

Discussion of

**Cast out the pure? Inflation and relative prices on
both sides of the Atlantic**

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*The content of these slides reflects the views of the authors and not necessarily those of the OeNB, ECB, or the Eurosystem.

Motivation

- What drives inflation – monetary forces or relative price shocks?
- In practice, the measure we target mixes:
 - Pure inflation (equiproportional effect on all prices), and
 - Relative price changes (sector-specific or temporary shifts).
- Bayesian dynamic factor model (based on Reis & Watson, 2010) to extract the pure inflation component.
- What caused the recent inflation surge? Relative price shocks (e.g., energy, supply chains) seem to have dominated recent inflation episodes.

Main findings

- The authors analyze the concept with different data and approaches: simulated data, disaggregated price data for the US and the euro area, impulse response analysis to sectoral and aggregate shocks.
- Over the past two decades, relative prices explain most of the variation in inflation – especially during the 2021-2022 inflation surge.
- Pure inflation was small and short-lived in both the US and the euro area.
 - In the euro area, large shifts in relative prices following pandemic and Russia's invasion explain as the most important drivers.
 - In the US, very expansive fiscal and monetary policy mix may have contributed to pure inflation.
- Policy implication: Relative price movements warrant policy attention.

→ very interesting and thought-provoking paper

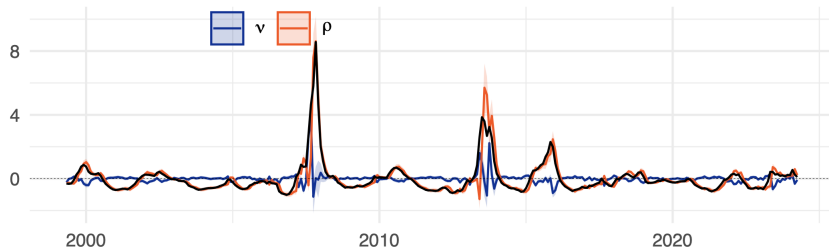
Comment 1: Concept of Pure Inflation

- Pure inflation is the component that moves all prices in the same direction, by the same amount, at the same time.
- Empirical feasibility as a challenge
 - Is the strict notion of “same direction, same size, same time” realistic in data with heterogeneous price rigidity?
 - Can the extracted pure inflation component truly reflect monetary inflation, or might it conflate persistent common relative price shifts?
- Signal from noise extraction
 - The model isolates co-movement across prices – similar in spirit to trend inflation or underlying inflation measures.
 - But: is there enough signal in the data to clearly separate this from sectoral trends?
 - Could alternative approaches (e.g., core inflation models) help validate or triangulate this component?

Comment 2: Results for Pure Inflation

- Pure inflation series in simulation exercise picks up some movement (e.g., in 2012) that it should not. How to interpret and think about this?

Figure 9: Evaluating the BDFM on simulated data

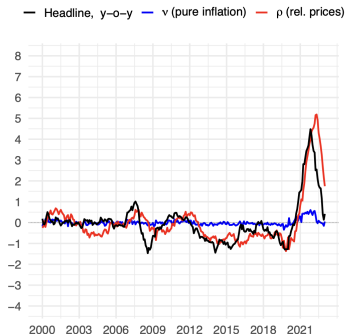


Comment 2: Results for Pure Inflation

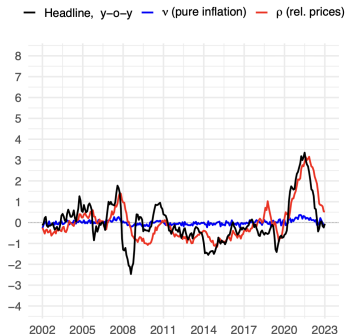
- In empirical data, pure inflation is small and sluggish. What does this imply for practical use of the measure?
- Pure inflation moves more for the euro area than for the US. This seems to be in contrast with the narrative in the paper:
 - “[...] inflation dynamics were driven primarily by relative price shocks [...] in the euro area, but the extremely expansionary policy mix in the United States might have also temporarily lifted pure inflation.”

Figure 10: Inflation decomposition $\pi_t = \nu_t + \rho_t + u_t$

(a) Euro area



(b) United States



Comment 2: Results for Pure Inflation

- Responses to aggregate and sectoral shocks:
 - Interpretation of pure inflation response from local projections is complicated by the fact that pure inflation is empirically muted.
 - Responses to both aggregate and sectoral shocks seem to be similar. Does this imply that relative price adjustments are of the same importance in both cases?
 - Monetary policy shocks seem to have no effect on pure inflation. Is this due to misspecification or weak identification, or does this imply that monetary policy had no measurable effect on pure inflation?

Takeaway and Suggestions

- Valuable and thought-provoking contribution in operationalizing an important economic concept.
- But, the “purity” of pure inflation may be fragile in practice.
- Implications for practical use of the measure.