

Dear Chairman Gensler, Commissioner Crenshaw, Commissioner Lizarraga, and SEC review staff:

Thank you for the opportunity to comment in support of proposed rule S7-32-22, 'Regulation Best Execution'.

Commissioner Peirce and Commissioner Uyeda:

Although you both said that you looked forward to reading public comments on the proposed rules, and then voted against opening them up for public comment, I hope you will nonetheless read the comments with an open mind and vote to adopt the rules.

I'd like to start by addressing execution quality in the equity market, and especially the execution quality between the lit and dark markets. There are (error-filled) studies that show that dark markets offer better price execution than lit markets, and this forms the basis for a lot of the defense of internalization and payment for order flow (PFOF) as legitimate execution options.

However, there is a very large shortcoming in most studies that look at price improvement and execution quality in equities: most studies use a sample set of hyper-liquid tick constrained stocks, or they use a large dataset where the aggregate volume is dominated by hyper-liquid tick constrained stocks.

Hyper-liquid tick constrained stocks trade in penny increments on lit exchanges, and in sub-penny increments on dark markets. These are different data populations and cannot be compared. The dark market structurally must have better prices because in hyper-liquid tick constrained stocks, dark execution occurs between the minimum tick size spread and in lit markets, it cannot. Thus, all those studies are heavily flawed as they compare different data populations as though they were the same.

Instead of using these flawed studies, I present a study¹ that allows for an apples-to-apples comparison of execution quality in the same names on both lit and dark markets. I achieve this by closely approximating the same population for both markets by using stocks that are thinly traded where the NBBO spread dwarfs the price improvement offered by sub-penny quoting on dark markets.

The population of stocks in this study is screened for prices between \$10 and \$50 that trade between 5,000 and 25,000 shares/day over the preceding 7 days. These thinner, less liquid, mid-price ranged stocks have much wider NBBO spreads and so the de-minimus price improvement offered on dark markets is dwarfed by the NBBO spread. This thin wide-spread profile fits the kinds of stocks that individual investors buy such as REITS, ETFs, Exchange traded debt, closed end funds etc—thinly quoted with widish NBBO spreads.

¹ Data (.csv), study code (Python) and paper (.pdf) are here https://github.com/jaredalbert/SEC_Comment_Letters

STUDY METHOD: In this dataset, FINRA reported trade are executions reported from dark pools, internalized flow, and payment for order flow (PFOF). Every other lit market/ATS participant is identified by exchange/ATS name. The study uses all trade reported on the consolidated tape. These were chosen with a market screener for prices between \$10 and \$50 and daily volume between 5000 and 25000 shares.

Each trade records the price, the volume of the trade, the NBBO, and the exchange of the trade.

The procedure for the study is:

1) For each trade find the smallest absolute value of its price difference from the National Best Bid (NBB) and the National Best Offer (NBO). I used the standard assumption that trades closer to the offer are buys, while those closer to the bid are sells. The absolute value allows me to sum them.

2) Group the sum of these difference off the NBBO by exchange and sum the total volume grouped by exchange. Divide the sum of the differences by the sum of the total volume by exchange to get the weighted per share price improvement off the NBBO for each exchange. For example, a 0 price improvement would be all trades occurred at either the NBB or the NBO with no price improvement—the bigger the price improvement, the better the quality of the fill.

3) Compare them: We can see from the output table that FINRA reported trades are \$.0055 worse than NYSE, \$.024 worse than ISLD and a staggering \$.056 worse than IEX per share.

Using this much fairer apples-to-apples approach for the study, we see very clearly from this table how badly wholesalers and other dark market centers (FINRA reported) trades do. They offer the 4th worst price improvement of any market center. It's worth pointing out that the actual performance of the wholesalers is worse, because the FINRA trade improvement benefits from the large midpoint trades on the institutional dark pools that also report FINRA and whose orders pull the average away from the NBBO.

Exchange	Trade count	Total Volume	Improvement Off NBBO
AMEX	110	5599	0.064
DRCTEDGE	987	46701	0.084

BEX	173	2878	0.093
BYX	300	6702	0.094
FINRA	3006	211549	0.105
NYSE	210	7090	0.110
PEARL	20	876	0.118
PSX	39	821	0.121
BATS	675	14702	0.122
CHX	56	3036	0.124
NYSENAT	59	1206	0.124
ARCA	1102	33934	0.126
MEMX	244	8701	0.128
ISLAND	3999	146967	0.128
IEX	997	41783	0.162
EDGEA	244	5786	0.167

There are at least two main reasons that the lit markets/ATS offer better prices than the dark markets:

1) The odd lots that exist between the NBBO, but are not part of the NBBO quote, are nonetheless executed against on lit markets, while dark markets trade through them and offer 'price improvement' to their cheated customers.

2) A large amount of the volume is hidden orders on lit exchanges, which again are only uncovered when orders route to lit markets with hidden orders, while dark markets trade through them and offer 'price improvement' to their cheated customers.

Having established on data that comes close to using dark and lit trades from the same population and clearly showing what a 'snow job' the FINRA price improvement is. I'd like to propose what 'Best Execution' should look like in an Ideal world.

WHAT BEST EXECUTION SHOULD BE:

Large natural trading customers have their own time horizons and their own venues for moving large blocks while minimizing price impact, this group is beyond the scope of this comment letter.

Instead, I'd like to focus on the retail, retail high net worth, and family office size customers. Within this group, the order types are essentially marketable orders, whether limit or market, and non-marketable limit orders.

For immediate fill marketable customer orders—the ones that get the most attention-- best execution should be the best price available anywhere at the time the order is entered, and this should be across all eligible market venues. When one enters an order to buy at the market or with a limit at or above the NBO, for example, the order should just get the best price available.

But what about non-marketable limit orders? What does best execution look like for this entity? Should a private investor buying a \$25 preferred stock with a 5% yield really be expected to lose the 25-cent spread or 1% of the yield because their only hope of getting a fill is at the offer price? Shouldn't they be able to bid for the stock and get filled against natural order flow? Of course, they should.

Then why isn't their resting lit limit order protected in the event:

- 1) A FINRA reported (wholesaler executed) order executes at the same price on a dark market using their resting limit order as both the reference price and a backstop for their execution,
- 2) A FINRA reported order (wholesaler executed) order executes through their hidden limit or odd-lot order on a lit market,
- 3) Or, less frequently, an order executes through their hidden limit or odd-lot order on a different lit market than the one they have posted too.

That is not best execution obviously and for two principles.

1) Ideally best ex should reward a natural trade between two customers over a principle/middleman transaction. I encourage the commissioners to include some consideration for non-marketable lit trades over dark trades. There should be some minimum non de minimis price improvement required of wholesalers to step in front of lit limit orders.

2) Similarly, best execution for resting hidden limit orders and odd lot orders on lit exchanges should have some protection under best execution as the inverse of best price for marketable orders.

How should the SEC protect non-marketable limit orders to make sure they get executed ahead of dark market routed orders, and order trade throughs on FINRA reported trades and other lit markets than the one quoted to? The answer is to require smart order routing to provide best execution for all orders before any order can be executed in the dark.

FINRA already claims to have a best execution rule that requires agents to locate the best price on lit exchanges before printing in the dark. Yet primary listing exchange odd-lot and hidden quotes are always traded through by definition when FINRA reported trades execute at worse

prices. So FINRA is not enforcing its own rule of best execution. Not to mention FINRA reported dark orders that 'front run' or 'queue jump' resting lit limit orders.

Given the real-world proof of violations, there needs to be an enforcement mechanism that enables a customer who knows that their resting price was traded through, or that their order was not the best price based on times and sales data for example, to easily report the violation and get a price adjustment. The cost of this adjustment should be borne by the executing broker who would absorb the cost of the broken trade and price adjustments (the onus for best execution ultimately rests on the agent or should).

As evidence of the strength of a customer reporting mechanism, I point to the early days of SOES executions where 'backing away' complaints initiated by cheated customers through the legal representative at the introducing broker, and subsequent price adjustments resulted in firm quotes from NASD registered dealers and birthed electronic direct access to the equity markets.

IN SUMMARY: Wholesalers provide dramatically worse price fills for marketable orders than do lit exchanges/ATS, which also means that wholesalers offer worse fills to customers' resting limit orders as well. In no fair rational world, would they be allowed to insert themselves between customers and executions.

Best execution should require best price anywhere for marketable orders, and price protection for resting orders by mandating smart order routing and providing an easy way to report and remedy violations. I encourage the SEC to add some form of a customer driven enforcement mechanism. Other than that addition, I support the SEC proposals for rule S7-32-22, 'Regulation Best Execution.'

Thank you for your time and consideration on this matter.

Kind regards,

Jared Albert