

LTD - Margin Collateral Haircut Schedule			19-Dec-16	
Government Securities (Description & Bloomberg Code)		Term	Haircut (Conventional Bonds)	Haircut (Inflation Linked Bonds)
Australia	Australian Treasury Bill (ACTB) Australian Government Bond (ACGB) Australian Government I/L (ACGB)	11 business days <= 1yr	5.88%	5.88%
		> 1yr <= 3yrs	6.25%	6.25%
		> 3yrs <= 7 yrs	7.50%	7.50%
		> 7yrs <= 11yrs	8.00%	8.00%
		> 11yrs <= 30yrs	11.25%	11.25%
		> 30yrs	n/a	n/a
Austria	Austrian Treasury Bill (RATB) Austrian Government Bond (RAGB)	4 business days <= 1yr	5.50%	
		> 1yr <= 3yrs	6.25%	
		> 3yrs <= 7 yrs	8.00%	
		> 7yrs <= 11yrs	8.25%	
		> 11yrs <= 30yrs	11.50%	
		> 30yrs	13.63%	
Belgium	Belgian Treasury Bill (BGTB) Belgian Government Bond (BGB)	4 business days <= 1yr	6.13%	
		> 1yr <= 3yrs	7.00%	
		> 3yrs <= 7 yrs	8.75%	
		> 7yrs <= 11yrs	10.00%	
		> 11yrs <= 30yrs	13.25%	
		> 30yrs	17.13%	
Canada	Canadian Treasury Bill (CTB) Canadian Government Bond (CAN) Canada Government Real Return Bond (CAN)	10 calendar days <= 1yr	5.50%	5.50%
		> 1yr <= 3yrs	6.13%	6.13%
		> 3yrs <= 7 yrs	6.88%	6.88%
		> 7yrs <= 11yrs	7.50%	7.75%
		> 11yrs <= 30yrs	9.25%	11.63%
		> 30yrs	10.50%	11.63%
Denmark	Danish Treasury Bill (DGTB) Danish Government Bond (DGB) Danish Government I/L (DGBI)	6 business days <= 1yr	5.63%	5.63%
		> 1yr <= 3yrs	6.25%	6.25%
		> 3yrs <= 7 yrs	7.25%	7.25%
		> 7yrs <= 11yrs	7.88%	7.88%
		> 11yrs <= 30yrs	10.50%	n/a
		> 30yrs	n/a	n/a
Finland	Finnish Treasury Bill (RFTB) Finnish Government Bonds (RFGB)	4 business days <= 1yr	5.50%	
		> 1yr <= 3yrs	6.25%	
		> 3yrs <= 7 yrs	7.25%	
		> 7yrs <= 11yrs	8.00%	
		> 11yrs <= 30yrs	11.50%	
		> 30yrs	n/a	
France	Bons du Trésor à Taux Fixe et Intérêt Précompté (BTF) Bons du Trésor à Taux Fixe et Intérêt Annuel (BTNS) Bons du Trésor à Taux Fixe et Intérêt Annuel I/L (BTNS) Obligations Assimilables du Trésor (FRTR) Obligations Assimilables du Trésor I/L (FRTR)	4 business days <= 1yr	5.75%	5.75%
		> 1yr <= 3yrs	6.25%	6.25%
		> 3yrs <= 7 yrs	7.25%	8.25%
		> 7yrs <= 11yrs	7.75%	10.50%
		> 11yrs <= 30yrs	11.25%	12.25%
		> 30yrs	13.50%	n/a
Germany	German Treasury Bill (BUBILL) Bundesschatzanweisungen (BKO) Bundesobligationen (OBL) Bundesobligationen I/L (OBLI) Deutsche Bundesrepublik (DBR) Deutschland I/L (DBRI)	3 business days <= 1yr	5.50%	5.50%
		> 1yr <= 3yrs	6.13%	6.13%
		> 3yrs <= 7 yrs	7.25%	8.50%
		> 7yrs <= 11yrs	8.00%	8.00%
		> 11yrs <= 30yrs	12.25%	12.25%
		> 30yrs	12.75%	12.75%
Italy	Buoni Ordinari del Tesoro (BOTS) Buoni del Tesoro Poliennali (BTPS) Buoni del Tesoro Poliennali I/L (BTPS) Certificati di Credito del Tesoro (CCTS)	3 business days <= 1yr	8.00%	8.50%
		> 1yr <= 3yrs	10.50%	11.25%
		> 3yrs <= 7 yrs	14.13%	14.50%
		> 7yrs <= 11yrs	15.88%	20.50%
		> 11yrs <= 30yrs	19.75%	23.25%
		> 30yrs	21.63%	n/a
Japan	Japanese Treasury Bill (JGTB) Japanese Treasury Discount Bill (JTDB) Japanese Government Bond (JGB)	6 business days <= 1yr	7.25%	
		> 1yr <= 3yrs	7.50%	
		> 3yrs <= 7 yrs	8.38%	
		> 7yrs <= 11yrs	8.75%	
		> 11yrs <= 30yrs	13.00%	
		> 30yrs	14.00%	

Government Securities (Description & Bloomberg Code)		Term	Haircut (Conventional Bonds)	Haircut (Inflation Linked Bonds)
Luxembourg	Luxembougois Government Bonds (LGB)	5 business days <= 1yr	5.88%	
		> 1yr <= 3yrs	6.50%	
		> 3yrs <= 7 yrs	7.38%	
		> 7yrs <= 11yrs	8.13%	
		> 11yrs <= 30yrs	11.38%	
		> 30yrs	13.63%	
Netherlands	Dutch Treasury Certificate (DTB) Dutch Government Bond (NETHER)	10 business days <= 1yr	5.50%	
		> 1yr <= 3yrs	6.13%	
		> 3yrs <= 7 yrs	7.25%	
		> 7yrs <= 11yrs	7.50%	
		> 11yrs <= 30yrs	11.63%	
		> 30yrs	12.38%	
Norway	Norwegian Treasury Bill (NGTB) Norwegian Government Bond (NGB)	9 business days <= 1yr	5.50%	
		> 1yr <= 3yrs	6.50%	
		> 3yrs <= 7 yrs	7.50%	
		> 7yrs <= 11yrs	8.88%	
		> 11yrs <= 30yrs	n/a	
		> 30yrs	n/a	
Spain	Spanish Letras del Tesoro (SGLT) Spanish Government Bond (SPGB)	3 business days <= 1yr	7.88%	
		> 1yr <= 3yrs	10.63%	
		> 3yrs <= 7 yrs	14.38%	
		> 7yrs <= 11yrs	16.63%	
		> 11yrs <= 30yrs	22.38%	
		> 30yrs	23.88%	
Sweden	Swedish Treasury Bill (SWTB) Swedish Government Bond (SGB) Swedish Government I/L (SGBI)	4 business days <= 1yr	5.38%	5.38%
		> 1yr <= 3yrs	6.25%	6.25%
		> 3yrs <= 7 yrs	7.50%	7.50%
		> 7yrs <= 11yrs	8.13%	8.13%
		> 11yrs <= 30yrs	11.88%	11.88%
		> 30yrs	n/a	n/a
Switzerland	Swiss Treasury Bill (SWISTB) Swiss Government Bond (SWISS)	3 business days <= 1yr	5.88%	
		> 1yr <= 3yrs	6.13%	
		> 3yrs <= 7 yrs	7.00%	
		> 7yrs <= 11yrs	7.75%	
		> 11yrs <= 30yrs	12.75%	
		> 30yrs	15.63%	
United Kingdom	United Kingdom Treasury Bill (UKTB) United Kingdom Gilt (UKT) United Kingdom Index Linked Gilt (UKTI)	9 business days <= 1yr	5.50%	5.50%
		> 1yr <= 3yrs	6.25%	8.00%
		> 3yrs <= 7 yrs	7.50%	8.50%
		> 7yrs <= 11yrs	8.25%	10.00%
		> 11yrs <= 30yrs	10.75%	13.13%
		> 30yrs	11.88%	13.13%
United States	United States Treasury Bill (B) United States Treasury Bond (T) United States Treasury Inflation Indexed Bond (TII)	3 business days <= 1yr	5.50%	7.00%
		> 1yr <= 3yrs	6.63%	7.63%
		> 3yrs <= 7 yrs	8.00%	8.25%
		> 7yrs <= 11yrs	8.75%	10.00%
		> 11yrs <= 30yrs	12.50%	16.00%
		> 30yrs	n/a	n/a

Mortgage Backed Securities (Description & Bloomberg Code)		Term Since Issue	Haircut
US MBS	General National Mortgage Association (GNMA)	New (0 - 30 months)	17.25%
		Medium (30- 60 months)	19.75%
		Seasoned (> 60 months)	N/a

Government Agencies (Description & Bloomberg Code)		Term	Haircut
US Agencies	Federal National Mortgage Association (FNMA) Federal Home Loan Mortgage Corporation (FHLMC) Federal Home Loan Banks (FHLB)	3 business days <= 1yr	6.00%
		> 1yr <= 3yrs	6.75%
		> 3yrs <=7 yrs	8.38%
		> 7yrs <= 11yrs	9.25%
		> 11yrs <= 30yrs	12.50%
EUR Agencies	Kreditanstalt für Wiederaufbau (KfW) FMS Wertmanagement (FMSWER)	3 business days <= 1yr	5.88%
		> 1yr <= 3yrs	6.13%
		> 3yrs <=7 yrs	7.00%
		> 7yrs <= 11yrs	7.88%
		> 11yrs <= 30yrs	13.00%

Securities issued under Government Credit Guarantee Schemes		Term	Haircut
Australia	Government Guaranteed Bonds	3 business days <= 1yr	6.50%
		> 1yr <= 3yrs	8.25%
		> 3yrs <=7 yrs	
Austria	Government Guaranteed Bonds	3 business days <= 1yr	6.25%
		> 1yr <= 3yrs	8.50%
		> 3yrs <=7 yrs	
France	Government Guaranteed Bonds	3 business days <= 1yr	6.25%
		> 1yr <= 3yrs	9.25%
		> 3yrs <=7 yrs	
Germany	Government Guaranteed Bonds	3 business days <= 1yr	6.00%
		> 1yr <= 3yrs	8.00%
		> 3yrs <=7 yrs	
Netherlands	Government Guaranteed Bonds	3 business days <= 1yr	6.00%
		> 1yr <= 3yrs	8.00%
		> 3yrs <=7 yrs	
Sweden	Government Guaranteed Bonds	3 business days <= 1yr	6.00%
		> 1yr <= 3yrs	9.75%
		> 3yrs <=7 yrs	

Other Stipulations		
Haircuts	FX	To capture the potential FX exposure related to cover being provided in a currency other than the underlying liability, a 5.25% incremental FX haircut has been applied upon all securities in the schedule above, regardless of the currency of the asset.
	Additional	Certain collateral can at times be subject to additional haircuts above those stated. Members lodging this collateral will be contacted directly as appropriate, and further detail can be obtained by contacting CaLM Risk.
Market of Issue		Government securities must be issued in the home country of the issuer and be denominated in the domestic currency to be acceptable.  Government agencies and securities issued under Government Credit Guarantee Schemes must both be issued in the home country of the issuer and be denominated in the domestic currency to be acceptable. These instrument categories are maintained using ISIN lists.
Maximum Term Maturity		Haircuts have been set appropriately to reflect the current maximum term maturity for each issuer. Any new issuances of maturity greater than the existing will need to be assessed before being accepted as margin collateral.  Conventional Bonds maximum eligible term: Australia: 25 yrs Denmark: 25 yrs Finland: 30 yrs Germany: 32 yrs Norway: 11 yrs Sweden: 30 yrs United States: 30 yrs  Inflation Linked Bonds maximum eligible term: Australia ILB: 25 yrs Denmark ILB: 11 yrs France ILB: 30 yrs Italy ILB: 30 yrs Sweden ILB: 30 yrs United States ILB: 30 yrs

<b>Excluded Instruments</b>	Zero coupon bonds, stripped bonds and perpetual bonds Japanese Govt FRNs and Japanese Govt ILBs
<b>Concentration Controls</b>	In addition to the concentration limits in place upon particular asset types as noted above, LCH.Clearnet reserves the right to manage specific concentrations in margin collateral in all circumstances. Where positions are considered to be excessively concentrated, members will be contacted directly with a view to re-alignment of their portfolio.
<b>Swiss Bonds</b>	Swiss Bonds can currently only be accepted via the tri-party service offered at EuroClear and Clearstream.