Payment For Order Flow

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What is Payment for Order Flow

What is Retail Payment for Order Flow (PFOF)?

An agreement between retail brokers and wholesalers whereby the wholesaler makes a payment to the retail broker in exchange for the right to fill retail orders, with the fill at or better than the NBBO. These orders are often internalized at the wholesaler and printed off-exchange without ever being exposed to the market.

Who wins and who loses?

- **From the wholesaler's side**: they get the opportunity to trade against "uninformed" retail flow. This is much more attractive to them than trading against sophisticated hedge funds and other professional traders in the market.
- **From the retail broker's side**: retail brokers collect PFOF as a core source of revenue.
- **From the retail trader's side**: PFOF has allowed retail brokers to eliminate commissions for trading so retail can now trade for free, making the market more accessible to a wider group of people. Retail is also guaranteed a fast execution that is at or better than the NBBO.
- **For the rest of the market**: since trades are internalized and printed by the wholesaler, they are not accessible to the rest of the market[1]; their volume does not represent "liquidity" since it is largely inaccessible. Also, as is the case with all trades executed off-exchange and not displayed[2], the arrangement hurts price discovery and does not contribute to the NBBO.

PFOF defenders argue that retail has never had it better than they do now. Given that the SEC's mission is to protect the individual investor, where is the problem?

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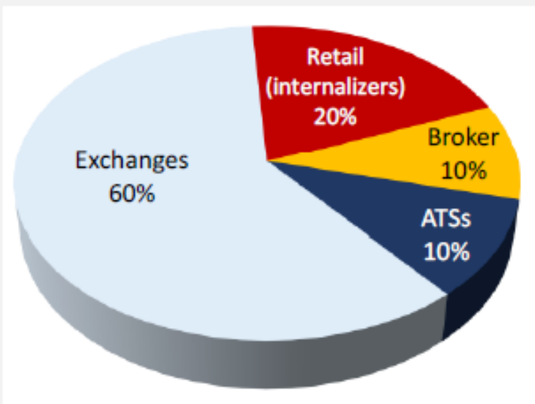
Why is it controversial?

There are two potential sources of **conflict of interest**:

1) The retail broker is incentivized to encourage users to trade more so the brokers can collect more payments for their flow, but many studies show that excessive trading hurts returns for retail investors.
2) The retail broker is incentivized to send flow to the wholesaler offering the highest payment, rather than making a routing decision solely on the basis of which wholesaler delivers Best Execution for clients.

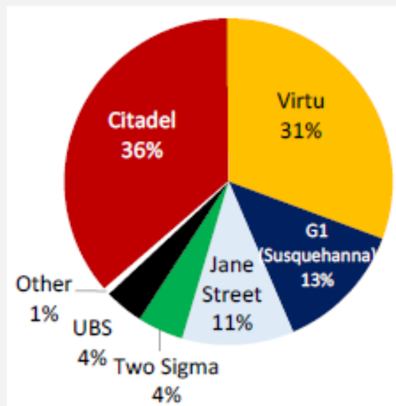
Gensler is also concerned by **the lack of competition in the wholesaler space.** In September 2021, he noted that only two firms accounted for almost 75% of the market, though that number has since come down. They respond that this is simply because they offer a superior service.

Breakdown of US Market Volume



Data for Dec 2021; Source: FINRA, CBOE, BofA Insight Quant Consulting

Wholesaler Market Share



Data for Dec 2021; Source: 605 reports

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What do PFOF defenders say?

1) This conflict exists, but a ban on PFOF would not eliminate this conflict, it would simply shift it. Retail brokers would likely start to charge commissions if PFOF were banned in order to replace lost income – but brokers would again be incentivized to encourage more trading in order to collect more commissions and increase revenue.

2) All wholesalers pay the *same PFOF rate* to retail brokers[3]. This means that routing decisions cannot be biased by PFOF payments. They must be based on who is providing superior service and Best Ex, as required by law[4]. More and better disclosures would make this point more clear.

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Payment for Order Flow vs Price Improvement

Retail brokers decide where to send their orders on the basis of who provides the Best Execution. While the exact formula will vary from broker to broker, it is mainly determined by the amount of PFOF and/or price improvement provided by the wholesaler.

If a broker does not accept PFOF, it will be determined almost entirely by who provides the most price improvement.

When brokers do accept PFOF, all wholesalers will pay the same PFOF rate to that retail broker (*see note 3*). So, wholesalers must then differentiate themselves based on the amount of price improvement provided, though it is often small compared to the PFOF rate (Fig 1).

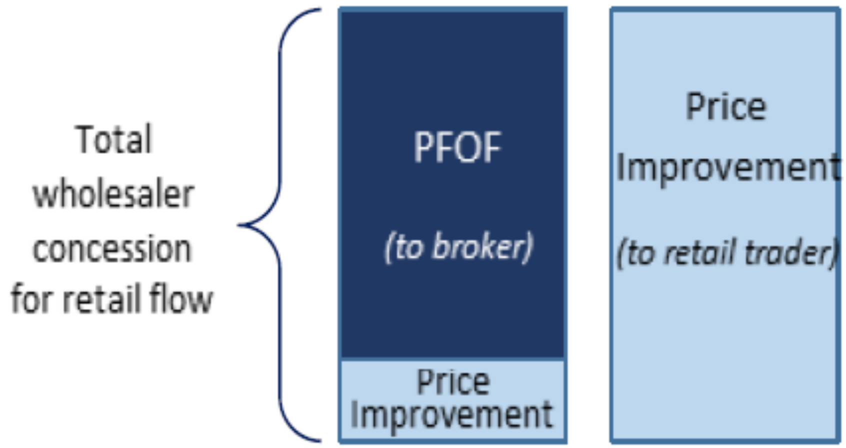

Fig 1: When brokers DO accept PFOF

Fig 2: When brokers DO NOT accept PFOF

For brokers who do *not* accept PFOF, wholesalers must compete solely on the grounds of the price improvement they provide (Fig 2). This is likely what would also happen if PFOF were banned: wholesalers would have to offer more price improvement – though they might then also widen spreads in order to offset the cost.

Note that PFOF tends to accrue to the retail broker who keeps the payment as revenue, whereas price improvement benefits the retail trader.

What are the alternatives to PFOF?

Many retail brokers do not accept PFOF at all[5]. Instead, wholesalers must compete for flow on the basis of price improvement[6] *(see illustration in box on page 5)*.

An important distinction between PFOF and price improvement is that PFOF is generally collected and kept by the retail broker whereas it is the investors who reap the benefits of price improvement.

Still, both methods mean that trades are internalized at wholesalers and printed off-exchange, which is one of Gensler's primary areas of concern (see page 2), and both methods have the same implications as far as being inaccessible to the rest of the market and not facilitating price discovery.

What effect would a ban on PFOF have?

- If PFOF were banned, retail brokers would likely start charging commissions again to make up for lost revenue[7]. The added cost to trade would likely discourage a good amount of retail trading, which is against the SEC's goal of making financial markets more accessible to a wider range of people as a potential source of wealth-creation.

- Less retail trading would also mean reduced market volumes, though it is questionable how much this would hurt liquidity, given that, as noted above, most of this volume is not accessible anyway (*see chart at right*). It is also worth noting that much of retail volume tends to be momentum-driven, increases volatility, and can cause prices to deviate from fundamentals.

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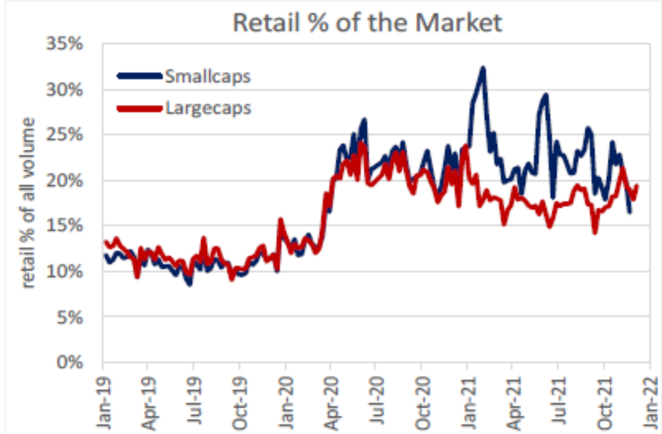
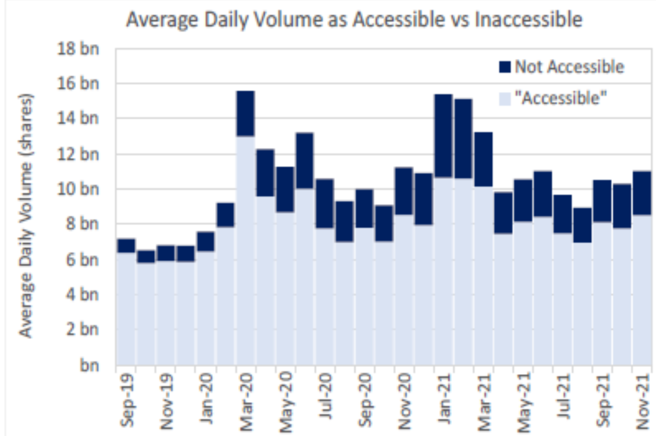
- Finally, eliminating PFOF might also cause bid-ask spreads to increase. Retail wholesalers are often the same market makers who set the NBBO *(see pie chart, page 3)*. If PFOF were banned, they would have to compete for order flow solely on the basis of price improvement. Price improvement is measured off of the NBBO, so there is an incentive to widen spreads to make price improvement look larger without actually giving up more.



Source: FINRA, BofA Insight Quant Consulting



Source: FINRA, Bloomberg, BofA Insight Quant Consulting

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Anything else worth noting?

1) The discussion around PFOF only applies to the *equities* market, not the options market. While PFOF absolutely exists in the options market – and in fact, the payments are worth significantly more than for equities – there are two reasons why PFOF in the options market has not attracted the same attention to date:
   - In the options market, wholesaler trades must be executed on exchanges, unlike in the equities market where they are internalized and printed off-exchanges.
   - The wholesaler market share in options is more evenly divided compared to equities wholesalers, where just two firms (Citadel and Virtu) command over half of the market *(pie chart page 3)*.

   Given that Gensler is primarily concerned with competition and segmentation off-exchange, his focus has centered on payment for *equities* order flow.

2) PFOF is already banned in some countries, including UK and Canada.

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Notes

[1]The portion that the wholesaler does not choose to internalize will then be accessible to other market participants. This is known as the "exhaust".

[2]It is important to also recognize that a significant portion of exchange trades are not displayed. These similarly do not contribute to price discovery and are not included in the calculation of the NBBO.

[3]Different retail brokers have different rates, but all wholesalers to the same retail broker will pay the same rate. Each retail broker creates their own rate schedule. Some payment rates are based on % of notional, some are a fixed mil rate per order, and some are based on % of spread. All wholesalers are given the same terms. PFOF agreements are not contractual – the retail broker sets their requirements and wholesalers can choose to participate or not.

[4]Note, though, that Robinhood was fined $65 million by the SEC in Dec 2020 for misrepresenting PFOF agreements to its users and for violating Best Ex requirements. It was also, separately, fined $70 million by FINRA in June 2021 for causing customers "widespread and significant harm".

[5]Including Merrill Lynch and Fidelity, among many others. Merrill Lynch does not take PFOF from third-party wholesalers.

[6]Strictly speaking, the routing decision is not based on who offers the most price improvement, it must be based on who offers the Best Execution. Each firm may use their own metrics to define Best Execution, as long as the criteria is clearly defined and justified. That said, the main criterion is often price improvement.

[7]They could also internalize orders themselves and keep the spread, which is what brokers do in countries where PFOF is already banned. It is quite challenging from a compliance perspective to undertake this business, however, so charging commissions is the more likely route.

[8] https://www.regcompliancewatch.com/peirce-seeks-better-disclosure-of-payment-for-order-flow/

[9]https://www.sec.gov/news/public-statement/peirce-roisman-staff-report-2021-10-18