

CDS Index Futures Launch At CBOT

CBOT will launch a credit default swap index future that simplifies some of the mechanics of the over-the-counter (OTC) market while offering the advantages of an exchange-traded product. The contract's underlying reference index will include 50 names selected by a series of rules - a departure from the OTC market where reference securities are added or subtracted according to the administering consortium. The new contract offers a smart combination of design choices and is the most promising structure to date for an exchange to tackle corporate bond credit indices.

Index Includes Financial Firms

One of the gaping holes of the CDS world is the inability of the financial community to trade default swaps on themselves, which is impossible because of the moral hazard it creates. The CDR Liquid 50 is a rules based index determined by liquidity of the reference instruments, and may include any financial firms, including dealers. Credit Derivative Research LLC publishes the index and the futures contracts settle to a constant maturity 5-year CDS spread. Rather than relying on a fixed coupon, like the CDX family of indices and iTraxx, the CBOT contract is a forward instrument, with no intermediate cash flows to contend with.

Contract longs benefit, and contract sellers lose, if the forward credit spread (as reflected in the CDR Liquid 50 index) widens out, which turns the usual price/yield arrangement on its head. Conversely, if the forward credit spread narrows, contract longs lose, and contract shorts benefit. In effect the contract long position acts like buying protection on the index portfolio, and the contract short position behaves like selling protection. The basis point value of the contract is \$500 and is fixed, which makes calculating the profit or loss from a position quite simple, as illustrated in Figure 2: change in the yield spread x \$500.

Maximum Running Spread

To avoid referencing an SEC registered security, either by physical settlement or via an ISDA auction, the CBOT contract introduces the idea of a "maximum running spread" which is essentially a cap on how high spreads can trade for a particular name if a default is imminent. This cap on spreads is a new invention to the default swap world and vastly simplifies the mechanics of the contract. No matter what happens, all 50 of the names in the index will continue to trade, but if there is a credit event then the highest the spread of a particular issuer can trade is the maximum running spread. Figure 3 illustrates that this spread is fixed at the inception of the contract, but it can be different for each expiration month, depending on the inputs for the calculation.

The CBOT has gone to great lengths to create as simple a design as possible while faithfully representing the risks of the OTC market. As long as the settlement values by CDR are reasonable, there should be virtually no basis risk compared to the OTC market, aside from the fact that this is a forward contract and CDS contracts are not. One benefit of creating a forward contract is an easy combination with the CBOT swap futures to create a diversified synthetic corporate bond portfolio.

Figure 1: Risk examples: interest rate and credit

<HELP> for explanation. N119 Index FCDS
<Menu> to return CPU:299

CREDIT DEFAULT SWAP		Spreads	
Deal	Series	View	All Quotes
Deal Information			
CDS Index: ITRX EUROPE 06/12	Deal#: SP75ZYGG	Curve Date: 6/ 4/07	Benchmark: S 45 AASK
Counterparty: ITRX EUR		EU BGN Swap Curve	Spnds:C Contributor AASK
Ticker: ITRX CDS Series: 7EU2	Settlement Code: EUR	CDS SP75ZYGG	IPMN
Business Days: EUR	Currency: EUR	Par Cds Spreads Default	Flat:N (bps) Prob
Business Day Adj: 1 Following	Factor: 1	6 mo 20.260 0.0017	1 yr 20.260 0.0034
B BUY Notional: 100.00 M	Knock Out: N	2 yr 20.260 0.0068	3 yr 20.260 0.0102
Effective Date: 3/20/07	Day Count: ACT/360	4 yr 20.260 0.0135	5 yr 20.260 0.0169
Maturity Date: 6/20/12	Month End: N	7 yr 20.260 0.0236	10 yr 20.260 0.0335
Payment Freq: Q Quarterly	First Cpn: 6/20/07	Frequency: Q Quarterly	Day Count: ACT/360
Pay Accrued: T True	Next to Last Cpn: 3/20/12	Recovery Rate: 0.40	
Curve Recovery: T True	Gen Method: B Backward		
Recovery Rate: 0.40	Deal Spread: 30.000 bps		
Calculator			
Settlement Date: 6/ 5/07	Mode: 1 Calc Price		
Cash Settled On: 6/ 7/07	Model: B Bloomberg		
Price: 100.43909833	Repl Spnd: 20.259 bps		
Market Val: -439.10	Days: 77		
Accrued: -6.17	Spnd DV01: 45.25		
Total Val: -501.26	IR DV01: .11		
<small> Controller 01 2 3077 8200 Brazil 01 3 3031 8200 London 05 6212 1000 0.4 Sydney 44 20 205 2000 Germany 49 69 320410 Hong Kong 852 2377 6000 Japan 81 3 3201 8200 Singapore 65 6212 1000 0.4 212 310 2000 Copyright 2007 Bloomberg L.P. 04-June-2007 13:45:49 </small>			

Spread DV01 = \$45.25 P&L from change in credit spreads
Interest Rate DV01 = \$0.11 P&L from change in swap rates

Figure 2: Maximum running spread calculation

Contract Value of a Basis Point:

$$\frac{\text{Tick Value}}{\text{Tick Size}} = \frac{\$5}{0.01 \text{ bp}} = \$500 / \text{bp}$$

Implied Notional:

$$\frac{\text{Contract Value of a Basis Point} \cdot \$1}{\text{Index DV01}}$$

$$\frac{\$500 / \text{bp} \cdot \$1}{\$0.000453 / \text{bp}} = \$1,103,753$$

Maximum Running Spread:

$$\frac{(1 - \text{Standard Recovery Rate}) \cdot \text{Implied CDS Notional}}{\text{Contract Value of a Basis Point}}$$

$$\frac{(1 - 40\%) \cdot \$1,103,753}{\$500} = 1,324.50 \text{ bps}$$

Note: The "contract value of a basis point" is different than the Spread DV01 of the index, which is \$452.5 / mm face in this example. The contract value of a basis point never changes, but the Spread DV01 will fluctuate based on the premium of the underlying CDS contracts, just like the DV01 of a Treasury note fluctuates with yields.

Source Data: Bear, Stearns & Co.

BEAR STEARNS

Bear, Stearns & Co. Inc.
383 Madison Avenue
New York, NY 10179
(212) 272-2000
www.bearstearns.com

The data underlying the information contained herein has been obtained from sources that we believe are reliable, but we do not guarantee the accuracy of the underlying data or computations based thereon. The information in this report is illustrative and is not intended to predict actual results, which may differ substantially from those reflected herein. Performance analysis is based on certain assumptions with respect to significant factors that may prove not to be as assumed. You should understand the assumptions and evaluate whether they are appropriate for your purposes. Performance results are often based on mathematical models that use inputs to calculate results. As with all models, results may vary significantly depending upon the value of the inputs given. Models used in any analysis may be proprietary making the results difficult for any third party to reproduce. Contact your registered representatives for explanations of any modeling techniques and the inputs employed in this report. The securities referenced herein are more fully described in offering documents prepared by the issuers, which you are strongly urged to request and review. Bear, Stearns & Co. Inc. ("Bear Stearns") and/or its affiliates or employees may have positions, make a market or deal as principal in the securities referred to herein or related instruments, while this document is circulating. During such period, Bear Stearns may engage in transactions with, or provide or seek to provide investment banking or other services to, the issuers identified in this report. Bear Stearns may have managed or co-managed a public offering of securities within the last three years for the issuers identified in this report, including regularly acting as an underwriter for Government Sponsored Enterprise issuers. Directors, officers or employees of Bear Stearns or its affiliates may be directors of such issuers. This document is not a solicitation of any transaction in the securities referred to herein which may be made only by prospectus when required by law, in which event you may obtain such prospectus from Bear Stearns. Any opinions expressed herein are subject to change without notice. We act as principal in transactions with you, and accordingly, you must determine the appropriateness for you of such transactions and address any legal, tax or accounting considerations applicable to you. Bear Stearns shall not be a fiduciary or advisor unless we have agreed in writing to receive compensation specifically to act in such capacities. If you are subject to ERISA, this report is being furnished on the condition that it will not form a primary basis for any investment decision.

Copyright © 2007 Bear, Stearns & Co. Inc. All rights reserved. Unauthorized duplication, distribution or public display is strictly prohibited by federal law.

DOMESTIC

(Bear, Stearns & Co. Inc.)

Atlanta
3424 Peachtree Road, NE, Suite 1700
Atlanta, GA 30326
(404) 842-4000

Boston
One Federal Street
Boston, MA 02110
(617) 654-2800

Chicago
Three First National Plaza
Chicago, IL 60602
(312) 580-4000

Dallas
300 Crescent Court, Suite 200
Dallas, TX 75201
(214) 979-7900

Denver
3200 Cherry Creek South Drive, Suite 260
Denver, CO 80209
(720) 570-2327

Los Angeles
1999 Avenue of the Stars
Los Angeles, CA 90067
(310) 201-2600

Memphis
1715 Aaron Brenner Drive, Suite 400
Memphis, TN 38120
(901) 757-6900

San Francisco
Citicorp Center
One Sansome Street, 41st floor
San Francisco, CA 94104
(415) 772-2900

San Juan
270 Muñoz Rivera Avenue, 5th Floor
Hato Rey, Puerto Rico 00918
(787) 753-2327

INTERNATIONAL

Beijing
Bear, Stearns & Co. Inc.
Representative Office
Room 1608
China World Tower
1 Jian Guo Men Wai Avenue
Level 16, Units 06-08
Beijing 100004
People's Republic of China
86-10-6505-5101

Dublin
Bear Stearns Bank plc
Block 8
Harcourt Center, Floor 3
Charlotte Way
Dublin 2 Ireland
353-1-402-6200

Hong Kong
Bear Stearns Asia Limited
26th Floor, Citibank Tower
Citibank Plaza
3 Garden Road, Hong Kong
852-2593-2700

London
Bear, Stearns International Limited
One Canada Square
London E14 5AD
England
44-207-516-6000

Lugano
Bear, Stearns & Co. Inc.
Corso Elvezia 14
P.O. Box 5155
6901 Lugano, Switzerland
41-91-911-7333

Milan
Bear, Stearns International Limited
Via Pietro Verri 6
20121 Milano
Italy
39-02-3030-1730

São Paulo
Bear Stearns do Brasil Ltda.
Rua Joaquim Floriano,
72 - 8 andar - cj 83
São Paulo, SP Brazil 04534-000
55-11-3457-3200

Shanghai
Bear, Stearns & Co. Inc.
Representative Office
Unit 09, 20th Floor, Building One,
Corporate Avenue
No. 222 Hu Bin Road
Luwang District, Shanghai 200021
People's Republic of China
86-21-6340-6600

Singapore
Bear Stearns Singapore Pte Limited
30 Raffles Place
#21-01 Caltex House
Singapore 048622
65-6437-3300

Tokyo
Bear Stearns (Japan), Ltd.
Shiroshima JT Trust Tower
3-1 Toranomon 4-chome
Minato-ku Tokyo 105-6022
Japan
813-3437-7800