recovering from Covid

by Stock and Watson

Discussion

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Brooking Papers of Economic Analysis

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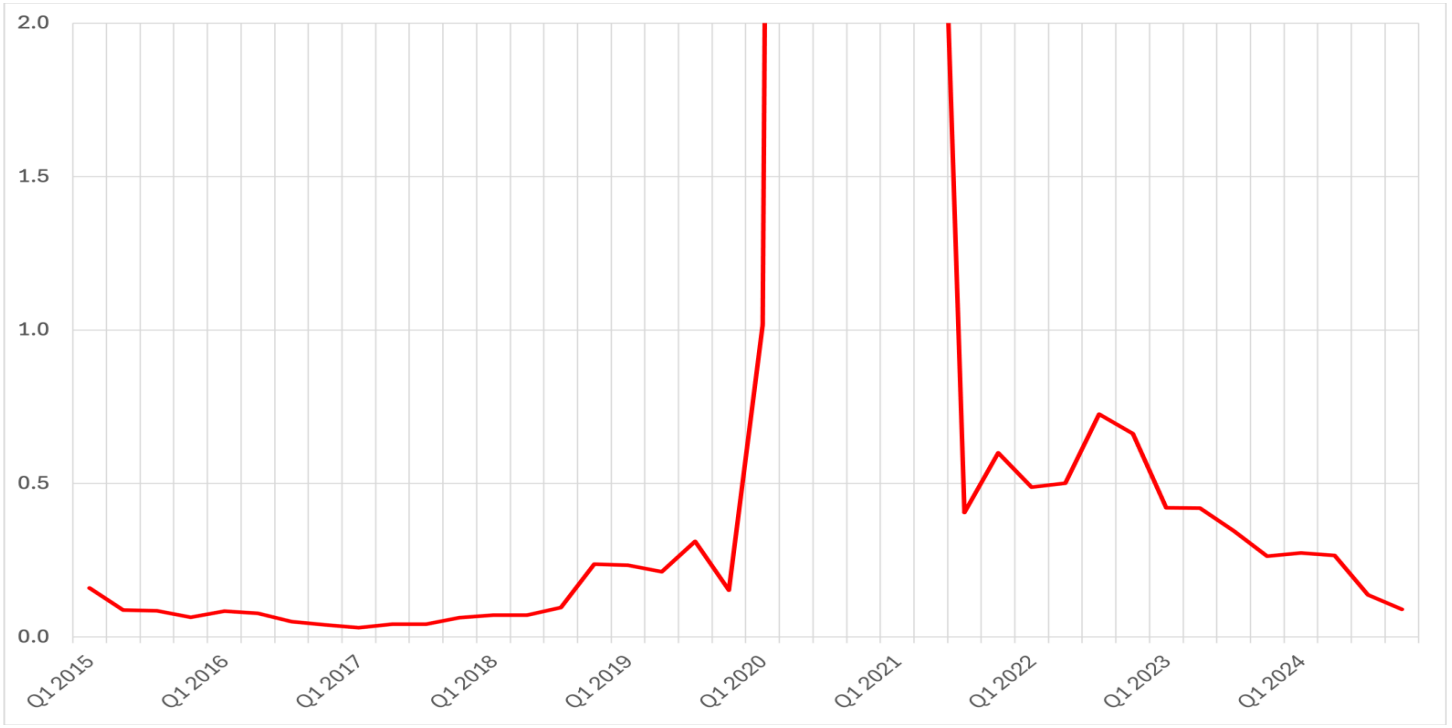
Main message of the paper

- Covid recession and recovery have been exceptional for duration, depth, speed and sectoral shift in consumption, employment and production
  - Exceptionality lasted until the end of 2021
  - After that most variables back to pre-covid level
- No long-term scars – back to trend

Consistent with forecast error from non-corrected now-casting model: root mean squared error rolling quarter

NOW-CASTING.COM
economics in real time

US GDP nowcast: rolling 4 quarter RMSFE



Consistent with
Lenza and Primiceri, 2020: How to estimate a VAR after March 2020?

Sample 1988:1-2020:5 omitting April to May 2020 - IRFs are as in "business as usual"

"dropping the extreme observations from the pandemic era is acceptable for the purpose of parameter estimation but it is inappropriate for forecasting the future evolution of the economy, because it vastly underestimates uncertainty"

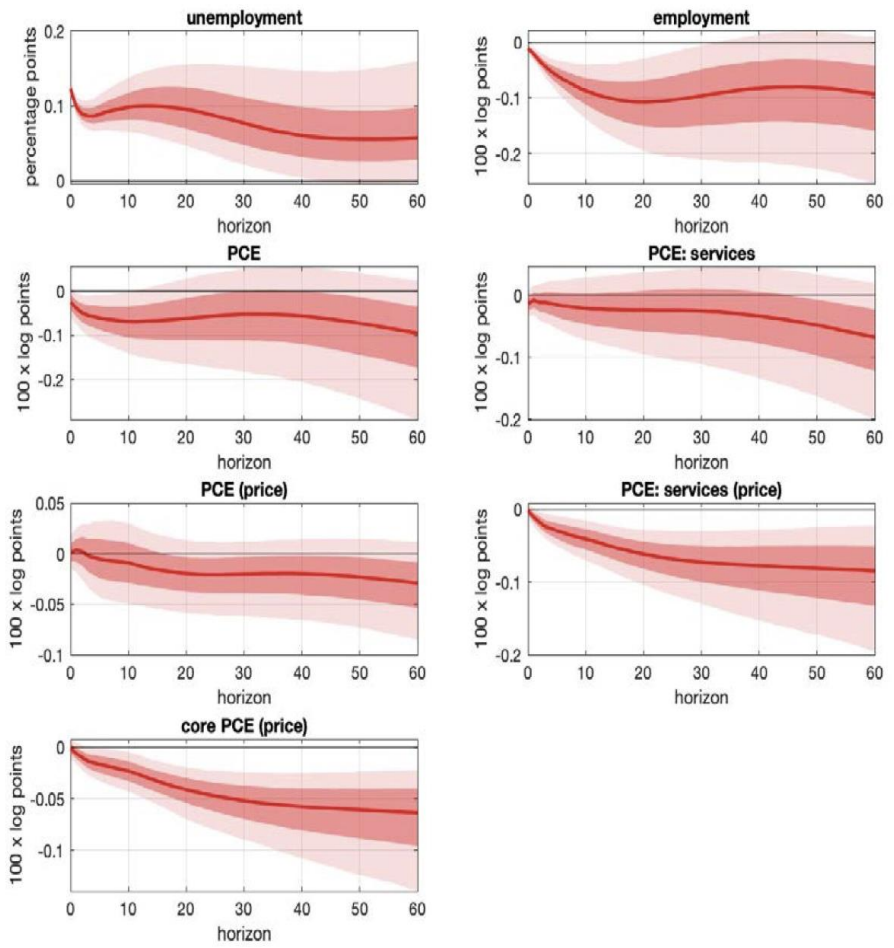
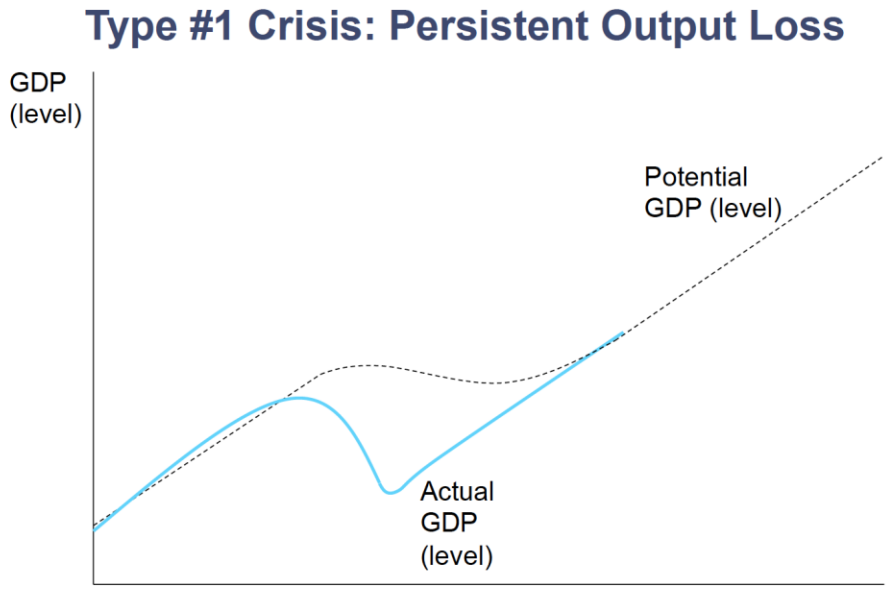


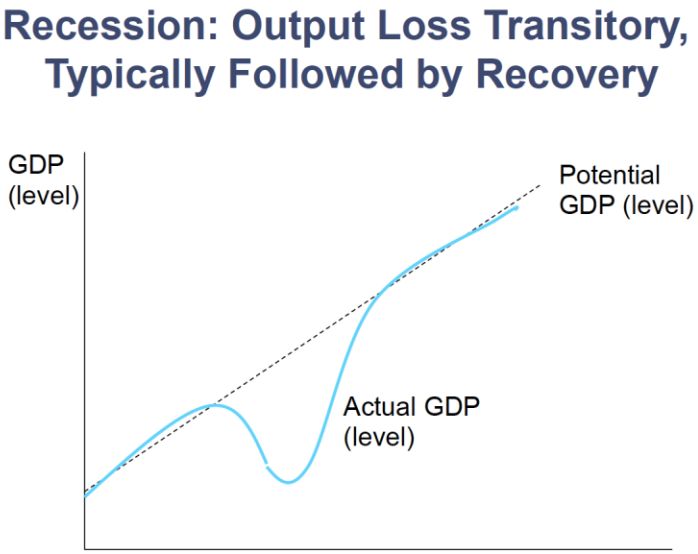
Figure 2: Impulse responses to a one standard deviation shock to the unemployment equation. The shock is identified using a Cholesky strategy, with unemployment ordered first. The solid lines are posterior medians, while the shaded areas correspond to 68- and 95-percent posterior credible regions.

Two types of recessions

This is the financial crisis in both the US and Europe and Covid in Europe

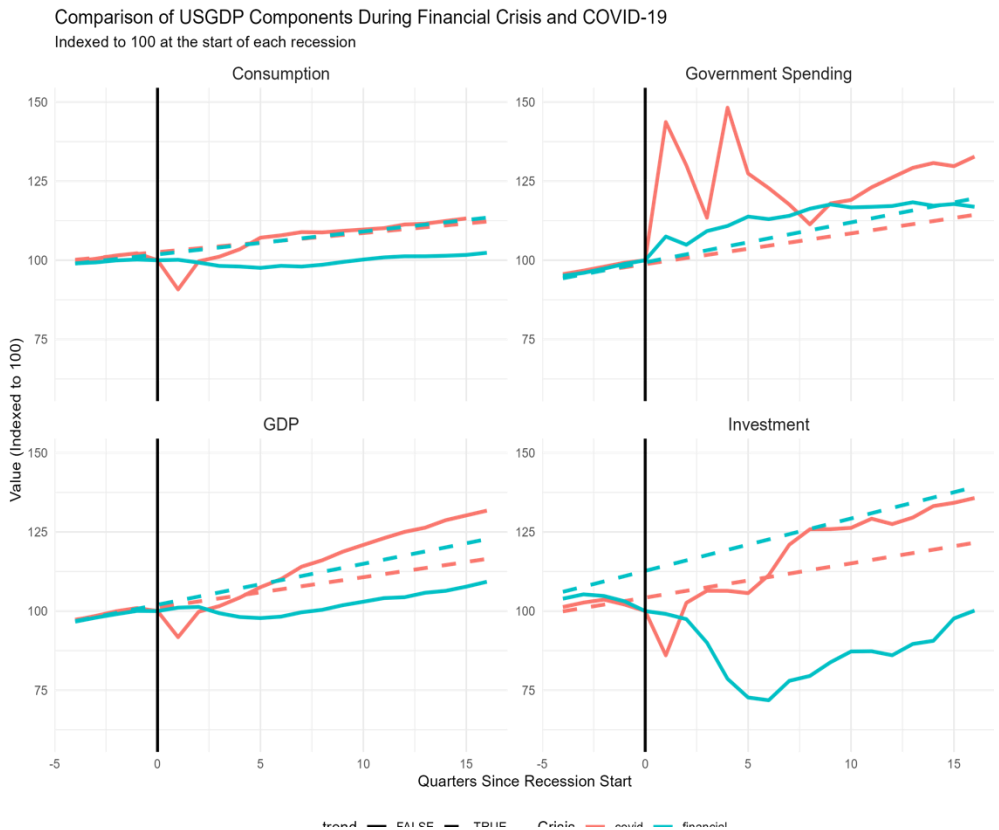


This is Covid in the US

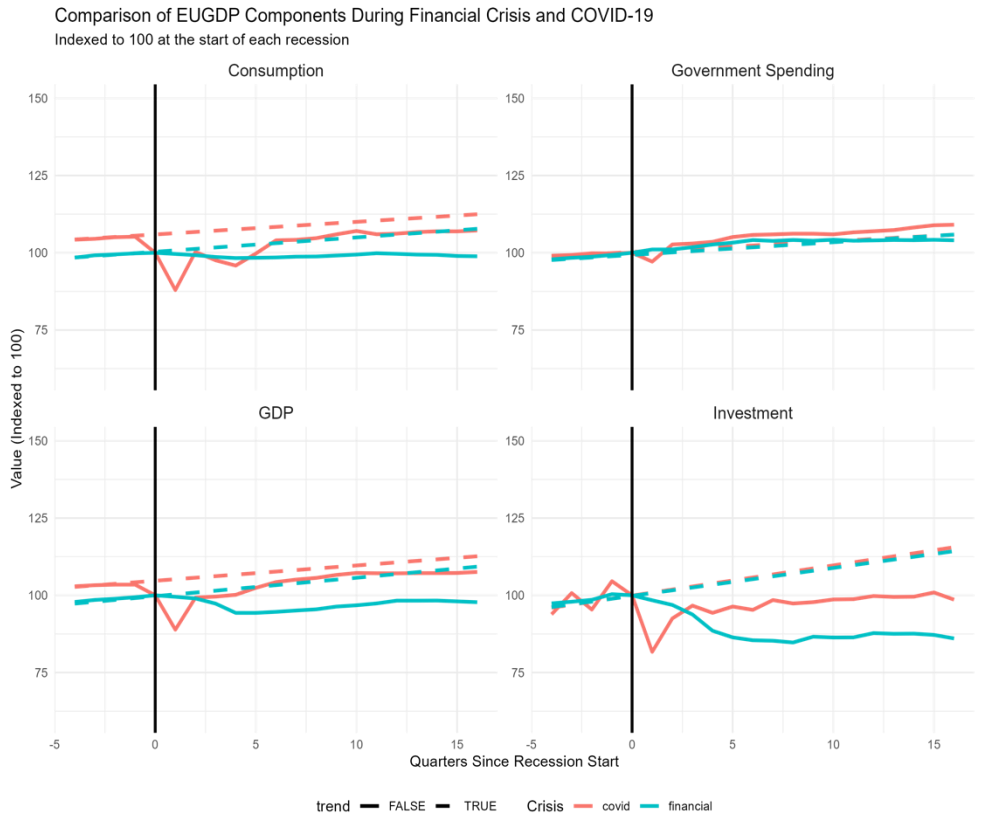


The US: Covid is different than the financial crisis and than Europe Covid

The US



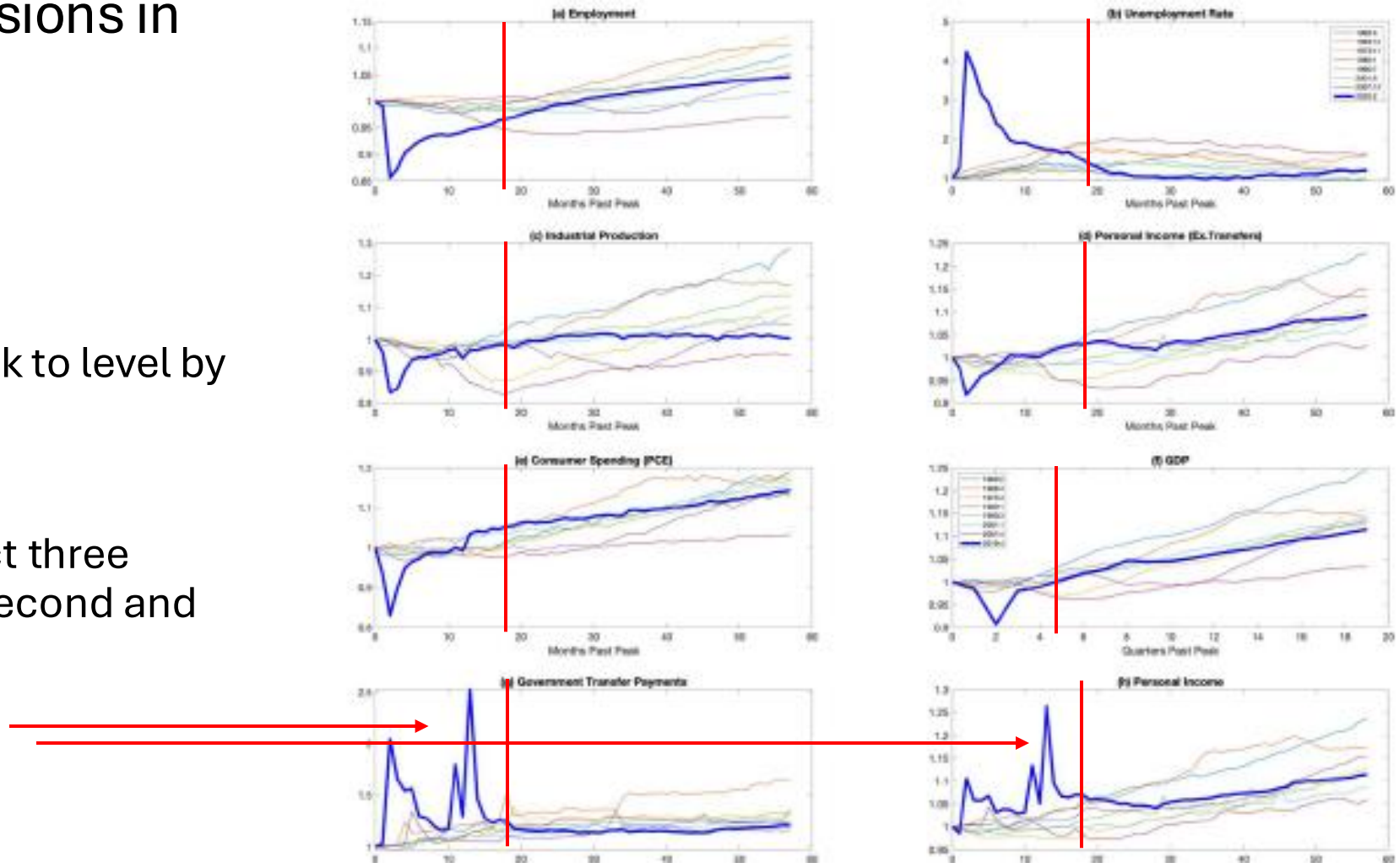
The EU



Comparing recessions in the US

- Most variables back to level by December 2021
- Notice:

Transfers and PI reflect three fiscal packages, the second and third ones in 2021



Logic of the methodology

- Business cycle fluctuations throughout the long sample captured by three common factors estimated on a large number of time series of real variables including many sectors – "conventional" factors/conventional business cycle generated by historical fiscal and monetary policy rules and structural correlations
- The orthogonal Covid factor (C) captures exceptional characteristics of Covid period and explain common downward and upward dynamics
- Exceptional characteristics: wedge between good employment and services employment (reallocation)

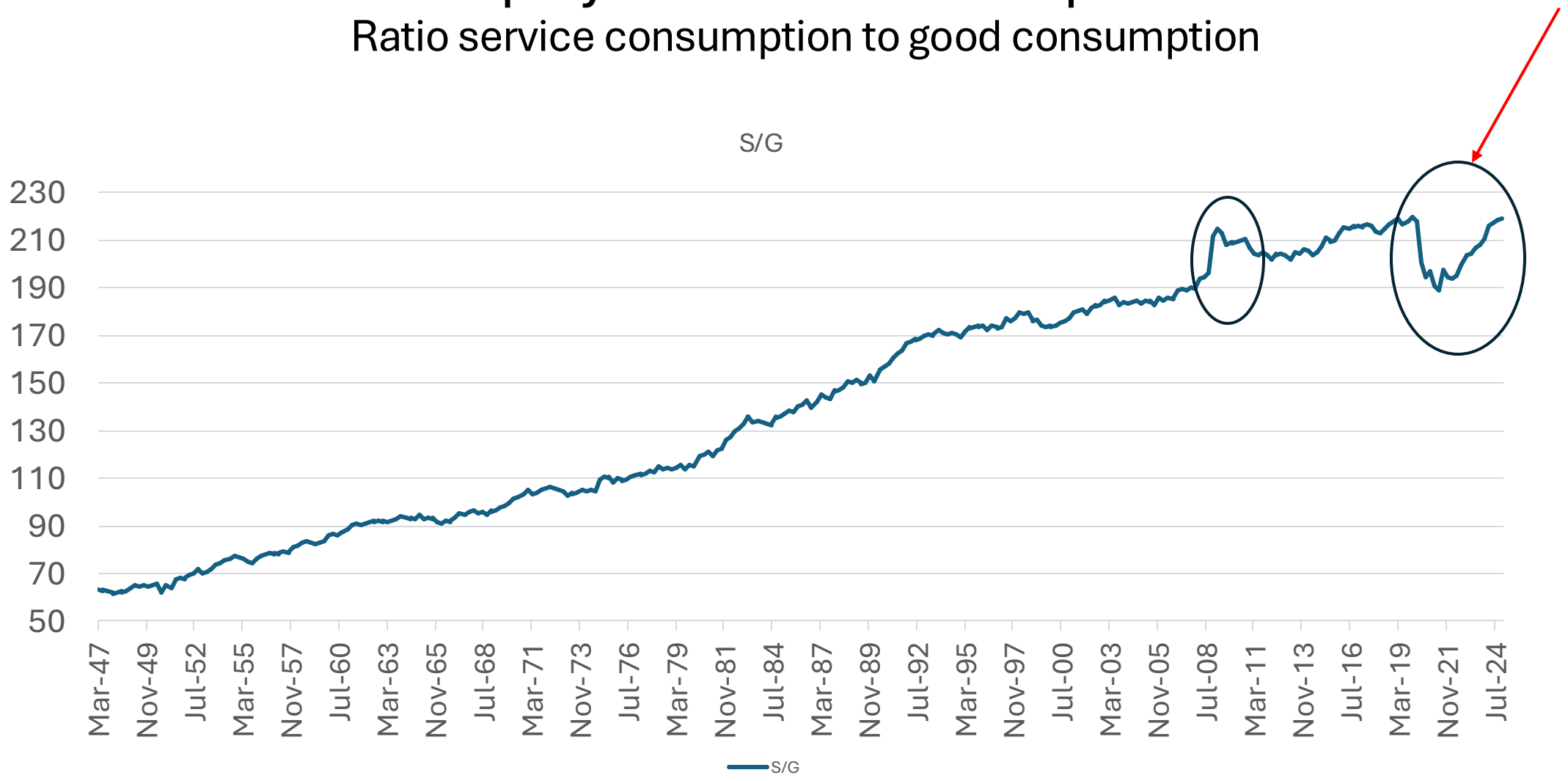
➢ Estimate conventional factors and covid factor

➢ Extract shocks

➢ Do variance decomposition and impulse response functions

Covid: large reallocation from services to good both in employment and consumption

Ratio service consumption to good consumption

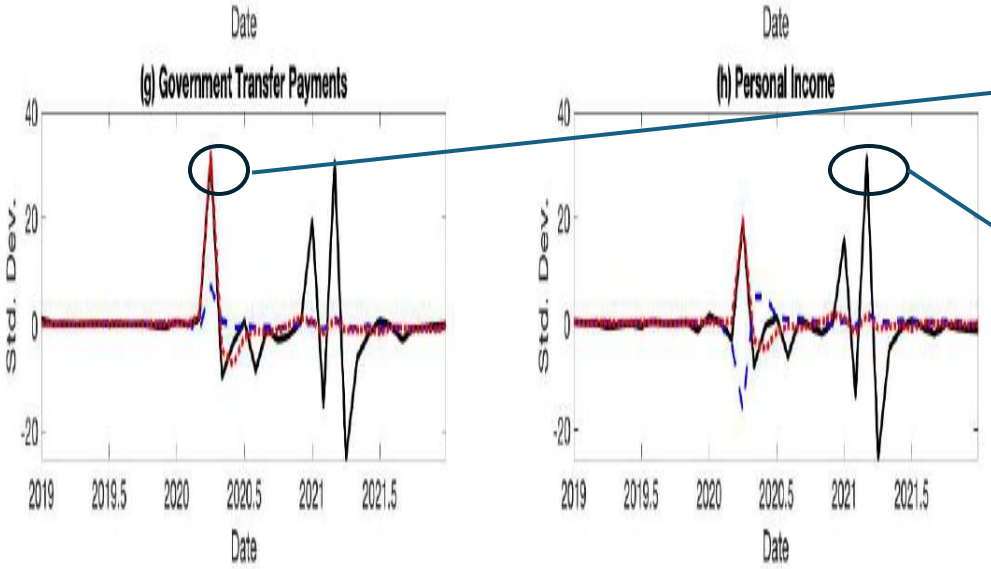


A. What is the role of fiscal policy in the recovery?

What is going on?

(1) Covid factor captures first fiscal stimulus not the second and third. (2) Covid shock explains covid and other factors first 18 months; (3) after that factor dynamics explained by shocks to "normal" factors F

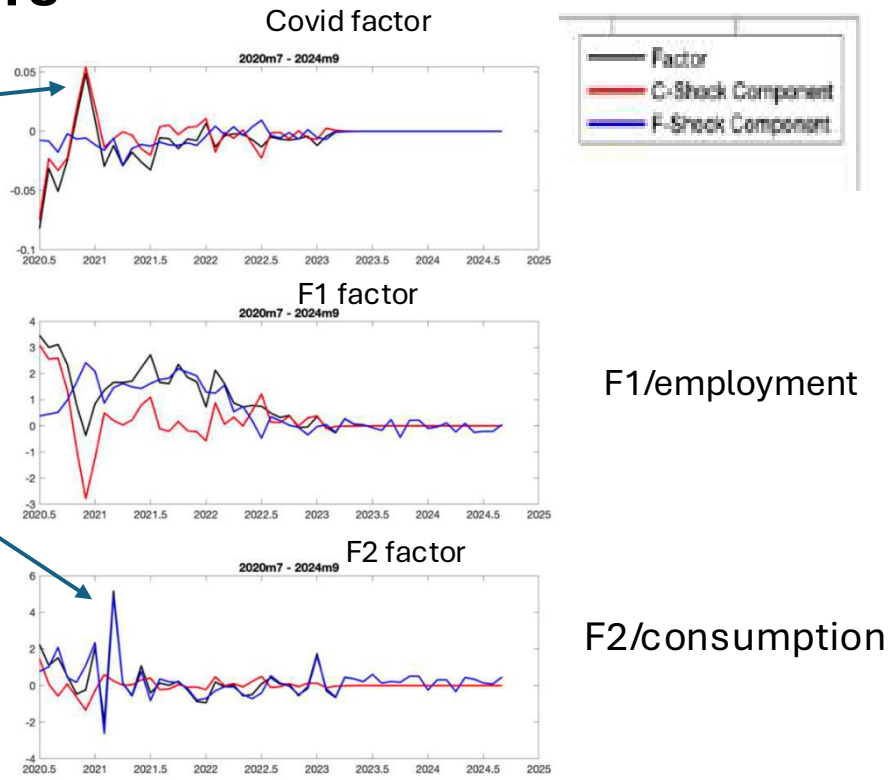
Factors: factor model fit



Red: F&C; Blue: F only; Black: data

Shocks: variance decomposition of the factors

Covid shock Explains covid factor



F1/employment

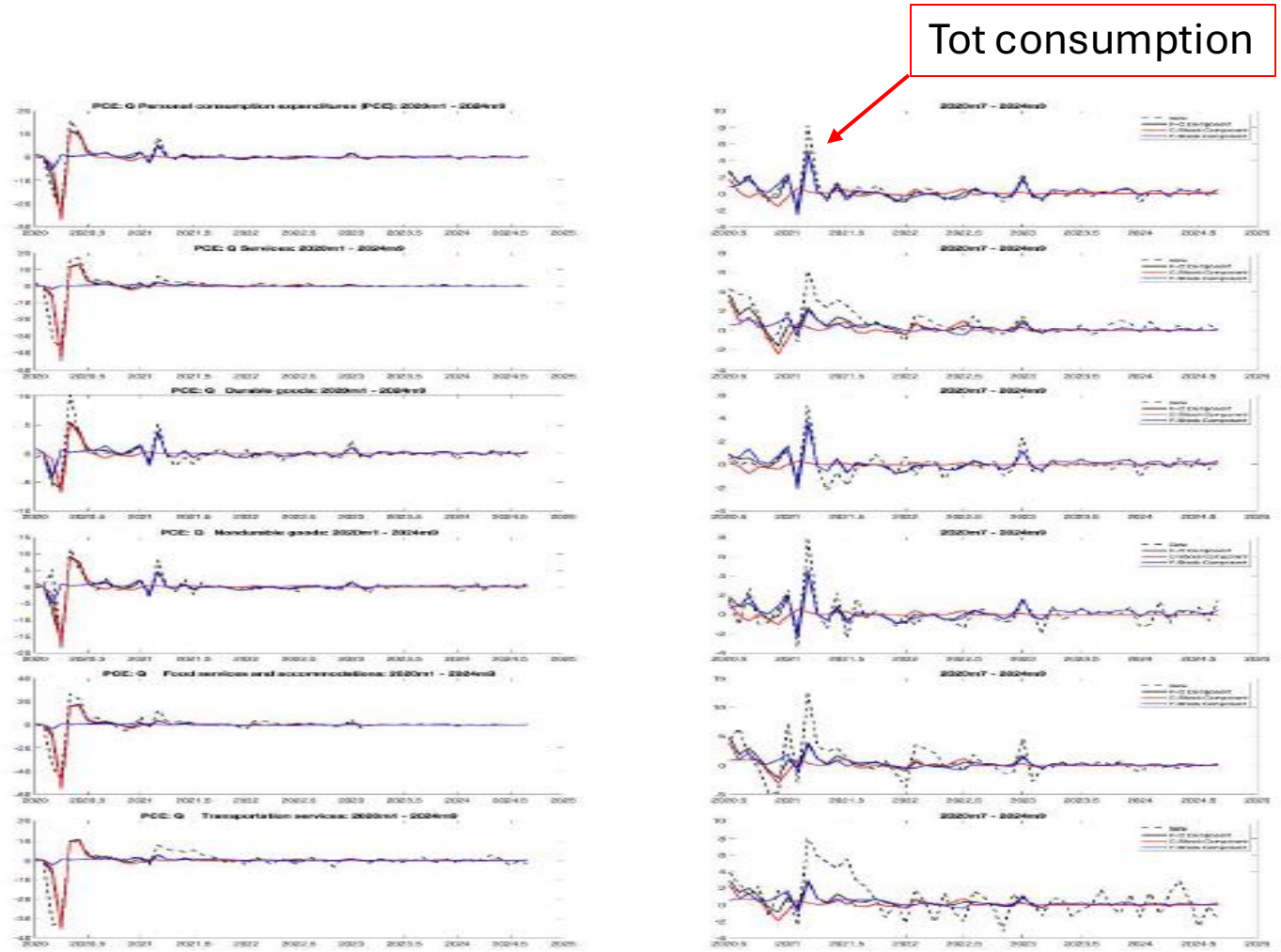
F2/consumption

Late 2021 reflects shock to "conventional" factor

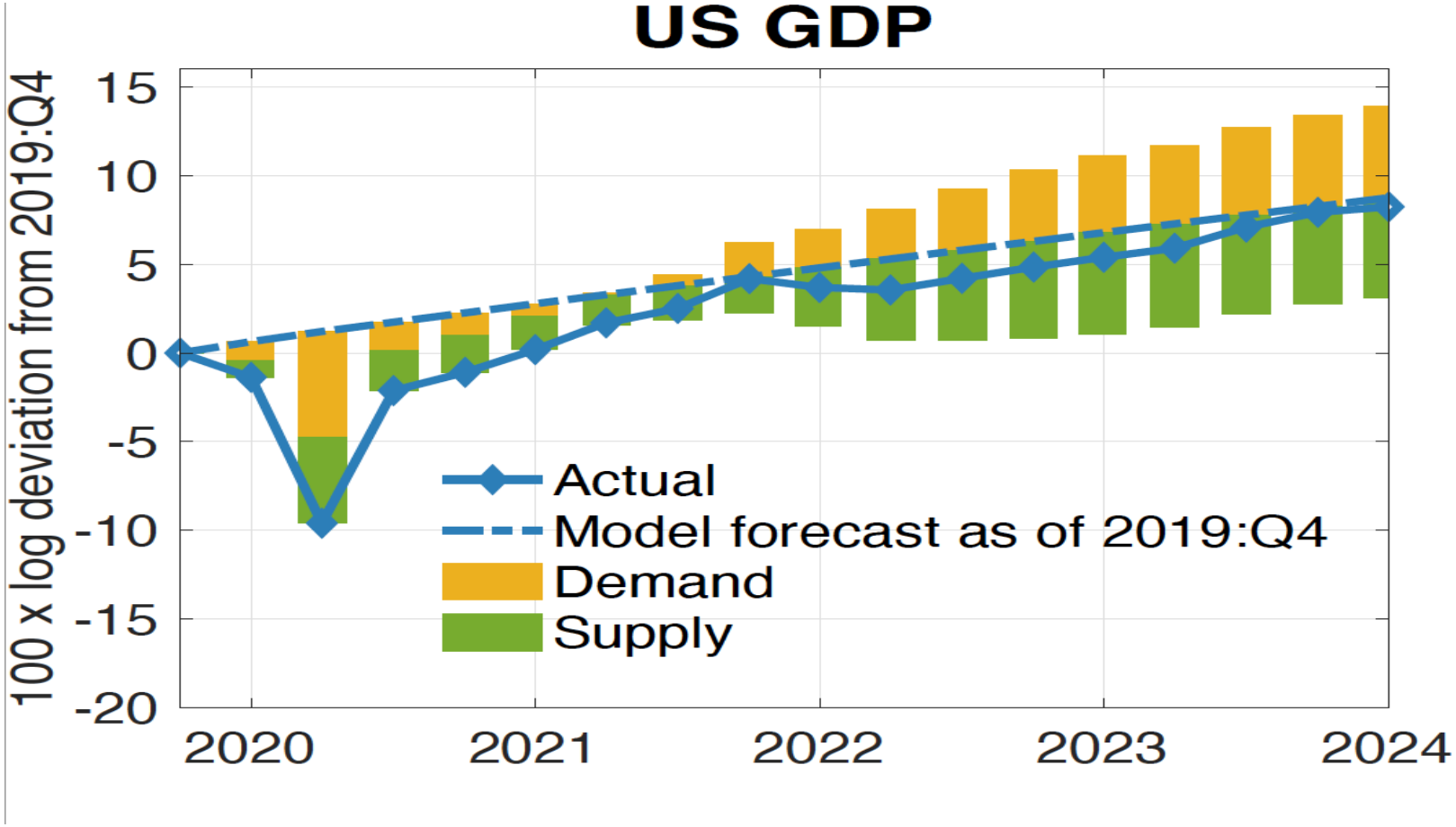
Results and interpretation

- First 18 months all is explained by the shock to the Covid factor
- After late 2021, shocks to conventional factors explain dynamics of key variables such as consumption, employment
- Main shock to the conventional factor is the fiscal stimulus of late 2021 which the model reads as a shock to the conventional factor F

The shock to the conventional factors explains the bulk of the dynamics of total and good consumption



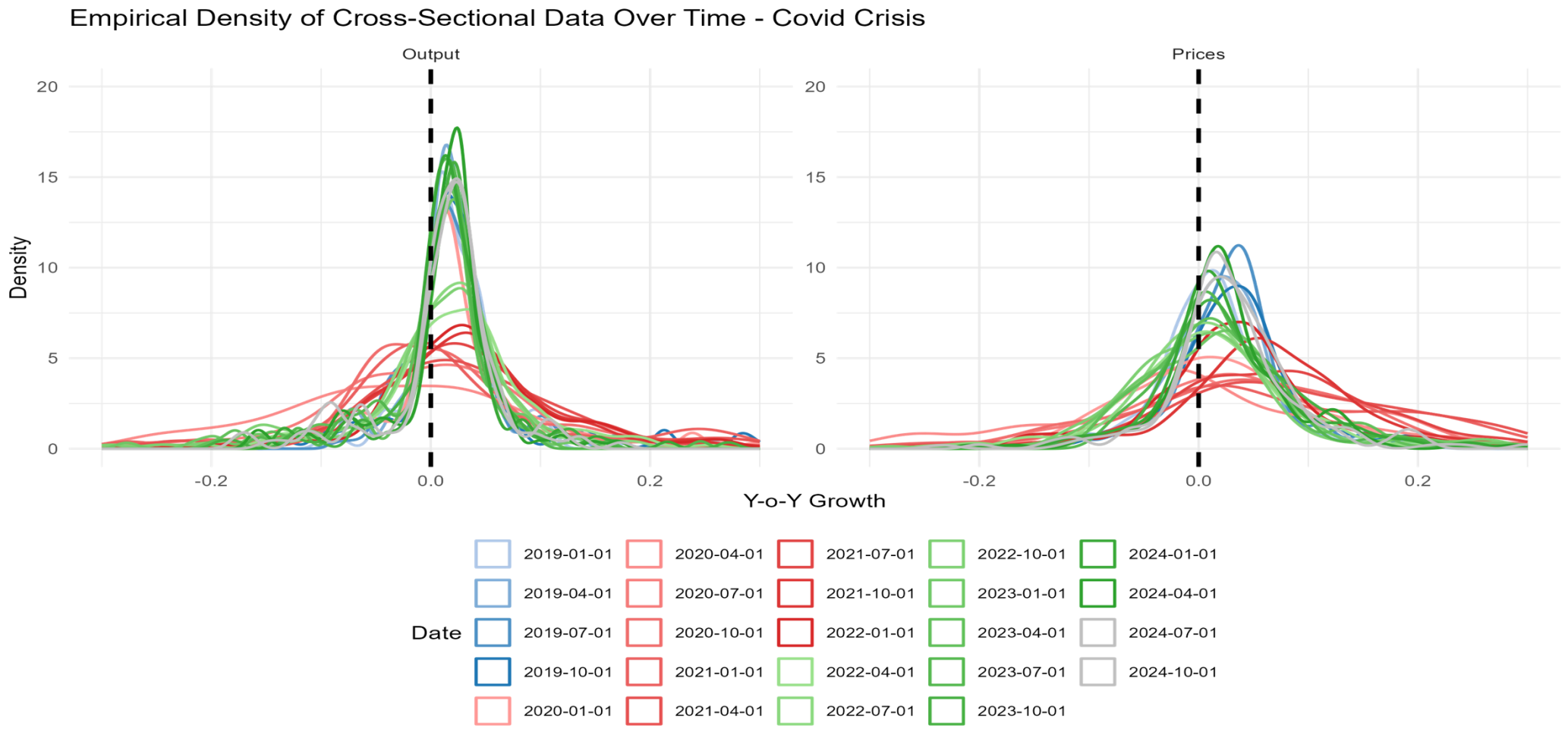
Consistent with
Giannone and Primiceri 2024: large role of demand



B. Do we learn anything from price dynamics?

- The recovery is characterized by both demand increase and gradual reabsorption of reallocation
- Average inflation increases (pent-up demand, policy) while dispersion of sectoral inflation remains persistent even as real reallocation is reabsorbed (relative prices change as effect of real reallocation combined with downward price stickiness)
- Some part of observed aggregate inflation reflects relative price adjustment

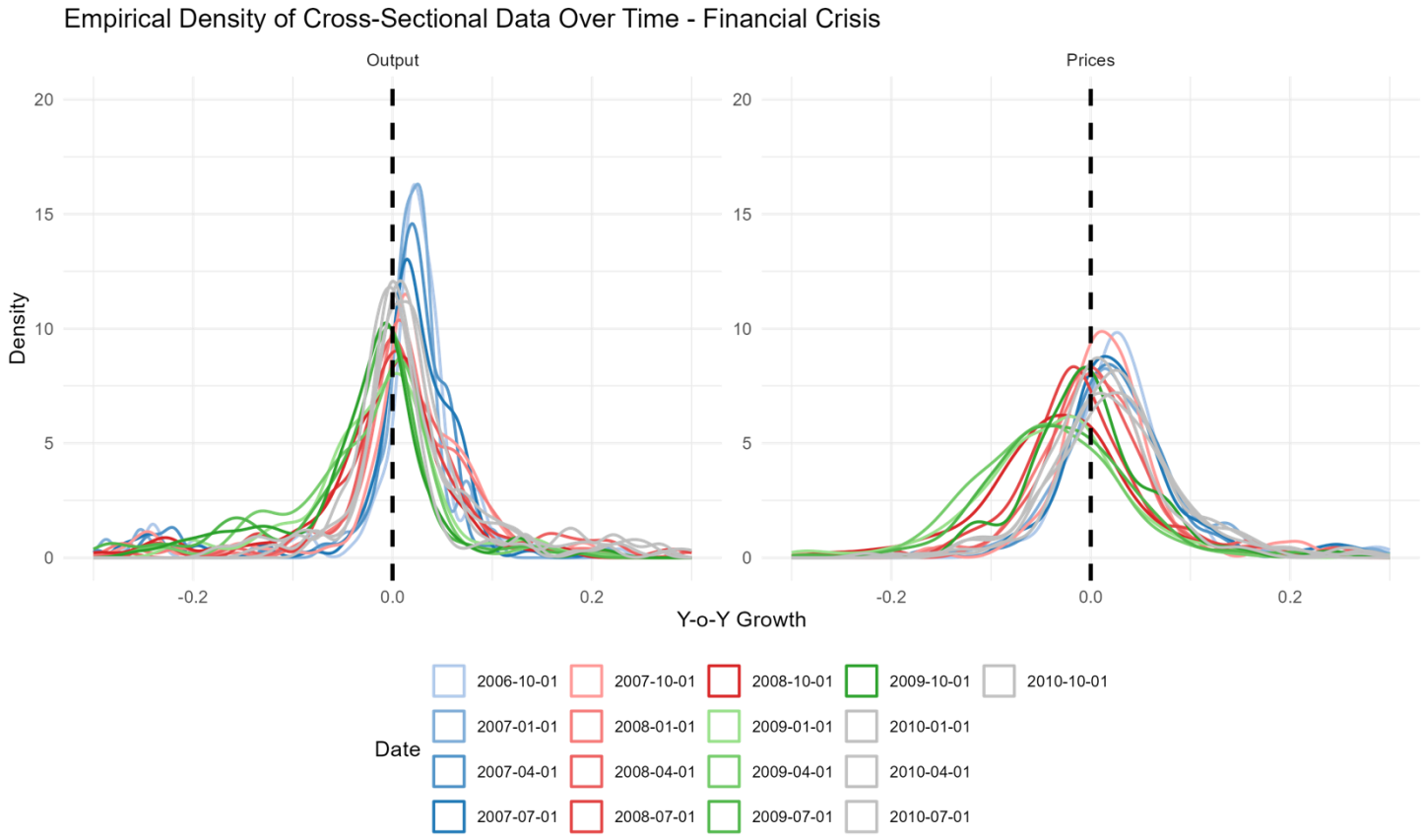
Price and quantity cross-sectional distributions 2019:1-2024:1



Not the same in the GFC

Price and quantity cross-sectional distributions 2006:1-2010:10

- Less sizeable and less persistent dispersion in quantity
- No shift to the right of price distribution



C. No long-term scars?

Open question is labor market and productivity:

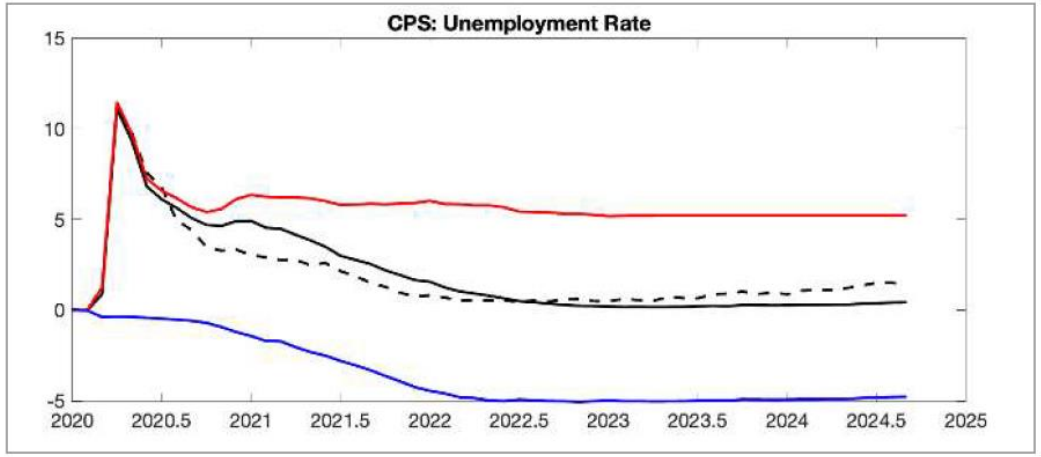
- Some signs of structural changes in the labor market
- Acceleration of digitalization

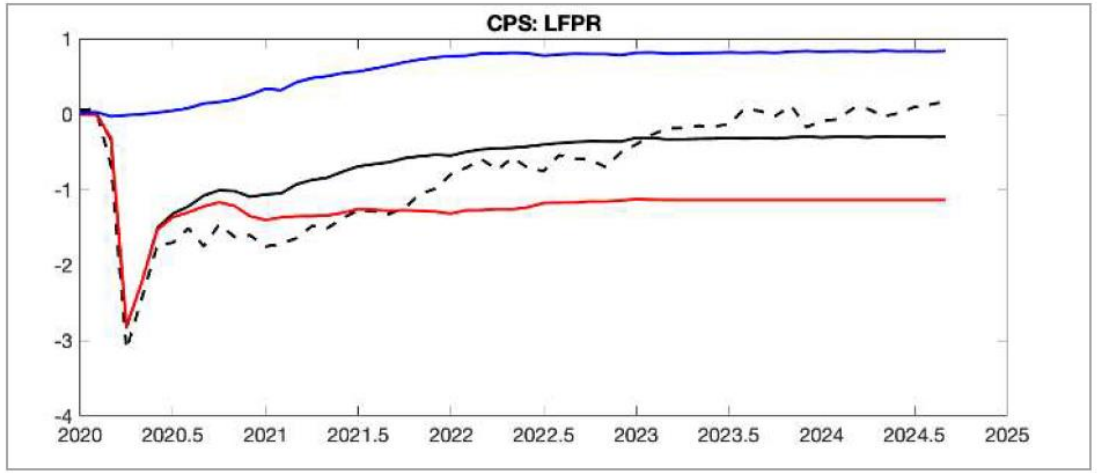
Labor market

Post-2021 :

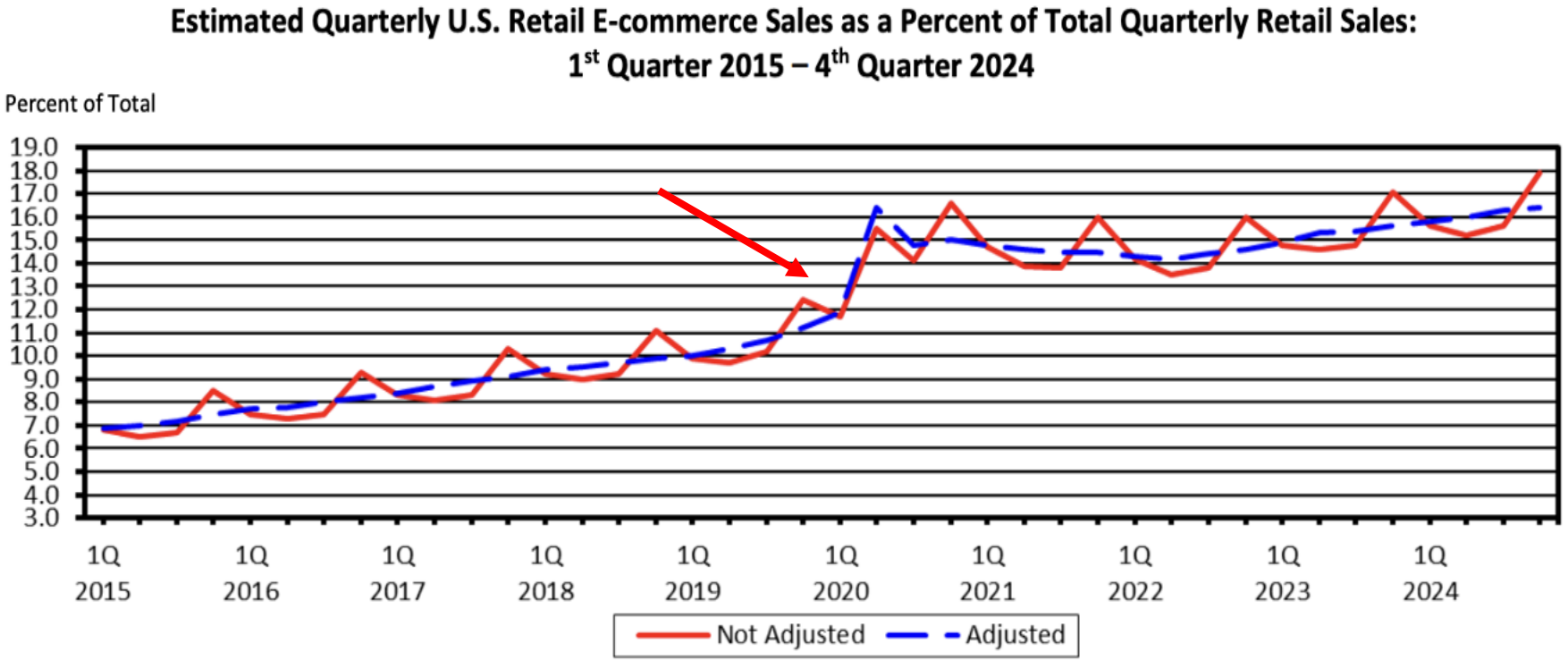
- The Covid shock does not explain the large decline in unemployment from late 2020 – need fiscal shock to do that
- But explains a large part of the drop in LFPR
- Permanent?

Historical decomposition: covid and non-covid sources



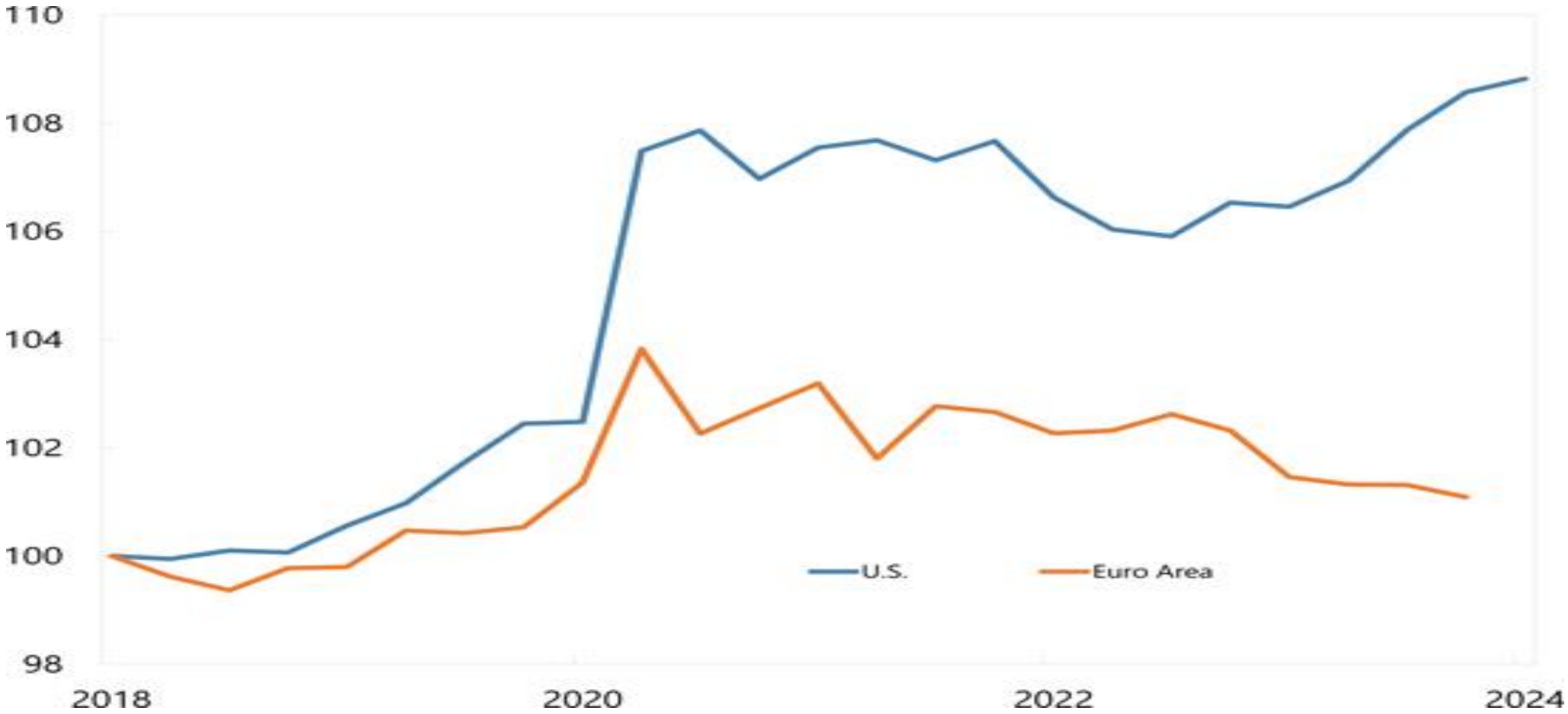


US Census Bureau news



Labor productivity: euro area vs US- what explains the difference?

Productivity indexed to 100 in 2018Q1. The latest observation is 2024Q1 for the United States and 2023Q4 for the Euro Area.
Data is for total economy



Source: Dao et al, IMF working paper 2024. Data from BEA, BLS, European Central Bank.

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