Discussion of Unit Cost Expectations and Uncertainty: Firms' Perspectives on Inflation by Brent Meyer and Simon Sheng

> Olivier Coibion September 2022

WHAT THE PAPER DOES:

"We propose a proxy for the inflation expectations of firms based on aggregating own-firm probabilistic unit cost expectations."

They argue this is better than surveys of "aggregate" inflation expectations because:

- Firms are more informed about their own costs than about aggregate prices and costs matter more for their pricing decisions.
- Information about aggregate inflation or uncertainty has little to no effect on firms' unit cost expectations.
- Their measure better predicts inflation.

WHAT I TOOK AWAY:

"We propose a proxy for the inflation expectations of firms based on aggregating own-firm probabilistic unit cost expectations."

Their measure is NOT a proxy for inflation expectations of firms.

They argue this is better than surveys of "aggregate" inflation expectations because:

• Firms are more informed about their own costs than about aggregate prices and costs matter more for their pricing decisions.

Absolutely. The survey is therefore very interesting and useful.

• Information about aggregate inflation or uncertainty has little to no effect on firms' unit cost expectations.

I don't think this tells us much.

• Their measure better predicts inflation.

It doesn't seem to do so.

WHAT THE SURVEY MEASURES

The survey measures firms' expectations about their own unit costs changes over the next 12 months. These expectations:

- help predict subsequent firms' subsequent price changes, both qualitatively and quantitatively,
- have zero forecast errors on average, and
- contribute to broader movement of measuring firms' expectations about their own decisions/outcomes (e.g. Altig et al. 2022).

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A few practical limitations to the survey:

- somewhat small and only regional
- very few questions beyond unit costs, why not prices directly?
- unit cost question ill-designed for high inflation, high uncertainty.

but still very interesting and useful set of expectations.

WHAT IS A PROXY?

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"in place of an unobservable or immeasurable variable ...": Inflation expectations of firms are measured directly (and since 2018) by the Survey of Firms' Inflation Expectations (*SoFIE*) currently run by the Federal Reserve Bank of Cleveland.

Firms' inflation expectations are both measurable and observable.



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- *"it must have a close correlation":* Meyer and Sheng (2022) find $\rho(\pi_i^e, uc_i^e) \approx 0$ Kumar et al. (2015) find $\rho(\pi_i^e, uc_i^e) \approx 0$

"...in the minds of business decision makers the concept of "overall prices" is unrelated to expectations of future unit costs."

The time series correlation between aggregate inflation expectations and own unit cost expectations is limited.



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Firms' own unit cost expectations are *not* a proxy for aggregate inflation expectations!

OWN-COST EXPECTATIONS ARE WORTHY ON THEIR OWN!

As the authors emphasize, it is worthwhile studying firms' unit cost expectations because:

- They should intrinsically be tied to pricing decisions
- Firms are very well-informed about their costs
- The Atlanta Fed measures both first and second moments of unit cost expectations
- Measures of costs can potentially help separate supply/demand shocks

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There is no need to go down the rabbit hole of arguing that they are a proxy for firms' aggregate inflation expectations. They are not. The two are conceptually distinct measures and should be viewed as such.

THE CATCH 22: BIE AND UNIT COST EXPECTATIONS

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- \rightarrow inflation expectations of firms are important
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Instead, paper tries to have it both ways and contradicts itself:

 \rightarrow inflation expectations are important so we want to measure them. But not directly because those expectations are not important. Instead, we need a proxy for inflation expectations but one that's uncorrelated with them...

MICRO VS MACRO EXPECTATIONS

This paper contributes to a broader literature that focuses on firms' expectations about their own choices/outcomes. Since firms are well-informed about these, is there any value to aggregate expectations? Meyer and Sheng argue no.

3 reasons why aggregate expectations are important to measure:

- 1. Inattention \neq irrelevance
- 2. Macro expectations matter above and beyond micro expectations
- 3. They can have additional value for prediction

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• CGR (2020) show that when randomly selected Italian firms are repeatedly provided with information about inflation, they act on that information and ultimately make higher profits than firms who were not provided with that information. CGK (2018) similarly find that exogenous variation in firms' inflation expectations affects their employment and investment decisions.

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- CGW (2022) shows that when randomly selected households are provided with information about inflation, this leads them to change their inflation expectations and thereafter their spending changes for months.

MACRO EXPECTATIONS MATTER BEYOND MICRO

In CGGKW (2021) and KGC (2022), households and firms respectively are randomly provided with information about first and/or second moments of aggregate GDP growth. This provides exogenous variation in their first and second moment beliefs, which can be used to study effects of uncertainty on spending (for households) and pricing/employment/investment (for firms).

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Information treatments have large effects on macro expectations and very small effects on micro expectations. The resulting effects on the decisions of agents are driven first and foremost by changes in their macroeconomic expectations.

There is likely an important role for both micro and macro expectations! Measuring and understanding both should be a focus of surveys.

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WHY DOES BIE FORECAST DO SO BADLY POST-COVID?

The question design induces answers close to 2% and is ill-suited for periods when prices changes are higher than normal:

"Projecting ahead, to the best of your ability, please assign a percent likelihood to the following changes to UNIT COSTS over the next twelve months:

- Unit costs down (less than -1%)
- Unit costs unchanged (-1% to 1%)
- Unit costs up somewhat (1.1 to 3%)
- Unit costs up significantly (3.1% to 5%)
- Unit costs up very significantly (more than 5%)"

<u>Better solution</u>: point forecasts or bin questions as proposed by Brent in different paper (Altig et al. 2020)

SUMMARY

The authors study firms' expectations about their own future unit costs from the Atlanta Fed's BIE. This is an interesting survey and the expectations speak directly to firms' expected price changes. This in turn has predictive power for inflation. The paper does an excellent job of making these points.

These expectations are conceptually distinct from firms' inflation expectations and look nothing like them in practice. It should be made clearer that the two are different objects.

More generally, as surveys of both micro and macro expectations become prevalent, it is becoming increasingly important to be precise about what one is measuring. But both can play an important role in helping us understand what drives the decisions of agents.