Order Routing Inducements
It's Not Just PFOF We Should Worry About

By u/dlauer

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Due Diligence

I ranted on Twitter and figured I would copy it over to here. Happy to answer any questions on this.

Ok, it's time for some game theory. For real! Let's talk about the conflicts-of-interest at the heart of nearly all equity and option order routing today – rebates and payments. These inducements (that's an important word) influence how brokers route orders, both for retail and for institutions (e.g., pension plans, mutual funds, etc).

First of all, for retail, I think everyone understands that PFOF involves market makers paying brokers to send retail orders to them. Most of the time these are marketable orders. Limit orders are usually sent to exchanges. For example, here is Fidelity's order routing showing marketable orders going mostly to Citadel and Virtu, and non-marketable orders going to NYSE and Nasdaq. Non-marketable limit orders receive a rebate when they are sent to an exchange (between 18 – 30 mils on Fidelity's routing to NYSE and Nasdaq – 1 mil is $0.0001, so that's $0.18 - $0.30 per hundred shares).

July 2021

S&P 500 Stocks

Summary

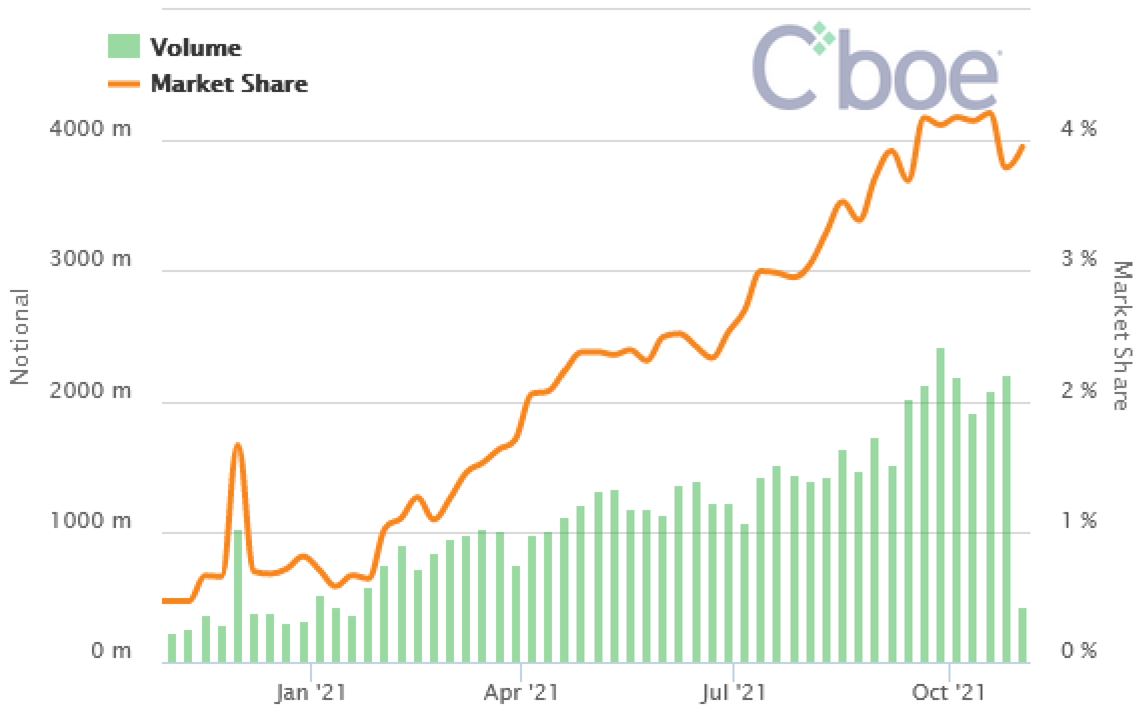
Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non-Directed Orders	Non-Marketable Limit Orders as % of Non-Directed Orders
98.65	54.64	5.22	34.97

Venues

Venue - Non-directed Order Flow	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non-Marketable Limit Orders (%)	Other Orders (%)	Net Payr Paid/Recei Mark Orders(U
New York Stock Exchange (NYSE)	25.94	0.00	4.45	42.84	0.01	
Citadel Securities LLC (CDRG)	23.17	49.98	47.62	11.70	13.89	
NASDAQ Execution Services, LLC (NSDQ)	19.73	0.01	3.92	32.54	0.10	
VIRTU Americas, LLC (NITE)	12.75	27.71	27.41	6.16	8.40	
National Financial Services LLC (XSTM)	7.37	0.00	0.00	0.00	72.36	
JANE STREET CAPITAL, LLC (JNST)	5.69	14.19	10.37	2.65	0.00	
Cboe EDGX US Equities Exchange (EDGX)	1.47	0.00	0.02	2.44	0.00	
Two Sigma Securities, LLC (SOHO)	1.39	3.45	2.53	0.65	0.02	
UBS Securities, LLC (UBSS)	1.04	2.10	1.64	0.48	1.35	

Institutional orders OTOH mostly execute in broker-owned dark pools or on exchanges. These too are often induced to go to the lowest-cost venue – executing in a broker's dark pool that is routing your order means the broker doesn't have to pay any fees. Executing limit orders on an exchange often means the broker collects the rebates (cost-plus routing is an option, but isn't as common as it should be).

So that brings us to MEMX. MEMX is a relatively new stock exchange, partially owned/funded by Citadel, Virtu, a couple of retail brokers and other financial firms. Their market share has been climbing throughout the year (recently crossing 4%), although only on a per-share basis – by total dollar volume they are still under 1%.



MEMX is a preferred destination for trading low-priced stocks in large quantities. Is this because of the superior execution quality that the exchange offers? Or is it because they pay the highest rebates of all exchanges, topping out at 31 - 37 mils?

But wait Dave – aren't access fees capped at 30 mils by Reg NMS?

Yes they are, and I'm impressed with your market structure knowledge. That means that no exchange can charge more than a 30 mil fee. So that means that MEMX is operating at a loss on those trades. How can they do this? Well they've got funding – they've raised $135M! So they can keep operating at a loss, and attracting order flow by paying the biggest kickbacks to brokers.

I'm talking about this for two reasons. First, it's easy to focus on PFOF when we should really be concerned about all order routing inducements. Exchanges paying rebates is almost as bad as wholesalers and PFOF.

Second, it's also easy to forget that we, the public, are subsidizing all of these exchanges, especially the ones that pay inducements. Paying these kickbacks results in more orders resting on the exchange, which nets them more of the SIP money that the public pays. SIP fees amount to over $300M that are given to exchanges, which is economic subsidization that keeps exchanges profitable even when their execution quality is shit.

Instead of an overly fragmented marketplace that is subsidized by the public and inducing orders to be routing for kickbacks instead of execution quality, we should try to create a simplified market structure without subsidization or kickbacks, where orders are routed for the best possible execution quality.

So back to game theory. This entire structure is a prisoner's dilemma that has led to a race to the bottom. When exchanges do the right thing by not paying rebates, they don't get market share. That's wrong and bad for markets.