



April 16, 2009

Methodology for Calculating the PC-Bond Multi Dealer Pricing (patent pending)

Canadian Fixed Income Pricing including the DEX Universe Bond Index and the family of DEX Fixed Income Indices.

Previous to October 1st, 2007, the DEX Fixed Income Indices utilized 4pm pricing from one Single Dealer – Scotia Capital Inc.

As of October 1st, 2007 the DEX Fixed Income Indices moved to a 4pm Multi Dealer Pricing model which provides a greater consensus on the valuation of the securities included in the indices. *The new Multi Dealer Pricing model is incorporated into an electronic system and method which has in turn been incorporated in to a world-wide patent application filing.* Prices for issues outside the indices also utilize the same 4pm Multi Dealer Pricing model and have moved from the single dealer price as of the following schedule:

Bonds -	October 1, 2007
Strips (Coupons, Residuals & Packages) -	November 1, 2007
MBS (Mortgage Backed Securities) -	April 2, 2008
CMBS (Commercial Mortgage Backed) -	March 8, 2009
BA's (Bankers Acceptances) -	March 8, 2009

Currently the TSX / PC-Bond Group receives Fixed Income pricing contributions from the following eleven (11) leading Canadian dealers – (listed alphabetically)

BMO Nesbitt Burns
Casgrain & Company
CIBC World Markets
Desjardins Securities
HSBC Securities (Canada)
Laurentian Bank Securities
Merrill Lynch Canada
National Bank Financial
Scotia Capital
RBC Dominion Securities

TD Securities

Pricing data from these dealers is passed through two differing proprietary scrub mechanisms prior to being submitted to the final Standard Deviation Mean calculation listed below.

These two scrubs are designed to first eliminate extreme outliers or clearly defined erroneous data that would possibly distort later calculations.

These scrubs:

- utilize the PC-Bond database (by reviewing historical volatilities of daily yields)
- review lead dealer pricing on an issue by issue basis where there is a poor consensus from dealers regarding levels
- filter CDS data (Clearing and Depository Services for Canadian Securities.) to best identify dealer pricing that is most in line with recent trades (qualified by minimum size of \$500,000 par value). *As of April 26, 2009 the pricing mechanism now further reconciles the CDS fixed income trade data to utilize any trade data that may have not been booked intraday, and was posted end of day or early the next day. This further enhances the scrubbing process by utilizing all possible trade data for each instrument.*
- compare Dealer to Dealer valuations for each instrument

Once the data has successfully passed through these two scrubbing mechanisms the pricing from each respective dealer is then put forth into the Standard Deviation Mean calculation.

The example below details how an issue that may have had ten original contributors has been pared down to just six prior to the Standard Deviation Mean calculation. The example also compares the benefits of the Standard Deviation Mean calculation to that of the Tops and Tails model.

Methodology for Calculating the DEX Multi Dealer Pricing

Example: 10 Year Provincial with six contributors, two being top heavy

Comparison of Standard Deviation Mean model (used by DEX Fixed Income Indices) to Top & Tail model (not used)

Standard Deviation Mean Model	
	Mid Yield
Contributor A	4.67
Contributor B	4.68
Contributor C	4.66
Contributor D	4.76
Contributor E	4.77
Contributor F	4.68
Initial Mean	4.70
Initial Std Dev	0.05
Mean minus Std Dev	4.65
Mean plus Std Dev	4.75
Initial Median	4.68
MID Yield outside of 4.65 and 4.75 are eliminated:	
MID Yields Used for final Mean	
Contributor A	4.6700
Contributor B	4.6800
Contributor C	4.6600
Contributor F	4.6800
Average Mean (Yield Used)	4.6725

Top & Tail Model		
		Eliminate Top and Tail
Contributor A	4.67	4.67
Contributor B	4.68	4.68
Contributor C	4.66	out (Tail)
Contributor D	4.76	4.76
Contributor E	4.77	out (Top)
Contributor F	4.68	4.68
Average (Yield Used)		4.698

Disclaimer

PC-Bond* calculates and publishes the DEX Universe Bond Index and other DEX Fixed Income Indices at its own expense as an information service to financial market participants. The indices are published on a best-efforts basis, and do not constitute a recommendation to trade any particular security.

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