

waters

The Right Choice

Dark pools offer many benefits for traders but uncertainty still persists. How can you avoid adverse selection when it comes to dark pools? *Moderated by Phil Albinus*

As more firms trade in dark pools, more questions arise. For starters, is high-frequency trading increasing your odds of adverse selection? How can you ascertain the quality of dark pool liquidity and achieve better results by avoiding the pitfalls of asymmetric information? In a recent *Waters* video webinar entitled *Avoiding Adverse Selection in Dark Pools: How to effectively measure dark pool performance to improve trading results*, we took questions from our online audience about the issues that plague dark pool traders. Our panel consisted of Sang Lee, co-founder and managing partner of consultancy Aite Group; and Chris Heckman and Hitesh Mittal, managing directors from Investment Technology Group (ITG), the webinar's sponsor.

Waters: What are the characteristics of the pools with higher adverse selection? Are they broker pools? Do they have smaller trade sizes? Fewer buy-side participants?

Hitesh Mittal, ITG: You tend to find adverse selection of your orders in the dark pools where the counterparties have short-term alpha models. If a dark pool has a big proportion of the flow coming through high-frequency funds you tend to see a lot higher adverse selection. There are some dark pools that are just high-frequency, on the other hand, because those dark pools are operated by those high-frequency firms and you are executing just against those high-frequency firms. They receive the maximum out of adverse selection. If the firm has

a hybrid model where you can interact with another buy-side institution or high-frequency firm, it would depend on the proportion of the representation from these high-frequency firms within these dark pools.

Waters: Why are the high-frequency trades coming into dark pools?

Sang Lee, Aite Group: There are various reasons why the high-frequency trading firms have become a bit more interested in participating in dark pools. We have certainly seen an increase in overall trading by migrating over to the dark pools. To a certain degree, if you are a high-frequency trading firm you do not want to miss out. Therefore it makes sense for them to try and get into some of these dark pools—not all of them, obviously, but some of them.

Another reason is these dark pools are getting faster. Before it was uncommon to hear dark pools talking about low latency. With some of the more traditional dark pools it is more about finding size discretely. Speed was not a key variable when people were looking for opportunities in the dark pools, but that has changed. Some of the dark pools have become much faster and it makes sense for some of these high-frequency trading firms to participate.

Also, the pricing is right. The cost of trading in the public market has come down substantially over the last decade and we have seen similar things happening in some of these dark pools. If you are a block trader, for example, there is still a premium attached to that, but if you are participating in some of these dark pools and their

pricing is on par with what you may get from some of the more public exchanges or ECNs, it is sort of a no-brainer for them.

Chris Heckman, ITG:

Clearly the market has become much more virtual and displayed markets and dark markets now interact in sub-millisecond interactions. The classic dark pool that leveraged standing liquidity—buy side to buy side trading in blocks—I will call it the dinosaur of what is going on now. That still adds value, especially to my constituency of customers. Dark pools have figured out how to leverage market-bound flow and flow that is demanding immediacy. The market centers, as well as dark pools, are a virtual environment where the cost of exchanging order flow and interacting with each other is virtually nil.

Waters: Could high-frequency trading and increased speed fuel adverse selection?

Mittal: Speed is a cause. It is one of the things that high-frequency firms probably need to access these dark pools but cause and effect would be that if there is high frequency there is going to be adverse selection.

Heckman: It is clear also that in this algorithmic, continuous environment that includes a large segment of high-frequency



Chris Heckman
ITG

trading in its volume, you would do yourself a disservice if you did not interact with what is, by some measures, 70 to 80 percent of the market volume on a daily basis.

Waters: Who is participating in these dark pools? Also, is there one thing that is holding back some of its potential for flourishing even further?

Lee: It's ironic but increased transparency within the dark pool is both good and bad. To a certain degree, increased transparency could actually mean the end of a particular business model for some of the dark pools that are out there. I do think that when this whole dark pool thing started—which is really an unfortunate name for a market overall to suggest it being dark—but when the whole non-displayed pool market started, people really did not know what to expect. With some of the newer venues you really could not tell [what occurred] if you sent an order in—nothing happens. Did anyone see my order? What really happened in there?

It was incredibly tough to tell and because of that over the last couple of years people have used various forms of dark pools and I think there is a much better way of measuring when you are trying to decide on a certain option in terms of execution.

Heckman: If you are using a dark aggregation tool, it is incumbent upon the client to demand from your broker that they provide complete transparency on how your order is routed and where you actually receive your executions from. The other the point is that Washington, DC is certainly spending a great deal of time getting involved in the dark pool debate and some regulation will come of it and I think it is a fair bet that the first regulation coming down will focus on trade reporting. I think the trade reporting facility will be modified and dark pools will be seen on the tape recording on volume, which I think is very positive for market structure.



Hitesh Mittal
ITG

Waters: What kinds of stock are more likely to have adverse selection problems?

Mittal: I do not think it is stock-specific.

Any stock could have adverse selection. When you talk about impact that basically is an effect of information leakage that typically tends to affect the small-cap stocks—if the dark pool is really not dark but grey and sending indications of interest (IOIs)—then that would basically make the stock run away from you. If you were buying stocks going up all of a sudden, that is because of information leakage and that would affect the small cap in liquid stocks. But adverse selection could happen to any stock because the other side had a better alpha model.

Heckman: That is the challenge. Historically, adverse selection was plain as day. You would buy the first 20,000 shares of somebody else's million-share order and they would continue to press the stock lower after you made your purchase. It was evident that you had just been adversely selected on that execution and you fast-forward to today's environment when things happen in milliseconds and there is so much high frequency and fluttering of quotes and movements that adverse selection is much more difficult to categorize with the human eye. It clearly exists and you have to defend yourself against it because these flickering pennies add up over time.

Waters: Do we know who is using which dark pool?

Lee: Ultimately it goes back to having some faith in your broker and their dark aggregation mechanism that they are going to protect you as you navigate the space.

Waters: Why do algorithms not incorporate and profit from the same tactics as the short-term high-frequency traders?

Mittal: That would be the algorithms that the high-frequency traders are running; so I think the firms like ITG try to build algorithms to identify if there is high-frequency trading on the other side and we can somehow not interact with that kind of flow and interact with the flow that is coming through buy side institutions or retail—that is where we invest our time. The algorithms being developed by the high-frequency firms probably would do that.

Heckman: I think it goes back to how you

position your dark pool and the principles that you employ and the constituency that you are after. Agency firms that are engaged in high-frequency trading really are hoping to convince their clients that there is a different experience there than in these pools, especially these internalization pools. These are some full-service firms where the house is involved in generating some of the liquidity and some of the trading that goes on in these dark pools.

Waters: What portion of dark pool volume do you think is made up of high-frequency traders?

Lee: To be honest I have no clue at this point. In the initial conversations about high-frequency participation that we had eight months ago when the report started and when it finished we got different perspectives on it in terms of who is doing what. Some of the firms that we have spoken with said there is nothing, no high-frequency flow. Others actually said that sometimes it is greater than 50 percent, which actually surprised me quite a bit.

Mittal: Are those the larger dark pools in terms of volume?

Lee: I cannot say but I think people are experimenting with different venues and I do not believe it is necessarily just the larger internalization pools. There are other pools where there is certainly incentive for some of these high-frequency trading firms to get in. Certainly there are different types of dark pools that are not really interested in attracting the high frequency because of the business models they have and it is really not conducive for the high frequency trading firms to thrive on.

Waters: Hitesh or Chris, would you care to guess what portion of trading in dark pools is high frequency traders?

Mittal: It is very hard to guess; it is a big number.

Heckman: And it is getting bigger. ■



Sang Lee
Aite Group