

Micro and macro cost-price dynamics in normal times and during inflation surges

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In a nutshell*

- ▶ Theoretical **menu-cost** pricing model, combining various elements (free price adjustments, idiosyncratic shocks, strategic complementarities)
- ▶ **Empirical** analysis for BE manufacturing firms 1999-2023 (quarterly)
- ▶ Extensive and very detailed **micro-data** from various sources (producer prices, production costs, price adjustment frequencies)
- ▶ **Focus:** state-dependence, large shocks, price gaps, pass-through

⇒ *Impressive work, great data, well developed analysis, insightful.*

Novelty

- ▶ Derives closed-form pass-through **profiles**
 - ▶ Building on various models (Nakamura and Steinsson, 2010; Auclert et al., 2024)
- ▶ Adds **empirical** evidence for **state-dependent** pricing
 - ▶ Extending literature on inflationary episodes: historic (Gagnon, 2009; Wulfsberg, 2016; Nakamura et al., 2018; Alvarez et al., 2019) and the recent surge (Cavallo et al., 2024; Fadejeva et al., 2025; Gautier et al., 2025; Montag and Villar, 2025)
 - ▶ **Price gaps** directly estimated, using not only prices but also **production costs**
- ▶ **Novel identification** strategy (moments of the joint distribution, actual shocks)
- ▶ **Pass-through** both in detailed cross-sectional **and** aggregate time series

Price adjustments

- ▶ Price changes vs price **increases/decreases**
 - ▶ Could show in Table 1 and for GHF
- ▶ Price adjustments and frequency measured with **different** datasets
 - (a) Censor very small adjustments: $|\Delta p_{ft}| < 0.01$
 - (b) Calibrate frequencies: $I_{ft}^+ = 0 \iff \Delta p_{ft} < \kappa^+ \cdot \text{Var}_f(\Delta p_{ft})$ if $\Delta p_{ft} > 0$
 - ▶ Could ensure **consistency** bw (a) and (b)?
- ▶ 'Free price adjustments'
 - ▶ Does **censoring** affect estimation of a_0 ?
 - ▶ $\hat{a}_0 = 0.188$ seems a rather **large** probability (conceptually)
 - ▶ How should we think of these in practice? **Within-firm** product portfolios (complementarities)? Could explore in data?

Price gaps

- ▶ Strategic complementarities
 - ▶ Limited importance overall (as static $\approx$ dynamic reset price)?
 - ▶ How sensitive are price gaps to the choice of Ω ? Could extend Table 1 and Fig 5 with other values for $\Omega \in [0, 1)$.
- ▶ GHF: **freq.** of price adj. increases with the abs. value of **price gaps**
 - ▶ cf. Karadi et al. (2023), Gautier et al. (2025): similar V-shape
 - ▶ asymmetric (but note differing signs)
- ▶ Firms adjust prices such that price gaps are nearly **closed**
 - ▶ cf. Karadi et al. (2023) find also 1:1, Gautier et al. (2025) much less
 - ▶ note again differing signs (neg vs pos slope)

Model performance

- ▶ The calibrated model performs well, can closely **track** short-run dynamics in inflation and – to an extent – freq. of price adjustments
 - ▶ Why large deviations in 2012-2019 (Fig 15c)?
 - ▶ cf. differences bw pre- and post-pandemic averages (Table 1)
- ▶ In a Calvo setup, the model explains **only** about 2/3 of the post-pandemic inflation surge
 - ▶ cf. Karadi et al. (2023): SD (vs Calvo) increases price-level flexibility by 1/3
 - ▶ Is that little (for such a simplistic approach)?

State dependence

- ▶ Presence vs **extent** of state dependence
 - ▶ cf. Alvarez et al. (2016), Karadi et al. (2023): kurtosis, GHF slope parameter
- ▶ If Calvo an extreme case, then should we *still* think about a **dichotomy** of state-dependent vs time-dependent pricing?
- ▶ 'Selection effect' **increases** the degree of **monetary neutrality** and **amplifies aggregate inflation**
 - ▶ cf. Karadi et al. (2024): price misalignment increases the probability of price adj., but no selection *in response* to aggregate shocks