

## FEATURE ARTICLE III



### DARK POOLS<sup>®</sup>

BY KATHY GRAHAM

**Dark Pools are one of the few areas of growth in the current global economy. Like structured products, they are a tool that can produce either beneficial or negative economic outcomes depending upon how they're used and regulated. This article defines what a dark pool is, then details their pros and cons. The conclusion offers recommendations based upon what has been learned from the structured products' role in the 2007-2008 global financial crisis. An epilogue on possible career implications for those considering working in this sector is also included.**

#### DARK POOLS DEFINED

A dark pool is a virtual electronic stock exchange consisting of a closed crossing-network that matches sellers and buyers of large blocks of trades anonymously so as to prevent information leakage that could cause prices to move against sellers. All dark pools need to satisfy Reg NMS requirements.

The precursor to the dark pool is the dark book, which is the floor brokers system at exchanges. These brokers have long sought to execute large orders without revealing their clients' intentions through a manual system of hand tickets and phone calls to discretely find counterparties for their trades. The oldest dark book is the NYSE's system.

Users of dark pools can be sell-side firms, buy-side clients, algorithms, hedge funds, pension funds, mutual funds, institutional traders, corporations, and broker-dealers. In addition to keeping their positions quiet, these users are interested in a venue that offers quicker turnaround time in selling and

buying all types of stocks and at a lower cost than the current exchanges are offering.

Dark pools are run by brokerage firms, electronic market makers, hedge funds, and exchanges. A dark pool can be owned by one of these companies or by a group of them. For instance, there are many bulge bracket broker dealers that have their own form of dark pool available for their personal and clients' use who then also are part owners of another dark pool run by a consortium of these bulge bracket brokers who may also each own their own dark pool and who may even be direct competitors of the other brokers in their shared ownership pool. The number of pools a broker has ownership in does seem to make the lesser ownership pools be more price driven.

What the impact from the firms who own these dark pools merging or going bankrupt is unknown although effects of such actions will probably be discovered within the next year or so since a

number of them have now merged and Lehman has gone bankrupt.

A true dark pool is completely anonymous, without any information leakage. These pools don't publish side, size, or price information. Users of these systems aren't aware of the identity of their counterparties and no confidential data about their orders is exposed unless there is a bona fide opportunity to trade.

There are numerous variations, however, in dark pool opaqueness and design. The transparency of their business model and pricing runs from low to high. Internal policing efforts appear to run from highly unlikely to likely to be none. There also appears to be a wide range in transaction costs and execution quality.

Indications of interest (IOIs): some pools don't use them, others do using either opt-in or opt-out processes. Another version of IOI is a conditional order that has some sort of accountability attached to it.

Matching can be either auto-matched, negotiated, within the spread or at the spread. Some systems have a default setting and others try to get both parties to reach the midpoint. Negotiations, when permitted, may take place outside of the pool.

Some dark pools send out information about resident orders while others send and receive electronic immediate-or-cancel orders from other sources. Many dark pools don't disclose whether they are actually anonymous nor do they provide information as to whether or what type of information on orders are shared with others.

Different types of order flow populate different pools. Some are open to all order types—proprietary, retail, broad-based institutional, algorithmic, single-stock, program business, sell-side, buy-side—where other pools are limited to specific order types. Some pools also set size limitations.

Some pools mingle their own proprietary trades and other hidden order types from hidden pools. A hidden pool has clients that don't even display a part of an order, which means that the quote doesn't change with the size or price set by the trader. Hidden orders also are usually present and

accepting and offering bids with regular displayed orders around the same time they're in dark pools.

To better satisfy their current users who are wanting to trade larger orders than what dark pools are capable of handling now, some systems are block crossing networks designed to maximize the ability to execute large orders for the purpose of building an open network of buy-side and sell-side firms. Their orders are routed out of one dark pool to another pool or external source by a system router or other mechanism. Information leakage and transactions costs do seem to increase as the number of pools visited increase.

Conditional orders allow traders to search for liquidity in these multiple venues by representing their orders in the original dark pool as conditional. If volume becomes available, the trader is invited to commit their order to the original dark pool. Since conditional orders allow for some pre-trade information to be disclosed, a system needs to be in place to screen out certain responders.

Counting of matched volume in a dark pool for purposes of reporting to the tape and advertised can be single or double counted, with one type of reporting done one way and another in a different manner. Furthermore, orders that are routed out of one dark pool and executed by another party may or may not be counted by the original pool as part of their own volume.

The fact that these dark pools contain large orders capable of moving market prices if traded on open platforms interests some parties. To gain access to this information, they have devised numerous tactics that are as a whole called gaming to sound the depths of these pools. Anti-gaming controls vary from pool to pool. Some tools commonly used are behavioral profiling where a scoring system enables the seller to pre-screen past trading behaviors that they don't want present in their counterparties; minimum trade size on an order-by-order basis or as a default percentage on all orders; and an invitation to negotiate only within various price ranges.

Expansion into new products and additional asset classes are already in planning stage by several of these virtual exchange providers. The first new product to market looks likely to be options.

## PROs

**Cost:** If using one or few dark pools, transaction costs tend to be lower than using an exchange.

**Privacy:** Holders of large blocks of stock wanting to trade sizeable volumes can do so without revealing themselves on the open market.

## CONS

**Asymmetrical information impact:** If a broker has ownership interest in more than one pool, he may put more favorable deals through the exchange he would receive the most return from, passing on only those transactions of a less desirable nature to the other pool(s).

**Conflicts of interest:** If a counterparty is a dark pool owner with other agenda(s), the order information can be used in ways that the order placer did not intend nor desire.

**Constraint issues:** For group orders, most dark pools do not accept cash or sector constraints.

**Execution issues:** There is no guarantee that an order will be filled in a dark pool. In fact, one of the largest complaint from users of dark pools is the inability to find the liquidity they're looking for at one point in time and location. When orders can't be filled completely or at all, costs, information leakage, and risk increase the longer the period of time elapsing and the number of dark pools being contacted.

**Future trust and transparency issues:** As expansion into new products occurs, will the new risks be recognized and regulated correctly? For example, what about if bonds and derivatives are introduced? In a dark pool where negotiations can take place between parties beforehand, what would prevent a deal be arranged anonymously in one dark pool where debt in a floundering firm is exchanged for something else—say equity—in a prosperous firm, which has numerous possible tax and pricing implications. If this practice became commonplace, what would prevent a breakdown in trust occurring again when investors buy into these firms, unaware of the changes in their composition? If this scenario seems unlikely, reflect upon how much the credit default swaps situation sounds eerily similar to this potential future scenario.

**General market pricing implications:** What about their pricing discovery impact—will a two-tiered system of prices for the same assets, one the going price for traditional exchanges, the other for large orders occur? If this practice is indeed the

same process that dark books have used for ages, what's the probability that a different pricing effect could occur on a virtual exchange?



**Legal issues:** Dark pools' records can be subpoenaed. Just because who and what is in a dark pool is mostly kept unknown to the marketplace does not confer immunity in the legal system.

**Regulatory:** On November 11, 2008 a *Financial Times* article mentioned that The Financial Services Authority has launched an investigation into several dark pools and is looking at a number of other brokering units' dark pool services. Reg NMS has also impacted the market with a number of rules, one saying that any alternative trading system that controls more than 5% of the average daily volume in a security over four of the preceding six months must provide open quotes to the market. An exception has already been granted to a dark pool but more exception grants appear unlikely.

**Security issues:** Dark pools can be hacked. Algorithm traders can use gaming techniques to identify large hidden orders within dark pools. Once identified, these gamers exploit the information to push up the price of the stock in the public markets. Furthermore, according to a paper by Hitesh Mittal entitled *Are You Playing in a Toxic Dark Pool?*, some dark pools do not appear to be dark at all as they can:

- leak residual order size
- notify the other trader or black box counterparty of the entire order information even in those pools that don't advertise
- move prices if interaction with regular displayed flow supports the stock in the direction of the dark order
- support prices the more a dark pool is accessible to market flow or smart router usage.

The more these factors are present, the more a dark pool acts like a trade on an open market.



## CONCLUSION

Hello, again – we’ve been here before, haven’t we? An interesting point is that almost all of the same players that needed bailing out in the 2007-2008 global financial crisis are involved in the growth and development of dark pools.

Once more, we have a fantastic group of new products that can really provide value added but that are difficult for many individuals to understand, are not transparent, and face little effective regulatory supervision.

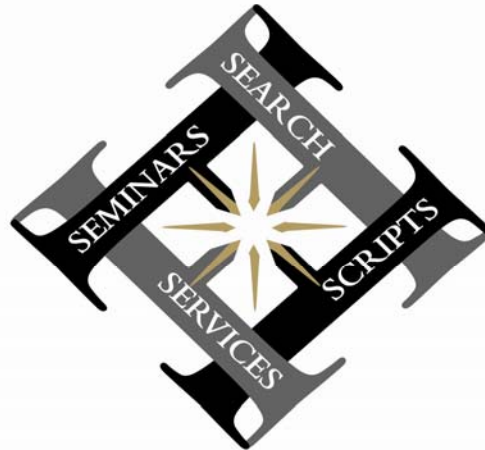
Janet Tavakoli in her new book, *Structured Finance & Collateralized Debt Obligations*, says that effective regulation helps break the fraud triangle that is one of the major underlying components of the 2007-2008 global financial crisis. The triangle consists of need, opportunity, and the ability to rationalize one’s behavior. Effective regulation helps curtail opportunity. In the absence of effective regulation, the main ingredient that will safeguard a financial system is the vigilance of all parties.

The purpose of this article is to educate and alert financiers, money managers, and investors to a new and growing tool that stands at a crossroad. As a tool, it can be used like a knife to cut out costs and information leakage. Like a knife, however, in the wrong hands it can kill and maim. The choice is ours: to follow the three monkeys who say no evil, see no evil, and hear no evil, OR to address the operational issues that need clarifying.

Financial professionals have the knowledge learned from recent history to correctly balance market efficiency and create effective regulation. By choosing now to apply that knowledge to the proper management and development of dark pools, the world will gain another great tool that can assist in increasing global economic prosperity.

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## HIGHEST QUALITY SEARCH, INC.

### DARK POOL CAREER IMPLICATIONS<sup>®</sup>

#### **SKILL SET DEPRECIATION ALERT:**

If you're a floor trader, you should be thinking about the long term implications of this dark pool system because it's your potential replacement. If you can learn the technology, gain dexterity on entering information via a keyboard, and master online thinking and tools, you should be forming networks that will enable you to bridge over to a dark pool job before the dark book ends. If the above new skill sets are not compatible with your capabilities, you should consider researching other career possibilities because at some point, it's possible that your position will be eliminated or no longer pay the compensation it currently offers you.

Dark pools are a growing niche in an otherwise mostly lackluster job environment. If you have the general job specification requirements, the following questions might assist you in deciding whether to pursue a position in this field:

- **Is it a fit for your persona?** Do you thrive in unstructured constantly changing environments with multiple bosses and sometimes conflicting demands on your time?...or do you need a defined position with clear work assignments and a static reporting structure? If a defined work environment is you, read no further. If an unstructured and dynamic place fits your persona, please proceed to the next question.
- **Can you handle possible consolidation risk?** If dark pools can't achieve the liquidity levels they need to meet to attract a hefty enough client base or if regulatory burdens become too onerous, layoffs in this field are likely to occur. How does your resume look now? Can it handle a short term stint without making you look like a job hopper? How is your financial situation—could you manage to be unemployed for a year if the layoff occurred during the worst of the 2009 job market entrenchment? If your answers are in the negative for any of these three questions, read no further. If your answers are all positive, please proceed to the next question.
- **What about potential reputational risk?** If in an absolute worst case scenario this tool becomes the next "Enron", your career can be negatively impacted if you're at a senior level. Do you have a lot of friends in the industry who are in positions where they could hire you if you need to do a career re-start? If your answer is no and you're at a senior level, devise now a contingency plan before joining the dark pool labor force...and while you're there, perhaps you could work on addressing some of these operational issues? Thanks so much!

#### **TRENDS ALERT:**

Buy-side is gaining power as technologies that drive ECNs and dark pools grow. Traditionally sell-side made significantly more money than buy-side in some locations like NYC. However, as buy-side becomes more empowered and accountable, compensation should change with either buy-side gaining more performance pay or sell-side not being rewarded as handsomely or some combination of the two. The day isn't here quite yet but be aware that shifts of power are usually accompanied by shifts in compensation.