Discussion of "New information and inflation expectations among firms"

by Serafín Frache and Rodrigo Lluberas

9th Bank for International Settlements
Consultative Council for the Americas Research Conference

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What this paper does

Analyze unique panel dataset on inflation expectations of firms in Uruguay.

Key empirical patterns:

- Firms in Uruguay update expectations infrequently.
- Forecast errors are persistent — on average and at the firm level.
- Firms revise inflation expectations and make smaller forecast errors in months when they are required to adjust wages.

Patterns interpreted as evidence of information frictions.

What I really like about this paper

New aspects of the data:

- Quantitative data on expectations of firms (not professional forecasters or households).
- Economy with high and variable inflation.

Novel forms of evidence on information frictions.

- Especially the exogenous variation in firms' incentive to acquire information.

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- Especially the exogenous variation in firms' incentive to acquire information.

Would have liked to see the paper push harder on testing across theories.

Theoretical context

Some competing theories of expectations formation:

1. Common information rational expectations.
2. Exogenous noisy private signals.
3. Noisy private signals with endogenous variance (rational inattention a la Sims).
4. Infrequent private updating (sticky information a la Mankiw/Reis).

(1) clearly does not describe the heterogenous expectations found in the Uruguayan data.

(2) predicts everything (if we allow arbitrary relationships between signal timing/variance and observables) **or nothing** (if we assume signals are i.i.d. across firms).

Can we distinguish between (3) and (4)?

Do these data fit a rational inattention model?

Key predictions of a Sims-style model:

- Agents with higher benefit from accurate expectations will form more accurate expectations.
- Agents with lower cost of processing information will form more accurate expectations.
- Agents update expectations constantly.

Consistent with **lower accuracy at smaller firms** and **greater accuracy in month of wage reset** . . .

. . .but not with observed **infrequent updating.**

Do these data fit a sticky information model?

Key prediction of a Mankiw/Reis-style model:

- Agents update infrequently, but form rational expectations when they update.

Consistent with **infrequent updating** but not much else.

Might need a hybrid model — sticky information plus information-processing constraints — to describe these data.

What else could you look at?

Paper shows four separate, interesting patterns:

- Inflation expectations correlated with cost expectations at the firm level.
- Firms that adjust wages form more accurate inflation expectations.
- Firms that adjust wages do not revise cost expectations.
- Small firms have more accurate expectations.

How do these patterns relate?

- Do cost expectations have less predictive power for inflation expectations in the month when wages adjust?
- What are the temporal patterns of updating of cost vs. inflation expectations?
- Do small and large firms change inflation expectations differently when wages adjust?

Can you say more about the Uruguayan context?

Level and volatility of CPI vary substantially over the time period studied.

Questions this made me wonder about:

- How do frequency of updating, cross-firm patterns, etc., change with level and volatility of CPI?
- What do different theories predict about this?

Looking at how patterns change as CPI changes may help **extrapolate to other economic environments** and **test theories**.

Helpful to estimate a **hazard model** for expectations adjustment as function of economic context, firm-level data, and their interaction?

Conclusion

Very interesting new findings on how Uruguayan firms update their inflation expectations.

To enhance contribution, can you say more about:

- How findings line up with predictions of different information-friction theories.
- How empirical patterns vary with the economic context.

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