

Discussion: Identifying Preference for Early Resolution from Asset Prices

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Background

- Utility is the cornerstone of economic and financial theory, but it is very hard to provide direct evidence without lab experiment
 - Example: $IES < 1$ or > 1 ?
 - Example: preference of early or late resolution of uncertainty?

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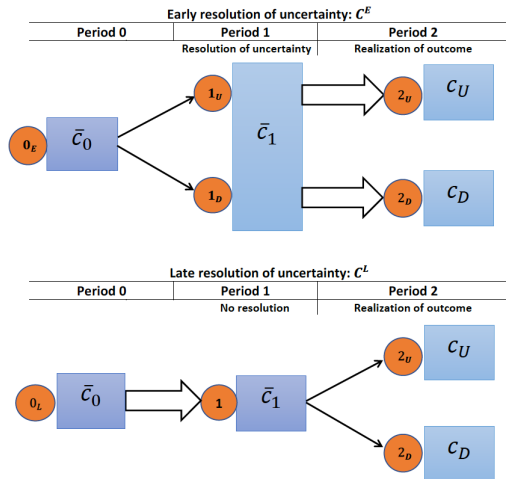
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 - Example: preference of early or late resolution of uncertainty?
- Asset price data can be informative about preference properties
 - A long-run risk model requires $IES > 1$ and preference of early resolution of uncertainty to match the equity market facts

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- Asset price data can be informative about preference properties
 - A long-run risk model requires $IES > 1$ and preference of early resolution of uncertainty to match the equity market facts
- Limitation
 - The evidence is highly model dependent and thus indirect
- This paper provides a model-free methodology to test preference of **early/late** resolution of uncertainty and show empirical results

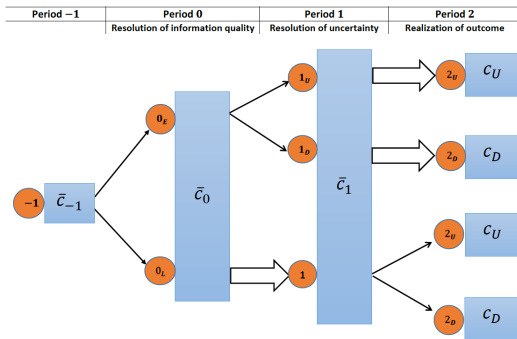
Preference for Early/Late Resolution of Uncertainty

Figure 1: **Early and late resolution of uncertainty**



This Paper: Is Early Resolution Good or Bad?

Figure 2: Resolution of information quality



- If 0_E is good, then any asset whose payoff is higher in state 0_E should earn positive risk premium
- Period-0 state measured by information precision

This Paper: Empirical Design and Results

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- Choice of asset: claim to volatility with short maturity
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- Information period: 5 weekdays before announcement
- Empirical result
 - The asset chosen has higher risk premium during the information period than an average day
 - Indicating preference of early resolution of uncertainty

Overall Assessment

- A great paper, very smart idea
- An excellent example on how asset price data are informative about economic fundamentals (preference in this paper)
 - Along the research agenda by Ai and Bansal (2018)
- Very careful empirical implementation
- Clear exposition, easy to follow (despite highly theoretical) , lots of examples and discussions

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- Empirics: 0_E is proxied by signals of an informed announcement
- Though seemingly straightforward, I would like to see a formal proof of the equivalence

An Illustration

$$\Delta y_{t+1} = \mu_t + \sigma_y \varepsilon_{y,t+1}$$

where μ_t is unobserved and follows

$$\mu_t = \rho_\mu \mu_{t-1} + \sigma_\mu \varepsilon_{\mu,t}$$

s_t is a signal of the expected growth

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- Concern: signal precision affects both posterior volatility and mean
- Should be fine if prior is not systematically biased
- But would be good see a formal proof

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- This paper: VIX drop across announcement is due to macro uncertainty resolution
 - Other reasons: change of risk appetite, especially institutional investors
 - Much evidence on monetary policy's risk-taking effect (Borio and Zhu, 2012; Agrippino and Rey, 2020), which may endogenously increase VIX without changing perceived consumption growth uncertainty

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 - Other announcements, like inflation, employment?

Comment #3 Heterogeneity (1): Heterogeneity Preference

- This paper assumes a representative agent
- To what extent this result applies to a setting with heterogeneous agents and complete market
 - CRRA: simple aggregation into a CRRA rep agent (Huang, 1985)
 - Recursive utility: less trivial (Dumas, Uppal and Wang, 2000)
 - More general utility: Does preference of early resolution of uncertainty aggregate across heterogeneous agents?

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- Disagreement is pervasive before policy announcement
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- Alternative: the resolution of disagreement, instead of the resolution of uncertainty, drives the VIX reduction
- Conceptually, disagreement and uncertainty are different
- They are linked in a particular way (Dumas, Kirshev and Uppal 2009)
 - Two agents agree to disagree on how to interpret signals
 - If high disagreement implies high VIX and consumption growth uncertainty, the result is generalized to a setting with disagreement

Conclusion

- Smart design and solid empirical analysis
- Show direct evidence of preference of early resolution of uncertainty
- An excellent example of asset prices informative on primitives
- Comments
 - Equivalent between PER and happy with precise signal
 - What leads to VIX reduction across announcement
 - Generalization to a setting with heterogeneity: Heterogeneous preference and heterogeneous belief