Discussion of "*No Firm Is an Island? How Industry Conditions Shape Firms' Expectations*" by Philippe Andrade, Olivier Coibion, Erwan Gautier and Yuriy Gorodnichenko

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The views in this presentation are mine and do not necessarily reflect those of the Bank of Canada.

Outline of the discussion

1. About the ACGG paper
2. A roadmap to the broader research agenda
3. Implications for Central Banks' research

1 About the ACGG paper

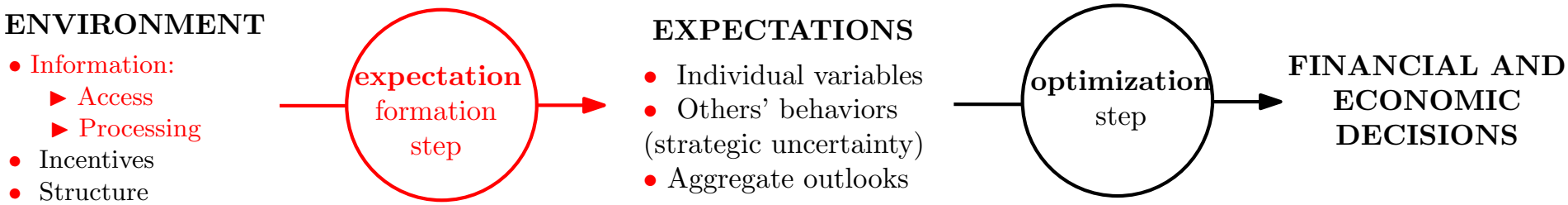
2 A roadmap to the broader research agenda

3 Implications for Central Banks' research

What the ACGG paper does

The paper in a nutshell

- **A rich set of panel data**:
  - 2,500 representative medium to large-size firms in the French manufacturing sector, 30 years.
  - *Company-specific* and *industry-wide* expectations.
  - Simple framing of the questions, high response rates and sophisticated firms ⇒ *high quality* of self-reported data.
- **Main take-away**: firms wrongly treat industry-specific information as relevant for aggregate outlooks ⇒ **information friction**:



- **Robust**, incl. to transmission delays in the economy.

What the ACGG paper does

Interpretations and Questions

Q1 Effect of **industry-specific** shocks on aggregate expectations:

→ why does this specific violation of the FIRE model matter relative to other documented ones?

Q2 What is the relative size of this 'generalization' bias?

Q3 Empirical back-up for theories of nominal frictions (**'island' models** [Lucas, 1972] and **rational inattention**):

→ The shocks perceived by the firms are not identified: **why** do their inflation expectations correlate with industry-specific inflation?

→ **noise** (information *access*) or **confusion** (*processing*)?

Q4 Explanation of the **heterogeneity** of firms' aggregate expectations:

→ Is the cross-sectional dispersion (disagreement) higher **between-** than **within-industry**?

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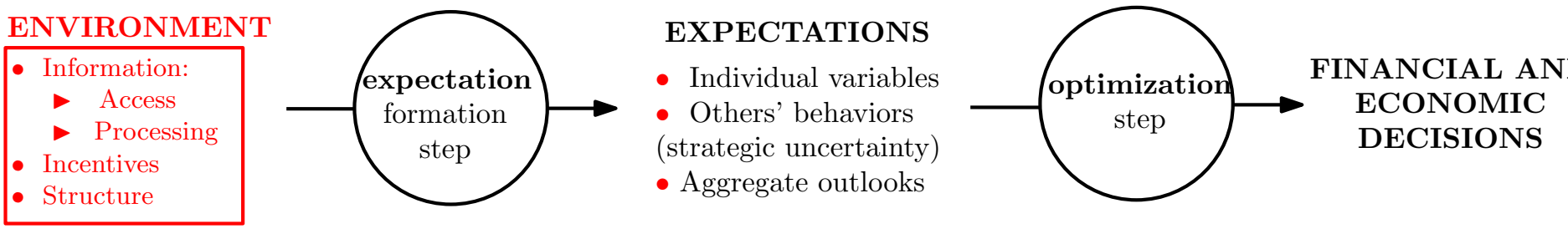
A roadmap to the broader research agenda

The '**survey** route' (Coibion and Gorodnichenko [2012] and follow-up papers)

- Using empirical (micro) data on **expectations** and behaviors:



- **Survey** data of households and firms (+ RCT experiments):

  i) expectations formation;

  ii) expectations ⇒ decisions;

  iii) disciplining theoretical models.

\+ High degree of **external validity**: repeated, large-scale, real-world.

? **Control**: information, incentives, structure.

A roadmap to the broader research agenda

The ' **laboratory** route'

- A lab experiment consists in observing behaviors of people in a **controlled** environment.
- A macro experiment tests the predictions of a macroeconomic model or its **assumptions** [Duffy, 2016].

- A *learning-to-forecast experiment* tests their **expectations** component.
  - Management of expectations in IT regimes and at the ELB.
  - Real-world expectations are hard to observe.
  - Expectations are **policy-dependent**: survey data are prone to confounding factors.

How a lab experiment could complement the ACGG paper

Within an 'island' lab economy

- **Control on the fundamentals**: Specification of local shocks that exactly cancel out at the aggregate.
- **Control on the incentives**: Elicit point expectations or probability distributions and set the corresponding payoff.
- **Control on the information set**: instructions and GUI.
- **Hyp.**: subjects who experience local inflationary shocks have higher aggregate price expectations. If so:

  → **By how much?**

  → **Why?** by ruling out noise by design, is it confusion?
  by varying their payoff, is it rational inattention? cognitive biases?

  → **What does it depend on?** (shocks, market structure, etc.)

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How can lab experiments be insightful for CB research?

Lab experiments are **complementary** to survey studies

1. Improve our models for forecasting and policy simulations:
   → Test expectation theories
   → Collect **'clean' data** on expectations.
2. Gain understanding of the observed economic dynamics.
3. The lab allows for **systematic** policy analysis:
   → Large-scaled, *in-vivo* macro experiments difficult, unethical.
   → Smaller-scale and easier to implement than survey experiments.
   → A '**wind tunnel**' for policies : **theories that have no explanatory power in the stylized lab environment unlikely to apply to the much more complex real economies.**
   → **back to ACGG**: mitigate the friction?

Examples of how experiments can inform CB research

- **Communication**: FG puzzle [Baeriswyl et al., 2021].
- **Design of 'make-up' strategies**:

  $\rightarrow$ In theory, their merits depend on how we model expectations.

  $\rightarrow$ Model-consistent vs. real-world expectations.

  Ex. 1 State-dependent targets fail to drive expectations up because people need to **'see it to believe it'** [Arifovic and Petersen, 2017].

  Ex. 2 AIT entails more volatility than IT because people **cannot average up** inflation across time and **fail to integrate the correct amount of lags** in their expectations [Salle, 2021].

  $\rightarrow$ Shed light on survey results [Coibion et al., 2020].

- Many other pressing issues, e.g. UMPs (QE versus YCC), tapering, the real effect of expected inflation [Jiang et al., 2021], whether the public understands why CBs are seeking higher inflation.

Thanks a lot again for your attention

and the invitation!

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