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Discussion of "Go In The Flow or Hide In The Tide" by Daniel Giamouridis

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Positionning of The Paper

Authors document the **informational content of brokers' flows** .

- Flow is at the core of the business of intermediation, and **intermediation** is **the main feature of the financial system** [Merton, 1995].
- Moreover, since the main fear of middlemen is **adverse selection** , they put a lot of efforts in processing (and de-noising) it. A typical toy model of this activity is [Kyle, 1985], and a more realistic is [Çetin and Danilova, 2015].

☞ To intermediate risk (i.e. provide liquidity to the buy-side) intermediaries are said to have less fundamental information, they hence try to "learn it" from the flow of their clients, and try to **price liquidity accordingly**.

"*Go In The Flow or Hide In The Tide*":

- Uses BoAML database of **daily metaorders** (i.e. clients' decisions) from Jan. 2014 to Jan 2017 (i.e. 36 months, 10% of market flow), split in **four types of clients**: Hedge Funds, Institutions, Retail, and ~~Brokers~~.

1. identifies a potential **causality of flows over (3) factors returns**
2. same for **causality of flows over the risk** of Axioma's factors,
3. Economic value is then tested via **stylized strategies** and computing their Sharpe Ratio.

What Do We Know About Flows And Price Moves?

Two different viewpoints: Price Discovery (pure information) vs. Price Formation (mechanical price-pressure only). They have been disentangled the last 10 years [Lehalle et al., 2013, Chap 3.2]:

- Price pressure **moves mechanically the price** a **square root way** (once renormalized by the usual traded volume), proportionally to the **volatility** (in three phases: first linearly, then a concave way, followed by a decay)
- Buy-side flows are **auto-correlated**, hence deconvolution is needed,
- After 10 to 15 days, the pure price pressure effect decayed [Koudijs, 2016].

The difficult point is to make the difference between two effects:

- Agents took the decision to buy because they have valuable information: the price will move anyway,
- Interactions of liquidity (typical "game with partial information" [Cardaliaguet and Lehalle, 2016]): the price move because of this.

$\Rightarrow$ It seems clear that these two effects are additive (cross-market impact effects are under investigation [Benzaquen et al., 2017]), and multiple-agents market impact too.

Up to now this type analysis has been conducted on: The metaorders of an **hedge fund** [Brokmann et al., 2015]; The metaorders of a **broker** [Bacry et al., 2015] (with a CAPM assumption); The metaorder of a **buy-side** [Bershova and Rakhlin, 2013]. "*Go In The Flow or Hide In The Tide*" can be seen as a paper in this direction, once again with metaorders of a broker, but going beyond CAPM (i.e. using Axioma factors model).

Commenting Results of the Paper: Influence of Flows on Returns and Risk

Keep in mind the flows are projected" on Axioma's factors (Momentum, Value, Low-σ). Flow imbalance is "z-scored".

Past flows on future returns,
factor by factor, $\times 10^{-4}$

Factor	1 day	1 week	1 month
Momentum	0.5	1.0	5.0
Value	-1.0	-5.0	10.0
Low-σ	0.5	0.1	5.0
Cst	1.0	10.0	50.0

Authors use lag=$(4T/100)^{2/9}$
and overlapping time windows (HAC t-stat)

Commenting Results of the Paper: Influence of Flows on Returns and Risk

Keep in mind the flows are projected" on Axioma's factors (Momentum, Value, Low-σ). Flow imbalance is "z-scored".

Past flows on future returns,
factor by factor, multiple agents, $\times 10^{-4}$

Factor	Agent	1 day	1 week	1 month
Momentum	HF	1.0	-1.0	5.0
	Inst.	-1.0	1.0	✳5.0
	Retail	1.0	1.0	-5.0
Value	HF	-1.0	5.0	✳10.0
	Instit.	-0.5	-1.0	10.0
	Retail	-1.0	-5.0	5.0
Low-σ	HF	-0.5	1.0	0.1
	Instit.	-0.0	1.0	5.0
	Retail	1.0	-1.0	✳5.0
Cst		0.0	0.0	0.0

Authors use lag=$(4T/100)^{2/9}$
and overlapping time windows (HAC t-stat)
Otherwise significant coef. are marked with ✳.

The +/- changes going from 1day to 1 month is probably **due to autocorrelations** that are not taken into account.

If I look at ✳ results, I read that:

- Institutional investors **push the momentum** (market impact effect?)
- Hedge Funds **implement mean reversion**
- Retail are **more risk averse** than the average agent.

Commenting Results of the Paper: Influence of Flows on Returns and Risk

Keep in mind the flows are projected" on Axioma's factors (Momentum, Value, Low-σ). Flow imbalance is "z-scored".

Past flows on future risk,
factor by factor, multiple agents, $\times 10^{-2}$

Factor	Agent	1 day	1 week	1 month
Momentum	HF			-0.0
	Inst.			-1
	Retail			1
Value	HF			0.5
	Instit.			-1.0
	Retail			1.0
Low-σ	HF			-0.5
	Instit.			-1.0
	Retail			0.1
Cst				500.0

Difficult for me to give a sense to these figures
Nevertheless, it is natural to look at **returns** and **risk**, before looking at Sharpe Ratios...

Measuring Economic Value Via Strategies

Authors put in place strategies based on their previous findings:

- Take the position on the factor(s) if and only if flows predict positive returns on it;
- According to me it is **very difficult to trust statistics** with so few observations (plus transaction costs?)
- Moreover, if agents put in place such a strategy, will/could it **change flows predicting power**?
- Nevertheless it is a **very good point to propose an economic understanding.**

To go in such a direction, I would go back to the origin of the question of flows

- Are there natural relationships between **trading flows and factors**? i.e. should trading correct the anomaly (one could expect Momentum to be easily generated by flows, where Value should be killed by them)
- Intermediaries are meant to price liquidity thanks to flows: is there a link between **flows predictability and trading costs** for all factors?

As a conclusion: long ago intermediaries used trading flows to protect themselves against adverse selection, today I have heard they are intermediating the information on their flows (i.e. selling statistic such the ones exposed in the paper). **What is the future of a business model when main agents are selling their competitive advantage to their clients?** Is it one more sign of the transformation of financial intermediation business?

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