The effect of macroeconomic uncertainty on household spending

Olivier Coibion, Dimitris Georgarakos, Yuriy Gorodnichenko, Geoff Kenny, and Michael Weber

Discussion by Jeanne Commault

Summary

Main question :

- How does the uncertainty about future income affect people's consumption ?
- Speaks to literature on the effect of macro uncertainty
- The authors' results also speak to the household finance literature (precautionary saving, 'saving on a rainy day' effect) $\Rightarrow$ validates at least qualitatively these channels

Overall :

- Important question
- Clear point
- Adapted methodology

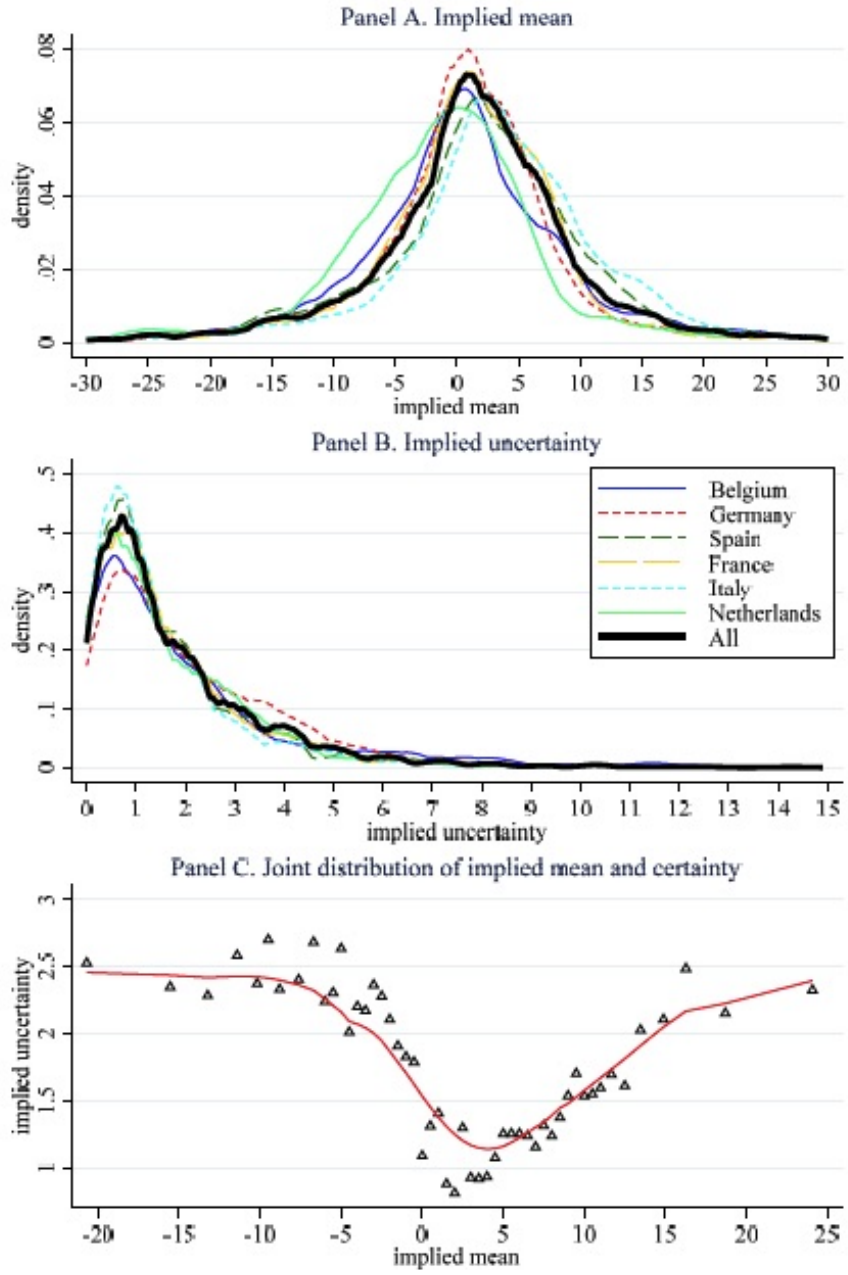
What the authors do

- RCT in which they expose respondents to different pieces of information about professional forecasts of growth in the Euro Area over the next 12 months (mean and max diff between forecasters)
- Elicit people's distributions of growth in the Euro Area and show that this treatment affects the first and second moments of these distributions
- Use this exogenous variation to examine separately the effects of these first and second moments on people's spending

Results :

- A one point decrease in uncertainty (the standard deviation of an individual distribution) about growth raises monthly nondurable spending by 3%/5%
- More so among people in the sectors exposed to covid +
- Uncertainty also affects the composition of spending + decrease in uncertainty raises spending on durables, investment in mutual funds and crypto

Comment 1 : What is uncertainty ?



Comment 1 : What is uncertainty ?

- Uncertainty = standard deviation of people's individual distribution, based on reports of lowest, (medium), highest expected growth rate
  $\Rightarrow$ uncertainty of 4 $\approx$ 10% gap between lowest and highest
- Uncertainty is highest among people giving extreme values
- Is it possible that people with very large uncertainty have actually little notion of what the typical growth rates are ?
- Could explain
  - Why informing of the average growth rate only has a large effect on what people answer as lowest and highest possible
  - Why a decrease in the mean expected growth rate can raise consumption
  - Part of the large $\neq$ between high-risk sector and low-risk sectors (which correlate with $\neq$ in education)
    high risk= agriculture, manufacturing, construction, trade, transportation, hotels, bars, restaurants, arts or entertainment
    low-risk=information/communication services, administrative services, public administration, education, and health sector

Comment 2 : Choice of the instrument

- Usefulness of the instrument is to remove any correlation between consumption and uncertainty coming from characteristics affecting both consumption and uncertainty :

$$c = \alpha u + \beta z$$
$$u = \gamma + \delta z$$
$$\frac{cov(c,u)}{var(u)} = \alpha \frac{var(u)}{var(u)} + \underbrace{\beta \delta \frac{var(z)}{var(u)}}_{\text{bias}}$$

- Exogenous treatment :

$$c = \alpha u + \beta z$$
$$u = \gamma + \delta z + treat * (1 + \kappa z)$$
$$\frac{cov(c,treat)}{cov(u,treat)} = \alpha \frac{cov(u,treat)}{cov(u,treat)}$$

Comment 2 : Choice of the instrument

- What the authors do :

$$\frac{cov(c, treat * (1+\kappa z))}{cov(u, treat * (1+\kappa z)))} = \alpha \frac{cov(u, treat * (1+\kappa z))}{cov(u, treat * (1+\kappa z))} + \beta \frac{cov(z, treat * \kappa z)}{cov(u, treat * (1+\kappa z))}$$

- However, authors control linearly for z when looking at the instrumented effect of uncertainty, which should reduce this effect !
- Might be a problem if people who have a high prior uncertainty (those who reduce their reported uncertainty upon treatment) also have a high spending in September 2020
- Check if you see an effect on spending in August 2020 (before treatment) ?

Comment 3 : Positive effect of prior uncertainty

- Prior uncertainty correlates positively with people's consumption

	One month after treatment		
	All countries	South IT/ES	North FR/DE/BE/NL
	(1)	(2)	(3)
Posterior: mean	-0.75	0.05	-1.10
	(0.55)	(0.91)	(0.74)
Posterior: uncertainty	-4.88**	-6.60*	-3.56
	(2.18)	(3.80)	(2.66)
Prior: mean	-0.08	-0.11	-0.17
	(0.27)	(0.37)	(0.37)
Prior: uncertainty	2.78***	3.05*	2.34**
	(0.95)	(1.69)	(1.14)

- Validates the choice of an exogenous variation ! (since the effect of posterior 'exogenous' uncertainty is opposite)
- But also consistent with people with a high prior uncertainty (who respond strongly to the treatment) also having a high consumption, which might bias results

Comment 4 : Exploiting timing of the take up

- Treatment takes place when people answer the survey
- 'The monthly CES data collection period typically opens on the first Thursday of the month and closes on the first Tuesday of the following month. [...] Around 70% of the responses are usually completed within the first ten days of the data collection period.'
- First Thursday of September 2020 is the 3rd -> 70% of people treated between the 3rd and the 13th, 30% after the 13th
- Use this margin to test that your result is indeed the effect of the treatment (and not other correlation) ? Effect stronger for those who take the survey early on ?

Comment 3 : Positive effect of prior uncertainty