

Demand-Driven Inflation

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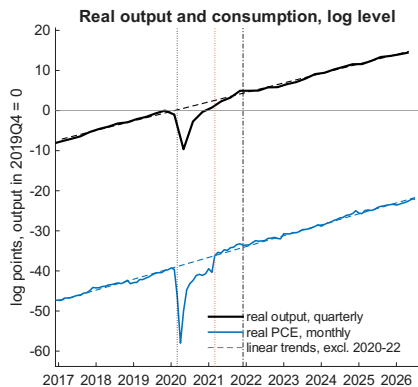
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Pandemic inflation through the lens of 1997-2019 macro dynamics

- Large shocks, same propagation? → Unlikely
- Sectoral heterogeneity and labor market nonlinearities
- The 1997-2019 lens in real time

Real activity and inflation

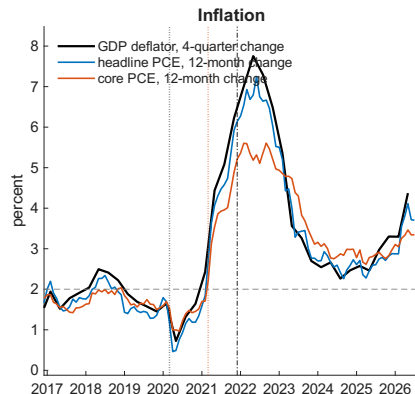
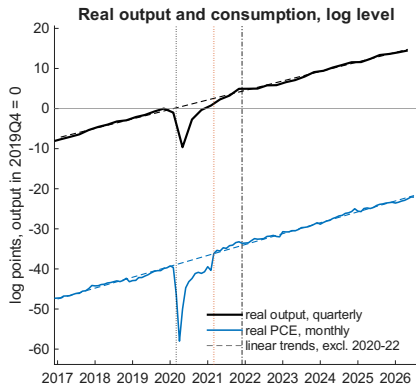


..... Mar 2020 pandemic onset

..... Mar 2021 ARP payments, inflation crosses 2% path from Feb 2020

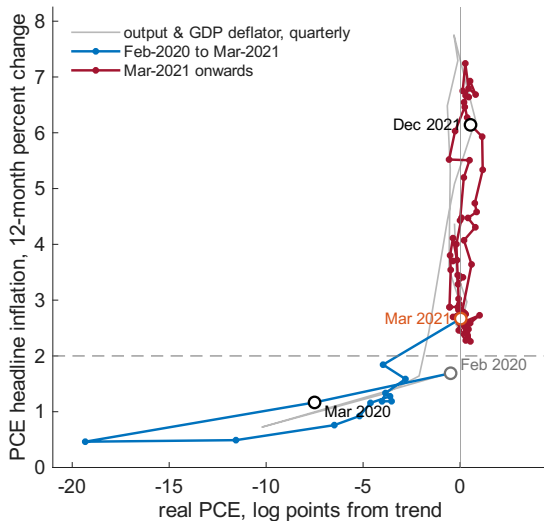
- - - Dec 2021 FOMC pivot to tightening

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A coincidence of off-setting shocks?



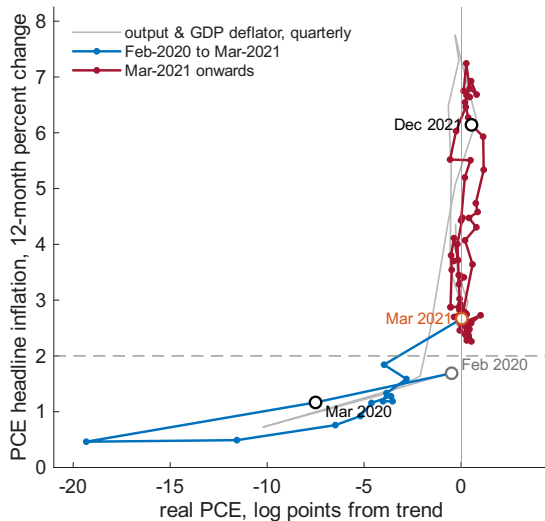
$$\text{AS: } \pi = \kappa x + s \quad \text{AD: } \pi = -\delta x + d$$

Solving,

$$\Delta x = (\Delta d - \Delta s) / (\kappa + \delta)$$

$$\Delta \pi = (\kappa \Delta d + \delta \Delta s) / (\kappa + \delta)$$

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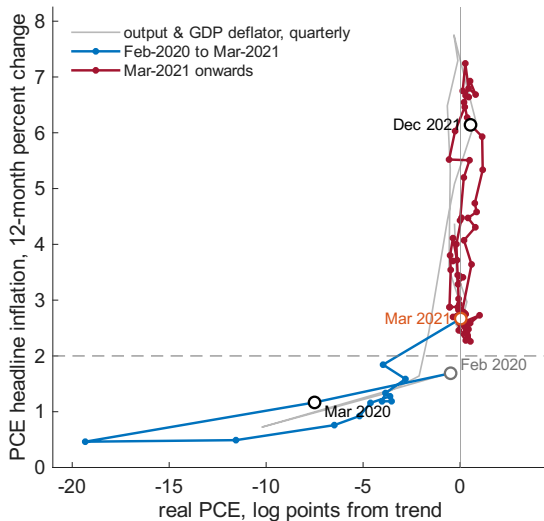
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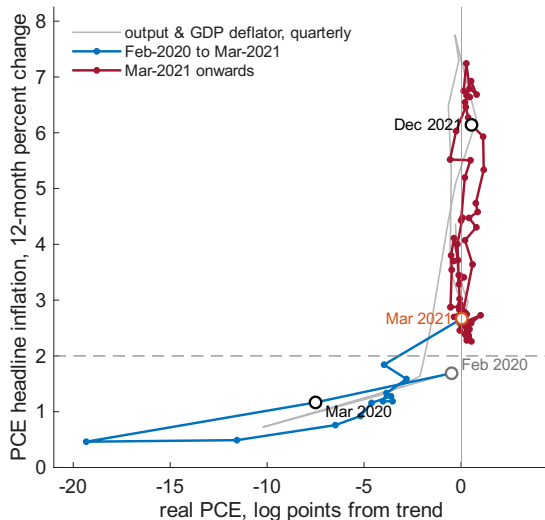
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1997-2017 dynamics: κ and δ both small

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Other explanations:

- κ very large (steep AS)
- δ very large (steep AD)

Demand or supply shocks?

Contributions to $\Delta\pi$:

$$\Delta\pi = \frac{\kappa}{\kappa + \delta} \Delta d + \frac{\delta}{\kappa + \delta} \Delta s$$

Under perfect cancellation $\Delta d = \Delta s$, the **contribution of demand shocks** is

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Larger AS slope $\kappa \rightarrow$ demand shocks relatively more important

- capacity/supply chain constraints
- state-dependent price setting

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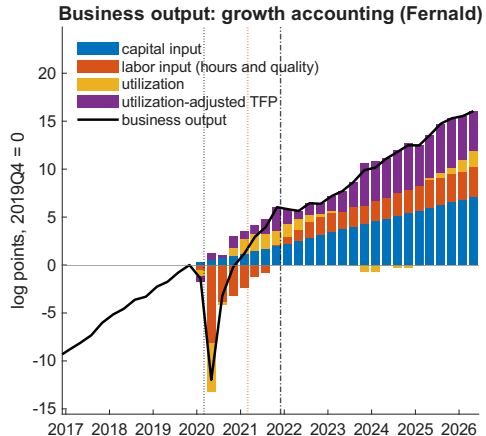
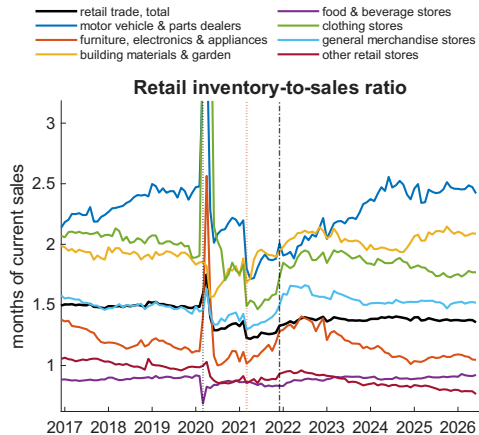
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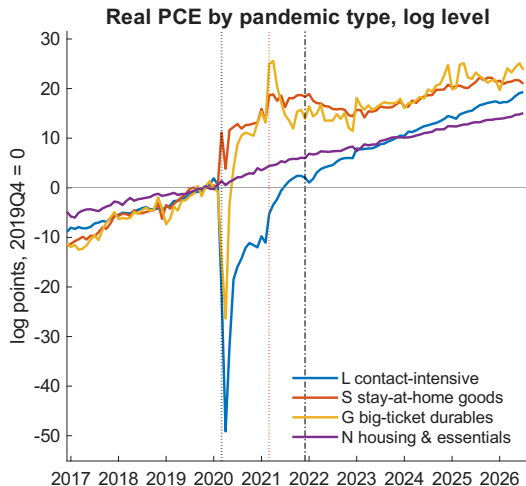
Larger AD slope $\delta \rightarrow$ supply shocks relatively more important

- MP reaction function: low weight on inflation, high weight on activity gap
- Low interest rate sensitivity of demand

Evidence for supply constraints



Sectoral heterogeneity



Contact-intensive

42% of PCE

collapse in Mar–Apr 2020, gradual recovery

hospitals, physicians, dentists · restaurants, hotels, air travel · clothing · personal care, recreation services

Stay-at-home goods

14%

jump in Mar 2020, never reversed

groceries, alcohol at home · games, toys, sporting goods · pets · software · household supplies, nonprescription drugs

Big-ticket durables

7%

one-month drop, above trend by Q3 2020

new and used vehicles · furniture, linens · jewelry · computers · cosmetics

Housing & essentials

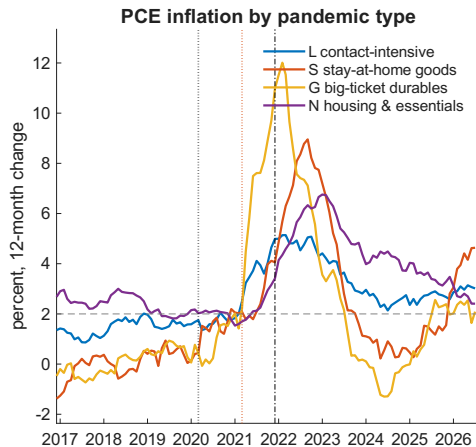
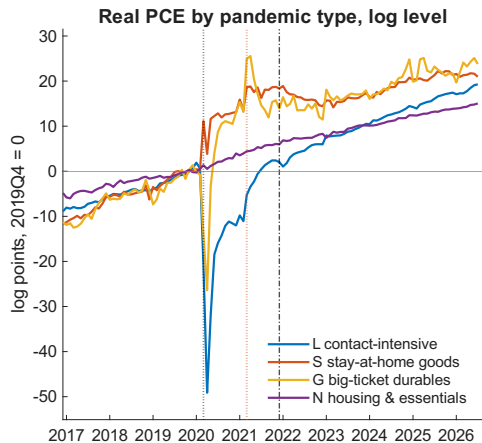
27%

no pandemic movement

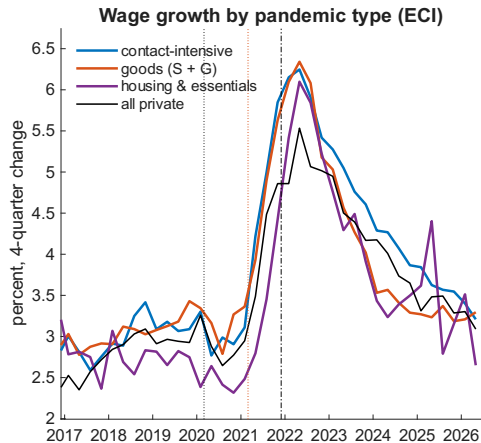
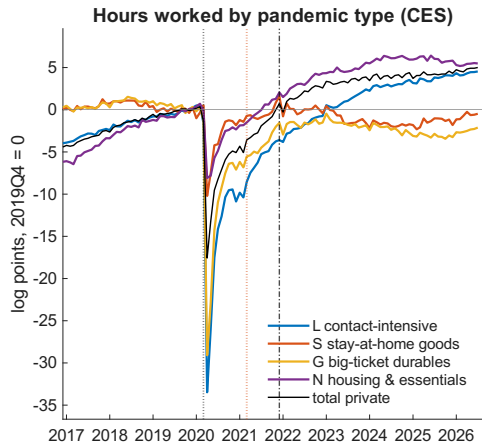
housing · utilities · prescription drugs, health insurance · telecom, internet, TV

omitted: energy goods, NPISH, imputed financial services, net insurance (10%)

Sectoral heterogeneity: inflation



Labor market nonlinearities



The 1997-2019 lens in real time

Peneva, Rudd and Villar (2025), [Retrospective on the Federal Reserve Board Staff's Inflation Forecast Errors since 2019](#)

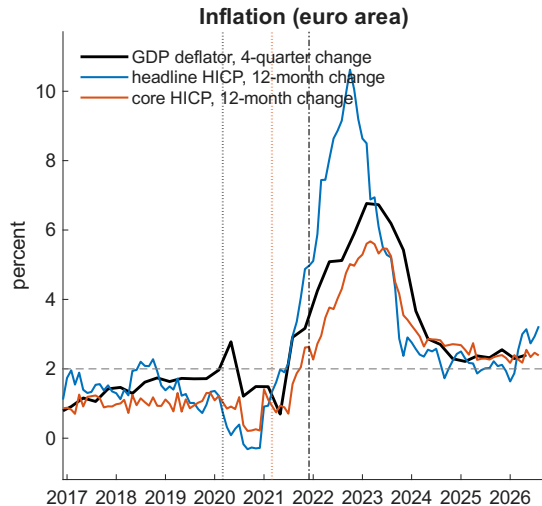
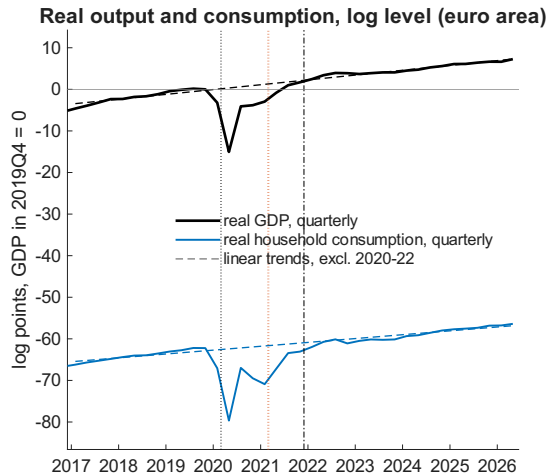
View of inflation dynamics 1997-2019

- Core inflation = anchored trend + small, transitory deviations
- Flat Phillips curve , little pass-through of supply shocks
- Hump-shaped/delayed response of inflation to monetary policy

κ small $\rightarrow$ inflation surge is mostly transitory supply shocks $\rightarrow$ look-through

Arguably, 1997-2019 lens provided different answers in real time

Real activity and inflation: euro area



Real time vintages

