

Discussion of “Common Fund Flows: Flow Hedging and Factor Pricing”

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► **Bottom line:** results should be of interest to profession and worth exploring further.

Comments and Questions

- ▶ Empirical part
- ▶ Theoretical part

Empirical Part Comments and Questions Outline

1. **More on primitive economic shocks** that drive CFFs (common fund flows).
2. **Flow betas v.s. betas for economic fundamentals** in the pricing of stock returns
3. **Equity characteristic anomaly portfolio** returns and common fund flows?

Q1: More on the Primitive Shocks

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 - ▶ Cox, Greenwald, and Ludvigson (2020), Gormsen and Koijen (2020): V shaped trajectory March to April 2020 driven by wild fluctuations in *pricing* of risk.
 - ▶ Some may be correlated with **COVID uncertainty shock**, but...
 - ▶ CGL: **Fed announcements about credit facilities** played a role in turnabout, but **very little credit extended** as of July 31, 2020. (Suggests substance less important than sentiment)

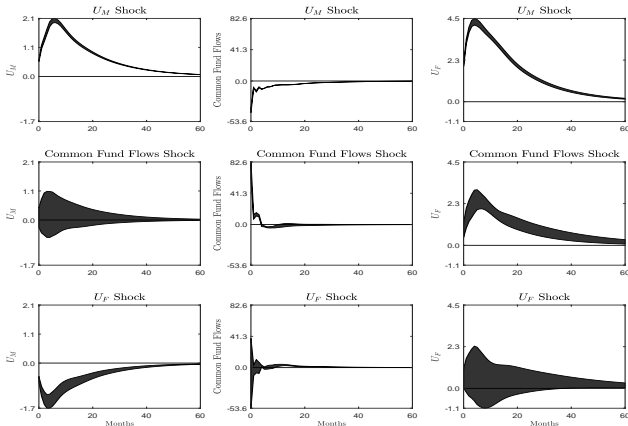
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- ▶ **Question of Causality:**
 - ▶ Does uncertainty cause fund flows or the other way around?
 - ▶ Funds hold 44% of US equity market => volatility in flows should cause stock market volatility (e.g., VIX, VXO, even EPU)
 - ▶ *Macroeconomic uncertainty* less obviously endogenous to fund flows.

Uncertainty and Fund Flows Cause and Effect

- ▶ 3 variable SVAR (U_M, CFF, U_F) identify causality without exogeneity assumptions

IRFs to Uncertainty and Fund Flow Shocks

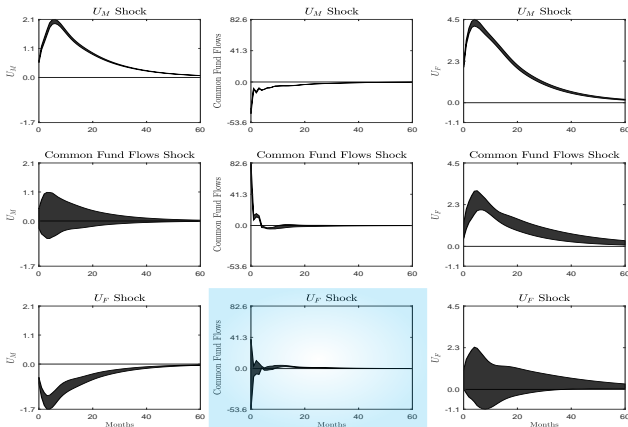


The figure reports identified set of impulse response to positive, one standard deviation shocks for system $X = (U_M, CFF, U_F)'$. The uncertainty measures are from [Jurado, Ludvigson, and Ng \(2015\)](#) and shocks identified using the approach of [Ludvigson, Ma, and Ng \(2019\)](#) based on event and external variable constraints. The sample spans the period 1991:02 to 2018:02.

Uncertainty and Fund Flows Cause and Effect

- High U_F doesn't cause **fund outflows**

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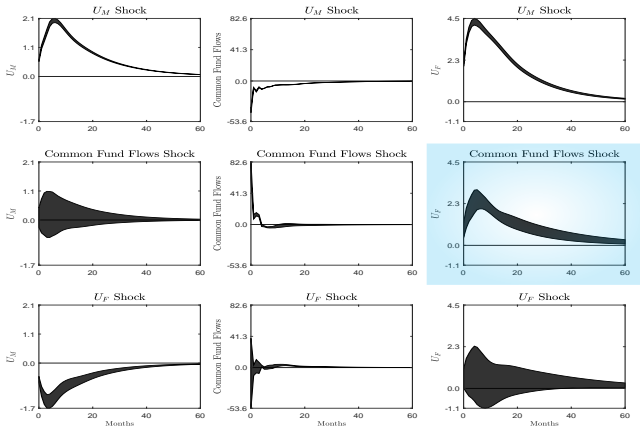


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Uncertainty and Fund Flows Cause and Effect

- High CFF (inflows) cause U_F with *positive* sign

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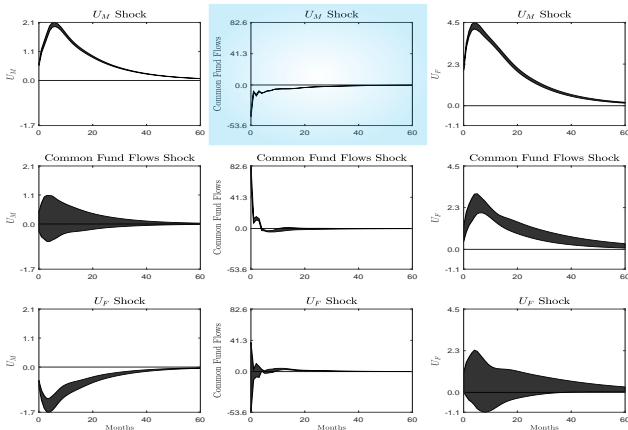


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Uncertainty and Fund Flows Cause and Effect

- High U_M does cause **fund outflows**—channel operates through *macro* uncertainty

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Q2: Flow Betas vs Betas for Economic primitives

On the marginal role of flow betas vs primitive betas

- ▶ In model, eq. AUM and h_t uncertainty or other primitive shocks *perfectly correlated*.
 1. Modulo non-linearities, **in the model**, flow betas and primitive betas should **drive each other out** in XS AP regressions. Wrong?
 2. **In reality** primitives **other than uncertainty** play a role, in which case an **extended model** \Rightarrow flow betas and uncertainty betas should *both be priced*. Wrong?
 3. Simulate model and run these regressions—to do 2 need augment model to allow for **at least two** mutually orthogonal primitive shocks.

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- ▶ **Table 5: In data, flow betas drive out primitive betas**, *seems* inconsistent with 1. or 2.
 - ▶ In number 1 (taking model literally): uncertainty and CFF betas should drive *each other* out
 - ▶ In number 2 (more realistic): both betas should be significant.
 - ▶ **Model's fundamental story**: whatever reason for CFFs, MFs try to hedge against it
 - ▶ Unclear why flow betas *only* are significant when uncertainty betas are included.
- ▶ Helpful to see simulations to answer whether this is correct, and if not why not.

Q3: Important for XS of Anomaly Portfolios?

Is XS of returns on *characteristic anomaly portfolios* explained by common fund flows?

- ▶ Puzzle that MFs don't tilt toward profitable return factors (e.g., book-market, etc.)
- ▶ DKW show common flow beta and BM ratio are imperfectly correlated \Rightarrow funds have incentive to tilt toward value stocks after controlling for β_{flow} .
- ▶ Doesn't address question of whether CFF exposure helps explain *e.g., value premium?*.
- ▶ More generally, how much of XS of equity-characteristics portfolio returns do flow betas explain?

Q3: How Important for XS of Anomaly Portfolios?

How much of XS of returns on *equity characteristic anomaly portfolios* explained by fund flows?

Expected Return-Beta Regressions: Equity Portfolios

$\mathbb{E} \left(R_{i,t}^e \right) = \lambda_0 + \lambda' \beta_i^{flow} + \epsilon_j$					
Estimates of Factor Risk Prices λ					
Common Fund Flows as Factor					
	Size-BM	Size-Inv	Size-Oper	Rev.	Total
Coeff	-0.06	-0.12	-0.25	-0.85	-0.12
$[t - Sh]$	-0.33	-0.58	-1.26	-0.98	-0.63

Fama-MacBeth regressions of average returns on factor betas. The table reports estimates of risk prices λ . All estimates are multiplied by 100. Shanken corrected t -stats are reported in square bracket. The sample spans the period 1990:02 to 2018:12.

Q3: How Important for XS of Anomaly Portfolios?

How much of XS of returns on *equity characteristic anomaly portfolios* explained by fund flows?

- Greater exposure to fund flows doesn't explain high-return anomaly portfolios

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Model Questions and Comments

What's the main purpose of the model?

- ▶ All theory results driven by fee structure proportional to AUM (itself a puzzle).
- ▶ Model not designed to explain *optimal* fee structure; instead take as given observed fee structure. OK.
- ▶ But once we take AUM fee structure as given, why do we need the model?
 - ▶ Empirical investigation would naturally flow from the simple observation on fees.
- ▶ Presumably model useful to show how empirical findings can obtain in GE, and explain pro-cyclical fund flow and counter-cyclical α .
 - ▶ But then specifics of the model matter \Rightarrow 2 questions

Q1: What of Poor Performance?

1. What about large body evidence showing poor performance?

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1. What about large body evidence showing poor performance?

- ▶ Preface: I'm not an expert on funds.
- ▶ Numerous studies: Actively managed MFs **in aggregate** provide investors lower avg returns than passive benchmarks.
- ▶ Not much discussion. Model presumes AMMFs **in aggregate** provide value to clients.
- ▶ DKW cite Berk and Green 2004
 - ▶ B&G focus on *cross section* of funds: those with good track records grow, those with bad shrink.
 - ▶ In reality, **aggregate** track record of AMMF poor.
- ▶ How to account for this in the model? Lean heavily on “non-pecuniary utility benefit” of active management?

Q2: How to Think About Value Added

2. Why is value added proportional to AUM? Payout to clients:

$$TP_t = \underbrace{\bar{\alpha}Q_t}_{\text{value added}} - \Psi(q_t)W_t - fQ_t$$

- ▶ Decreasing returns captured via costs $\Psi(\cdot)$.
- ▶ At industry level, are decreasing returns entirely the result of convex cost functions? Without it, we'd have *increasing* returns to scale due to specification of value added.
- ▶ [Pástor and Stambaugh \(2012\)](#): decreasing returns at industry level caused by more money chasing the same opportunities to outperform \Rightarrow prices are affected.
 - ▶ Better modeled with value added a constant $\bar{\alpha}$ or value added *decreasing in AUM* along with convex costs?
- ▶ Possibly doesn't matter. Would be nice to know what role (if any) this plays.

Conclusion

Bottom line:

1. Intriguing results
2. Contributions to our understanding of funds
3. Points to fruitful future work

- COX, J., D. GREENWALD, AND S. C. LUDVIGSON (2020): "What Explains the COVID-19 Stock Market?," National Bureau of Economic Research Working Paper No. 27784.
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APPENDIX