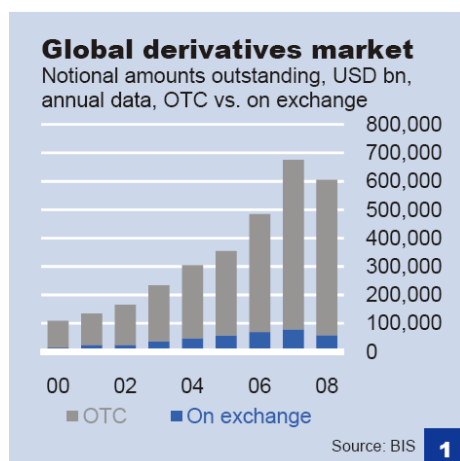




Derivatives trading: Questions you should ask your hedge fund manager

In finance, a derivative can be defined as a financial contract with a value linked to the expected future price movement of the asset(s) it is linked to. The common forms of derivatives are futures, forward, swap and options. Derivatives may be distinguished according to the market in which they trade, the type of underlying, or the contract type, i.e. the relationship between the underlying and the derivative product itself. Derivatives contracts can either be publicly traded via an exchange or traded privately over-the-counter (OTC).

According to the last semi-annual Over-The-Counter (OTC) Derivatives Markets Statistics survey, published by the Bank of International Settlements (BIS) for the period ending June 2009, the total notional amounts of outstanding OTC derivatives was \$604,622 billion (USD), which represents \$3,744 billion (USD) in gross credit exposure. By the end of December 2008, only 10% of the contracts were traded on an exchange (see chart 1).



Historically, derivatives contracts have been used for hedging as well as for speculative purposes. Some hedge fund investment strategies use these types of contracts extensively. The purpose of this article is to assist investors in identifying the right key questions they should ask their hedge fund managers, regarding OTC derivative trading. This article will extensively refer to the results of two recently published surveys by the International Swaps and Derivatives Association (ISDA) under the names: 2010 ISDA Operations Benchmarking Survey and the ISDA Margin Survey 2010.

OTC derivatives activity can be broken into several components: (1) trading agreement, (2) execution, (3) trade data capture, (4) confirmation, (5) settlement procedures and (6) staffing. Each of these components will be addressed hereinbelow:

1. Trading agreement

Question 1: *Do you have bilateral collateral agreements with your OTC counterparties?*

The main contribution of the ISDA, which was chartered in 1985, has been the standardization of the documentation covering a variety of OTC transactions, and more notably the ISDA Master Agreement. According to the last ISDA surveys, 92% of the existing collateral agreements used in the OTC derivative market, as of the end of 2009, are ISDA agreements. Collateralization remains amongst the most widely used method of mitigating counterparty credit risk in the OTC Derivatives market.

One lesson, hardly learned by investors from the recent financial crisis, has been that no counterparty is too big to fail and one therefore needs to secure his profit from derivative contracts by collecting collateral. At the end of 2009, about 83% of all collateral agreements were bilateral, up from 75 percent in 2008. A bilateral agreement allows each counterparty, in an OTC transaction, to call for additional collateral from the other so as to mitigate his own credit risk, if necessary.

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The collateral process is not trivial as each party to the transaction needs to dynamically track the margin requirements from the other and to withdraw or pay the necessary margin calls periodically. The volume of activity needs to be sufficient so as to justify the extra operational and procedural burdens related to this process.

The level of collateral required to trade, as initial margin or Independent Amounts, with counterparty is dependent on the type of business the investor is involved in. In fact, hedge funds are the ones who need to post the higher collateral with an average collateralization level requirement exceeding 141% of their net exposures compared to a 25% of exposures to sovereigns and supra-national agencies according to ISDA. Hedge Funds are still considered to be the "bad boys" of the industry.

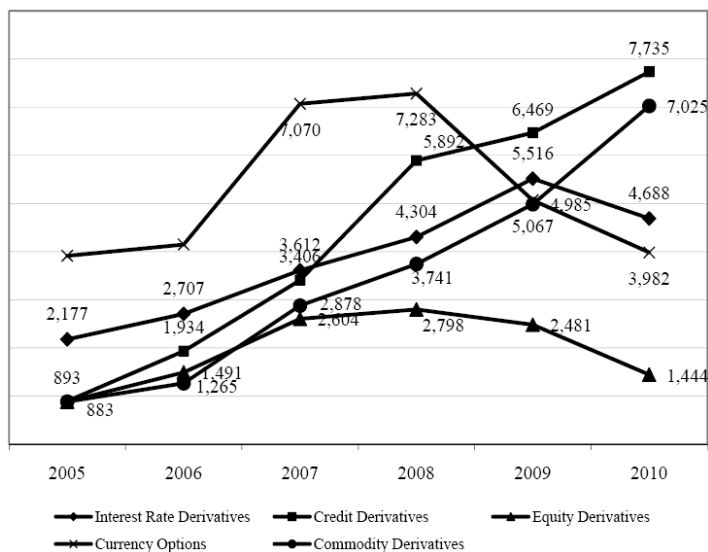
2. Execution

Question 2: What are your monthly event volumes by product type?

Events include transactions, such as: new trades, novations and terminations but exclude intra-company trades and tear ups. According to the recent ISDA survey, the average monthly event volume by product is as follows:

Average monthly event volume by product

Number of events



The distribution of event volume by counterparty type is very wide as it ranges, for example from an average of 18,300 events in interest rate derivatives per month for large institutions, down to 411 for small firms. The volume of events is important to assess the type of infrastructure a fund requires to be able to implement its investment strategy (see the staffing section for further details).

3. Trade data capture

Question 3: What is the percentage of trade records containing errors? What are the most common errors?

The trade capture staff are employees whose primary function is to book, amend, and blotter all trade events into trade capture and operations systems.

As per the ISDA surveys, the average percentage of trade records containing errors is around 13%. The most common errors are associated with counterparty names and with payment or termination dates. For credit derivatives, errors commonly occur when indentifying the reference entity or obligation and fees, such as: initial margins or assignment fees. Notional amount errors are also



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common for currency options and commodity derivatives.

4. Confirmation

Question 4: *What percentage of your event volume is confirmed electronically? What percentage of your event volume is eligible for electronic confirmation?*

In recent years, the industry has made impressive progress in the confirmation process, as in the past not all derivative contracts were eligible for electronic confirmation. Electronic confirmations are those submitted to an electronic platform (like DTCC) for matching. The most automated confirmation process is found in credit derivatives contracts with roughly 100% of them eligible to be confirmed electronically.

The answers provided by the manager will reflect his infrastructure readiness to benefit for electronic confirmation and the level of complexity of the derivatives traded. Usually, plain vanilla derivatives will be confirmed electronically. The table below from ISDA reflects the level of eligibility for electronic confirmation and the actual percentage confirmed electronically on average for different derivative contracts:

Electronic confirmation of event volume

Percents

| | | Electronically eligible | | |
|-----|-------------|--------------------------|------------------------------|-----------------------------|
| | | Electronically confirmed | Not electronically confirmed | Not electronically eligible |
| All | Interest | 67 | 20 | 13 |
| | Credit | 98 | 1 | 1 |
| | Equity | 29 | 7 | 64 |
| | Currency | 54 | 21 | 25 |
| | Commodities | 65 | 20 | 15 |

Some investors complement their confirmation process with an affirmation. The affirmation is a process by which two counterparties verify that they agree on the key economic details of a transaction.

5. Settlement

Question 5: *What is the percentage of monthly settlement volume resulting in Nostro breaks?*

A Nostro break is a mismatch of cash flows between paying and receiving banks, and occurs when the expected cash settlement amount differs from the actual amount.

According to ISDA, the percentage of Nostro breaks per counterparty size is as follows:

Percent of monthly settlement volume resulting in nostro breaks

| | All | | 2010 | | |
|---------------|------|------|-------|--------|-------|
| | 2009 | 2010 | Large | Medium | Small |
| Interest rate | 9 | 4 | 3 | 3 | 4 |
| Credit | 6 | 4 | 2 | 3 | 5 |
| Equity | 15 | 6 | 7 | 2 | 7 |
| Currency | 6 | 4 | 3 | 1 | 6 |
| Commodity | 11 | 5 | 3 | 1 | 9 |

An additional question can be asked regarding the time frame for resolution of Nostro breaks. The ISDA results show that the distributions of resolution times for Nostro breaks, while still generally



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centered at 3–5 days, are shifting toward shorter times and that resolution times greater than four weeks have virtually disappeared.

6. Staffing

Question 6: *How many individuals do you employ to support your OTC derivatives trading activity (front office, trade capture, confirmations and settlement staff)?*

The discussion of OTC derivatives trading will not be complete if we don't address an easily verifiable information related to the number of staff supporting the activity. The level of automation of the process is also an important factor in determining the appropriate number of staff required to ensure proper execution. The ISDA survey shows the ratio of front office to support staff for different type of derivative contracts:

Ratio of front office to support staff, all respondents

| | Front Office / Trade Capture | | | Front office / Confirmations | | | Front office / Settlements | | |
|---------------|------------------------------|------|------|------------------------------|------|------|----------------------------|------|------|
| | 2008 | 2009 | 2010 | 2008 | 2009 | 2010 | 2008 | 2009 | 2010 |
| Interest rate | 5.3 | 5.5 | 3.5 | 3.5 | 3.6 | 3.3 | 4.1 | 4.9 | 4.9 |
| Credit | 3.6 | 4.3 | 3.2 | 2.7 | 3.1 | 3.4 | 3.8 | 3.5 | 3.7 |
| Equity | 3.5 | 4.8 | 3.4 | 5.4 | 4.7 | 5.3 | 7.3 | 6.8 | 8.2 |
| Currency | 4.2 | 3.6 | 3.4 | 3.2 | 3.1 | 3.1 | 5.2 | 5.6 | 5.5 |
| Commodity | 5.2 | 6.8 | 7.3 | 5.1 | 4.8 | 6.6 | 5.4 | 4.6 | 6.0 |

Regulators around the world are pushing for improved regulations with respect to the derivative market. The future of the industry will pass by an improvement of the contract standardization and improved transparency. Part of the solution will probably be found in increased use of central counterparty (CCP) clearing. This structure has three clear benefits. First, it improves the management of counterparty risk. Second, it allows the CCP to perform multilateral netting of exposures and payments, and thirdly, it improves transparency by making information on market activity and exposures – both prices and quantities – available to regulators and to the public (BIS, 2009).

In this article, we have attempted to provide investors in hedge funds with a brief overview of the challenges involved in derivatives trading. By asking the six key questions to your manager, you will obtain a sense of the appropriateness of their operations versus the industry standard practices.

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