Coarse Pricing Policies

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Highlights

1. Very interesting empirical facts
   ▶ Heterogeneity in pricing plans (single, one-to-flex, multiple)
     ✓ Extends notion of heterogeneity beyond frequency / dispersion
     ✓ Joint analysis of regular and transitory price changes
   ▶ Plans identified as regime changes in the price distribution
     ✓ More general than filters that identify regular from temporary changes

2. Derives new theoretical results and “nests” previous papers
   ▶ Discrete policy w/asymmetric objective and Gaussian shocks
   ▶ Two dimensions for mistakes: review (timing) and pricing (size)
   ▶ Two types of info choice: flow (precision) and lumpy (observe state)
   ▶ Type of plan is defined by fundamentals (volatility, competition)
Some (missing) links to related literature

- **Exogenous coarse pricing plans**
  1. Álvarez & Lippi ('15): menu costs + binary price plans
     - Pay menu cost to adjust price plan $\mathcal{P} = \{p_L, p_H\}$
     - Choose $p \in \mathcal{P}$ costlessly
     - Sales are complex contingent contracts set in advance
     - Temporary discounts “conceal” price increases

- **New implications obtained by endogenizing the info choice?**
  ✓ Policy type changes with fundamentals
    ▶ Suggestion: Compare exogenous vs. endogenous policies
      - How is monetary non-neutrality affected by endogenous info choice?
      - Proportion of $\{SPP, OFP, MPP\}$ affect non-neutrality
Use micro price statistics to discriminate across theories

- **Hazard rate of price adjustment in the time dimension**

  \[ h(\tau) = Prob(\text{adjust at date } \tau \mid \text{no adjustment until } \tau) \]

  - Calvo: constant hazard, standard menu cost: increasing hazard
  - Data: decreasing!

- **Decreasing hazards in menu costs models:**
  - learning: Baley & Blanco ('16)
  - experimentation: Bachmann & Moscarini ('12), Argente & Yeh ('16)
  - binary price plans: Álvarez & Lippi ('15)

- **What does your info choice model imply for this hazard rate?**
  - Difference between price change hazard and policy change hazard
  - My intuition: indifference within support implies decreasing hazard
Further connection between model and data

- **Testable model implications:**
  
  larger competition and volatility $\Rightarrow$ higher incentives to acquire info  
  $\Rightarrow$ higher complexity in policies $\Rightarrow$ responsiveness to shocks

- **Do more competitive/volatile sectors feature:**
  
  i) a larger proportion of MPP types vs. SPP types (complexity)?
  
  ii) larger passthrough of nominal shocks (responsiveness)?

- **Explore heterogeneity across sectors or retailer type**
Heterogeneity by retailer type

- Weekly CPI data from Mexico
- Frequency vs. size or price changes
Specific questions and suggestions

1. Are there switches across policy types in the data?

2. Is the greater adjustment during Great Recession coming from:
   i) extensive margin (switches from SP to MPP) or
   ii) intensive (finer price gris in MPP)?

3. Result on monetary non-neutrality and idiosyncratic volatility
   - Compute the area under the impulse response, seems smaller for higher volatility

4. Joint calibration of the proportion of \( \{SPP, OFP, MPP\} \) in the data through different idiosyncratic volatilities