

NOTICE OF EFFECTIVE DATE – TECHNICAL AMENDMENTS TO CDS PROCEDURES
CHANGES TO COLLATERAL HAIRCUTS FOR DEBT INSTRUMENTS

A. DESCRIPTION OF THE PROPOSED CDS PROCEDURE AMENDMENTS

On December 13, 2013, the Bank of Canada announced¹ that effective immediately haircuts to the over 35 year maturity category for Government of Canada and Government of Canada Guaranteed securities had been added. These haircuts were added in response to the recent long-term Government of Canada Guaranteed issuance.

The haircut rates applied to debt securities to determine collateral values in CDSX² have traditionally been based on the haircut rates used by the Bank of Canada for the Bank's Standing Liquidity Facility (SLF). This linkage is appropriate given that, in the event of a participant default, it is possible that collateral would be required to be pledged to the Bank of Canada under its SLF.

CDS's proposed collateral haircuts for debt instruments were presented to the CDS's Risk Advisory Committee (RAC) and were, thereafter, presented to the Risk Management and Audit Committee (RMAC) of the CDS Board of Directors on May 5, 2014. The RMAC recommendation to the Board of Directors to approve the proposed collateral haircuts for debt instruments was accepted on May 6th, 2014.

The proposed changes to the collateral haircuts for debt instruments do not require any application changes. All that is required is an update to the corresponding static data table.

CDS procedure amendments are reviewed and approved by CDS's strategic development review committee (SDRC). The SDRC determines or reviews, prioritizes and oversees CDS-related systems development and other changes proposed by participants and CDS. The SDRC's membership includes representatives from the CDS participant community and it meets on a monthly basis.

The proposed procedure amendments are available for review and download on the User Documentation page on the CDS website at www.cds.ca/cdsclearinghome.nsf/Pages/-EN-UserDocumentation?Open.

B. REASONS FOR TECHNICAL CLASSIFICATION

The amendments proposed in this Notice are considered technical in nature, and are required for consistency with haircut rates used by the Bank of Canada for the Bank's SLF.

C. EFFECTIVE DATE OF THE CDS PROCEDURE AMENDMENTS

CDS is recognized as a clearing agency by the Ontario Securities Commission pursuant to Section 21.2 of the Ontario *Securities Act*, and by the British Columbia Securities Commission pursuant to Section 24(d) of the British Columbia *Securities Act*, and as a clearing house by the *Autorité des marchés financiers* pursuant to Section 169 of the Quebec *Securities Act*. In addition CDS is deemed to be the clearing house for CDSX[®], a clearing and settlement system designated by the Bank of Canada pursuant to Section 4 of the *Payment Clearing and Settlement Act*.

CDS has determined that these amendments will become effective on October 31, 2014.

¹ <http://www.bankofcanada.ca/2013/12/publications/notices/additional-haircuts-assets-collateral-slf/>.

² For both ACV and collateral pledged to pools and funds.

D. QUESTIONS

Questions regarding this notice may be directed to:

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There are a number of adjustments made to the haircut rate for individual equity securities. These adjustments include a maximum haircut rate for any security of 100% and a maximum holding period of 10 days. Any equity security with less than one year of historical prices is subject to a minimum haircut of 15%. Securities where there has been a period of no trading of at least 20 consecutive days in the past year are subject to a minimum haircut rate of 75% to account for the potential illiquidity of that security. Furthermore, any equity security with trading activity in less than 10% of potential trading days in the past year is applied a 100% haircut.

A final set of adjustments are applied to securities where the backtesting results indicate that the calculated haircut rate was not sufficient to cover the historic price decreases. In those cases, the haircut rate is adjusted upwards to the level required to cover the historic price decreases at the 99% confidence level. In other words, the haircut rate is adjusted upward after-the-fact when it is not providing the necessary 99% confidence level.

Because of their option-like characteristics, rights, warrants and installment receipts are not supported by the VaR calculation in IRMS and are therefore subject to a haircut of 100%.

4.2.4.2. Haircut Rates for New Equity Issues

The VaR method cannot be used to determine the haircut for new equity issues because the VaR method requires historical price history to determine the standard deviation of price changes. In order to provide an appropriate amount of ACV for new issues, each new equity issue eligible in CDSX is assigned a haircut rate based on a standard haircut rate of 25%. This standard rate is adjusted as appropriate based on any available price history. After an initial 20-day period has elapsed, the haircut rate is calculated by IRMS at the next haircut calculation run, subject to the minimum haircut rate of 15% for the first year.

4.2.4.3. Haircut Rates for Debt

For debt instruments, haircuts are based on the security class, an issuer rating and its term to maturity. The table below outlines the haircut rates for different debt securities (including zero coupon bonds).

Security Type	Years to Maturity				
	0 to 1	1 to 3	3 to 5	5 to 10	>10
Government of Canada	0.5%	1.0%	1.5%	2.0%	3.0%
Federated guaranteed	1.0%	1.5%	2.5%	4.0%	4.5%
Provincial	1.5%	2.0%	3.0%	4.5%	6.0%
Provincial guaranteed	2.0%	2.5%	3.5%	5.0%	6.5%
Corporate AAA	3.0%	3.5%	4.0%	6.5%	9.0%
Corporate AA	3.0%	3.5%	4.0%	6.5%	9.0%
Corporate A	5.0%	5.5%	6.0%	8.5%	11.0%
Unrated public sector entities and government grants	15.0%	16.0%	17.0%	18.5%	20.0%
Unrated municipal	20.0%	21.0%	22.0%	23.5%	25.0%
Corporate BBB	30.0%		32.0%	33.0%	35.0%
Corporate BB and lower	100.0%				
U.S. T-bills, notes and bonds	1.0%		1.5%	3.0%	4.5%

Security Type	Years to Maturity				
	0 to 1	1 to 3	3 to 5	5 to 10	> 10
<u>Government of Canada</u>	<u>0.5%</u>	<u>1.0%</u>	<u>1.5%</u>	<u>2.0%</u>	<u>11.5%</u>
<u>Federated guaranteed</u>	<u>1.0%</u>	<u>1.5%</u>	<u>2.5%</u>	<u>4.0%</u>	<u>13.0%</u>
<u>Provincial</u>	<u>1.5%</u>	<u>2.0%</u>	<u>3.0%</u>	<u>4.5%</u>	<u>14.5%</u>
<u>Provincial guaranteed</u>	<u>2.0%</u>	<u>2.5%</u>	<u>3.5%</u>	<u>5.0%</u>	<u>15.0%</u>
<u>Corporate AAA</u>	<u>3.0%</u>	<u>3.5%</u>	<u>4.0%</u>	<u>6.5%</u>	<u>9.0%</u>
<u>Corporate AA</u>	<u>3.0%</u>	<u>3.5%</u>	<u>4.0%</u>	<u>6.5%</u>	<u>9.0%</u>
<u>Corporate A</u>	<u>5.0%</u>	<u>5.5%</u>	<u>6.0%</u>	<u>8.5%</u>	<u>11.0%</u>
<u>Unrated public sector entities and government grants</u>	<u>15.0%</u>	<u>16.0%</u>	<u>17.0%</u>	<u>18.5%</u>	<u>20.0%</u>
<u>Unrated municipal</u>	<u>20.0%</u>	<u>21.0%</u>	<u>22.0%</u>	<u>23.5%</u>	<u>25.0%</u>
<u>Corporate BBB</u>	<u>30.0%</u>		<u>32.0%</u>	<u>33.0%</u>	<u>35.0%</u>
<u>Corporate BB and lower</u>	<u>100.0%</u>				
<u>U.S. T-bills, notes and bonds</u>	<u>1.0%</u>		<u>1.5%</u>	<u>3.0%</u>	<u>4.5%</u>

10.5 Haircuts

Haircuts are applied against the market price to determine the value of the security for the purposes of the ACV edit as follows:

- Debt instruments, haircuts are based on the security class, an issuer rating and its term to maturity.
- Equities, CDS uses a value-at-risk (VaR) based methodology to calculate haircut rates for equity securities. For more information, see [CNS participant funds](#) on page 199.

The haircut represents the dollar value that securities could decline by from default to liquidation. The size of the haircut depends on the level of risk associated with the securities.

CDSX debt haircuts

The table below indicates the haircut rates that CDS applies to the market value of each debt security type.

Security type	Term Years to maturity				
	0 to 1 year	1 to 3 years	3 to 5 years	5 to 10 years	Greater than 10 years
Government of Canada	0.5%	1.0%	1.5%	2.0%	3.0 11.5%
Federated guaranteed	1.0%	1.5%	2.5%	4.0%	4.5 13.0%
Provincial	1.5%	2.0%	3.0%	4.5%	6.0 14.5%
Provincial guaranteed	2.0%	2.5%	3.5%	5.0%	6.5 15.0%
Corporate AAA	3.0%	3.5%	4.0%	6.5%	9.0%
Corporate AA	3.0%	3.5%	4.0%	6.5%	9.0%
Corporate A	5.0%	5.5%	6.0%	8.5%	11.0%
Unrated public sector entities and government grants	15.0%	16.0%	17.0%	18.5%	20.0%
Unrated municipals	20.0%	21.0%	22.0%	23.5%	25.0%
Corporate BBB	30.0%		32.0%	33.0%	35.0%
Corporate BB and lower	100.0%				
Corporate B	100.0%				
Corporate C	100.0%				
U.S. Treasury bills, notes and bonds (interest bearing and zero coupon bonds) ¹	1.0%		1.5%	3.0%	4.5%

¹ The value of U.S. Treasury securities is determined using NSCC haircuts that apply to zero coupon bonds.

There are a number of adjustments made to the haircut rate for individual equity securities. These adjustments include a maximum haircut rate for any security of 100% and a maximum holding period of 10 days. Any equity security with less than one year of historical prices is subject to a minimum haircut of 15%. Securities where there has been a period of no trading of at least 20 consecutive days in the past year are subject to a minimum haircut rate of 75% to account for the potential illiquidity of that security. Furthermore, any equity security with trading activity in less than 10% of potential trading days in the past year is applied a 100% haircut.

A final set of adjustments are applied to securities where the backtesting results indicate that the calculated haircut rate was not sufficient to cover the historic price decreases. In those cases, the haircut rate is adjusted upwards to the level required to cover the historic price decreases at the 99% confidence level. In other words, the haircut rate is adjusted upward after-the-fact when it is not providing the necessary 99% confidence level.

Because of their option-like characteristics, rights, warrants and installment receipts are not supported by the VaR calculation in IRMS and are therefore subject to a haircut of 100%.

4.2.4.2. Haircut Rates for New Equity Issues

The VaR method cannot be used to determine the haircut for new equity issues because the VaR method requires historical price history to determine the standard deviation of price changes. In order to provide an appropriate amount of ACV for new issues, each new equity issue eligible in CDSX is assigned a haircut rate based on a standard haircut rate of 25%. This standard rate is adjusted as appropriate based on any available price history. After an initial 20-day period has elapsed, the haircut rate is calculated by IRMS at the next haircut calculation run, subject to the minimum haircut rate of 15% for the first year.

4.2.4.3. Haircut Rates for Debt

For debt instruments, haircuts are based on the security class, an issuer rating and its term to maturity. The table below outlines the haircut rates for different debt securities (including zero coupon bonds).

Security Type	Years to Maturity				
	0 to 1	1 to 3	3 to 5	5 to 10	>10
Government of Canada	0.5%	1.0%	1.5%	2.0%	3.0%
Federated guaranteed	1.0%	1.5%	2.5%	4.0%	4.5%
Provincial	1.5%	2.0%	3.0%	4.5%	6.0%
Provincial guaranteed	2.0%	2.5%	3.5%	5.0%	6.5%
Corporate AAA	3.0%	3.5%	4.0%	6.5%	9.0%
Corporate AA	3.0%	3.5%	4.0%	6.5%	9.0%
Corporate A	5.0%	5.5%	6.0%	8.5%	11.0%
Unrated public sector entities and government grants	15.0%	16.0%	17.0%	18.5%	20.0%
Unrated municipal	20.0%	21.0%	22.0%	23.5%	25.0%
Corporate BBB	30.0%		32.0%	33.0%	35.0%
Corporate BB and lower	100.0%				
U.S. T-bills, notes and bonds	1.0%		1.5%	3.0%	4.5%

Security Type	Years to Maturity				
	0 to 1	1 to 3	3 to 5	5 to 10	> 10
<u>Government of Canada</u>	<u>0.5%</u>	<u>1.0%</u>	<u>1.5%</u>	<u>2.0%</u>	<u>11.5%</u>
<u>Federated guaranteed</u>	<u>1.0%</u>	<u>1.5%</u>	<u>2.5%</u>	<u>4.0%</u>	<u>13.0%</u>
<u>Provincial</u>	<u>1.5%</u>	<u>2.0%</u>	<u>3.0%</u>	<u>4.5%</u>	<u>14.5%</u>
<u>Provincial guaranteed</u>	<u>2.0%</u>	<u>2.5%</u>	<u>3.5%</u>	<u>5.0%</u>	<u>15.0%</u>
<u>Corporate AAA</u>	<u>3.0%</u>	<u>3.5%</u>	<u>4.0%</u>	<u>6.5%</u>	<u>9.0%</u>
<u>Corporate AA</u>	<u>3.0%</u>	<u>3.5%</u>	<u>4.0%</u>	<u>6.5%</u>	<u>9.0%</u>
<u>Corporate A</u>	<u>5.0%</u>	<u>5.5%</u>	<u>6.0%</u>	<u>8.5%</u>	<u>11.0%</u>
<u>Unrated public sector entities and government grants</u>	<u>15.0%</u>	<u>16.0%</u>	<u>17.0%</u>	<u>18.5%</u>	<u>20.0%</u>
<u>Unrated municipal</u>	<u>20.0%</u>	<u>21.0%</u>	<u>22.0%</u>	<u>23.5%</u>	<u>25.0%</u>
<u>Corporate BBB</u>	<u>30.0%</u>		<u>32.0%</u>	<u>33.0%</u>	<u>35.0%</u>
<u>Corporate BB and lower</u>	<u>100.0%</u>				
<u>U.S. T-bills, notes and bonds</u>	<u>1.0%</u>		<u>1.5%</u>	<u>3.0%</u>	<u>4.5%</u>

The calculation of VaR in IRMS is done by measuring the standard deviation of one-day price changes for each equity security over the most recent 20, 90 and 260 day periods. The largest of these standard deviations is used along with the confidence level factor and holding period to calculate the haircut¹¹.

There are a number of adjustments made to the haircut rate for individual equity securities. These adjustments include a maximum haircut rate for any security of 100% and a maximum holding period of 10 days. Any equity security with less than one year of historical prices is subject to a minimum haircut of 15%. Securities where there has been a period of no trading of at least 20 consecutive days in the past year are subject to a minimum haircut rate of 75% to account for the potential illiquidity of that security. Furthermore, any equity security with trading activity in less than 10% of potential trading days in the past year is applied a 100% haircut.

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4.2.4.3. Haircut Rates for Debt

For debt instruments, haircuts are based on the security class, an issuer rating and its term to maturity. The table below outlines the haircut rates for different debt securities (including zero coupon bonds).

Security Type	Years to Maturity				
	0 to 1	1 to 3	3 to 5	5 to 10	> 10
Government of Canada	0.5%	1.0%	1.5%	2.0%	11.5%
Federated guaranteed	1.0%	1.5%	2.5%	4.0%	13.0%
Provincial	1.5%	2.0%	3.0%	4.5%	14.5%
Provincial guaranteed	2.0%	2.5%	3.5%	5.0%	15.0%
Corporate AAA	3.0%	3.5%	4.0%	6.5%	9.0%
Corporate AA	3.0%	3.5%	4.0%	6.5%	9.0%
Corporate A	5.0%	5.5%	6.0%	8.5%	11.0%

¹¹ The maximum of the 20, 90 and 260-day standard deviations is multiplied by 2.33 to achieve a 99% confidence level and then multiplied by the square root of the holding period.

Security Type	Years to Maturity				
	0 to 1	1 to 3	3 to 5	5 to 10	> 10
Unrated public sector entities and government grants	15.0%	16.0%	17.0%	18.5%	20.0%
Unrated municipal	20.0%	21.0%	22.0%	23.5%	25.0%
Corporate BBB	30.0%		32.0%	33.0%	35.0%
Corporate BB and lower	100.0%				
U.S. T-bills, notes and bonds	1.0%		1.5%	3.0%	4.5%

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Unrated public sector entities and government grants	15.0%	16.0%	17.0%	18.5%	20.0%
Unrated municipal	20.0%	21.0%	22.0%	23.5%	25.0%
Corporate BBB	30.0%		32.0%	33.0%	35.0%
Corporate BB and lower	100.0%				
U.S. Treasury bills, notes and bonds	1.0%		1.5%	3.0%	4.5%

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Provincial	1.5%	2.0%	3.0%	4.5%	14.5%
Provincial guaranteed	2.0%	2.5%	3.5%	5.0%	15.0%
Corporate AAA	3.0%	3.5%	4.0%	6.5%	9.0%
Corporate AA	3.0%	3.5%	4.0%	6.5%	9.0%
Corporate A	5.0%	5.5%	6.0%	8.5%	11.0%

¹¹ The maximum of the 20, 90 and 260-day standard deviations is multiplied by 2.33 to achieve a 99% confidence level and then multiplied by the square root of the holding period.

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Corporate BBB	30.0%		32.0%	33.0%	35.0%
Corporate BB and lower	100.0%				
U.S. T-bills, notes and bonds	1.0%		1.5%	3.0%	4.5%