Apples to Oranges:
Comparison Shopping in the New World of Swaps Trading

By Will Rhode

In the new world of swap execution facilities and centrally-cleared swaps, buy side firms are looking for technologies that can assess the relative costs and benefits of one product versus another. Given the new margining requirements associated with swaps, the advent of swap futures and Market Agreed Coupon swaps, and the emergence of order-driven trading, derivative transactions will be determined as much by their liquidity, ease of execution and overall cost as they will for their ability to express an investment view or meet a hedging requirement.

Next-best-fits that express a trader's interest will become the norm and having a technology solution that can quickly and easily display the menu of options available at any one time is set to become part of the new derivatives trader's workflow.

In the over-the-counter swap market, customization allows firms to be very specific in nearly every component of a swap, including the tenor, the notional amount, the start dates, the floating leg and other variables like resets, knockouts, etc. A swap is therefore an ideal product if an investor or hedger is targeting a unique risk.

But let's assume the portfolio manager simply tells the trader he needs to hedge interest rate risk over 10 years. Does that have to be done with a highly customized interest rate swap? What if there were tools available that could select alternative products based on the liquidity of the instrument, margin requirements, and so on?

For example, a slick front end should be able to examine liquidity for a 10-year interest rate swap and then compare that to alternatives such as swap futures, a strip of Eurodollar futures, or a portfolio of U.S. bills, notes and bonds across the curve. Cost to execute, cost to carry, and other economic factors such as convexity bias would be taken into account when determining the best path to the needed exposure.

This happens today in the spot FX market, with some platforms creating a synthetic spot price based on the current futures price. We are now seeing the emergence of similar tools in the new, multidimensional world of rates.

Comparing Swap Futures to Swaps

In February, the CME began offering a tool on its website to help traders analyze the cost effectiveness of its deliverable swap futures contracts. The tool, DSF Analytics, allows traders to compare a DSF contract with the corresponding over-the-counter swap in terms of price, rate, and risk.

The idea behind the tool is simple—why trade a traditional OTC swap if you can trade an equivalent product at a lower cost? The common answer is that the swap future may introduce an element of basis risk, in that the instrument may not precisely track the exposure an investor is seeking.

CME argues that DSF contracts provide the same interest rate ex-

posure provided by OTC swaps while delivering the capital efficiencies and operational benefits of standardized futures contracts. The DSF analytics tool shows traders at specific points in time just how how close the DSF exposure is to that of an equivalent OTC swap.

By establishing an implied coupon rate for the DSF, the tool can show the degree of tracking error between the DSF's coupon versus the coupon on the underlying swap it is trying to replicate. In addition, through a PV01 measure—which is the dollar value of a one basis point variation on the coupon rate of the underlying swap—it can show how the DSF compares in DV01 terms to the OTC swap.

Transaction Cost Analysis for Swaps

As swaps start to trade on SEFs, we estimate that trade sizes will shrink by 50% to 80% compared to the voice market. But will 10 swaps of $10 million each provide the same economic exposure as a single $100 million swap? In the new world of electronic trading and central clearing, traders will have to look beyond traditional factors such as price and size and consider other cost factors. For example, smaller trade sizes will lead to higher transaction volumes and an increase in the cost of processing trades, especially if the process is not automated.

ment is far from the only concern when it comes to transaction cost analysis for swaps. If you don't know how much a swap will cost—either because different clearinghouses charge different margin amounts or because different types of collateral may be accepted, all with their individual haircuts and processing fees—then the cost of a transaction may dramatically exceed the bid/ask spreads displayed in a screen. This is especially so when one considers the broad disparity in risk calculation methodologies at the clearinghouses as well the sheer variety of collateral types.

Ultimately, the real challenge will be in synthesizing all the factors that go into transaction costs across all exchanges, SEFs and CCPs. These factors include:

- the liquidity profile of the full range of products available across the marketplace;
- the portfolio efficiencies offered by clearinghouses as well as the ability of clearing intermediaries to enhance those services; and
- the ability to source the cheapest form of collateral in the shortest amount of time.

Dealers are in a good position to pull these threads together for the buy side trader's benefit, given their connectivity into clearinghouses, SEFs and exchanges as well as access to a spiderweb of global custodial accounts. It will be no easy task, however, to bring together streams of information from different parts of the organization that have traditionally operated within their own silos.

The goal is to make it easier for traders to **simulate their portfolios' exposure to risk** and **predict how market swings will impact them** from a capital perspective.

What the buy side wants to achieve is to digest the new costs associated with swaps in a way that marries their investment and hedging needs with their best execution fiduciary responsibilities. Ultimately, product selection technologies will have to account for all the downstream costs associated with a transaction if they are to deliver a truly comprehensive cost/benefit analysis on the available product choices. That means the pre-trade price and execution decision-making process will need to be integrated into what would traditionally be considered a post-trade analysis of risk and margin requirements.

We are seeing the development of new tools in this space also. In August of last year, Bloomberg announced that it had integrated LCH.Clearnet's margin calculator, the SwapClear Margin Approximation Risk Tool, into its SEF platform to help swap traders estimate the capital they would need to complete a trade. The goal is to make it easier for traders to simulate their portfolios' exposure to risk and predict how market swings will impact them from a capital perspective.

Portfolio compression is another area where new tools are emerging. Both trueEX and Eris Exchange have developed mechanisms to help traders calculate the net market exposure on a portfolio of swaps so that offsetting positions can be terminated or compacted into a single line item, reducing the margin requirement without reducing the risk exposure.

What these margin efficiency tools demonstrate is that getting the best price for a swap on a SEF in a competitive bidding environment is far from the only concern when it comes to transaction cost analysis for swaps. If you don't know how much a swap will cost—either because different clearinghouses charge different margin amounts or because different types of collateral may be accepted, all with their individual haircuts and processing fees—then the cost of a transaction may dramatically exceed the bid/ask spreads displayed in a screen. This is especially so when one considers the broad disparity in risk calculation methodologies at the clearinghouses as well the sheer variety of collateral types.

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The opportunity is evident—dealers that have the ability to pull the information together and provide analytics on demand will be able to help buy side traders make the right product choice at any given time. In order to provide this type of advice, dealers will have to capture information on liquidity and execution from the trading desk, information on margin offsets and capital efficiency from the clearing/funding side of the business, and information across product sets, such as futures vs. traditional swaps vs. MAC swaps, all of which will have their own set of specialists and trading experts.

The tools being offered by CME, LCH.Clearnet, trueEX and Eris are the first small steps in a new direction. As time progresses and the new marketplace evolves, we expect front end technologies to become even more comprehensive and enhanced, enabling the buy side trader to make better assessments of the full costs and benefits of the expanded range of products that are becoming available.

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