FX Haircuts
Collateral Reporting Changes

Clearing Member Impact

LCH The Markets' Partner

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Introduction

LCH is enhancing its management of FX risk on collateral posted to the Clearing House as margin, as advised most recently in LCH circular no. 3947 on the 19th April 2018, with the objective to apply FX haircuts only on collateral where the collateral currency differs from the currency of risk* in the cleared trade portfolio.

This will see the introduction of cash collateral haircuts and the removal of the FX haircut floor on securities collateral (currently 5.25%). Haircuts will now be at collateral account level. Business processing will be affected as follows:

- FX haircuts could now be applied to margin calls – where there is a difference between the currency of risk and the Clearing Member's margin call preference currency – the resulting margin call amount will be higher than the liability shortage amount

- Where FX haircuts are applied to excess cash – due to there being a difference between the currency of risk and the Clearing Member's excess collateral balance – the resulting amount to be repaid (auto-repay amount) will be higher than the unutilised cash amount.

As a result LCH will be making changes to the LCH Banking Reports as described in the subsequent pages. These changes will be introduced on different dates in Q3 /Q4 2018, see next page for more details on timing.

* The currency of risk is determined as the main currency for the cleared portfolio. It will always be an existing Initial Margin currency.

Report Change Summary

Report	Type of Change	Timing	Summary of change
REP00019 - Overnight Cover Distribution	Content	Target Date: 23rd October 2018	Extended usage of one existing field (Liability Shortage Other Total). The change is targeted for 23rd October. Further updates and confirmation of this date will be provided to Members in due course.
REP00030 - Cover Calling Summary	Report Decommissioned	Target Date: 29th October 2018 (subject to regulatory review and approval)	The report will be decommissioned once FX haircuts are applied to cash, which is targeted for 29th October. Further updates and confirmation of this date will be provided to Members in due course. Members should use the new REP00031 – Collateral and Exposure Summary to source information previously contained in this report.
REP00031 – Collateral and Exposure Summary	New Report	Available from: 3rd September 2018	A new end of day report available in both PDF and TXT that will show members the Currency of Risk for each account as well as totals by currency for liabilities, collateral value, margin calls, margin call returns etc. The report is due to replace the existing REP00030 – Cover Calling Summary and will be available to members in parallel from the 3rd September.
REP00046a/46 - SOD Cash Collateral Holdings / Cash Collateral Holdings	New Report/s	Available from: 3rd September 2018	A new start of day and intraday report in both PDF and TXT that will show members their current cash balance per account, per currency and include haircut and pre and post haircut valuation of the balance in a reference currency.

Report Specifications

The following pages explain in detail the changes that will be made using a variety of different example scenarios as follows:

- The first scenario shows each of the impacted reports with existing haircuts applied, as they will be from the 3rd September 2018.

- The second scenario shows the impact of collateral level FX haircuts being applied, with a GBP Currency of Risk, as would be the case from the 29th October 2018 (date subject to regulatory review and approval).

For ease of understanding the same examples are used across the different reports so members can see where data can be cross referenced.

REP00019 - Overnight Cover Distribution

The change to the REP00019 – Overnight Cover Distribution report is outlined in the table below.

Field	Current usage	New usage
Liability Shortage Other Total	Reports the call amount related to the Liability Shortage, in the margin call currency, where the member has elected to use an alternative currency and not to be called in the currency of the liability. Where the call is in the currency of the liability this is reported as 0.00.	Reports the call amount related to the Liability Shortage, in the margin call currency, even if the call is issued in the currency of the liability. The amount reported will be higher than the Liability Shortage if an FX Haircut is to be applied (where the call is not in the account's Currency of Risk).

The example scenarios provided on the following 2 pages, are explained below:

1. **Liability Cover Total** – The excess or deficit for each GBP Comm Group (-£599,989.10 in the Scenario 1). The collateral values shown here (post haircut totals) continue to be shown in the reporting currency (EUR). Use reports REP00036a and REP00046a for details on the collateral and haircuts. Notice how in Scenario 2 the UK Conventional collateral is no longer subject to the 5.25% FX haircut.
2. **Liability Shortage -** The deficit across all Comm Groups in the reporting currency. This is the shortage that must be covered by a margin call and will also be reported in REP00031 – Collateral and Exposure Summary
3. **Liability Shortage Other Total –** As above, reporting the alternative currency call amount related to the Liability Shortage, which in Scenario 2 is increased due to an FX Haircut
4. **Total Net Shortage -** The GBP Total Net Shortage amount of 0.00, as an alternative currency is used for the shortage and there is no VM.

5. **Liability Cover Total** – The excess or deficit for each EUR Comm Group (-€191,081.63 in the Scenario 1). The collateral values shown here (post haircut totals) continue to be shown in the reporting currency (EUR). Use reports REP00036a and REP00046a for details on the collateral and haircuts. Notice how in Scenario 2 the USD cash is now subject to an FX haircut.
6. **Liability Shortage -** The deficit across all Comm Groups in the reporting currency. This is the shortage that must be covered by a margin call and will also be reported in REP00031 – Collateral and Exposure Summary
7. **Liability Shortage Other Total –** As above, reporting the call amount related to the Liability Shortage, which in Scenario 2 is increased due to an FX Haircut. Previous to the change in the report this would have been reported as 0.00 in this example.
8. **Total Net Shortage -** The GBP Total Net Shortage amount of €791,081.63 (in scenario 1), which is the total of all activity on this page = Liability Shortage Other Total (-€191,081.63 in the Scenario 1) + the VM Debit position (-€600,000.00).

REP00019 - Overnight Cover Distribution

Scenario 1 – Report changes with existing haircuts applied

Date	14/05/20XX				
Member	ABC	ABC BANK			
Account	H				
Currency	GBP				
Cash Cover Balance:	CREDIT			1,000,000.00	1,000,000.00
Comm Group	LIABILITY			-2,300,839.80	
RCL GBP	UK Convent			947,500.00	
	Member Tri	(USD)		753,350.70	-599,989.10 1
Liability Shortage GBP					-599,989.10 2
		* In EUR Protected Payment *			-682,503.81 3
Total Net Shortage of GBP					0.00 4
Overall Unutilised				**Amount**	**Total**

Date	14/05/20XX				
Member	ABC	ABC BANK			
Account	H				
Currency	EUR				
Cash Cover Balance:	DEBIT			-600,000.00	-600,000.00
Comm Group	LIABILITY			-1,500,000.00	
RCL EUR	Other Cash	(USD)		171,391.36	
	Other Cash	(GBP)		1,137,527.02	-191,081.63 5
Liability Shortage EUR					-191,081.63 6
					-191,081.63 7
Total Net Shortage of EUR		Protected Payment			-791,081.63 8
Overall Unutilised				**Amount**	**Total**

REP00019 - Overnight Cover Distribution

Scenario 2 – Report changes with collateral level haircuts applied

Date	14/05/20XX				
Member	ABC	ABC BANK			
Account	H				
Currency	GBP				
Cash Cover Balance:	CREDIT			1,000,000.00	1,000,000.00
Comm Group	LIABILITY			-2,300,839.80	
RCL GBP	UK Convent			1,000,000.00	
	Member Tri	(USD)		753,350.70	-547,489.10 1
Liability Shortage GBP					-547,489.10 2
		* In EUR Protected Payment *			-646,711.98 3
Total Net Shortage of GBP					0.00 4
Overall Unutilised				**Amount**	**Total**

Date	14/05/20XX				
Member	ABC	ABC BANK			
Account	H				
Currency	EUR				
Cash Cover Balance:	DEBIT			-600,000.00	-600,000.00
Comm Group	LIABILITY			-1,500,000.00	
RCL EUR	Other Cash	(USD)		163,164.57	
	Other Cash	(GBP)		1,137,527.02	-199,308.41 5
Liability Shortage EUR					-199,308.41 6
					-206,966.16 7
Total Net Shortage of EUR		Protected Payment			-806,966.16 8
Overall Unutilised				**Amount**	**Total**

REP00030 - Cover Calling Summary

Scenario 1 – Report changes with existing haircuts applied

The Cover Calling Summary report will no longer be produced following the application of cash haircuts, which is targeted for 29th October. The following outlines where members can retrieve the same information in future.

Date: 01/06/20XX
Member ABC ABC BANK
Account H

Ccy	EUR Exc. Rate	Total Liability	Cash Cover	Net Shortage Protected Payment	Converted Currency	Converted Cash Call	Unutilised Cash	Auto Repay	Non Cash Unutilised
EUR	1.000000	-1,500,000.00	-600,000.00	-791,081.63		0.00	0.00	Y	0.00
GBP	0.879100	-2,300,839.80	1,000,000.00	0.00	EUR	-682,503.81	0.00	N	0.00
USD	1.166920	0.00	200,000.00	0.00		0.00	0.00	Y	0.00

This will list all the currencies in which liabilities or balances are held	This rate is calculated at 16:00 daily and is a notional rate used in the cover distribution process	This equates to total liability requirement	This is the opening cash balance after all variation margin has been applied from previous day's trading, also includes fees, interest, and previous day's call/pay	This is the amount of cash after the cash cover balance and any collateral has been fully utilised. This will be debited from your bank account	The currency that has been changed from the original liability amount at the Clearing Member's instruction	The amount of the call that has been changed in the currency of the Clearing Member's preference	Represents unutilised cash after liability has been covered	Clearing Members can select automatic repayment of all excess cash	Unutilised securities and guarantees after cover distribution process. All displayed in GBP equivalent
Available in REP00031	Available in REP00031	Available in REP00031	Available in both REP00022 REP00019	Available in REP00019	Available in both REP00019 REP00031	Available in REP00019	Available in REP00031	Available in REP00031	Available in REP00031

REP00031 - Collateral and Exposure Summary

Scenario 1 – Report changes with existing haircuts applied

The following outlines the fields available in the new REP00031 – Collateral and Exposure Summary.PDF report, which will be available from the 3rd September. Additional fields are available in the TXT file (see next page for details).

Date: 01/06/20XX
Member ABC ABC BANK
Account H
Currency of Risk

Reporting Currency	EUR Exchange Rate	Exposure Amount	Total Value of Collateral	Liability Shortage	Expected Collateral	Call Amount	Return Amount	Return Excess	Excess Collateral Value
EUR	1.000000	-1,500,000.00	0.00	-191,081.63		-1,473,585.44	0.00	Y	0.00
GBP	0.879100	-2,300,839.80	947,500.00	-599,989.10	EUR	0.00	0.00	N	0.00
USD	1.166920	0.00	1,200,000.00	0.00		0.00	0.00	Y	0.00

This will list all the currencies in which liabilities or balances are held	This rate is calculated at 16:00 daily and is a notional rate used in the cover distribution process	This is the total liability requirement	This is the total post haircut value of all collateral (cash and securities*) denominated in the reporting currency.	This shows the amount of deficit per exposure amount when compared to the total value of collateral (in all currencies). A margin call will be issued to cover this shortage.	If the margin call is issued in an alternative currency (due to the Clearing Member's margin call preferences) then that alternative currency is shown here.	The total margin call amount in each currency. This includes both initial margin and variation margin calls.	The total amount of excess or variation margin automatically returned (auto-repay) in each currency.	The Clearing Member's preference for the automatic return of excess (auto-repay) for each currency (Y or N). Will show S when auto-repay is suspended due to a currency holiday.	The total value of excess collateral (cash and securities* post haircut value) denominated in the reporting currency after excess is returned.
Exact match to REP00030	Exact match to REP00030	Exact match to REP00030	New field	Previously only available in REP00019	Exact match to REP00030	New field	New field	Similar to Auto Repay in REP00030	New field

* Triparty collateral is denominated in the transaction currency for the purposes of this report.

REP00031 - Collateral and Exposure Summary

Scenario 2 – Report changes with collateral level haircuts applied

The following outlines the fields available in the new REP00031 – Collateral and Exposure Summary.PDF report, as it will look from the 29th October. Additional fields are available in the TXT file (see next page for details).

Date: 01/06/20XX
Member ABC ABC BANK
Account H
Currency of Risk GBP

Reporting Currency	EUR Exchange Rate	Exposure Amount	Total Value of Collateral	Liability Shortage	Expected Collateral	Call Amount	Return Amount	Return Excess	Excess Collateral Value
EUR	1.000000	-1,500,000.00	0.00	-199,308.41		-1,453,678.15	0.00	Y	0.00
GBP	0.879100	-2,300,839.80	1,000,000.00	-547,489.10	EUR	0.00	0.00	N	0.00
USD	1.166920	0.00	1,190,400.00	0.00		0.00	0.00	Y	0.00

This will list all the currencies in which liabilities or balances are held	This rate is calculated at 16:00 daily and is a notional rate used in the cover distribution process	This is the total liability requirement	This is the total post haircut value of all collateral (cash and securities*) denominated in the reporting currency.	This shows the amount of deficit per exposure amount when compared to the total value of collateral (in all currencies). A margin call will be issued to cover this shortage.	If the margin call is issued in an alternative currency (due to the Clearing Member's margin call preferences) then that alternative currency is shown here.	The total margin call amount in each currency. This includes both initial margin and variation margin calls.	The total amount of excess or variation margin automatically returned (auto-repay) in each currency.	The Clearing Member's preference for the automatic return of excess (auto-repay) for each currency (Y or N). Will show S when auto-repay is suspended due to a currency holiday.	The total value of excess collateral (cash and securities* post haircut value) denominated in the reporting currency after excess is returned.
Exact match to REP00030	Exact match to REP00030	Exact match to REP00030	New field	Previously only available in REP00019	Exact match to REP00030	New field	New field	Similar to Auto Repay in REP00030	New field

* Triparty collateral is denominated in the transaction currency for the purposes of this report.

REP00031 - Collateral and Exposure Summary

The following fields are available in the new REP00031 – Collateral and Exposure Summary.TXT report. Page 1 of 2

Item Sequence Number	Data Item (Column Name)	Data Type	Description
1.	Cobdate	Datetime	Close of Business date for the report.
2.	Mnemonic	Varchar(11)	A three letter code identifying each Clearing Member firm to LCH.
3.	MemberFullName	Varchar(50)	The name of the Clearing Member.
4.	Account	Varchar(200)	Account will identify house or client business. For EMIR segregated client accounts (ISAs, OSAs & ICAs) this will also include the markets and margin account identifiers that are linked to the collateral account, multiple references are separated with a forward slash "/" and markets are separated from their margin account identifier by a hyphen "-". Please see the Banking Reports Reference Guide for more information.
5.	CurrencyOfRisk	Varchar(10)	The main currency for the cleared portfolio. It will always be an existing Initial Margin currency.
6.	ReportingCurrency	Varchar(10)	This will list all the currencies in which liabilities or balances are held
7.	EURExchangeRate	Decimal(38,2)	This rate is calculated at 16:00 daily and is a notional rate used in the cover distribution process
8.	ExposureAmount	Decimal(38,2)	This is the total liability requirement
9.	TotalValueOfCollateral	Decimal(38,2)	This is the total post haircut value of all collateral (cash and securities* post haircut value) denominated in the reporting currency.
10.	AppliedCashCollateralValue	Float	Value of the applied (utilised) cash collateral after taking into account the haircut.
11.	ExcessCashCollateralValue	Float	Value of the excess (un-utilised) cash collateral after taking into account the haircut.
12.	AppliedSecuritiesCollateralValue	Decimal(38,2)	Value of the applied (utilised) securities collateral after taking into account the haircut.
13.	ExcessSecuritiesCollateralValue	Decimal(38,2)	Value of the excess (un-utilised) securities collateral after taking into account the haircut.
14.	LiabilityShortage	Decimal(38,2)	This shows the amount of deficit per exposure amount when compared to the total value of collateral (in all currencies). A margin call will be issued to cover this shortage.
15.	AppliedDepositAmount	Decimal(38,2)	Amount of the applied (utilised) deposit (cash amount pre-haircut).
16.	ExcessDepositAmount	Decimal(38,2)	Amount of the excess (un-utilised) deposit (cash amount pre-haircut).
17.	ExpectedCollateral	Decimal(38,2)	If the margin call is issued in an alternative currency (due to the Clearing Member's margin call preferences) then that alternative currency is shown here.
18.	CashCallAmount	Decimal(38,2)	The total cash margin call amount in each currency. This could include both initial margin and variation margin calls.

* Triparty collateral is denominated in the transaction currency for the purposes of this report.

REP00031 - Collateral and Exposure Summary

The following fields are available in the new REP00031 – Collateral and Exposure Summary.TXT report. Page 2 of 2

Item Sequence Number	Data Item (Column Name)	Data Type	Description
19.	SecuritiesCallAmount	Decimal(38,2)	The total securities margin call amount in each currency. This is only applicable to initial margin. **
20.	CallAmount	Decimal(38,2)	The total margin call amount in each currency. This includes both initial margin and variation margin calls.
21.	ReturnExcessCash	Varchar(1)	The Clearing Member's preference for the automatic return of excess cash (auto-repay) for each currency (Y or N). Will show S when auto-repay is suspended due to a currency holiday.
22.	CashReturnAmount	Decimal(38,2)	The total amount of excess cash or variation margin automatically returned (auto-repay) in each currency.
23.	ReturnExcessSecurities	Varchar(1)	The total amount of excess securities automatically returned (auto-repay) in each currency. **
24.	SecuritiesReturnAmount	Decimal(38,2)	The Clearing Member's preference for the automatic return of excess securities (auto-repay) for each currency (Y or N).
25.	ReturnAmount	Decimal(38,2)	The total amount of excess or variation margin automatically returned (auto-repay) in each currency.
26.	ReturnExcess	Varchar(3)	The Clearing Member's preference for the automatic return of excess (auto-repay) for each currency (Y or N). Will show S when auto-repay is suspended due to a currency holiday.
27.	ExcessCollateralValue	Decimal(38,2)	The total value of excess collateral (cash and securities*) denominated in the reporting currency after excess is returned.

* Triparty collateral is denominated in the transaction currency for the purposes of this report.

** Security Margin Calls and Returns are anticipated to be offered as part of a future release. These fields will report zero until this is offered and taken up by members.

REP00046/46a - Cash Collateral Holdings

Scenario 1 – Report changes with existing haircuts applied

The following outlines the fields available in both the new REP00046a – SOD Cash Collateral Holdings.PDF and REP00046 – Cash Collateral Holdings.PDF report, which will be available from the 3rd September.

Date: 01/06/20XX
Member ABC
Account H
Currency of Risk GBP

Currency	Deposit Amount	Haircut	Collateral Value	Reference Currency	Exchange Rate	Pre Haircut Reference Value	Post Haircut Reference Value
EUR	0.00	0.00	0.00	EUR	1.000000	0.00	0.00
GBP	1,000,000.00	0.00	1,000,000.00	EUR	0.879100	1,220,852.15	1,220,852.15
USD	200,000.00	0.00	200,000.00	EUR	1.166920	171,391.36	171,391.36

This will list all the currencies in which collateral balances are held	This is the amount of the currency that has been deposited	This is the haircut that will be applied based on the account's Currency of Risk	This is the total post haircut value of the cash collateral denominated in the currency of the collateral.	For comparisons and offsetting of liabilities a reference currency is used	This rate is calculated at 16:00 daily and is a notional rate used in the cover distribution process	This is the value (pre-haircut) of the collateral in the reference currency.	This is the post haircut value of the collateral in the reference currency.
Exact match to REP00031	Exact match to REP00031	New field	Exact match to REP00031	New field	Exact match to REP00031	New field	New field

REP00046/46a - Cash Collateral Holdings

Scenario 2 – Report changes with collateral level haircuts applied

The following outlines the fields available in both the new REP00046a – SOD Cash Collateral Holdings.PDF and REP00046 – Cash Collateral Holdings.PDF reports, as they will look from the 29th October.

Date: 01/06/20XX
Member ABC ABC BANK
Account H
Currency of Risk GBP

Currency	Deposit Amount	Haircut	Collateral Value	Reference Currency	Exchange Rate	Pre Haircut Reference Value	Post Haircut Reference Value
EUR	0.00	3.70	0.00	EUR	1.000000	0.00	0.00
GBP	1,000,000.00	0.00	1,000,000.00	EUR	0.879100	1,220,852.15	1,220,852.15
USD	200,000.00	4.80	190,400.00	EUR	1.166920	171,391.36	163,164.57

This will list all the currencies in which collateral balances are held	This is the amount of the currency that has been deposited	This is the haircut that will be applied based on the account's Currency of Risk	This is the total post haircut value of the cash collateral denominated in the currency of the collateral.	For comparisons and offsetting of liabilities a reference currency is used	This rate is calculated at 16:00 daily and is a notional rate used in the cover distribution process	This is the value (pre-haircut) of the collateral in the reference currency.	This is the post haircut value of the collateral in the reference currency.
Exact match to REP00031	Exact match to REP00031	New field	Exact match to REP00031	New field	Exact match to REP00031	New field	New field

REP00046/46a - Cash Collateral Holdings

The following fields are available in both the new REP00046a – SOD Cash Collateral Holdings.TXT and REP00046 – Cash Collateral Holdings.TXT reports.

Item Sequence Number	Data Item (Column Name)	Data Type	Description
1.	Cobdate	Datetime	Close of Business date for the report.
2.	Mnemonic	Varchar(11)	A three letter code identifying each Clearing Member firm to LCH.
3.	Account	Varchar(200)	Account will identify house or client business. For EMIR segregated client accounts (ISAs, OSAs & ICAs) this will also include the markets and margin account identifiers that are linked to the collateral account, multiple references are separated with a forward slash "/" and markets are separated from their margin account identifier by a hyphen "-". Please see the Banking Reports Reference Guide for more information.
4.	CurrencyOfRisk	Varchar(10)	The main currency for the cleared portfolio. It will always be an existing Initial Margin currency.
5.	Currency	Varchar(10)	This will list all the currencies in which collateral balances are held
6.	DepositAmount	Decimal(38,2)	Amount of the deposit (cash amount pre-haircut).
7.	Haircut	Decimal(38,2)	This is the haircut that will be applied based on the account's Currency of Risk.
8.	CollateralValue	Decimal(38,2)	This is the post haircut value of the collateral in the collateral currency.
9.	ReferenceCurrency	Varchar(10)	For comparisons and offsetting of liabilities a reference currency is used.
10.	ExchangeRate	Decimal(38,2)	This rate is calculated at 16:00 daily and is a notional rate used in the cover distribution process
11.	PreHaircutReferenceValue	Decimal(38,2)	Value of the cash collateral in the reference currency before taking into account the haircut.
12.	PostHaircutReferenceValue	Decimal(38,2)	Value of the cash collateral in the reference currency after taking into account the haircut.

Testing and Samples

In addition to the specifications provided here LCH will be providing public sample files and updating the Member Test portal (https://test-clearingservices.lchclearnet.com) reports at the following times:

mid-August for:

- REP00031 – Collateral and Exposure Summary
- REP00046 – Cash Collateral Holdings
- REP00046a – SOD Cash Collateral Holdings

mid-October for:

- REP00019 – Overnight Cover Distribution
- REP00030 – Cover Calling Summary (report will be decommissioned in Member Test from this date)

Contacts

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