

Discussion of
“*The Macroeconomic Expectations of Firms*”
by Candia, Coibion and Gorodnichenko

2021 Bank of Canada Annual Economic Conference

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November 2021

Contributions

1. Very important topic
2. A great overview guide to the surveys available
 - Tables 1 and 2
3. Highlights the dearth of good data to understand this issue better
 - Norway, Hungary, Uruguay, and Ukraine do well
 - Survey of Firm Inflation Expectations (SoFIE) in US is good but new
 - Italy and New Zealand honorable mention
4. 5 key facts and some exercises using firm expectations

Summary

Raises a lot of important questions

Brilliant Summary Resource

Table 1. Selected Surveys and Firms' Inflation Expectations

Country	Institution	Respondents	Price Definition	Sampling	Freq.	Start date	Bins	Horizon	Question
Canada	Conf. Board of Canada	Firms	Prices in general	Convenience	Quarterly	1993	9	6 months	Do you expect prices, in general, in Canada to increase over the next six months at an annual rate of
Canada	Central bank	Firms	Inflation (CPI)	Quota	Quarterly	1997	4	2 years	Over the next two years, what do you expect the annual rate of inflation to be, based on the consumer price index?
Colombia	Central bank	Firms	Inflation (CPI)	Quota	Quarterly	2000	open	3, 6 and 9 months, 1 and 2 years	The last month, the annual inflation rate was equal to X%. What do you expect the annual inflation rate to be at the end of: (also range with max and min value)
Colombia	Delgado, Herreno, Hofstetter and Pedemonte (2021)	Firms	Inflation (CPI)	Representative (Mnf.; retail)	Monthly	2019	open	1 year	By what percentage do you think the economy's prices, as measured by the Consumer Price Index (CPI), will increase, or decrease in Colombia over the next 12 months?
Czech Republic	Central bank	Firms	Inflation (CPI)	Representative	Quarterly	1999	open	1 and 3 years	What year-on-year consumer price change in per cent do you expect in the next 12 months?
EU Members	European Commission	Firms	Prices for consumers	Probabilistic sample	Monthly	1985	(up/down/same)	1 year	By what percentage would you say that prices will increase for the consumer in the next 12 months?
Hungary	Central bank	Firms	Inflation (CPI)	Representative	Quarterly	2007	open	1 year	During the next 12 months, do you think that prices in general will go up, or go down, or stay where they are now? By how many percent do you expect consumer prices to go up/down in the next 12 months?
Iceland	Central bank	Firms	Inflation	Convenience	Quarterly	2003	open	1, 2 and 5 years	What do you think inflation will measure over the next twelve months?
Iran	Central bank	Mnf. Firms, >100 workers	Inflation	Probabilistic Sample	Quarterly	2016	open	1 year	What do you think the [yearly] inflation will be during the next year?
Israel	Ungar and Zilberfarb (1993)	Firms	Inflation (CPI)	Representative	Quarterly	1980	open	1-4 quarters	The cumulative inflation rate (not monthly average), in %, which is expected for the following periods is as follows: The next 12 months
Italy	Central bank	Firms	Inflation	Probabilistic sample	Quarterly	1999	open	1 year	The last [month] consumer price inflation, measured by the 12-month change in the harmonized index of consumer prices was equal to [IT] in Italy and to [EA] in the euro area. What do you think it will be in Italy.
Jamaica	Central bank	Firms	Inflation (CPI)	n.a.	Bimonthly	2012	open	1 year	What do you expect the rate of inflation to be over the next 12 months?
Japan	Central bank	Firms	Prices in general (CPI)	Probabilistic sample	Quarterly	2014	10	1, 3, and 5 years	What are your institution's expectations of the annual % change in general prices (as measured by the CPI) for one year ahead, three years ahead, and five years ahead, respectively?
New Zealand	Central bank	Firms and professionals	Inflation (CPI)	Convenience	Quarterly	1987	open	1, 2, 5 and 10 years	What annual % change do you expect in the CPI for the:
New Zealand	ANZ Economics	Firms	Inflation (CPI)	Representative	Monthly	1983	open	1 year	What do you think the annual Inflation Rate (as measured by the Consumer Price Index) will be in 12 months' time?
Norway	Central bank	Firms, >20 workers	Inflation (CPI)	Representative	Quarterly	2002	open	1 and 2 years	What do you think the general rise in prices for goods and services will be in 12 months and 2 years, measured by the 12-month change in the CPI.
Poland	Central bank	Firms	Prices	Sector representation	Quarterly	2008	5	1 year	In ... (month with the latest data is available) of the current year, the CPI inflation was equal to x% in annual terms. In the enterprise's opinion, during the next 12 months prices:
Serbia	Central bank	Firms	Inflation (CPI)	Random	Monthly	2009	open	1 and 2 years	c stands for current month. What year-on-year rate of inflation do you expect in c+12 (consumer prices growth in c+12 relative to c)?
South Africa	Central bank	Firms and consumers	Inflation (CPI)	Convenience	Quarterly	2000	open	Current+following 2 years and, 5 years	What do you expect the average headline inflation rate (as measured by the % change in the CPI) to be during the year
Sweden	Central bank	Firms with >200 workers	Inflation (CPI)	Random	Quarterly	2000	open	1 year	n.a.
UK	Confed. of British Industry	Firms	Prices of competition	Convenience	Quarterly	2008	4	1 year	What has been the % change over the past 12 months in the general level of output prices in the UK markets that your firm competes in, and what is expected to occur over the next twelve months?
Ukraine	Central bank	Firms	Inflation	Random	Quarterly	2006	8	1 year	How do you think the level of consumer prices will change in the next 12 months?
USA	Livingston, Philly Fed	Large Firms	Inflation (CPI)	Convenience	Semi-Annual	1946	open	1 year	n.a.
USA	SoFIE	Firms	Inflation (CPI)	Representative	Quarterly	2018	open	1 and 5 years	What do you think will be the inflation rate (for the Consumer Price Index) over the next 12 months? Please provide an answer in an annual percentage rate.
Uruguay	Central bank	Firms	Inflation (CPI)	Representative	Monthly	2009	open	Current year, 1 and 2 years	What do you believe is going to be the change in the CPI?
Uruguay	Deloitte	Firms	Inflation CPI	Non-probability	Biannual	2010	open	Current and following year, 3 or 4 years	What do you expect the rate of inflation to be during the year:
Turkey	Central Bank	Manufacturing Firms	Inflation (PPI)	Sector representation	Monthly	1987	open	1 year	What is your expectation for inflation (producer prices) rate over the next 12 months (as an annual percentage)?

Five Facts

Fact 1

“the macroeconomic expectations of firms typically differ from those of both households and professional forecasters.”

- π^e of firms, households & professional forecasters can differ markedly

Question 1

Do the different π definitions explain the differences? Professional forecasters definitely know what is in CPI but do others?

- *For Japan, and other countries, guidance may help to constrain their concept of inflation?*
- *Not an argument for these types of anchoring but rather more detailed description of what inflation is.*

Five Facts

Fact 2

“there is pervasive disagreement among firms about macroeconomic conditions.”

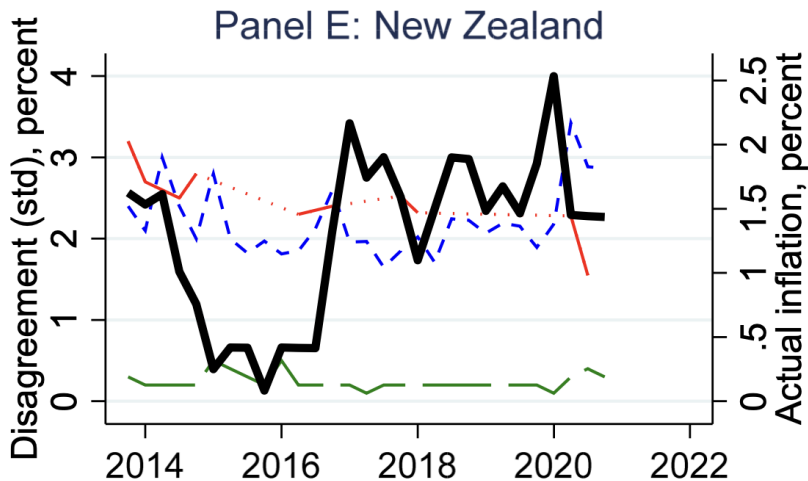
Question 2

How much confidence is there in the differences?

e.g. what if two people held uniform beliefs between 1% and 3% and just selected a point expectation randomly within this?

How important is the distinction between disagreement and distribution?

Should we worry more about the lack of professional disagreement?



Five Facts

Fact 3

“high correlation between firms’ long-run and short-run inflation expectations.”

⇒ how well-anchored are agents’ expectations? And do we need to worry especially about firms?

Question 3

- *Is it more surprising (worrying?) how much the professional forecasters have this correlation?*
- *Need to understand how much it is driven by conditional shocks.*

Five Facts

Fact 4

“Inattention to inflation target”

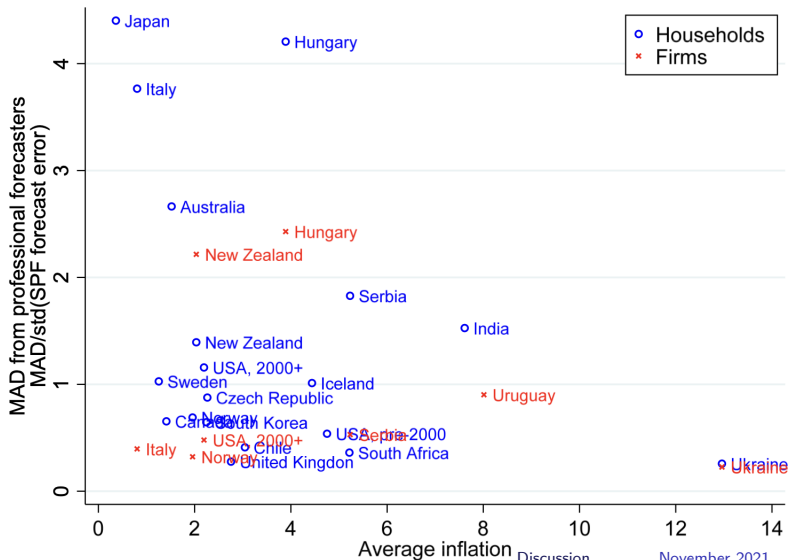
Question 4

Reason to cheer?

- *Greenspan \Rightarrow price stability is when “expected changes in the average price level are small enough and gradual enough that they do not materially enter business and household decisions.”*
- *Blinder \Rightarrow price stability is when “ordinary people stop talking and worrying about inflation”.*
- New Zealand (long time π -target) is a bit better - 60% correct
- Uruguay a lot more attention over US - 70%

Firm Inattention

Figure 7. Inattention and Average Inflation.



Five Facts

Fact 5

“firms seem to form distributions across macroeconomic variables jointly. In other words, revisions in their beliefs about one macroeconomic variable are generally correlated with their revisions in beliefs about other macroeconomic variables.”

Question 5

But what can we read into these results? I would like to see more on this. “However, there is much to learn about how they form these views.”

Communication Revolutions

Questions that guided central banks' communication strategies

Until 1990s

“Do we communicate this?”

1990s → GFC \equiv 1st Revolution

“Why wouldn't we communicate this?”

Now \equiv 2nd Revolution

“How should we communicate this in a way that engages a broader cross-section of society?”

- Blinder 2008: “It may be time to pay some attention to communication with the general public.”
- 2018: “Central banks will keep trying to communicate with the general public, as they should. But for the most part, they will fail.”

Policymaker Lessons/ Questions about Communication Strategy from this paper

Question 6

1. *Does it mean that central banks should target communication more at firms / business owners than households?*
2. *Does the same type of communication target both?*
 - *Contextualisation needs to change?*

Does the distribution matter?

They ask

Do Firms' Macroeconomic Expectations Matter?

Does the distribution matter?

They ask

Do Firms' Macroeconomic Expectations Matter?

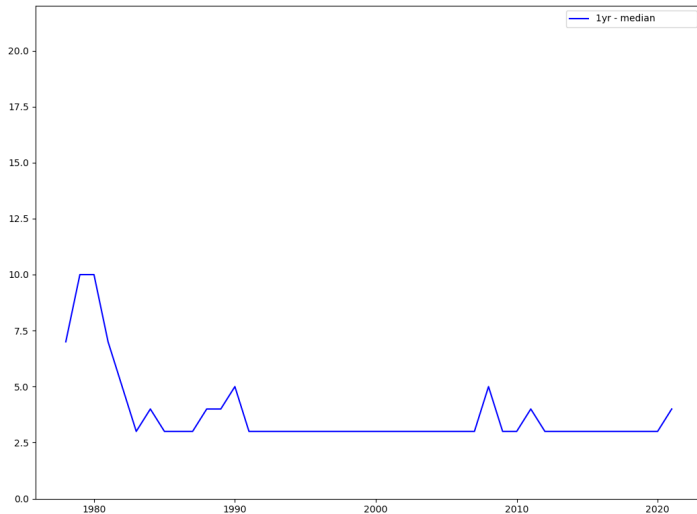
Question 7

Related questions which I am interested in:*

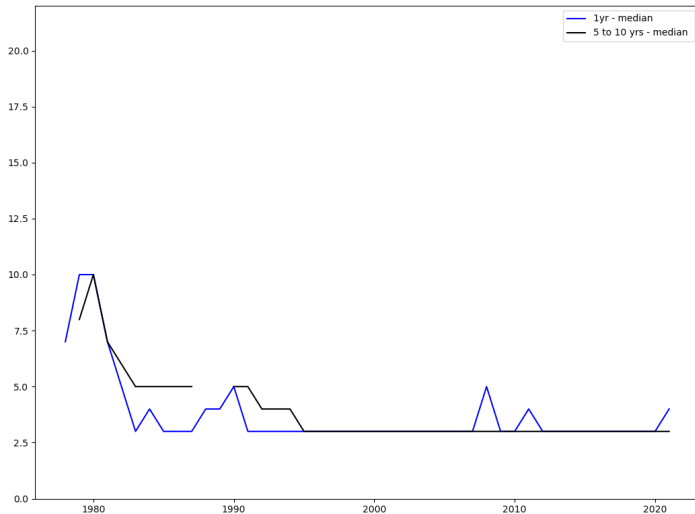
1. *Does a distribution of π^e matter?*
2. *And does the reason it might matter differ for firms and households?*

**Shameless plug for some work in progress of mine with Delia Macaluso*

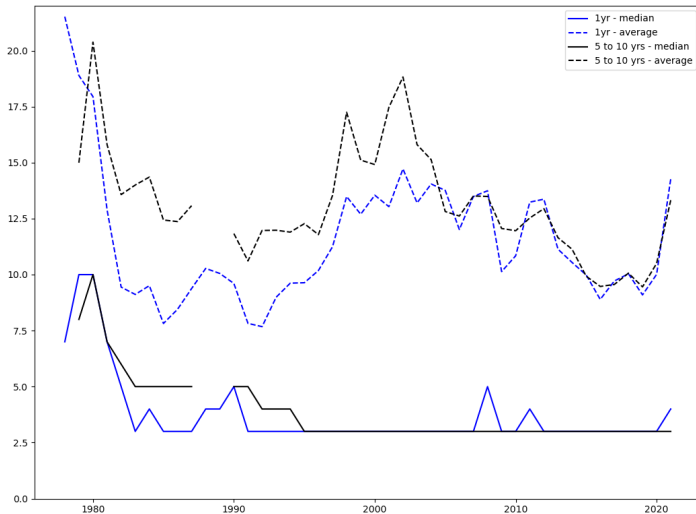
Trends in expectations of inflation



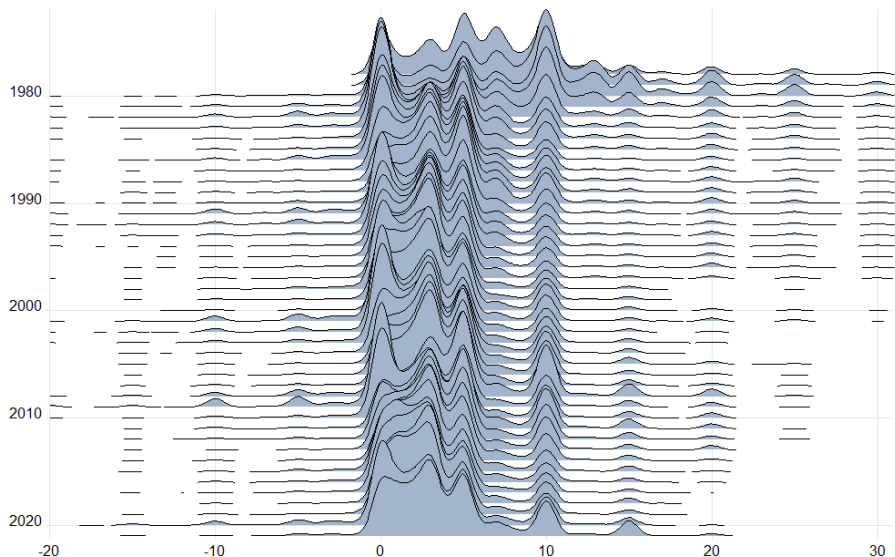
Trends in expectations of inflation



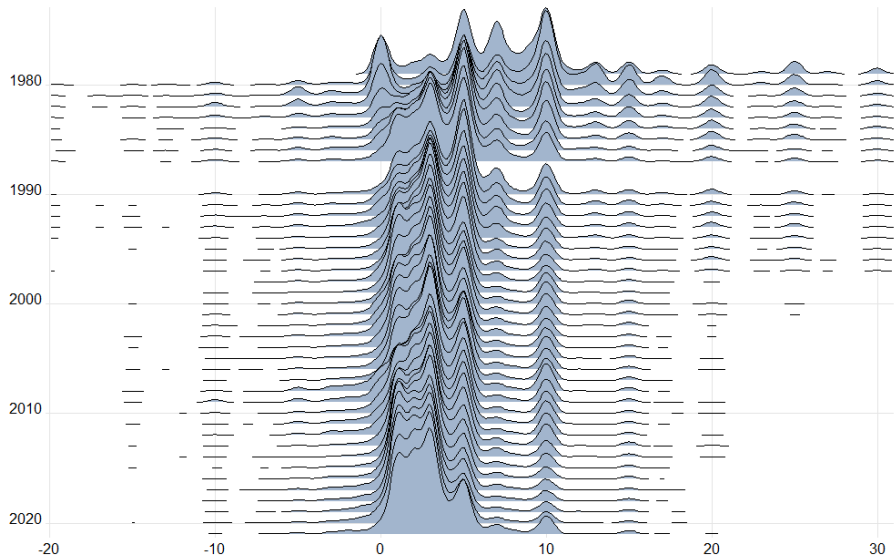
Trends in expectations of inflation



Expected changes in prices (% pts) - year ahead



Expected changes in prices (% pts) - 5 to 10 years



Can compositional differences explain dispersion?

Controlling for wealth, investment, age, sex, and education

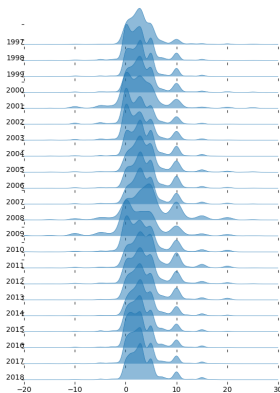


Figure: 1Y ahead, raw

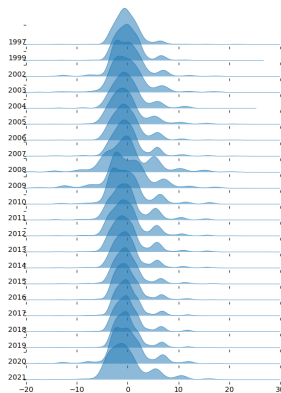


Figure: 1Y ahead, net

Potential channels

- Intertemporal substitution
⇒ adjust consumption decisions to the expected real rate
- Labour-leisure tradeoff
⇒ e.g. through the reservation wage in a search model
- Optimal production decisions
⇒ through price setting behaviour directly, or optimal adjustments
- Others ?

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