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Exchanges Should Disrupt Swap Portfolio Compression Using Single-Sided Swap Futures

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With the mandated clearing of OTC swaps, even clearing houses are getting into portfolio compression of OTC interest rate swaps. But futures exchanges are missing out on a big opportunity.

Portfolio compression of OTC interest rate swaps has been a hot topic for the past few years. Now, with the mandated clearing of OTC swaps, even clearing houses are getting into the game. Given all of the excitement, it is surprising that futures exchanges are missing out on a big opportunity to disrupt the portfolio compression process. All that these exchanges need to do is promote the use of the old-fashioned EFP (Exchange for Physical) process via a new-fangled interest rate swap futures product.

What is portfolio compression?

Interest rate swap portfolio compression is a risk-reduction service that results in smaller derivatives portfolios for participants. Compression is achieved by simultaneously terminating a large number of OTC swap trades between a host of different counterparties. These counterparties are compensated for the mark-to-market value of their terminated swaps via cash-out sums. The trades chosen for elimination have substantially offsetting market risk. New regulatory rules stemming from Dodd-Frank and EMIR have made the compression process increasingly important.

While the algorithms involved in portfolio compression can sound quite exotic, the process can be boiled down to a series of bilateral swap terminations. The open market risk created by each successive termination is offset by terminations later on in the same compression process. The process continues until all eligible swaps are terminated as desired or the market risk of future swap terminations cannot be offset.

[Related: “[Swaps Compression: Impact on Clearing Fees and Margin](#)”]

But the success of any swap compression effort depends on a variety of factors. First, a large number of counterparties are needed in order to achieve worthwhile results. Second, all of the counterparties need to be available to cooperate in the process at the same exact time. Third, the process involves a variety of paperwork, including legal agreements. And finally, counterparties can only hope to terminate swaps if it is mutually agreeable.

How can the portfolio compression process be disrupted?

Futures exchanges have a natural opportunity to disrupt this complicated process. All that these exchanges need to do is introduce an interest rate swap futures contract that makes the “Exchange for Physical” process easy.

In an “EFP,” customers agree on simultaneous buy/sell transactions. One of the trades involves a physical commodity (i.e., the OTC interest rate swap) while the second trade involves a listed futures contract (i.e., the new swap futures contract). The normal goal of an EFP trade is to transfer market risk from an OTC instrument to an exchange-traded one (or vice versa).

[Related: “[The ‘Missing Link’ in Today’s Interest Rate Derivatives Markets](#)”]

EFP trades should be a logical choice for frequent swap market participants looking to continually reduce the size of their OTC swap portfolios. After all, the EFP would convert unique, non-fungible OTC contracts into standardized futures contracts that benefit from netting.

For example, assume that two banks executed an OTC interest rate swap via a Swap Execution Facility and then delivered that swap to a clearing house. If both banks further decided on an “EFP,” the cleared OTC swap would be terminated by the clearing house. The market risk and market value of the terminated OTC swap would be replicated with a market equivalent position in interest rate swap futures contracts cleared by the same clearing house.

As additional OTC transactions were converted to futures contracts via the EFP process, netting would naturally eliminate offsetting positions and massive amounts of portfolio compression would be achieved on a daily basis.

How do single-sided swap futures fit in?

The only obstacle preventing futures exchanges from offering this “compression via EFP” service now is the poorly designed swap futures contracts that are available at the moment.

Current swap futures contracts are defined to include both the floating and fixed legs inside of one tradable instrument. This instrument has the same fixed coupon over the life of the contract, and its fixed coupon will almost never be the same as the fixed coupons of the OTC swaps that dealers are hoping to compress. As a result, it is usually impossible to replicate both the market risk and market value of existing OTC swap trades using the current swap futures contract construction.

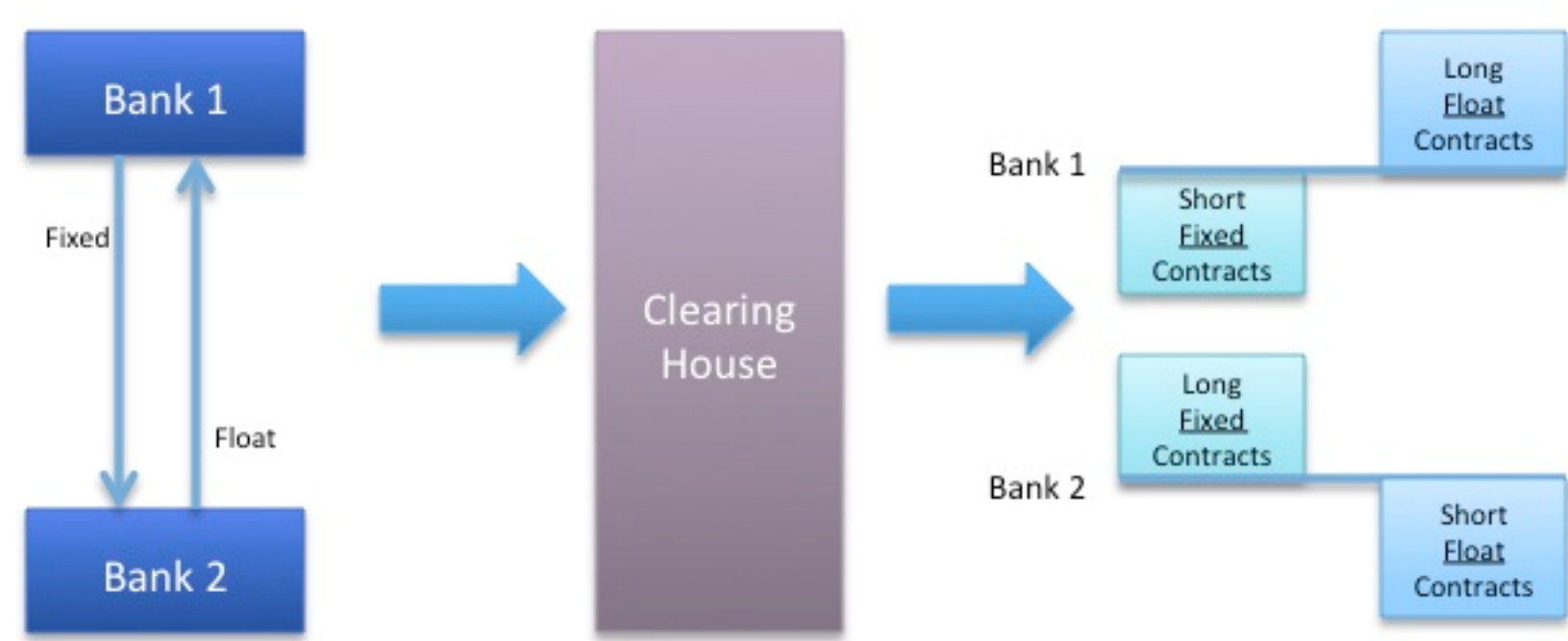
Fortunately, the unparalleled flexibility of Single-Sided Swap Futures (patent pending) can make the EFP process trivial. Single-Sided Swap Futures (SSSF) are unique because they separate the floating leg and the fixed leg of a swap into two separate contracts. For example, being long one float leg contract could represent receiving LIBOR on a quarterly basis for 10 years on a \$1MM notional. Meanwhile, being short one fixed leg contract could represent paying a 1% fixed annual coupon on a \$1MM notional every six months for 10 years. When traded as a spread package on a futures exchange, counterparties would be able to recreate fixed/float swaps of any size and notional amount.

[Related: “Single-Sided Swap Futures: A Better Way to Trade Interest Rate Swap Futures”]

From an EFP perspective, SSSF make it easy to recreate the approximate market risk and market value of any previously existing or newly created OTC swap. Therefore, exchanges and clearing houses that offer SSSF should also be able to offer automated EFP services that allow for nightly conversions (provided both counterparties to the OTC trade approve).

For example, imagine a spot starting fixed/float swap with a \$10MM notional, a 10-year tenor and a 2.17% coupon. As a cleared OTC swap, the transaction is valued by the clearing house on a nightly basis. In an EFP, the risk of the float leg of the OTC swap would be easily transferred to SSSF float leg contracts via a ratio of one SSSF float leg contract per each \$1MM of OTC swap notional (so that 10 SSSF floating leg contracts would be created).

Meanwhile, the number of SSSF fixed leg contracts generated by the automated EFP would be roughly 21.7 (i.e., one contract for each 1% coupon on \$1MM notional). The exact number of SSSF fixed leg contracts would be determined (perhaps to as many as five decimal points) by the clearing house such that the resulting net futures value of all SSSF fixed and float contracts would equal the mark-to-market of the terminated OTC swap.



Conclusion

Using Single-Sided Swap Futures for portfolio compression via EFP highlights the flexibility and ease of use that make SSSF superior to any other interest rate swap futures instrument currently available. Futures exchanges and clearing houses that move quickly to offer SSSF to their customer base will benefit in numerous ways.

More information about the highly intuitive aspects of Single-Sided Swap Futures (including an in-depth product description and specific contract definitions) can be found at StonewyckInvestments.com.