

# Financial Crises & Fluctuations in Uncertainty

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# Uncertainty and business cycles

Nice paper about uncertainty and business cycles

- ▶ I wish I'd had time to read it

Facts about risk in recessions

- ▶ Fact 1: Risk spreads go up
- ▶ Fact 2: Cross-sectional dispersion goes up

Questions

- ▶ Is uncertainty central to business cycles?
- ▶ Uncertainty about what?
- ▶ Can uncertainty account for “wedges”?

# Uncertainty and business cycles

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- ▶ Good issue, interesting focus on financial frictions

Facts about risk in recessions

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- ▶ Is uncertainty central to business cycles?
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# Approach 1 (Gourio)

Representative agent business cycle model with

- ▶ Stochastic variation in uncertainty (aggregate productivity)
- ▶ Magnified by recursive preferences
- ▶ Smooth technology

Increases in uncertainty generate

- ▶ Increases in risk spreads (fact 1)
- ▶ Declines in investment, employment, and output
- ▶ Wedge in f.o.c. for investment

Open issues

- ▶ No heterogeneity of households or firms (silent on fact 2)
- ▶ No labor wedge
- ▶ Uncertainty is an input, not explained

# Approach 2 (Bloom)

## Firm's investment problem

- ▶ Stochastic variation in uncertainty (micro and macro)
- ▶ Nonconvex investment technology
- ▶ Partial equilibrium, uncertainty not priced

## Increases in uncertainty generate

- ▶ Declines in aggregate investment, employment, and productivity
- ▶ Increases in micro dispersion? (fact 2)

## Open issues

- ▶ No risk spreads (silent on fact 1)
- ▶ No labor wedge — no consumers to have a foc
- ▶ Uncertainty is an input, not explained

# Approach 3 (Arellano-Bai-Kehoe)

Business cycle model with

- ▶ Stochastic variation in uncertainty (micro)
- ▶ Heterogeneous firms face financial frictions
- ▶ Smooth technology, no capital
- ▶ Representative household

Increases in uncertainty generate

- ▶ Declines in aggregate employment and output
- ▶ Larger labor wedge (reflects financial frictions)

Open issues

- ▶ Wider corporate risk spreads? (fact 1)
- ▶ Increases in micro dispersion? (fact 2)
- ▶ Uncertainty is an input, not explained

# Questions

Does micro uncertainty generate macro uncertainty?

Chapter 11? Conglomerates?

Can micro uncertainty be an output? [Clementi-Palazzo]

Why the odd interest rate response?

Would partial equilibrium deliver some of this at lower cost?

# Partial list of related work

## Cyclical behavior of asset returns

- ▶ Ang-Piassezi-Wei, Atkeson-Kehoe, Campbell-Cochrane, Fama-French, Gilchrist-Zakrajsek, Mueller, Backus-Routledge-Zin

## Cyclical behavior of cross-section dispersion

- ▶ Lillien, Loungani, Storesletten-Telmer-Yaron

## Business cycle models with uncertainty shocks

- ▶ Gourio, Justiano-Primiceri

## Firm dynamics and business cycles

- ▶ Bloom, Clementi-Palazzo, Cooley-Quadrini-Marimon