Discussion of "Factor and stock-specific disagreement and trading flows" by Grigoris, Heyerdahl-Larsen, and Kantak

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Why do we care?

- investor disagreement is an important ingredient in many models of financial markets
  - hard to generate a lot of volume in rational expectations models $\Rightarrow$ investors "agree-to-disagree"
  - behavioral finance models to explain overvaluation and bubbles
  - in survey data, financial analysts, professional forecasters, investors, disagree

- new theoretical and empirical insights on the asset pricing implications of stock-level disagreement and *factor-level* disagreement

Overview of the theory

N assets, *J* agents

$$D_{n,t} = D_{n,0} E_t e^{z_t + \epsilon_{n,t}}$$
$$dz_t = \mu_z dt + \sigma_z dw_{z,t}$$
$$d\epsilon_{n,t} = \mu_n dt + \sigma_n dw_{n,t}$$

factor disagreement: $dw_{z,t}^j = dw_{z,t} - \Delta_z^j s_t dt$

stock disagreement: $dw_{n,t}^j = dw_{n,t} - \Delta_n^j (1 - s_t) dt$

$$s_t = \frac{1}{1 + e^{-\delta_t}}, \quad \text{where} \quad \delta_t = \kappa_t(\bar{\delta} - \delta_t) dt + \sigma_\delta dw_{\delta,t}$$

(is "total" disagreement constant when $\sigma_z \neq \sigma_n$?)

Theory: intuition

one pessimist and one optimist

- one stock: positive return $\Rightarrow$ optimist becomes wealthier $\Rightarrow$ optimist's beliefs more important to price the asset $\Rightarrow$ asset price goes up further

- many stocks and random beliefs: stock disagreement does not matter (atomistic exposures)

- factor disagreement $\approx$ one-stock case

- as factor disagreement increases ($s_t \rightarrow 1$)
    - agents' rebalance: more *absolute* exposure to factor (i.e., to stocks aligned with the factor)
    - volatility amplification effect kicks in: higher factor volatility due to increased correlation among stocks in the factor

This discussion

1. Disagreement and indexing

2. Mapping the theory to the data

#1 Are we testing disagreement theories or indexing theories?

- the theory is fundamentally about disagreement (no ETF); the empirical part is tightly related to indexing
- *Data:* ETFs induce "excess" volatility and co-movement among basket stocks
- in a standard AP model with indexing (Davies (2022)), "the appropriate null" features **return co-movement**, **differences in volatility**, and an **indexing risk premium**
- larger ETFs flows $\Rightarrow$ higher volatility and correlation

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- this paper *shows* that ETF *net* flows are positively associated with factor disagreement (Table 2)
- $\Rightarrow$ does disagreement or indexing (or both) drives the volatility and correlation results?

How to disentangle between indexing effects and disagreement effects?

some ideas:

- study cases with decrease in ETF ownership *and* greater ETF exposure (disagreement)

- use Russell reconstitutions: change in ETF ownership but no direct effect on disagreement

- consider the pre-indexing era and study market-level disagreement?

#2 Mapping the theory to the data

$$\text{trading}_{m,t} = \beta \quad \text{factor disagreement}_{m,t} + \text{controls} + \epsilon$$

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$$\text{trading}_{m,t} = \beta \quad \text{factor disagreement}_{m,t} + \text{controls} + \epsilon$$

- use ETF data to measure trading:

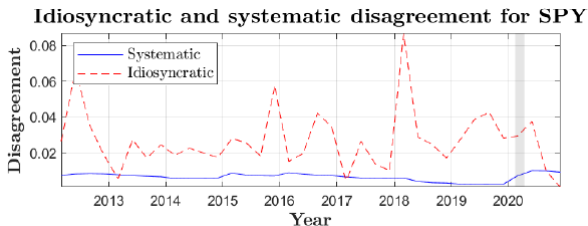$$\text{NFlow}_{m,t} = \frac{\sum_\tau \text{NetFlow}_{m,t,\tau}}{\sum_j \text{ME}_{m,j,t}}$$

$$\text{DRVol}_{m,t} = \frac{\sum_\tau \text{DVol}_{m,t,\tau}}{\sum_j \sum_\tau \text{DVol}_{m,j,t,\tau} - \sum_\tau \text{NetFlow}_{m,t,\tau}}$$

- why NFlow and not |NFlow|? scaling and timing?
- short industry ETFs to hedge stock-specific bets (Huang, O'Hara, and Zhong (2021)): "long-the-stock/short-the-etf" $\Rightarrow$ increase in factor volume can pick up stock-level disagreement
- complementary measure: changes in exposure from 13F data for macro hedge funds? (but no short positions...)

#2 Mapping the theory to the data (2)

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earnings-based measures of disagreement: factor
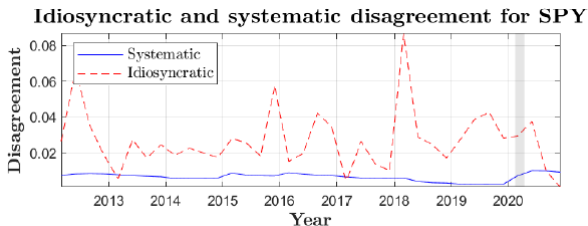disagreement = disagreement across brokers

Idiosyncratic and systematic disagreement for SPY

1. a big contribution could be to measure factor disagreement
   (prior work on measuring market-level disagreement?)

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Idiosyncratic and systematic disagreement for SPY

1. a big contribution could be to measure factor disagreement (prior work on measuring market-level disagreement?)
2. factor disagreement$_{m,t} \approx 1/$earnings forecast dispersion?
   - high dispersion, more stock picking, lower ETF volume

Final thoughts

- interesting paper with a strong theory and a great use of ETF data

- it would help to distinguish more sharply between disagreement effects and indexing effects

- studying factor disagreement is promising and a nice avenue for further work in my opinion
  - what drives fluctuations in factor disagreement?
  - to which extent disagreement about a specific stock is driven by disagreement about common factors?
  - in the theory, high disagreement, high expected return? can you test pricing implications?

- good luck with the paper!